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House Bill 5 Evaluation: Final Report

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House Bill 5 Evaluation: Final Report

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Contents

Tables

Figures

List of Acronyms

AP®	Advanced Placement®
CTE	Career and Technical Education
DAP	Distinguished Achievement Program
DLA	Distinguished Level of Achievement
ELA	English Language Arts
ELL	English Language Learner
EOC	End-of-Course
FHSP	Foundation High School Program
HERC	Higher Education Readiness Component
HB	House Bill
IB®	International Baccalaureate®
IEP	Individualized Education Program
IGC	Individual Graduation Committee
JROTC	Junior Reserve Officer Training Corps
MHSP	Minimum High School Program
PEIMS	Public Education Information Management System
RHSP	Recommended High School Program
SB	Senate Bill
SBOE	State Board of Education
STAAR®	State of Texas Assessments of Academic Readiness®
STEM	Science, Technology, Engineering, and Mathematics
TAC	Texas Administrative Code
TAKS®	Texas Assessment of Knowledge and Skills®
TAPR	Texas Academic Performance Reports
TASP	Texas Academic Skills Program
TEA	Texas Education Agency
TEC	Texas Education Code
THEA®	Texas Higher Education Assessment®
THECB	Texas Higher Education Coordinating Board
TSI	Texas Success Initiative
TSIA	Texas Success Initiative Assessment
TWC	Texas Workforce Commission

Highlights of the 2017 Evaluation

The final report on the evaluation of House Bill (HB) 5 provides (1) an update on changes made to the current policy for graduation, including coursework, testing, and accountability during the 84th and 85th Texas Legislative Sessions; (2) an update on the implementation of HB 5 by school districts since 2014–15; and (3) a preliminary look at the Foundation High School Program that students are pursuing, including the endorsements and distinguished level of achievement. This report also examines student outcomes for the Foundation High School Program cohorts.

Updates to Graduation Requirements in Texas

The Texas Legislature continues to provide support and flexibility in how students meet state graduation requirements by passing:

- House Bill 18 (84th Texas Legislature), to strengthen the college and career advising available to students in public middle and high schools in Texas;
- Senate Bill 463 (85th Texas Legislature), to extend the expiration date to September 1, 2019, which allows students who have taken and failed up to two end-of-course (EOC) assessments to meet the graduation requirements through an individual graduation committee decision;
- Senate Bill 826 (85th Texas Legislature), which removes the course sequencing requirements that students needed to adhere to when meeting English and mathematics course requirements, giving students more flexibility to graduate; and
- Senate Bill 1005 (85th Texas Legislature), which allows students graduating under Texas Assessment of Knowledge and Skills® exit-level assessment requirements to meet state graduation requirements through the SAT, ACT, or the Texas Success Initiative Assessment, in addition to State of Texas Assessments of Academic Readiness® EOC exams.

Progress of Students Graduating Under the Minimum, Recommended, and Distinguished Graduation Programs

- The Texas Success Initiative (TSI) readiness performance in reading, mathematics, and writing increased for all subject areas for students in the 2002–03 through 2010–11 cohorts.
- The 2011–12 incoming Grade 9 cohort was the first cohort that did not have the option to meet TSI readiness standards by achieving at or above the readiness cut score on the exit-level Grade 11 assessment. The measured TSI readiness rates for 2011–12 cohort cannot be directly compared to rates of earlier cohorts for the purpose of describing trends in true college readiness because of these significant changes in testing requirements.
- Gaps in on-time high school graduation rates between students from different racial/ethnic groups narrowed considerably over time for the cohorts required to meet the 4X4 (four credits each in English language arts, math, science and social studies) graduation requirements.
- The percentages of students who enrolled in a Texas two-year college or four-year public or independent college or university continued to remain relatively stable across the last seven years.

- Of students who enrolled in a Texas four-year college within one year of high school graduation, the percentage of students graduating from or persisting a fifth year in a four-year college increased by 4 percentage points from the 2001–02 cohort to the 2007–08 cohort.
- Across all entering Grade 9 cohorts, those students who graduated under the Distinguished Achievement Program consistently earned a higher income than those graduating under the Recommended High School Program and Minimum High School Program, respectively.

District Implementation of the Curriculum and Graduation Requirements Under the Foundation High School Program Since 2014–15

- More than half of responding districts (56%) offer all five endorsements, which is an increase of 3 percentage points from 2015.
- Staffing concerns around teacher qualifications and staff capacity and a lack of resources (funding, curriculum, facilities, equipment, etc.) were the top existing barriers to offering certain endorsements reported by districts.
- Expressed student interest and career interest inventories were the top considerations reported by districts when recommending particular endorsements to students.
- Less than a quarter of districts reported they had transfer students who were unable to complete the endorsement they previously were pursuing in another district.
- Speech/professional communications, health, four social studies credits, and Algebra II were the most often cited additional local criteria required by districts in addition to the state graduation requirements.

Student Outcomes for Foundation High School Program Cohorts

- The probability of enrolling in a Texas four-year college was higher for students graduating under the Minimum High School Program, Recommended High School Program, or Distinguished Achievement Program than for students who opted to graduate under the Foundation High School Program. The probability of enrolling in a Texas two-year college was higher for students who opted to graduate under the Foundation High School Program. These results should be interpreted with caution as students from these cohorts opted into the program may not be comparable to later cohorts who must graduate under the Foundation High School Program.
- The percentage of students selecting the Foundation High School Program plus endorsement and distinguished level of achievement increased from the 2014–15 to the 2015–16 cohort.
- Results showed that students were pursuing each endorsement with the highest percentage pursuing the multidisciplinary endorsement.
- Of the students in the 2014–15 cohort who took EOC assessments, around 50% met Level II at the final standard on their first attempt.

Executive Summary

In June 2013, the 83rd Texas Legislature passed House Bill (HB) 5, which established a new high school program—the Foundation High School Program. The new high school graduation program was required for all entering Grade 9 students in all Texas public school districts in 2014–15.[1] The Foundation High School Program was designed to give students the flexibility to take more classes focused on their interests. Under the Foundation High School Program, students are required to complete 22 credits, including four credits in English language arts (ELA) and three credits each in science, social studies, and mathematics. In addition, all students are now required to earn two credits in a language other than English. Students also must select one of five endorsements to pursue (i.e., arts and humanities; business and industry; public services; science, technology, engineering, and mathematics (STEM); or multidisciplinary studies).[2] Completing an endorsement requires students to earn 26 credits to graduate. The additional credits must include a fourth credit in mathematics and a fourth credit in science and two electives. However, unlike the previous graduation programs, students are not required to complete Algebra II to fulfill the mathematics requirement. Only students opting to earn a distinguished level of achievement or pursue the STEM endorsement continue to be required to complete Algebra II.[3]

As part of the legislation, HB 5 Section 83(a), the Texas Education Agency (TEA), in collaboration with the Texas Higher Education Coordinating Board (THECB), and the Texas Workforce Commission (TWC), is required to conduct an evaluation that estimates the effects of these changes on several key outcomes.

In response to these requirements, TEA, in collaboration with THECB and TWC, contracted with American Institutes for Research (AIR) in spring 2015 to conduct an initial report on the evaluation of HB 5, which focused on meeting the following two objectives:

1. Evaluate the implementation of HB 5 on curriculum and testing requirements for high school graduation.
2. Estimate the effect of the changes that HB 5 made to curriculum and testing requirements on high school graduation rates, college readiness, college admissions, college completion, obtainment of workforce certificates, employment rates, and earnings.[4]

Once again, TEA, in collaboration with THECB and TWC, contracted with AIR to conduct the final report on the evaluation of HB 5 in response to HB 5 requirements. This report provides (1) an update on changes made to the current policy for graduation, including curriculum, testing, and accountability during the 84th and 85th Texas Legislative Sessions, (2) an update on the implementation of HB 5 by school districts since 2014–15, and (3) a preliminary look at the Foundation High School Program that students are pursuing, including the endorsements and distinguished level of achievement. This report also examines student outcomes for the Foundation High School Program cohorts.

[1] The 2014–15 entering Grade 9 cohort is the first cohort required to select an endorsement under the Foundation High School Program. Entering Grade 9 cohorts from 2010–11 to 2013–14 were allowed to opt into the Foundation High School Program.
[2] Each student, upon entering Grade 9, must indicate in writing which endorsement he or she intends to pursue. However, the student may change the endorsement at any time. In addition, a student may graduate without an endorsement if, after the student's sophomore year, he or she and the student's parent or guardian are advised by a school counselor of the specific benefits of graduating from high school with one or more endorsements and the student's parent or guardian files with a school counselor written permission on a form adopted by the Texas Education Agency (TEA).
[3] To earn a distinguished level of achievement, a student must complete a total of four credits in mathematics, including Algebra II, and four credits in science, and must successfully complete requirements for an endorsement.
[4] This first evaluation report can be found on TEA's website at http://tea.texas.gov/Reports_and_Data/Program_Evaluations/Research_Reports/Program_Evaluation___Research_Reports/

Updates to Graduation Requirements in Texas

The Texas Legislature continues to provide support and flexibility in how students meet state graduation requirements.

With the passage of HB 5 in 2013, the Foundation High School Program became the graduation program for all Texas public high school students beginning with the entering Grade 9 students in 2014–15. The new graduation requirements introduced greater flexibility for students in earning a high school diploma. Updates to curriculum and graduation requirements from the last two legislative sessions continue to add support and flexibility in how students meet state graduation requirements.

- To assist with implementation of HB 5, the 84th Texas Legislature passed HB 18 in May 2015 to strengthen the college and career advising available to students in public middle and high schools in Texas.
- In 2015, the 84th Texas Legislature also passed Senate Bill (SB) 149, which allowed students in Grades 11 and 12 who have taken and failed up to two end-of-course (EOC) assessments to meet the testing requirements for graduation through an individual graduation committee (IGC) review. This provision was set to expire on September 1, 2017; however, SB 463, which passed during the 85th Texas Legislative Session, extends the expiration date two more years to September 1, 2019.
- In 2017, the 85th Texas Legislature passed SB 826, which removed the course sequencing requirements that students needed to adhere to when meeting English and mathematics course requirements. This change to the Texas Education Code (TEC) allows students to take English or mathematics courses simultaneously (subject to prerequisite requirements), giving students more flexibility to graduate in three years or make up a previously failed course and still graduate in four years.
- In 2017, the 85th Texas Legislature also passed SB 1005, which allows students graduating under the Texas Assessment of Knowledge and Skills® (TAKS®) exit-level assessment requirements to meet state graduation requirements through the SAT, ACT, or the Texas Success Initiative Assessment, in addition to State of Texas Assessments of Academic Readiness® (STAAR®) EOC exams.

The last two Texas legislative sessions also have brought significant changes to the state accountability system. In 2015, the 84th Texas Legislature passed HB 2804, which changed the state accountability system to an A–F rating in each of five domains and overall. Provisions of the bill required the commissioner of education to release a provisional A–F ratings report showing the ratings that each district and campus would have received for Domains I–IV for the 2015–16 school year if the A–F rating system had been in place. However, in 2017, the 85th Texas Legislature passed HB 22, which changes the state A–F accountability system in several ways, including reducing the number of domains, introducing locally developed accountability domains, changing the calculation of the summative accountability grade, realigning the unacceptable cut-point at the F rating, and changing the timeline for implementation to August 2018 for districts and August 2019 for campuses.

Progress of Students Graduating Under the Minimum, Recommended, and Distinguished Achievement Graduation Programs

Baseline outcome measures for students who graduated under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), and Distinguished Achievement Program (DAP) were compiled to explore historical trends on key student outcomes, including college readiness, high school graduation, two-year and four-year college enrollment, two-year and four-year college completion, obtainment of workforce certificates, employment, and earnings. Student-level data were aggregated to the cohort level, and findings are presented according to entering cohorts of Grade 9 students from 1997–98 through 2013–14 (see Chapter 3 for details regarding the creation of the cohorts used in the analyses).[5]

High School Graduation

Gaps in on-time high school graduation rates between students from different racial/ethnic groups narrowed considerably for the cohorts required to take the 4X4 curriculum (2007–08 through 2012–13).

Student-level data from Public Education Information Management System graduation data files were used to examine trends in the percentage of students in each cohort who graduated from a Texas public high school within four years. The percentage of students in each entering Grade 9 cohort that graduated from a Texas public high school increased from approximately 62% for the 1997–98 cohort to 78% for the 2012–13 cohort. The largest gain in the percentage of students graduating from a Texas public high school occurred between the 2005–06 cohort and the 2006–07 cohort—an increase of approximately 5 percentage points (68% to 73%). In terms of graduation rates between racial/ethnic groups, although gaps were quite large for the 1997–98 through 2006–07 cohorts, the gaps narrowed considerably for the 2007–08 through 2012–13 cohorts. For example, though only 57% of African-American students, 49% of American Indian students, and 54% of Hispanic students in the 1997–98 cohort graduated from high school within four years, 73% of Asian/Pacific Islander students and 70% of White students did so. However, by 2012–13, the differences in high school graduation rates between students of different racial/ethnic backgrounds decreased for most groups. Seventy-five percent of African-American students, 73% of American Indian students, 76% of Hispanic students, and 68% of Pacific Islander students graduated from high school within four years, compared to 88% of Asian students, 78% of multiracial students, and 81% of White students.

[5] All analyses conducted to examine baseline student outcomes were based on cohorts made up of the incoming Grade 9 students for the specific academic year. For example, students who entered Grade 9 for the first time in fall 1997 were considered to be part of the 1997–98 cohort. Per Texas Education Code § 39.053(c)(2)-(3), TEA calculates dropout and graduation rates in accordance with standards and definitions adopted by the National Center for Education Statistics of the United States Department of Education and in compliance with the No Child Left Behind Act of 2001 (20 U.S.C. Section 6301 et seq.). These requirements specify the calculation of an on-time high school graduation rate based on a cohort that takes into account students' progression from grade to grade, data on graduation status, and data on students who transfer in and out of a school, district, or state during the high school years. TEA defines a cohort as the group of students who begin Grade 9 in Texas public schools for the first time at any time in the same school year, plus students who, in the next three school years, enter the Texas public school system in the grade level expected for the cohort. Students in the cohort are tracked to their expected graduation date, and all students remain in their original cohort. For the purposes of calculating the longitudinal graduation rate, students who left the cohort for reasons other than graduating, acquiring a general education diploma, earning certificates, or dropping out were excluded based on statutory requirements and were not included in the calculation. Please see http://tea.texas.gov/acctres/DropComp_2015-16.pdf for more information. TEA's methodology was not employed in this analysis to keep the number of students in a cohort consistent across time; this allows for more consistent comparisons across time and analyses. As with all research, there may be limitations to this approach.

Two-Year and Four-Year College Enrollment

The percentages of students who enrolled in a Texas two-year college or four-year public or independent college or university continued to remain relatively stable across the additional two cohorts—hovering between 22% and 24% for two-year college enrollment and 17% to 20% for four-year college enrollment over the last seven years.

Texas Success Initiative

For entering Grade 9 cohorts from 2002–03 to 2010–11, the percentage of students meeting the TSI readiness standards increased for all subject areas.

The percentage of students in each entering Grade 9 cohort who enrolled in a two-year or four-year college or university who met the Texas Success Initiative (TSI) readiness standards in reading, mathematics, and writing increased for all subject areas for students in the 2002–03 through 2010–11 cohorts—from 52% to 65% in reading, from 41% to 62% in mathematics, and from 56% to 65% in writing.

Because of the significant changes in testing requirements for the 2011–12 cohort, their measured TSI readiness rates cannot be directly compared to rates of earlier cohorts for the purpose of describing trends in true college readiness. The 2011–12 incoming Grade 9 cohort was the first cohort where the option to meet TSI readiness standards by achieving at or above the HERC score on an exit-level TAKS was eliminated when the STAAR replaced TAKS as the state's standardized student assessment. Approximately 60% of students in the 2011–12 cohort met TSI readiness standards in both reading and writing. A smaller percentage (50%) met readiness standards in mathematics.

Two-Year and Four-Year College Completion and Persistence

The percentage of students graduating from or persisting for a fifth year at a four-year college increased by 4 percentage points between the 2001–02 and 2007–08 cohorts.

Trends in completion of two-year college degrees and certificates, as well as completion of four-year college degrees, were relatively consistent across entering Grade 9 cohorts. However, the percentage of students who earned a bachelor's degree within four years or were still enrolled in a four-year college or university within five years of enrolling in a Texas public four-year college or university increased from 71% for the 2001–02 cohort to 75% for the 2007–08 cohort.

Employment and Earnings

The percentages of students entering Grade 9 in each cohort who were employed one, three, and five years after their actual or expected high school graduation date remained relatively stable across cohorts, and the median quarterly wages of students entering Grade 9 in each cohort who were employed during Quarter 4 in Texas changed relatively little across cohorts. However, the median quarterly wages of students in each cohort who were employed during Quarter 4 in Texas increased from one to three years after actual or expected high school graduation and three to five years after actual or expected high school graduation.

District Implementation of the Curriculum and Graduation Requirements Under the Foundation High School Program Since 2014–15

A goal of the HB 5 evaluation is to examine the implementation of HB 5 on curriculum and testing requirements for high school graduation. To do so, an electronic survey was sent to district administrative staff in all public school districts in Texas with at least one high school. The survey focused on the following areas:

- The endorsements that districts are offering in their high schools, and any changes made since 2014–15;
- The options that districts are offering students to complete an endorsement and any new courses that districts created to meet advanced ELA, mathematics, or science credits;
- Any barriers that districts faced in offering certain endorsements; and
- How districts have been communicating with students about high school graduation requirements, including how they deal with students who transfer into their district unable to complete the endorsement they previously were pursuing.

About 72% of districts responded to the survey. These districts were largely representative of all districts in the state relative to district size, type of community in which the district resides, accountability ratings received, and demographics of their student population (see Table F1 in Appendix F for more information).

Endorsement Offerings

Districts were asked to respond to several items about the factors that were considered when making decisions about HB 5 implementation and the endorsements that would be offered to students in their high schools. Nearly all districts (97%) reported considering current course offerings provided in their districts, as well as current staff capacity to instruct the courses necessary to offer endorsements, prior to the implementation of HB 5.

Slightly more than half of the responding districts (51%) reported increasing their endorsement offerings since 2015.

Districts were most likely to report offering the multidisciplinary studies endorsement (96%), followed by business and industry (89%), STEM (87%), arts and humanities (83%), and public services (65%). More than half of all responding districts (56%) reported offering all five endorsements, and 51% of districts reported increasing their endorsement offerings since 2015.

More than half of responding districts (60%) reported staffing concerns around teacher qualifications and staff capacity as a continued barrier to offering certain endorsements, whereas slightly less than half of respondents (49%) reported a lack of resources (funding, curriculum, facilities, equipment, etc.) as a continued barrier.

Respondents also were asked whether they had students transfer into their district who were unable to complete the endorsements they previously were pursuing. Less than a quarter (23%) of responding

districts indicated they had students transfer into their districts who were unable to complete the endorsement they were pursuing; 41% of responding districts reported that transfer students did not complete their endorsement in their district because the district's current course offerings did not include the courses they needed, or because the district did not offer a particular endorsement.

Local Criteria in Addition to State Graduation Requirements

Speech/professional communications, health, four social studies credits, and Algebra II were the top local criteria required by districts in addition to the state graduation requirements.

District respondents were asked to indicate any local criteria that students in their district must complete in addition to the state graduation requirements. About 75% of districts indicated that students in their district must complete local criteria in addition to the state graduation requirements. Speech/professional communications, health, four social studies credits, and Algebra II were the top local criteria required by districts in addition to the state graduation requirements.

Student Outcomes for Foundation High School Program Cohorts

The goal of these analyses is to examine the preliminary impact of HB 5 on student outcomes. Since the first cohort of students required to graduate under the Foundation High School Program (the entering Grade 9 cohort of 2014–15) will not graduate until 2017–18, the preliminary impact is presented for students in the 2011–12 and 2012–13 cohorts who opted to graduate under the program. Baseline outcomes for students in the 2014–15 and 2015–16 cohorts also are summarized.

Preliminary Impact of House Bill 5

To investigate the preliminary impact of HB 5 on student outcomes, propensity score matching and multilevel modeling were used to estimate the effect of HB 5 on students' two-year and four-year college enrollment.[6] Because data on most of the key outcomes of interest are not yet available for students entering Grade 9 in 2014–15, the first cohort of students required to graduate under the Foundation High School Program, the impact analyses were conducted using students from an earlier cohort. Propensity score matching was used to match Grade 9 students from the 2011–12 cohort who opted to graduate under the Foundation High School Program with similar students from the entering cohort of 2009–10, who did not have the opportunity to graduate under the Foundation High School Program and therefore graduated under the MHSP, RHSP, and DAP graduation plans. It is important to note that students in the 2011–12 and 2012–13 cohorts who opted to graduate under the Foundation High School Program chose to do so in the last two years of high school. These students may not be comparable to later cohorts who began the Foundation High School Program in Grade 9 or those students in the 2011–12 and 2012–13 cohorts who graduated under the Distinguished Achievement Program, or the Recommended or Minimum High

[6] High school graduation is not included as an outcome because students were identified as having opted to graduate under the Foundation High School Program through the Public Education Information Management System graduation files. Data for other student outcomes, including Quarter 4 employment and wage data for 2015–16, were not available at the time of this report. Student outcomes with regard to two-year and four-year college completion or certificate completion were not available for students in the 2011–12 cohort, because not enough time has passed for students to reach these milestones. College readiness, as defined by meeting TSI readiness standards, was also not included as an outcome due to the transition in testing requirements that was implemented for the 2011–12 cohort. Please see Sections 3.1 and 3.5 of this report for further details regarding why TSI readiness rates are not comparable across these cohorts.

School Programs. Results of these analyses should be treated as preliminary and interpreted with caution.

The results of the preliminary impact of HB 5 on college enrollment rates reveal the following:

- The probability of enrolling in a two-year college within one year of graduation from high school for students who graduated under the MHSP, RHSP, or DAP is 0.24 compared to 0.27 for students who opted to graduate under the Foundation High School Program.
- The probability of enrolling in a four-year college within one year of graduation from high school for students who graduated under the MHSP, RHSP, or DAP was 0.12 compared to 0.09 for students who opted to graduate under the Foundation High School Program.

Baseline Outcomes for the 2014–15 and 2015–16 Cohorts

The percentage of students selecting the Foundation High School Program plus endorsement and distinguished level of achievement increased from the 2014–15 cohort to the 2015–16 cohort.

Baseline outcomes for students required to graduate under the Foundation High School Program show an increase in the percentage of students selecting Foundation High School Program plus endorsement and distinguished level of achievement from the 2014–15 to the 2015–16 cohort.[7]

- Almost 43% of the 2014–15 cohort selected the Foundation High School Program plus endorsement and distinguished level of achievement during Grade 9 versus 62% of the 2015–16 cohort in Grade 9.
- Results showed that students were pursuing each endorsement with the highest percentage pursuing the multidisciplinary endorsement.
- Forty-three percent of students in the 2014–15 cohort reached Level II at the final standard in Algebra I, 50% of students reached Level II at the final standard in English I, and 48% of students reached Level II at the final standard in U.S. History.
- A higher percentage of students in the 2015–16 cohort who completed the assessment met Level II at the final standard on the Algebra I (49%) and Biology (62%) EOC assessments than students in the 2014–15 cohorts (43% and 56%, respectively).

[7] While districts have had years of experience reporting data on the specific programs under which students graduate, data regarding students' pursuit of specific graduation programs were newly required upon the implementation of the Foundation High School Program. Data collections that are new to PEIMS are generally prone to instances of reporting error, so the reader should note that percentages based on this new pursuit indicator may not reflect the true number of students pursuing the Foundation High School Program in the 2014–15 and 2015–16 cohorts.

Limitations of the Findings and Next Steps

The most significant limitation of the evaluation of HB 5 is the length of time that students have progressed since the Foundation High School Program was implemented. The first cohort of Grade 9 students required to complete the requirements under the Foundation High School Program will not graduate until spring 2018. Although an estimate of the effect of HB 5 on student outcomes was conducted using a cohort of graduates who had the option of graduating under the Foundation High School Program, these estimates are limited and preliminary given that this option was made retroactively and students were able to plan their coursework under the Foundation High School Program only during their senior year.

Another limitation concerns the comparisons conducted between students who graduated under the Minimum, Recommended, and Distinguished high school diplomas and the students who opted to graduate under the Foundation High School Program. Students in the 2011–12 and 2012–13 cohorts who opted to graduate under the Foundation High School Program chose to do so in the last two years of high school. These students may not be comparable to later cohorts who began the Foundation High School Program in Grade 9 or those students in the 2011–12 and 2012–13 cohorts who graduated under the Distinguished Achievement Program, or the Recommended or Minimum High School Programs.

An additional evaluation report completed in August 2020, after these students have graduated from high school (spring 2018), would be beneficial to the Texas Legislature because impacts to high school graduation and college enrollment will be measurable. In addition, more cohorts will be entering high school under the Foundation High School Program, giving the Texas Legislature more opportunities to see trends in these outcomes.

1. Introduction

In June 2013, the 83rd Texas Legislature passed House Bill (HB) 5, which established a new high school program—the Foundation High School Program—and reduced the number of state assessments required for graduation. The legislation gave the Texas State Board of Education (SBOE) decision-making authority in a number of areas related to the new high school program. The SBOE adopted rules for the Foundation High School Program on January 31, 2014. The Foundation High School Program was designed to give students the flexibility to take more classes focused on their interests. Under the Foundation High School Program, students are required to complete 22 credits, including four credits in English language arts (ELA) and three credits each in science, social studies, and mathematics. In addition, all students are now required to earn two credits in a language other than English. Students also must select one of five endorsements to pursue (i.e., arts and humanities; business and industry; public services; science, technology, engineering, and mathematics (STEM); and multidisciplinary studies).[8] Completing an endorsement requires students to earn 26 credits to graduate. The additional credits must include a fourth credit in mathematics and a fourth credit in science and two additional electives. However, unlike the previous graduation programs, students are not required to complete Algebra II to fulfill the mathematics requirement. Only students opting to earn a distinguished level of achievement or pursue the STEM endorsement continue to be required to complete Algebra II.[9]

The new high school graduation program was implemented in all Texas public school districts in 2014–15.[10] As part of the legislation, HB 5 Section 83(a), the Texas Education Agency (TEA), in collaboration with the Texas Higher Education Coordinating Board (THECB), and the Texas Workforce Commission (TWC), is required to conduct an evaluation that estimates the effects of these changes on several key outcomes. The specific requirements under HB 5 Section 83(a) state the following:

a. The Texas Education Agency, in collaboration with the Texas Higher Education Coordinating Board and the Texas Workforce Commission, shall, through an external evaluator at a center for education research authorized by Section 1.005, Texas Education Code, evaluate the implementation of the changes made by this Act to the curriculum requirements for high school graduation. The evaluation must include an estimation of this Act's effect on high school graduation rates, college readiness, college admissions, college completion, obtainment of workforce certificates, employment rates, and earnings.

b. The commissioner of education shall submit an initial report regarding the review to the governor, lieutenant governor, and members of the legislature not later than December 1, 2015.[11] The commissioner of education shall submit a final report regarding the review to the governor, lieutenant governor, and members of the legislature not later than December 1, 2017.

[8] Each student, upon entering Grade 9, must indicate in writing which endorsement he or she intends to pursue. However, the student may change the endorsement at any time. In addition, a student may graduate without an endorsement if, after the student's sophomore year, he or she and the student's parent or guardian are advised by a school counselor of the specific benefits of graduating from high school with one or more endorsements and the student's parent or guardian files with a school counselor written permission on a form adopted by TEA (19 TAC, Subchapter BB, §§ 74.1021-74.1022, 2014).
[9] To earn a distinguished level of achievement, a student must complete a total of four credits in mathematics, including Algebra II, and four credits in science, and must successfully complete requirements for an endorsement (19 TAC, Subchapter B § 74.11, 2014).
[10] The 2014–15 entering Grade 9 cohort is the first cohort required to select an endorsement under the Foundation High School Program. Entering Grade 9 cohorts prior to 2014–15 were allowed to opt into the Foundation High School Program (19 TAC, Subchapter BB, 74.1021-74.1022, 2014).
[11] For the full report, please see the following website:
http://tea.texas.gov/Reports_and_Data/Program_Evaluations/Research_Reports/Program_Evaluation___Research_Reports/

1.1 Evaluation Objectives and Questions

In response to these requirements, TEA, in collaboration with THECB and TWC, contracted with American Institutes for Research (AIR) in spring 2015 to conduct an initial report on the evaluation of HB 5, which focused on meeting the following two objectives:

1. Evaluate the implementation of HB 5 on curriculum and testing requirements for high school graduation.
2. Estimate the effect of the changes HB 5 made to curriculum and testing requirements on high school graduation rates, college readiness, college admissions, college completion, obtainment of workforce certificates, employment rates, and earnings.

Because the first cohort of Grade 9 students required to complete the requirements under the Foundation High School Program will not have graduated from high school until spring 2018, the first report included (1) baseline student outcome measures for students who graduated under the Minimum High School Program (MHSP), the Recommended High School Program (RHSP), and the Distinguished Achievement Program (DAP) for comparative purposes; (2) information about how districts were implementing the changes to graduation requirements for the Foundation High School Program in 2014–15; and (3) a preliminary assessment of the college readiness of students who were the first cohort required to graduate under the Foundation High School Program (American Institutes for Research, 2015).

Once again, TEA, in collaboration with THECB and TWC, contracted with AIR to conduct the final report on the evaluation of HB 5. The questions this report addresses include the following:

1.1.1. Policy Review

1. What is the current policy for graduation, including curriculum, testing, and accountability requirements for Texas public high school students under HB 5?
    a. How have these requirements changed since the 2015 report on the evaluation of HB 5?

1.1.2. Implementation of House Bill 5 by School Districts

2. Which of the five endorsements (STEM, public services, business and industry, arts and humanities, and multidisciplinary studies) are being offered by Texas public school districts in 2016–17?
    a. Have districts changed the endorsements they offer since the previous evaluation of HB 5? If so, what prompted these changes?
    b. How did districts overcome any barriers to offering certain endorsements since 2014–15, and do barriers still exist?
3. What options or course sequences are school districts offering that align with each of the endorsements?
    a. How did school districts choose which endorsement-aligned courses or course sequence options to offer students?
    b. Have districts added any new aligned courses since the previous evaluation of HB 5?
4. What kinds of data or information are districts using to recommend particular endorsements to students?
    a. Have districts had students transfer into their district who were unable to complete their endorsement, and how did the district handle those circumstances?

5. To what extent are districts, particularly the 24 districts receiving a postsecondary distinction in the 2016 Accountability Ratings, encouraging the selection of particular endorsements and promoting the attainment of a distinguished level of achievement?

1.1.3. Student Outcomes

6. Which endorsements are students pursuing?
    a. How does endorsement enrollment differ by student demographics?
7. What percentage of students are pursuing the Foundation High School Program only, the Foundation High School Program with endorsement, and the Foundation High School Program with endorsement plus the distinguished level of achievement?
    a. How does pursuit of the Foundation High School Program only, the Foundation High School Program with endorsement, and the Foundation High School Program with endorsement plus the distinguished level of achievement vary by student demographics?
8. What are the updates to the trends over time in student outcomes for students who graduated or will graduate under the Minimum, Recommended, or Distinguished Achievement High School Programs since their inception with regard to college readiness, high school graduation, college enrollment, college completion, workforce certifications, employment rates, and earnings?
9. How do students who entered Grade 9 in 2011–12 and chose to graduate under the Foundation High School Program perform with regard to college readiness, high school graduation, and college enrollment?
10. What percentage of students who entered Grade 9 in the 2014–15 school year and are required to graduate under the Foundation High School Program are making progress toward becoming college ready as defined by passing scores on the State of Texas Assessments of Academic Readiness® (STAAR®) end-of-course (EOC) assessments in English I, English II, Algebra I, Biology, and U.S. History?
    a. How does student performance on the STAAR EOC assessments in English I, English II, Algebra I, Biology, and U.S. History vary by student demographics and graduation program?
11. What is the effect of HB 5 on student outcomes with regard to two- and four-year college enrollment?
    a. Does the effect of HB 5 on student outcomes differ by student demographics?

1.2 Evaluation Design

The evaluation of HB 5 employs multiple methodologies and relies on data from a wide variety of sources. The evaluation is made up of three components:

1. **Document and Policy Review:** Policy updates from the 84th and 85th Texas Legislatures were summarized.
2. **Student Outcomes Analyses:** Three sets of analyses were conducted to examine student outcomes: (1) updated trend analyses for key student outcomes for the 14 cohorts of students entering Grade 9 under the previous graduation requirements (1997–98 through 2013–14), (2) baseline measures on key student outcomes for students entering Grade 9 under the Foundation High School Program (2014–15 and 2015–16), and (3) propensity score matching analyses looking at differences between students in the 2011-12 cohort who opted to graduate under the Foundation

High School Program and similar students who graduated under the previous graduation requirements with regard to college enrollment.

3. **District Survey:** A survey of all public school districts was conducted to describe how districts were implementing the new HB 5 graduation requirements in their high schools. Items on the survey asked districts to report on their current practices as well as any changes that districts made to the endorsements or course sequence options they offer since 2014–15. The survey also included questions about how districts handled students who transferred into their district who were unable to complete their endorsement because the receiving district did not offer that endorsement. Appendix A contains a copy of the online-administered district survey.

1.3 Overview of the Report

To begin, Chapter 2 provides an overview of the graduation requirements of the Foundation High School Program and changes made to curriculum, graduation, assessment, and state accountability requirements with the 84th and 85th Texas Legislatures. Chapter 3 presents changes in student outcomes for multiple cohorts of high school students. The outcomes examined include high school graduation, college readiness, college enrollment and completion, workforce certificate completion, employment, and wages. Chapter 4 presents survey results regarding changes that districts have made to the implementation of the Foundation High School Program since 2014–15. Chapter 5 provides student outcomes for students who graduated or will graduate from high school under the Foundation High School Program, and Chapter 6 provides a summary of the 2016–17 findings. The appendices contain additional technical details from the evaluation. Appendix A provides a copy of the 2016–17 district survey. Appendix B describes in detail the methodology used in constructing the Grade 9 cohorts. Appendix C describes the demographic characteristics of each Grade 9 cohort. Appendix D visually displays results of the outcome analyses by student group. Appendix E provides the breakout of each outcome by student demographics. Appendix F provides more detail about the development and administration of the survey to districts and the characteristics of the districts that responded. Finally, Appendix G provides results of the survey by district characteristics.

2. Policy Review

This chapter provides an overview of the current state graduation requirements, including assessment requirements in relation to graduation and an overview of the postsecondary readiness indicators of the state accountability system. An historical overview of the graduation requirements since the implementation of the MHSP, RHSP, and DAP and an overview of the state accountability system and the changes made to the ratings criteria since 1994 can be found in the December 2015 HB 5 Evaluation report (American Institutes for Research, 2015).

2.1 Overview of Current Curriculum and Graduation Requirements in Texas

With the passage of HB 5 in 2013 during the 83rd Texas Legislature, the Foundation High School Program became the graduation requirement for all Texas public high school students beginning with the entering Grade 9 students in 2014–15. Under the Foundation High School Program, students may earn an endorsement (arts and humanities, business and industry, public services, STEM, or multidisciplinary studies) and a distinguished level of achievement. As shown in Table 2.1, completing the Foundation High School Program plus endorsement requires students to earn 26 credits to graduate. These credits include four credits each in ELA, mathematics, and science; three credits in social studies; two credits in a language other than English; one credit each in fine arts and physical education; and seven electives, at least four of which are likely or often focused around a selected endorsement.

Table 2.1. Required Course Credits for the Foundation High School Program

Subject Area	Beginning With Students Entering Grade 9 in 2014–15		
	Graduation Program		
	Foundation	Foundation Plus an Endorsement	Distinguished Level of Achievement
English Language Arts	4	4	4
Mathematics	3	4[b]	4[c]
Science	3	4	4
Social Studies	3	3	3
Academic Elective	—	—	—
Economics	—	—	—
Languages Other Than English	2	2	2
Fine Arts	1	1	1
Physical Education	1	1	1
Health Education	—	—	—
Technology Applications	—	—	—
Speech	—	—	—
Electives	5	7[a]	7[a]
Total	**22**	**26**	**26**

Source. Title 19 of the Texas Administrative Code**,** Chapter 74, Subchapter G, §§ 74.71-74.74, 2012, and 19 TAC, Chapter 74, Subchapter B, §§ 74.11-74.14, 2014.

[a] Completion of at least one endorsement.

[b] Must include Algebra II if the student chooses to complete the science, technology, engineering, and mathematics endorsement.

[c] Algebra II is required.

HB 5 also required the commissioner of education to adopt a transition plan that allowed students graduating in 2013–14 through 2016–17 the option of graduating under the Foundation High School Program instead of the MHSP, RHSP, or DAP. However, because requirements for Foundation High School Program were not finalized until the 2014–15 school year, students graduating in 2013–14 could select only the Foundation High School Program without the option of earning an endorsement or a distinguished level of achievement. In the 2014–15 school year, 4.7% of graduates statewide graduated under the Foundation High School Program with or without an endorsement (Texas Education Agency, 2016a).

HB 5 also made changes to testing requirements. During the 80th Legislative Session, Senate Bill (SB) 1031 replaced the Texas Assessment of Knowledge and Skills® (TAKS®) assessments with STAAR, which included 15 EOC assessments for high school courses. Beginning with the students entering Grade 9 in 2011–12, students were required to pass all 15 EOC assessments to graduate from high school. In addition to establishing the Foundation High School Program, HB 5 reduced the number of EOC assessments required for graduation from 15 to five (English 1, English II, Algebra I, Biology, and U.S. History.)

2.1.1 Updates to Curriculum and Graduation Requirements From the 84th Texas Legislative Session

During the 84th Legislative Session, Governor Greg Abbott signed into law SB 149, altering how students could meet the testing requirements for graduation (Texas Education Code [TEC] § 28.0258, 2015). SB 149 allows Grade 11 and 12 students in the 2014–15, 2015–16, or 2016–17 school year, who have taken and failed up to two EOC assessments, to graduate through an individual graduation committee (IGC) decision. The superintendent of each school district must establish procedures for convening an IGC, and the IGC must be composed of the principal or his/her designee, the teacher of the course for which the student did not pass the EOC assessment, the department chair or lead teacher supervising the teacher of the course, and the student's parent or guardian, a designated advocate, or the student if the student is at least 18 years old or is an emancipated minor (Title 19 of the Texas Administrative Code [TAC], Subchapter BB § 74.1025, 2016, amended to be effective April 19, 2016). SB 149 also offers students who did not pass the STAAR Algebra I EOC and/or English II EOC a second time the opportunity to substitute the Texas Success Initiative Assessment (TSIA) to meet the EOC requirement (Texas Education Agency, 2015a).[12] The amendment to the TEC enacted with SB 149 was set to expire on September 1, 2017.

To assist with implementation of HB 5, the 84th Texas Legislature passed HB 18 in May 2015 to strengthen the college and career advising services available to students in public middle schools and high schools in Texas. To accomplish this goal, HB 18 established a statewide initiative for training counselors and advisors in public middle schools and high schools across Texas about the variety of educational pathways and career opportunities available to students, especially those pathways and opportunities stemming from HB 5. HB 18 also requires each public school district in Texas to provide instruction to students in Grades 7 and 8 in preparing for high school, college, and future careers. HB 18 also prohibits the THECB from adopting a rule that limits the number of dual credit courses or credit hours that a student can earn.

[12] For more information about the IGC review, see TEA's Frequently Asked Questions (FAQs) document at http://tea.texas.gov/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=25769821193&libID=25769821294.

2.1.2 Updates to Curriculum and Graduation Requirements From the 85th Texas Legislative Session

During the 85th Legislative Session, several bills that impact the Foundation High School Program were signed into law. SB 826, which was signed into law effective immediately, allows students to take an advanced English or mathematics course without complying with the sequencing requirements. Prior to the signing of this bill, students were required to successfully complete English I, English II, and English III before they were able to complete an advanced English course, and students were required to successfully complete Algebra I and Geometry before completing an advanced mathematics course. This change to the TEC allows students to take certain multiple English or mathematics courses simultaneously, subject to prerequisite requirements, giving students the ability to graduate in three years or make up a previous failed course and still graduate in four years.

During the 85th Texas Legislature, the governor also signed SB 1005, which allows students graduating under TAKS exit-level requirements to receive a high school diploma if they perform satisfactorily on the SAT, ACT or the TSIA. Currently, students must pass the five STAAR EOC exams to graduate unless they were determined to be qualified to graduate by IGC (Title 19 of the Texas Administrative Code [TAC] § 101.3022, 2017, amended to be effective September 6, 2015). This bill allows students to also receive a high school diploma if they earn a qualifying score on one of these other assessments.

Finally, the 85th Texas Legislature passed SB 463, which extends the expiration date of the amendments to the TEC enacted by SB 149 regarding use of an individual graduation committee during the 84th Legislative Session. SB 463 extends the expiration date two more years to September 1, 2019.

2.2 Overview of the Texas State Accountability System

The Texas state accountability system during 2012–13 through 2016–17 was based on a framework of four indices that combine various indicators into a comprehensive measure of performance. The performance indices were as follows: Index 1: Student Achievement; Index 2: Student Progress; Index 3: Closing Performance Gaps; and Index 4: Postsecondary Readiness (Texas Education Agency, 2016a). Performance on the indices is used to assign one of three academic ratings to each district and campus: *Met Standard*, *Met Alternative Standard*, or *Improvement Required*. Districts and campuses that receive an accountability rating of *Met Standard* also are eligible to earn distinction designations. Both districts and campuses are eligible to earn a distinction in postsecondary readiness. Campuses are eligible to earn an Academic Achievement distinction in ELA/reading, mathematics, science, or social studies; a Top 25% in Student Progress; and a Top 25% in Closing Performance Gaps.

Index 4 is the postsecondary indicator and includes four components for high schools: STAAR postsecondary readiness standard, graduation rate, graduation diploma plan, and postsecondary college and career readiness. In response to HB 5, Index 4 further expanded its postsecondary college and career readiness component to include earning credit on advanced/dual-credit courses and enrolling in a coherent sequence of CTE courses (Texas Education Agency, 2015c).

2.2.1 Updates to the State Accountability System From the 84th Texas Legislative Session

In 2015, the 84th Texas Legislature passed HB 2804, which changed the Texas state accountability system to an A–F rating in each of five domains and overall. The five domains include student achievement, student

progress, closing the gaps, postsecondary readiness, and community and student engagement. Provisions of the bill required the commissioner of education to release a provisional A–F ratings report showing the ratings that each district and campus would have received for Domains I–IV for the 2015–16 school year if the A-F rating system had been in place with a fully implemented system of ratings issued for the first time in August 2018. In December 2016, TEA released the provisional A–F ratings report (Texas Education Agency, 2016b).

2.2.2 Updates to the State Accountability System From the 85th Texas Legislative Session

During the 85th Legislative Session, Governor Abbott signed HB 22, which impacts the state accountability system in multiple ways. HB 22 amended the TEC to impact the A–F K–12 educational accountability system in several ways:

- Reduce the number of domains from five to three, to include student achievement, school progress, and closing the gaps.
- Introduce the opportunity for districts to create locally developed accountability domains and use those domains in addition to the domains required by TEA to award district and campus accountability ratings. The commissioner of education is responsible for writing administrative rules on the use of local accountability plans, including their use in the accountability grade.
- Change the summative accountability grade by commissioner of education rule; however, at least 30% of the summative grade must be based on the closing the gaps domain.
- Set the unacceptable cut-point at the F rating. Several laws within the TEC continue to reference acceptable and unacceptable performance as triggers for various district and campus actions. Rather than change all of those references, the legislature benchmarked the new A–F labels to existing terms. HB 22 resolves a discrepancy in the previous benchmark by setting this new benchmark.
- Change the timeline for implementation to August 2018 for districts and August 2019 for campuses.

2.3 Summary

With the passage of HB 5 in 2013, the Foundation High School Program became the graduation program for all Texas public high school students, beginning with the entering Grade 9 students in 2014–15. The new graduation requirements introduced greater flexibility for students in earning a high school diploma. Updates to curriculum and graduation requirements from the last two legislative sessions continue to add support and flexibility in how students meet state graduation requirements.

- To assist with implementation of HB 5, the 84th Texas Legislature passed HB 18 in May 2015 to strengthen the college and career advising services available to students in public middle and high schools in Texas.
- In 2015, the 84th Texas Legislature also passed SB 149, which allowed students who have taken and failed up to two EOC assessments to graduate through an IGC decision. The amendment to the TEC was set to expire on September 1, 2017; however, SB 463, passed during the 85th Texas legislative session, extends the expiration date two more years to September 1, 2019.

- In 2017, the 85th Texas Legislature passed SB 826, which removed the course sequencing requirements that students needed to adhere to when meeting English and mathematics course requirements. This change to the TEC allows students to take certain multiple English or mathematics courses simultaneously, subject to prerequisite requirements, giving students more flexibility to graduate in three years or make up a previous failed course and still graduate in four years.
- In 2017, the 85th Texas Legislature also passed SB 1005, which allows students required to graduate under the TAKS exit-level requirements to meet state graduation requirements through the SAT, ACT, or TSIA, in addition to STAAR EOC exams.

The last two Texas legislative sessions also have brought significant changes to the state accountability system. In 2015, the 84th Texas Legislature passed HB 2804, which changed the state accountability system to an A–F rating in each of five domains and overall. Provisions of the bill allowed the commissioner of education to phase in the A–F performance ratings with fully implemented ratings issued for the first time in August 2018. However, in 2017, the 85th Texas Legislature passed HB 22, which changes the state accountability system in several ways, including reducing the number of domains, introducing locally developed accountability domains, changing the calculation of the summative accountability grade, realigning the unacceptable cut-point at the F rating, and changing the timeline for implementation to August 2018 for districts and August 2019 for campuses.

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3. Outcomes for Students Graduating Under the MHSP, RHSP, and DAP

Chapter 2 provides updates to the historical overview of the state graduation requirements that have occurred since the 2015 report (American Institutes for Research, 2015). This chapter presents updates to the baseline outcomes for students who entered high school under the MHSP, RHSP, and DAP—students who entered Grade 9 in a Texas public high school during the 1997–98 through 2013–14 academic years. The goal of these analyses is to present updates to the historical trends in students' college readiness outcomes prior to implementation of the Foundation High School Program provided in the 2015 report. Since the 2015 report, data are now available for an additional two or three cohorts of students, depending on the outcome variable. The college and career readiness outcomes examined in this chapter include college readiness, high school graduation, college enrollment, college completion, workforce certificate completion, employment, and earnings.

All analyses conducted to examine baseline student outcomes were based on cohorts made up of the incoming Grade 9 students for the specific academic year. For example, students who entered Grade 9 for the first time in fall 1997 made up the 1997–98 cohort. Because the Public Education Information Management System (PEIMS) fall enrollment snapshot was used to identify first-time Grade 9 students, students entering Grade 9 later in the academic year were not included in any of the cohorts or outcome analyses.[13] To ensure that only first-time high school freshman were included in each cohort, only students who were classified as Grade 8 students in the previous year or who were new to Texas public schools were retained in the cohorts. Students did not enter or exit the cohorts for any reason, including dropout, transfer out of state, or transfer to a private school, which is a different methodology than that applied in other TEA reports.[14] The total number of students for each of the student-level analyses was determined by the number of Grade 9 students included in each cohort file. For example, there were 322,000 incoming Grade 9 students in the 1997–98 cohort. Thus, the denominator for most student-level outcome analyses for this cohort is 322,000.[15] By doing this, the percentages of students in each of the cohorts shown as achieving the outcomes represent the same group of students across figures for any particular cohort. Using a methodology that includes all students in a cohort for outcome analyses calculations may diminish the impact that policy changes have had on the portion of the denominator that is made up of the students who did not graduate early or on time. Policy changes in relation to curriculum, assessment, and accountability, along with definitional and legislative changes related to the calculation of graduation and dropout rates, have differentially affected the composition of the nongraduate group

[13] PEIMS data files are submitted four times each school year following a schedule established by the PEIMS Data Standards. The fall enrollment snapshot date is the last Friday in October annually.

[14] Per TEC § 39.053(c)(2)-(3), TEA calculates dropout and graduation rates in accordance with standards and definitions adopted by the National Center for Education Statistics of the United States Department of Education and in compliance with the No Child Left Behind Act of 2001 (20 U.S.C. Section 6301 et seq.). These requirements call for calculating an on-time high school graduation rate based on a cohort that takes into account students' progression from grade to grade, data on graduation status, and data on students who transfer in and out of a school, district, or state during the high school years. TEA defines a cohort as the group of students who begin Grade 9 in Texas public schools for the first time at any time in the same school year, plus students who, in the next three school years, enter the Texas public school system in the grade level expected for the cohort. Students in the cohort are tracked to their expected graduation date, and all students remain in their original cohort. For the purposes of calculating the longitudinal graduation rate, students who leave the cohort for reasons other than graduating receiving general equivalency diplomas, or dropping out, or who are excluded based on statutory requirements, are not included in the calculation. For more information, see http://tea.texas.gov/acctres/DropComp_2015-16.pdf. To keep the number of students in a cohort consistent across time, TEA's methodology was not employed in this analysis. Keeping the number of students in the cohort consistent across time allows for more consistent comparisons across time and analyses.

[15] Some analyses required the use of a different denominator. For example, when presenting college readiness data using scores on the TAKS, the denominator is the number of students who completed the test. Notes in the text of this report indicate when an alternate denominator is used and how the alternate denominator was defined.

over time. This methodology allows for a comparison of outcomes longitudinally without having to account for the effect of that variation. Additional detail regarding the construction of these cohorts and outcomes can be found in Appendix B.

Although students in incoming Grade 9 cohorts who enrolled in a public high school in Texas prior to the 2011–12 academic year were required to graduate under the MHSP, RHSP, or DAP, students in the 2011–12, 2012–13, and 2013–14 cohorts were given the option to pursue graduation under the Foundation High School Program (19 TAC, Subchapter BB, §§ 74.1021-74.1022, 2014). Students who graduated from high school under the Foundation High School Program have been removed from the cohorts included in these analyses. Results for the students in these cohorts who graduated under the Foundation High School Program are shown in Chapter 5.

The student cohorts analyzed in this chapter were followed through high school, through college, and into employment, as allowed by timeline and data availability.[16] The student demographic characteristics were obtained from a student's Grade 9 year. That is, if a student was classified as eligible for free or reduced-price lunch, as an English language learner (ELL) student, or as receiving special education services in Grade 9, the student was classified accordingly for all years of data analysis. This allows for consistency in comparisons across time and analyses. However, it does not take into account fluctuations in these characteristics for individual students over time. Descriptive statistics for students in each of the cohorts can be found in the 2015 report (American Institutes for Research, 2015).

Descriptive analyses were conducted for each of the cohorts of Grade 9 students who entered a Texas public high school during the 1997–98 through 2013–14 academic years. Figures displaying the results of analyses conducted using all students in the cohort are presented in the narrative of this chapter. The tables in Appendix E present the numerators, denominators, and percentages for each of these figures for the added cohorts.[17] Student-level student group analyses also were conducted to examine historical trends by key student characteristics. These student characteristics include race/ethnicity (i.e., African-American, American Indian or Alaskan Native, Asian, Hispanic, multiracial, Pacific Islander, White), special education status, ELL status, economic disadvantage status, and high school graduation program (i.e., did not graduate from a Texas public high school, MHSP, RHSP, or DAP).[18, 19] Figures displaying the results by student groups are presented in Appendix D, and tables detailing information for added cohorts are provided in Appendix E. The tables in Appendix E also present the numerators and denominators for each of the updated analyses.[20]

3.1 College Readiness

The first set of baseline student outcome analyses examined students' college readiness while the students were still in high school. During the 80th Legislature, SB 103 mandated that TEA implement a college readiness component as part of the TAKS exit-level assessment. Beginning in spring 2004, performance on the Grade 11 (exit-level) mathematics and ELA assessments was used to assess not

[16] Not all cohorts have data for all of the outcomes, given that students have not progressed far enough through school and/or career. That is, not enough time has passed for students in later cohorts to graduate from high school, enroll in college, graduate from college, or obtain employment.
[17] The numerators, denominators, and percentages for earlier cohorts can be found in Appendix E of the previous report (American Institutes for Research, 2015).
[18] For cohorts 1997–98 through 2008–09, five racial/ethnic categories are used. Beginning with the 2009–10 cohort, student-group analyses using seven racial/ethnic categories are used to reflect changes in reporting made by TEA to meet new federal reporting standards.
[19] For Texas public high school graduates only.
[20] The numerators, denominators, and percentages for earlier cohorts can be found in Appendix E of the previous report (American Institutes for Research, 2015).

only a student's level of academic preparation for graduation from a Texas public high school but also a student's readiness to enroll in an institution of higher education (Pearson Education, 2006). A student who met the Higher Education Readiness Component (HERC) score on the exit-level TAKS was exempt from state-mandated testing requirements under the Texas Success Initiative (TSI). Results of the longitudinal analysis looking at the percentage of students who met the HERC score on the exit-level TAKS assessments in mathematics and ELA were presented in the 2015 report. Beginning with the 2011–12 incoming Grade 9 cohort of students, TAKS was replaced with the STAAR. Although students are able to show college readiness while in high school by meeting a specified standard on the STAAR Algebra II and the STAAR English III EOC, the STAAR Algebra II and English III EOCs are not required and not universally offered across districts, and are not comparable.

Section 3.5 presents cohort readiness rates on an alternative college readiness indicator—the percentages of students in each cohort who met the TSI readiness standards in reading, mathematics, and writing.

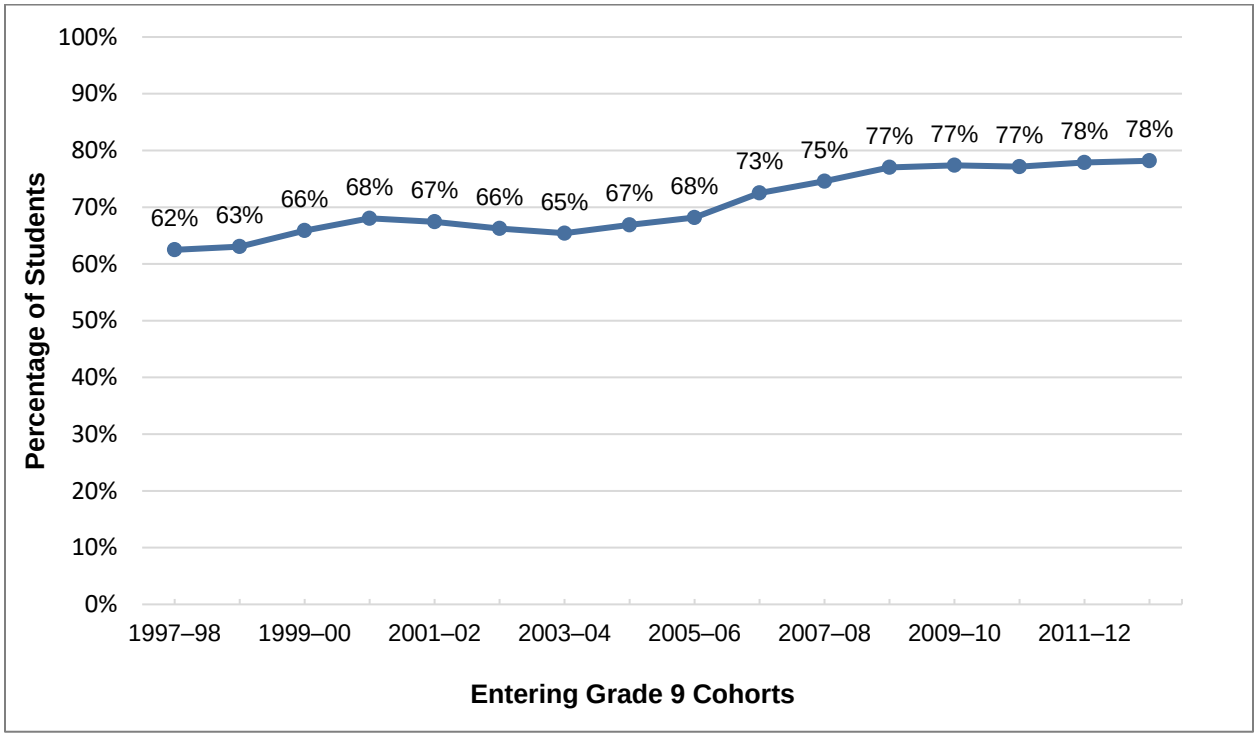
3.2 High School Graduation Within Four Years

The next set of baseline student outcome analyses focused on high school graduation within four years of entry.[21] These analyses were produced using a different methodology from that employed by TEA. The methods used to analyze TEA's graduation rates are described in the *Secondary School Completion and Dropouts in Texas Public Schools 2015–16* report (Texas Education Agency, 2017) and the *Processing of District Four-Year Longitudinal Graduation and Dropout Rates, Class of 2016* technical report (Texas Education Agency, 2016c). As described previously, for this analysis, students did not join or exit a cohort for any reason, including dropout or transfer out of state. Thus, the denominators for these analyses include all students who entered the cohorts during the fall of Grade 9. All students were retained in the analyses to produce consistent estimates of graduation rates across time because TEA's graduation rate calculations have changed over time in response to changes in policy. In addition, this practice allows the percentages shown in the tables and figures to represent the same number of students over time and to have the same meaning.

Student-level data from PEIMS graduation data files were used to examine trends in the percentage of students in each cohort who graduated from a Texas public high school within four years. In the 2015 report, high school graduation data were available for the 1997–98 through 2009–10 entering cohorts of Grade 9 students. For the current report, high school graduation data were available for the 2010–11, 2011–12, and 2012–13 cohorts. Therefore, three additional cohorts of data have been added to the graph showing trends in high school graduation. As shown in Figure 3.1, the percentage of students in each entering Grade 9 cohort who graduated from a Texas public high school increased from approximately 62% for the 1997–98 cohort to 78% for the 2012–13 cohort. The largest gain in the percentage of students graduating from a Texas public high school occurred between the 2005–06 cohort and the 2006–07 cohort—an increase of approximately 5 percentage points (68% to 73%). Additional data for this figure are shown in Tables E1 through E3 in Appendix E.

[21] This includes students who graduated in fewer than four years. Students who earned a General Equivalency Diploma were not counted as high school graduates. Students who remained in high school but did not graduate within four years were not counted as high school graduates in the analysis.

Figure 3.1. Percentages of Students in Each Cohort Who Graduated From a Texas Public High School Within Four Years of Entering Grade 9



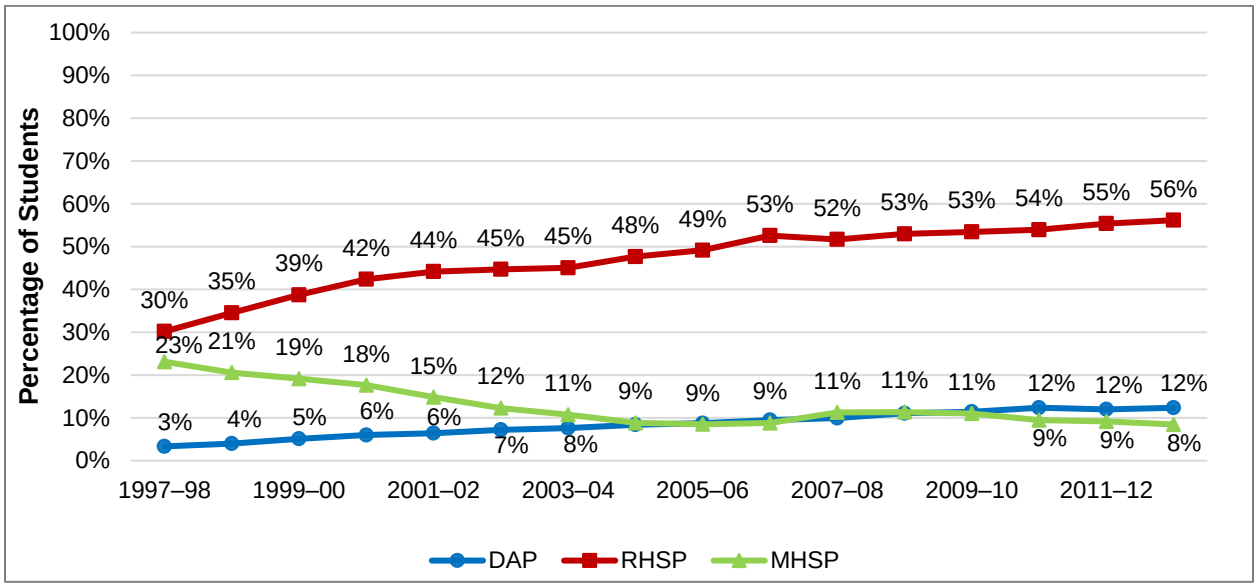
Source. Public Education Information Management System (PEIMS) files, 1998–2013.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering Grade 9 cohort who have a graduation record in the Texas Education Agency PEIMS Graduation files within four years of entering Grade 9.

Figure D1 in Appendix D displays by race/ethnicity the percentage of students in each cohort who graduated from a Texas public high school within four years. Tables E1 through E3 present the data for this figure. As shown in the tables and figure, Asian/Pacific Islander (cohorts 1997–98 through 2008–09), Asian (cohort 2009–10), and White students were more likely to graduate from high school within four years than students from other racial/ethnic backgrounds. However, though the gaps in on-time high school graduation rates between students from these racial/ethnic backgrounds were quite large for the 1997–98 through 2006–07 cohorts, the gaps narrowed considerably for the 2007–08 through 2012–13 cohorts. For example, though only 57% of African-American students, 49% of American Indian students, and 54% of Hispanic students in the 1997–98 cohort graduated from high school within four years, 73% of Asian/Pacific Islander students and 70% of White students did so. However, by 2012–13, the differences in high school graduation rates between students of different racial/ethnic backgrounds decreased for most groups, with 75% of African-American students, 73% of American Indian students, 76% of Hispanic students, and 68% of Pacific Islander students graduating from high school within four years as compared to 88% of Asian students, 78% of multiracial students, and 81% of White students.

Figure 3.2 displays the types of graduation programs that entering Grade 9 students in each cohort completed within four years of entering high school. As shown, the percentage of students who completed the DAP increased from 3% for students in the entering Grade 9 cohort of 1997–98 to 12% for students in the entering Grade 9 cohort of 2012–13. Similarly, the percentage of students who completed the RHSP increased from 30% for students in the entering Grade 9 cohort of 1997–98 to 56% for

students in the entering Grade 9 cohort of 2012–13. Across these cohorts of entering Grade 9 students, the percentage of students who completed the MHSP decreased considerably from about 23% for students in the 1997–98 entering cohort of Grade 9 students to approximately 8% of students in the 2012–13 entering cohort of Grade 9 students. Additional data for this figure are shown in Tables E1 through E3 in Appendix E.

Figure 3.2. Percentages of Students in Each Cohort Who Completed the MHSP, RHSP, and DAP Within Four Years of Entering Grade 9



Source. Public Education Information Management System files, 1998–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering Grade 9 cohort who completed the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP) within four years of entering Grade 9. Students in the 1997–98 cohort were expected to graduate in 2000–01. Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

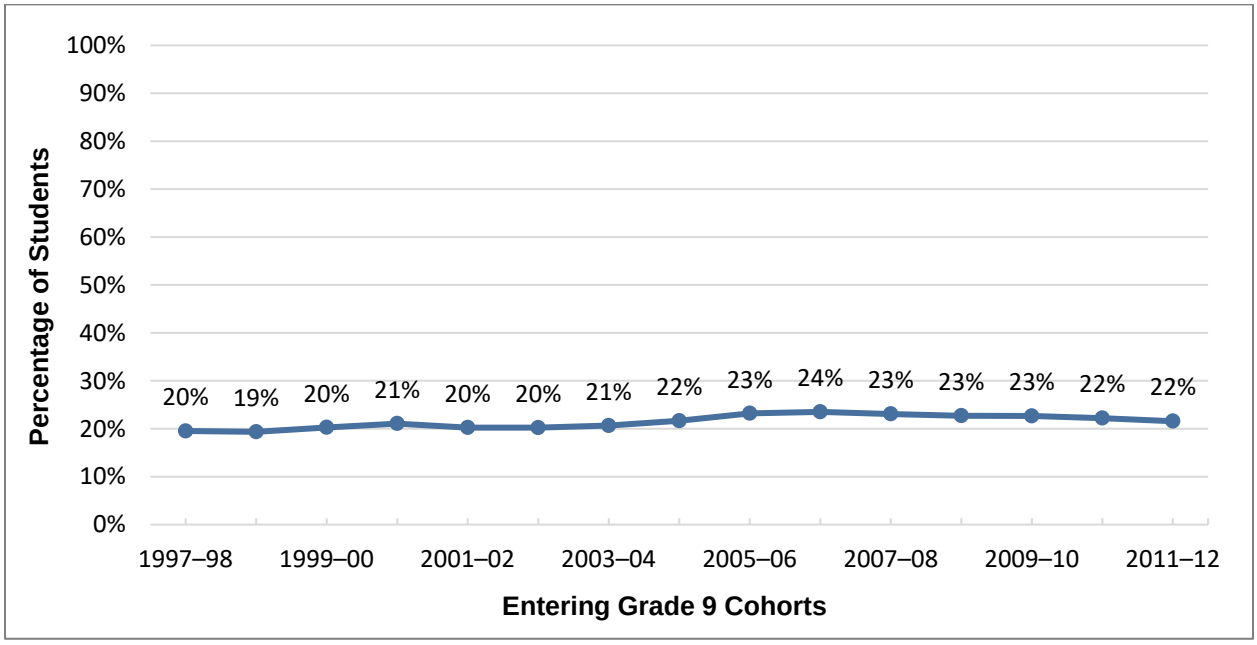
3.3 Two-Year College Enrollment

This section focuses on two-year college enrollment within one year of students' actual or expected high school graduation date. THECB enrollment files for two-year colleges were used for these analyses. These files contain records only for students who enrolled in two-year colleges in Texas. Thus, students who enrolled in out-of-state, two-year colleges were not included in these analyses. Students were assigned to only one college type. If a student had a record in the two-year college enrollment file and a record in either the public four-year college and university or the independent four-year college and university file, the student was identified as being enrolled in a four-year college or university. The denominators for the two-year and four-year college enrollment analyses are the same.

In the 2015 report, two-year college enrollment data were available for the 1997–98 through 2009–10 entering cohorts of Grade 9 students. For the current report, two-year college enrollment data were available for the 2010–11 and 2011–12 cohorts. Therefore, two additional cohorts of data have been

added to the graph showing trends in two-year college enrollment. Students were identified as having enrolled in a two-year college if they enrolled in a Texas two-year college during the academic year (i.e., fall, spring, summer I, and/or summer II semesters) following their actual or expected high school graduation date.[22] Figure 3.3 displays the percentage of students in each cohort who enrolled in a Texas two-year college within one year of their actual or expected high school graduation date. As shown, the percentages of students in each of these cohorts who enrolled in a two-year college have remained fairly stable—between 19% and 24% across all years.

Figure 3.3. Percentages of Students in Each Cohort Who Enrolled in a Texas Two-Year College Within One Year of Actual or Expected Graduation Date From High School



Source. Texas Higher Education Coordinating Board, Two-Year College Enrollment files, 1999–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Students in this cohort were expected to graduate from high school during or prior to the spring semester of 2001. Students in this cohort were coded as having enrolled in a Texas two-year college if they showed up in the fall, spring, summer I, and/or summer II data files for the 2001–02 academic year.

In Appendix D, Figure D3 shows that White students were more likely than any other racial/ethnic group to enroll in a Texas two-year college. However, as displayed, the gaps in two-year college enrollment between White students and students from other racial/ethnic groups decreased substantially across the 1997–98 through 2011–12 cohorts of entering Grade 9 students.

In addition, Figure D5 in Appendix D presents the percentages of students who enrolled in a Texas two-year college within one year of their actual or expected high school graduation date by the graduation program that the students completed. As shown, students who completed the RHSP were the most likely to enroll in a Texas two-year college, followed by students who completed the MHSP. Approximately 30% to 35% of students who completed the RHSP enrolled in a two-year college across cohorts.

[22] The total number of students in the original entering cohort is used in the denominator in these analyses. This may include, for example, students who did not graduate from high school, dropped out, or moved out of state.

3.4 Four-Year College Enrollment

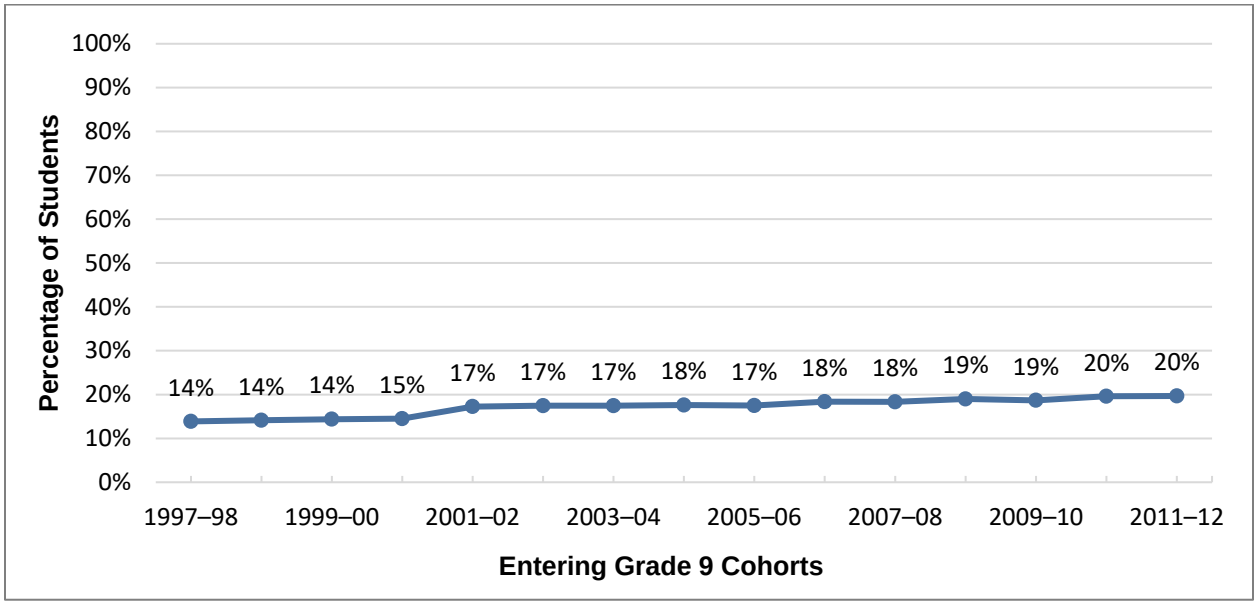
The next set of baseline student outcome analyses focused on four-year college enrollment. As in the previous section, THECB files used for these analyses contain records only for students who enrolled in public and independent four-year colleges and universities in Texas.[23] Therefore, students who enrolled in out-of-state four-year colleges were not included in these analyses. Again, students were assigned to only one college type. If a student had a record in the two-year college enrollment file and a record in either the public four-year college and university or the independent four-year college and university file, the student was identified as being enrolled in a four-year college or university.

THECB enrollment files for public and independent four-year colleges and universities were used to examine trends in four-year college enrollment. Texas four-year public college and university data were available for entering Grade 9 students in the 1997–98 through 2011–12 cohorts. Data were available for four-year independent colleges and universities in Texas for entering Grade 9 students in the 2001–02 through 2011–12 cohorts. In the 2015 report, four-year college enrollment data were available for the 1997–98 through 2008–09 entering cohorts of Grade 9 students. For this report, four-year college enrollment data were available for the 2010–11 and 2011–12 cohorts. Therefore, two additional cohorts of data have been added to the graph showing trends in four-year college enrollment.

Figure 3.4 shows the percentage of students in each entering Grade 9 cohort who enrolled in a Texas four-year college or university during the fall, spring, or summer semesters within one year of their actual or expected high school graduation date. The percentage of students in each of the cohorts who enrolled in a four-year college or university during the year following high school graduation has remained stable across time. The figure shows a slight increase in the percentage of entering Grade 9 students in a cohort enrolling in a Texas four-year college or university from 2000–01 and 2001–02 of about 3 percentage points; however, this increase is primarily a result of the inclusion of data from independent four-year colleges and universities. Data for enrollment in independent four-year colleges and universities are not available for entering cohorts of Grade 9 students prior to the 2001–02 cohort. The trend line following the inclusion of these data shows an increase of about 3 percentage points, ranging from 17% of students in the 2001–02 entering cohort of Grade 9 students to 20% of students in the 2011–12 entering Grade 9 cohort.

[23] According to TEC § 61.003(15), an independent institution of higher education is defined as a private or independent college or university that is (a) organized under the Texas Non-Profit Corporation Act (Article 1396-1.01 et seq., Vernon's Texas Civil Statutes); (b) exempt from taxation under Article VIII, Section 2, of the Texas Constitution and Section 501(c)(3) of the Internal Revenue Code of 1986 (26 U.S.C. Section 501); and (c) accredited by (i) the Commission on Colleges of the Southern Association of Colleges and Schools, (ii) the Liaison Committee on Medical Education, or (iii) the American Bar Association.

Figure 3.4. Percentages of Students in Each Cohort Who Enrolled in a Texas Four-Year College or University Within One Year of Actual or Expected Graduation Date From High School



Source. Texas Higher Education Coordinating Board (THECB), Public College and University Enrollment files, 1999–2016; THECB, Private and Independent College and University files, 2002–2013.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Students in this cohort were expected to graduate during or prior to the spring semester of 2002. Students in this cohort were coded as having enrolled in a Texas four-year college or university if they showed up as enrolled during the fall, spring, or summer semesters of the 2001–02 academic year. Data for Texas independent universities were not available for entering Grade 9 cohorts prior to 2001–02.

In Appendix D, Figure D6 displays the percentage of students who enrolled in a Texas four-year college or university within one year of their actual or expected high school graduation date by race/ethnicity. As displayed, Asian/Pacific Islander students were considerably more likely to enroll in a Texas four-year college than students of any other race/ethnicity. Across entering Grade 9 cohorts, Asian/Pacific Islander or Asian students were more likely to enroll in a Texas public or independent four-year college than White students (the next highest group) by at least 10 percentage points.

Figure D8 in Appendix D shows the percentage of students who enrolled in a Texas public or independent four-year college or university within one year of their actual or expected high school graduation date by high school graduation program. As shown, students who completed the DAP were the most likely to enroll in a Texas public or independent four-year college or university. Approximately 49% to 60% of students who completed the DAP enrolled in a four-year college or university across cohorts. Figure D8 shows approximately a 10 percentage-point increase in four-year college enrollment for students who completed the DAP between the entering cohort of Grade 9 students in 2000–01 and the entering cohort of Grade 9 students in 2001–02. However, this large increase is primarily a result of the inclusion of data from independent four-year colleges and universities.

Figure D8 also reveals that students who completed the MHSP were highly unlikely to enroll in a Texas public or independent four-year college or university, and the percentage of students who completed the MHSP who enrolled in a four-year college or university declined over time. As shown in Figure D8, approximately 4% of students in the 2001–02 cohort who completed the MHSP enrolled in a Texas four-year college or university. However, only around 1% of students in the 2008–09 through 2011–12 cohorts who completed the MHSP enrolled in a Texas four-year college or university.

Finally, Figure D40 in Appendix D shows the percentage of students in each cohort who enrolled in any Texas college or university—two-year colleges and four-year colleges or universities. Only data for Texas public four-year colleges and universities were available for the entering Grade 9 cohorts of 1997–98 through 2000–01; data for Texas private and independent four-year universities were not available. During this period, the percentage of students who enrolled in a Texas two-year college or public four-year college or university increased from 33% to 36%. Data for both public and private and independent four-year colleges and universities in Texas were available for the entering Grade 9 cohorts of 2001–02 through 2011–12. Across this period, the percentage of students who enrolled in a Texas two-year college or four-year college or university increased from 38% to 41%.

3.5 Texas Success Initiative

This set of student outcome analyses focused on the college readiness of students who enrolled in a Texas public two-year or four-year college within one year of their actual or expected high school graduation date. The measures of college readiness used in this section included whether a student met the TSI readiness standards in reading, mathematics, and writing.

TSI is a state-mandated program designed to determine whether a student is ready for college-level coursework in the general areas of reading, mathematics, and writing. Beginning in fall 2003, the state required all students entering a Texas public two-year or four-year college or university to be assessed for college readiness unless the student qualified for an exemption as described in Table 3.1 below. Students could meet the TSI readiness standard by meeting or exceeding specified score thresholds on approved college readiness exams, including ASSET®, Compass®, Texas Higher Education Assessment® (THEA®), and ACCUPLACER®.[24] In 2013, the THECB launched the TSIA, which is used in place of the ASSET, Compass, THEA, and ACCUPLACER. Each student who failed to meet the minimum passing standard of the exam offered by the institution was placed in a developmental education program designed to help the student achieve college readiness.

Student-level data from THECB's TSI files were used to estimate college readiness rates for students who enrolled in a Texas public two-year or four-year college within one year of their actual or expected high school graduation date. These files contain variables indicating whether a student has met the TSI readiness standards in reading, mathematics, and writing. In the 2015 report, TSI readiness data were available for entering Grade 9 students in the 2002–03 through 2008–09 cohorts. Data were now available for the 2009–10, 2010–11, and 2011–12 cohorts.

[24] For information about these exams, see the following websites: ASSET (http://www.act.org), Compass (http://www.act.org/products/higher-education-act-compass/), Texas Higher Education Assessment (THEA) (http://www.thea.nesinc.com/), ACCUPLACER (https://accuplacer.collegeboard.org/students).

Table 3.1. Percentages of Students in Each Cohort Who Met the TSI Readiness Standards in Mathematics, Reading, and Writing, and the Accompanying Changes to the Means of Meeting TSI Readiness Standards Across Time

Percent Meeting TSI Readiness Standards in:	Incoming Grade 9 Cohorts									
	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12
Mathematics	41	50	51	51	53	57	59	62	60	50
Reading	52	55	56	57	59	60	63	63	65	59
Writing	56	59	59	58	59	60	63	63	65	60
Means to Meeting TSI Readiness Standards										
College Readiness Assessments										
Previous TASP exemption granted prior to 9/1/2003	✓									
Compass, THEA, ACCUPLACER, ASSET	✓	✓	✓	✓	✓	✓	✓	✓		
TSIA								✓	✓	✓
Academic Means of Exemption from College Readiness Exams										
SAT, ACT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TAKS HERC	✓	✓	✓	✓	✓	✓	✓	✓	✓	
STAAR Algebra II and English III end-of-course assessments[a]										✓
Previous satisfactory completion of college-level coursework (for example, transfers from private or out-of-state institutions, course credit based on AP exam scores, college course credit from dual credit)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Has a college prep waiver										✓
Earned a degree from an accredited higher education institution	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2004–2016.

Notes. TASP = Texas Academic Skills Program, THEA = Texas Higher Education Assessment, TSIA= Texas Success Initiative Assessment, TAKS = Texas Assessment of Knowledge and Skills, HERC = Higher Education Readiness Component, STAAR = State of Texas Assessments of Academic Readiness

[a] The entering Grade 9 cohort of 2011–12 was the first class of high school students under the new STAAR graduation requirements which required passing 15 end-of-course (EOC) assessments. However, in 2013, HB 5 changed the number of required tests for high school graduation from fifteen to five. This resulted in STAAR Algebra II and English III EOC exams no longer being universally offered by districts as they were not a requirement for high school graduation.

The percentages of each cohort meeting TSI readiness standards are presented in Table 3.1. Also displayed are the changes in the college readiness assessments used by Texas public two-year or four-year colleges and universities to measure college readiness along with changes to the academic exemptions available to students to meet the TSI readiness standard.[25] The table shows the introduction of TSIA for the entering Grade 9 cohort in 2009–10 and concomitant elimination of the Compass, THEA, ACCUPLACER and ASSET assessments. The entering Grade 9 cohort in 2011–12 was the first group of students for which the TAKS HERC was no longer available as a means of meeting an exemption as it was replaced with the STAAR Algebra II and English III EOC exams, both of which included a college readiness score component.[26] Therefore, all students from cohorts shown in Table 3.1 were classified as having met TSI readiness standards either through a high school assessment (TAKS HERC, STAAR EOC, AP exam, SAT, ACT), a college readiness assessment (Compass, THEA, ACCUPLACER, ASSET, TSIA, TASP), satisfactory completion of college-level courses (transfer or degree from another institution of higher education, dual credit) or a college prep waiver.

For entering Grade 9 cohorts from 2002–03 to 2010–11, the percentage of students meeting the TSI readiness standards increased for all subject areas—from 52% to 65% in reading, from 41% to 60% in mathematics, and from 56% to 65% in writing. These findings are consistent across racial/ethnic groups, as well as for students identified as economically disadvantaged, ELL students, and students participating in special education.[27]

Estimated college readiness rates in reading, writing, and mathematics for the 2011–12 cohort are also presented in Table 3.1. Approximately 60% of students in the 2011–12 cohort met TSI readiness standards in both reading and writing. A smaller percentage (50%) met readiness standards in mathematics.[28] As explained earlier, the option to meet TSI readiness standards by achieving at or above the HERC score on an exit-level TAKS was eliminated when the STAAR replaced TAKS as the state's standardized student assessment. This transition impacted the number of opportunities for receiving a TSI exemption beginning with the 2011–12 incoming Grade 9 cohort. While it became possible to receive a TSI exemption through qualifying STAAR Algebra II and English III EOC scores, these two EOC exams were not required after the passage of HB 5, nor universally offered across districts. Therefore, fewer high school students were able to meet TSI readiness standards via statewide secondary assessments alone.

It is important to note that because of the significant changes in testing requirements for the 2011–12 cohort, their measured TSI readiness rates cannot be directly compared to rates of earlier cohorts for the purpose of describing trends in true college readiness. While it is beyond the scope of this report to determine the direct effects of changes in testing requirements on TSI readiness rates, stakeholders are still met with tangible and significant impacts associated with these observed rates. As the number of students who are required to enroll in some form of remediation grows, changes in important financial and time resources are required of students, postsecondary institutions, and the state. Despite the lack of comparability between the later cohorts' measured TSI readiness rates, the estimates from the 2011–12

[25] Students may also be exempt from completing college readiness exams by satisfying either of the following requirements: 1) serving in the military for at least three years preceding enrollment, or 2) enrolling in a level-one certificate program for one year or less at a public two-year, technical institute, or private college. However, students meeting these exemptions were not included in the TSI readiness data comprising Table 3.1.

[26] The entering Grade 9 cohort of 2011–12 was the first class of high school students under the new STAAR graduation requirements which required passing 15 end-of-course (EOC) assessments. However, in 2013, HB 5 changed the number of required tests for high school graduation from fifteen to five. This resulted in STAAR Algebra II and English III EOC exams no longer being universally offered by districts as they were not a requirement for high school graduation.

[27] Figures D9 through D17 in Appendix D show the longitudinal trends in TSI readiness rates across the 2002–03 to 2010–11 cohorts by student groups.

[28] Table E8 in Appendix E shows the differential TSI readiness rates for the 2011–12 cohort by student group.

cohort provide value as a baseline for trends in college readiness for subsequent cohorts of students under the Foundation High School Program.

3.6 Two-Year College Graduation, Persistence, and Workforce Certificate Completion

Previous sections of this report examine college enrollment and the college readiness of students who enrolled in college; the next two sections focus on students' college and workforce certificate completion. These baseline student outcome analyses examined historical trends in students' two-year college graduation/persistence, workforce certificate completion, and four-year college graduation/persistence.[29, 30]

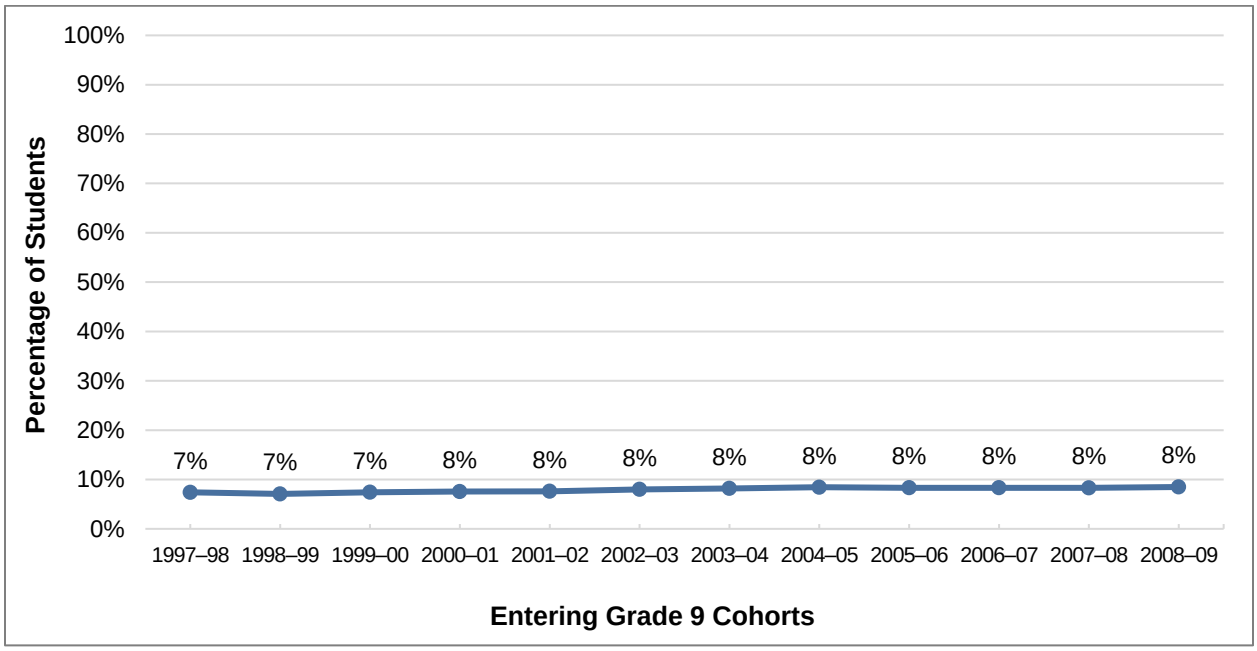
THECB enrollment and degree-awarded files for Texas two-year colleges were used to examine trends in two-year college graduation/persistence and workforce certificate obtainment. These files contain data indicating whether a student is enrolled in a Texas two-year college during the fall semester three years after his or her actual or expected high school graduation date (i.e., whether he or she is persisting in a two-year college), earned a workforce certificate (i.e., Level 1, Level 2, or Advanced Technology Certificate), or earned an associate's degree.[31, 32]

In the 2015 report, two-year college graduation, persistence, and workforce certificate completion data were available for entering Grade 9 students in the 1997–98 through 2006–07 cohorts. Data were now available for the 2007–08 and 2008–09 cohorts; therefore, two additional cohorts have been added to the graph showing the percentages of students in each cohort who earned an associate's degree, completed a workforce certificate within three years, or were enrolled in a Texas two-year college within four years of their actual or expected high school graduation date. The denominator for these analyses represented all students who entered the cohort during Grade 9, including students who did not graduate or moved out of the state of Texas, and was not restricted to only those who enrolled in a two-year college. Unlike the college enrollment analyses, students who earned a two-year degree/workforce certificate and a four-year college degree were counted in both sets of analyses. That is, a student who earned a two-year degree and a four-year degree was counted in the percentage of students who earned a two-year degree and the percentage of students who earned a four-year degree.

Figure 3.5 displays the percentage of entering Grade 9 students in each cohort who earned an associate's degree, completed a workforce certificate within three years, or were enrolled in a Texas two-year college within four years of their actual or expected high school graduation date. As shown, the percentage of students in each cohort who earned an associate's degree, completed a workforce certificate, or were still enrolled in a two-year college increased by 1 percentage point—from 7% for entering Grade 9 students in the 1997–98 cohort to 8% for entering Grade 9 students in the 2008–09 cohort—during this period. Additional data for this figure are shown in Tables E6 through E8 in Appendix E.

[29] A student is considered to be persisting in college if he or she is still enrolled in college three years after the actual or expected high school graduation date. Persistence is important because it indicates that a student is still pursuing a degree.
[30] Many studies examining four-year college completion rates opt to use a six-year graduation rate. To be able to present data for more cohorts, this report presents four-year graduation rates plus persistence into the fifth year.
[31] Workforce certificates are programs of study that vary in length and are designed to prepare the student for occupational employment. Certificates are awarded upon completion of specific courses that have been industry validated and sequenced for the purpose of developing and upgrading skills in an occupation. For examples, see http://www.lonestar.edu/degrees-certificates.htm.
[32] Because relatively few students completed a Level 1, Level 2, or Advanced Technology Certificate, all degrees/certificates earned at a community college were combined. This allowed for breakdowns across student groups.

Figure 3.5. Percentages of Students in Each Cohort Who Earned an Associate's Degree or Workforce Certificate Within Three Years or Were Enrolled in a Texas Two-Year College Within Four Years of Actual or Expected High School Graduation Date



Source. Texas Higher Education Coordinating Board, Two-Year College Graduation files, 1999–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who earned an associate's degree; earned a Level 1, Level 2, or Advanced Technology certificate from a Texas two-year college within three years; or were enrolled within four years of their actual or expected high school graduation date.

As shown in Figures D18 and D19 in Appendix D, these findings are consistent across racial/ethnic groups, as well as students identified as economically disadvantaged, English language learner students, and students participating in special education.

Figure D20 in Appendix D shows the percentage of students who earned an associate's degree or workforce certificate within three years or were enrolled in a Texas two-year college within four years of graduating from high school by high school graduation program. As shown, students who completed the MHSP were more likely than students who completed the RHSP or DAP to earn an associate's degree or workforce certificate or be enrolled in a Texas two-year college, but the gaps in enrollment were quite small. These gaps generally were fewer than 5 percentage points.

3.7 Four-Year College Graduation and Persistence

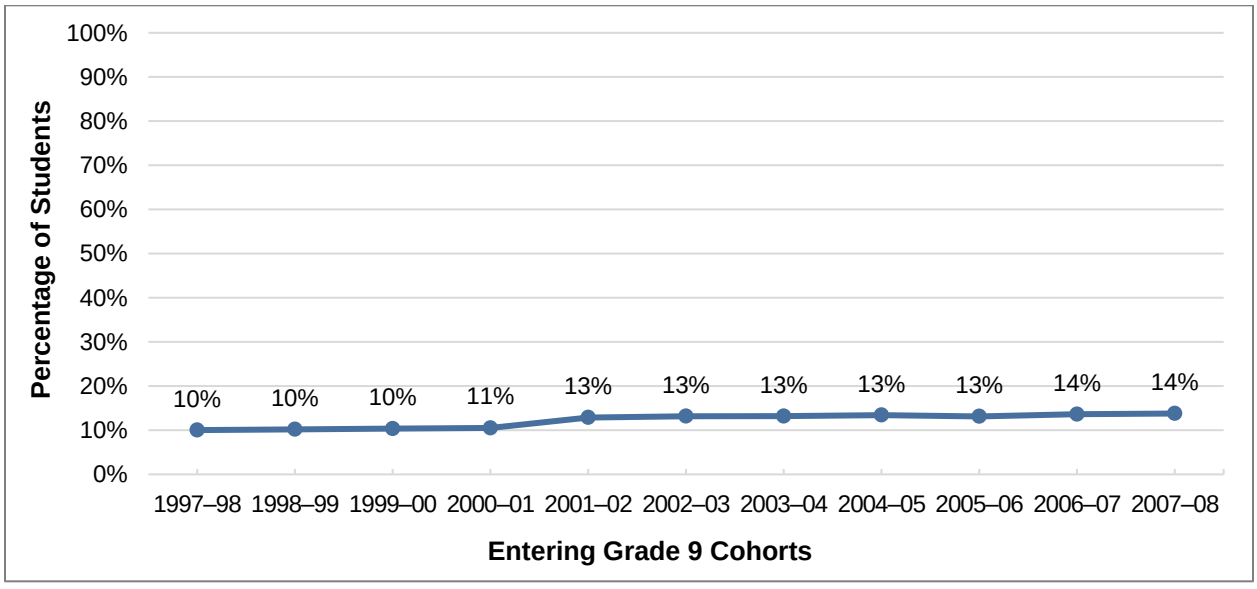
Similar to the previous section, this set of baseline student outcome analyses examined historical trends in students' four-year college graduation/persistence rates. THECB enrollment and degree-awarded files for public and independent four-year colleges and universities were used to investigate trends in four-year college graduation and persistence rates. These files contain data indicating whether a student is enrolled in a Texas public or independent four-year college or university or earned a bachelor's degree.

In the 2015 report, data were available for Texas public four-year colleges and universities for the entering Grade 9 cohorts of 1997–98 through 2005–06, as well as for Texas independent four-year

colleges and universities for the entering Grade 9 cohorts of 2001–02 through 2005–06. Data were now available for two additional cohorts of Grade 9 students: 2006–07 and 2007–08. Data for these cohorts have been added to the graph showing the percentage of entering Grade 9 students in each cohort who earned a bachelor's degree within four years or were still enrolled in a Texas four-year college or university within five years of a student's actual or expected high school graduation date. The denominator for these analyses represented all students who entered the cohort during Grade 9, including students who did not graduate or moved out of the state of Texas, and was not restricted to only those who enrolled in a four-year college.

Figure 3.6 displays the percentage of entering Grade 9 students in each cohort who earned a bachelor's degree within four years or were still enrolled in a Texas four-year college or university within five years of a student's actual or expected high school graduation date. As shown, the percentage of students in each cohort who earned a bachelor's degree within four years or were enrolled in a four-year college or university within five years of their actual or expected high school graduation date increased very little. There is almost no change over time—the percentage of students who earned a bachelor's degree within four years or were enrolled in a Texas public four-year college or university within five years of their actual or expected high school graduation date ranged from 10% of students in the 1997–98 cohort of entering Grade 9 students to 11% of students in the 2000–01 entering Grade 9 cohort. Beginning with the 2001–02 cohort, graduation data were available for Texas independent four-year colleges and universities. The inclusion of this data accounts for the 2 percentage-point increase in bachelor's degree completion and college persistence shown between the 2000–01 and 2001–02 cohorts. For entering Grade 9 students in the 2001–02 through the 2007–08 cohorts, there was a 1 percentage-point change in bachelor's degree completion or persistence.

Figure 3.6. Percentages of Students in Each Cohort Who Earned a Bachelor's Degree Within Four Years or Were Enrolled in a Texas Public or Independent Four-Year College or University Within Five Years of Actual or Expected High School Graduation Date



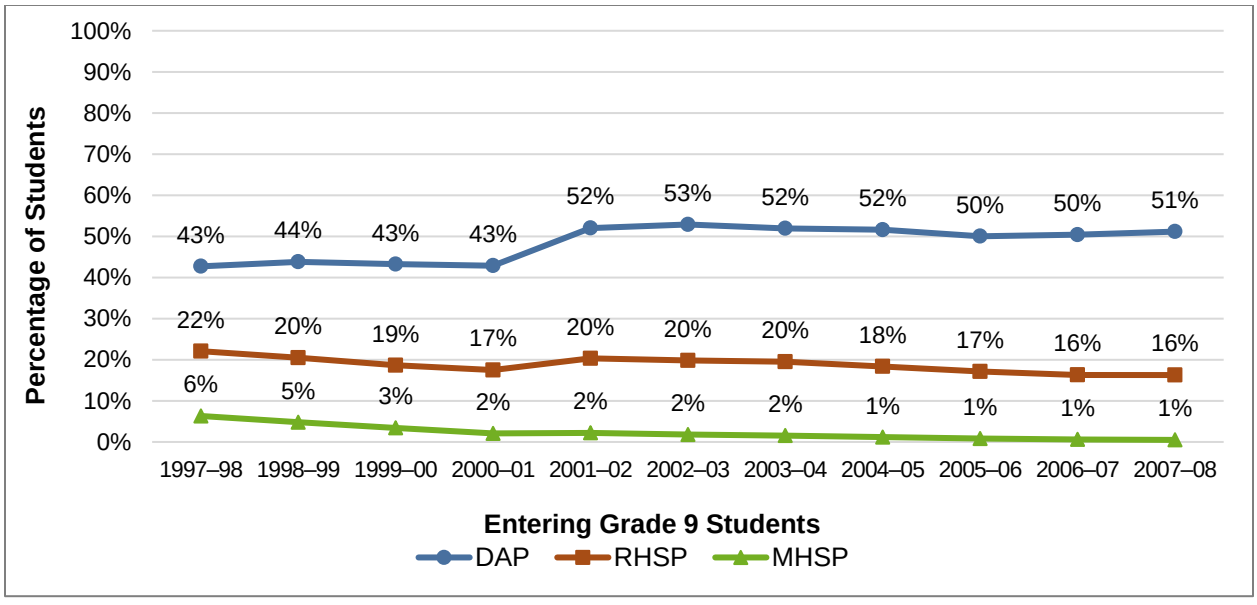
Source. Texas Higher Education Coordinating Board (THECB), Public University Graduation files, 1999–2016; THECB, Private and Independent University Graduation files, 2003–2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who earned a bachelor's degree from or were enrolled in a Texas public or independent four-year university or college within five years of their actual or expected high school graduation date. Data for Texas independent universities were not available for entering Grade 9 cohorts prior to 2001–02.

In Appendix D, Figure D21 displays the percentage of students who earned a bachelor's degree or were enrolled in a Texas public or independent four-year college or university within five years of their actual or expected high school graduation date by race/ethnicity. Across entering Grade 9 cohorts, Asian/Pacific Islander students were more likely to have earned a bachelor's degree or be enrolled in a Texas public or independent four-year college or university within five years of their actual or expected high school graduation date than White students (the next highest group) by at least 10 percentage points. The differences between Asian/Pacific Islander students and students from other racial/ethnic groups were even larger.

As shown in Figure 3.7, across cohorts, students who completed the DAP were considerably more likely to have earned a bachelor's degree or be enrolled in a Texas public or independent four-year college or university within five years of their actual or expected high school graduation date than students who completed other graduation programs. The difference between students who completed the DAP and students who completed the RHSP was consistently greater than 20 percentage points across cohorts. For students in the 2007–08 entering Grade 9 cohort, the difference was 35 percentage points. Although there appears to have been a 9 percentage-point increase (43% to 52%) between the 2000–01 and 2001–02 cohorts, this increase is largely attributable to the addition of independent four-year college and university data that had not been available for the calculation of prior cohorts.

Figure 3.7. Percentages of Students in Each Cohort Who Earned a Bachelor's Degree Within Four Years or Were Enrolled in a Texas Public or Independent Four-Year College or University Within Five Years of Actual or Expected High School Graduation Date, by High School Graduation Program



Source. Texas Higher Education Coordinating Board (THECB), Public University Graduation files, 1999–2013; THECB, Private and Independent University Graduation files, 2003–2013.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who earned a bachelor's degree from or were enrolled in a Texas public or independent four-year university or college within five years of their actual or expected high school graduation date by the type of high school diploma they completed—Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP. Data for Texas independent universities were not available for entering Grade 9 cohorts prior to 2001–02.

Additional analyses were conducted to examine the percentages of students in each cohort who earned a bachelor's degree within four years or were still enrolled in a Texas four-year college or university five years after their actual or expected high school graduation date for students who enrolled in a Texas four-year college within one year of their actual or expected high school graduation date. Figure D42 in Appendix D shows the results of these analyses. Data were available for Texas public four-year colleges and universities for the entering Grade 9 cohorts of 1997–98 through 2000–01 only. Across this period, the percentage of these students who earned a bachelor's degree within four years or were still enrolled in a four-year college or university within five years of enrolling in a Texas public four-year college or university fluctuated between 68% and 69% across cohorts. Data were available for Texas public and independent four-year colleges and universities for students in the entering Grade 9 cohorts of 2001–02 through 2007–08. For these cohorts, the percentages of students who earned a bachelor's degree within four years or were still enrolled in a four-year college or university within five years of enrolling in a Texas public four-year college or university increased from 71% to 75%.

3.8 Employment and Wages

Although the previous sections focus primarily on college readiness and enrollment, the final set of baseline student outcome analyses consider historical trends for career-related outcomes. This section explores trends in students' employment and wages one, three, and five years after the actual or expected high school graduation date.

The TWC quarterly employment data files were used to explore trends in employment and wages. Only the fourth-quarter TWC files were used in these analyses.[33] Employment and wage data from TWC are available only for individuals employed in Texas. Accordingly, students employed in other states were counted as unemployed in these analyses. The analyses included all students in the entering Grade 9 cohorts one, three, and five years after the students were expected to graduate based on four years to complete high school. Students who did not graduate or moved away from Texas are included in the original Grade 9 cohort.

Employment and median quarterly wage information is presented one, three, and five years after a student graduated or was expected to graduate from high school. The earnings data represent the highest wages earned among all jobs in which an individual was employed for the specific year.[34] If an individual was employed at more than one job during the fourth quarter, only the highest wage for the fourth quarter was used in the analyses. For example, if an individual held two part-time jobs, only the wages from the highest paying job were included in the analyses. Therefore, these numbers somewhat undercount actual wages across individuals.

For each set of analyses, compared to the previously published report, data were available for two additional cohorts. Employment and wage data were available as follows:

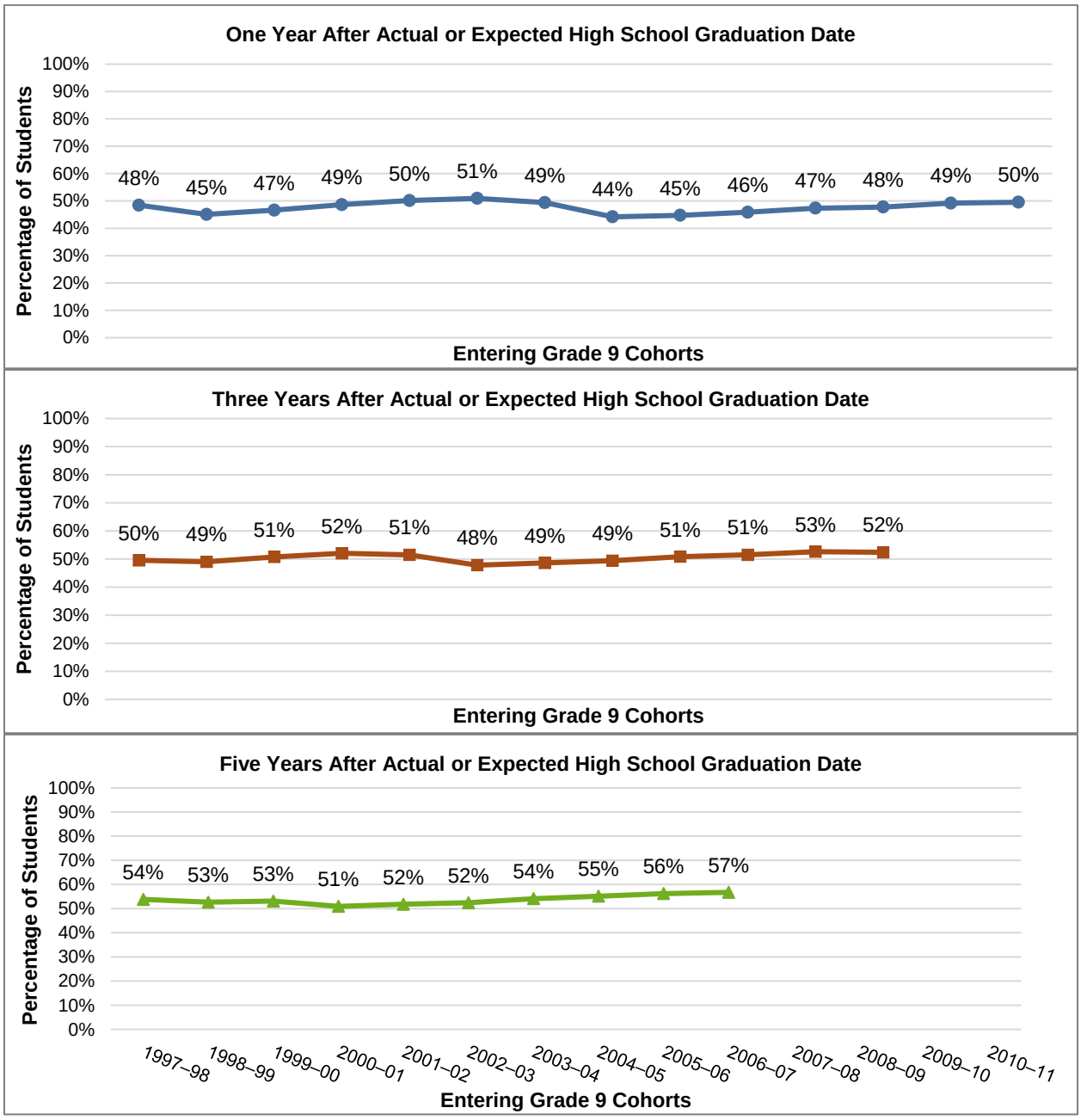
- One year after high school graduation: cohorts 1997–98 through 2010–11
- Three years after high school graduation: cohorts 1997–98 through 2008–09
- Five years after high school graduation: cohorts 1997–98 through 2006–07

Figure 3.8 presents the percentages of entering Grade 9 students in each cohort who were employed during the fourth quarter in the state of Texas one, three, and five years after their actual or expected high

[33] Higher education metrics often focus on the first semester following high school graduation, which generally coincides with October, November, and December, the fourth quarter of the same calendar year.
[34] Because no information about the number of hours worked is captured in these files, the highest wage obtained from a single job was compared across students.

school graduation date. As shown, the percentage of entering Grade 9 students in each cohort who were employed remained relatively stable across cohorts. One year after high school graduation, between 44% and 51% of students in each cohort were employed; three years after high school graduation, between 48% and 53% of students in each cohort were employed; and five years after high school graduation, between 51% and 57% of students in each cohort were employed.

Figure 3.8. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 One, Three, and Five Years After Actual or Expected High School Graduation Date

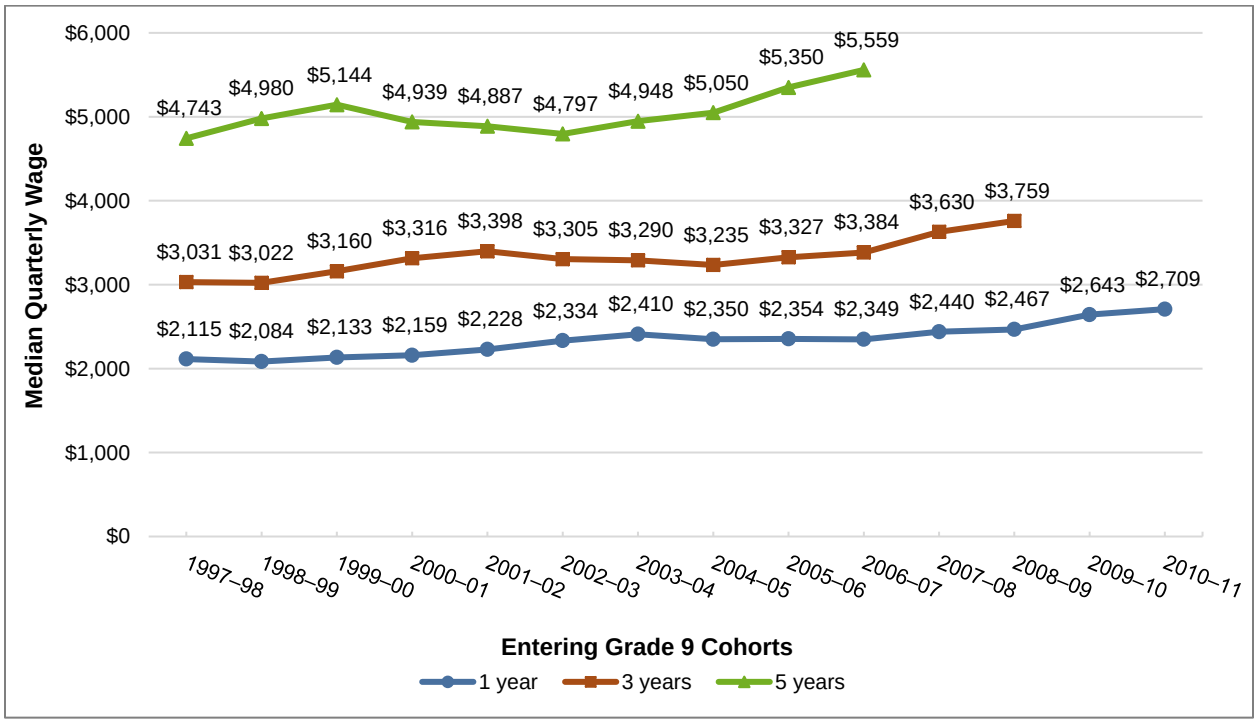


Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2014.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each

entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one, three, and five years after their actual or expected high school graduation date.

Figure 3.9 shows the median quarterly wages of the entering Grade 9 students in each cohort who were employed during the fourth quarter in the state of Texas one, three, and five years after high school graduation (actual or expected high school graduation date). These wages have not been adjusted for inflation or cost-of-living increases. Again, the median wages of entering Grade 9 students in each cohort who were employed during the fourth quarter in Texas changed relatively little across cohorts. However, the figure shows that the median quarterly wages of students in each cohort who were employed during the fourth quarter in Texas increased from one to three years after high school graduation and three to five years after high school graduation. One year after students' actual or expected high school graduation dates, Quarter 4 median wages ranged from $2,115 for students in the 1997–98 cohort to $2,709 for students in the 2010–11 cohort. Three years after students' actual or expected high school graduation dates, Quarter 4 median wages ranged from $3,031 for students in the 1997–98 cohort to $3,759 for students in the 2008–09 cohort. Finally, five years after students' actual or expected high school graduation dates, Quarter 4 median wages ranged from $4,743 for students in the 1997–98 cohort to $5,559 for students in the 2006–07 cohort.

Figure 3.9. Median Quarterly Wages for Students in Each Cohort Who Were Employed During Quarter 4 One, Three, and Five Years After Actual or Expected High School Graduation Date

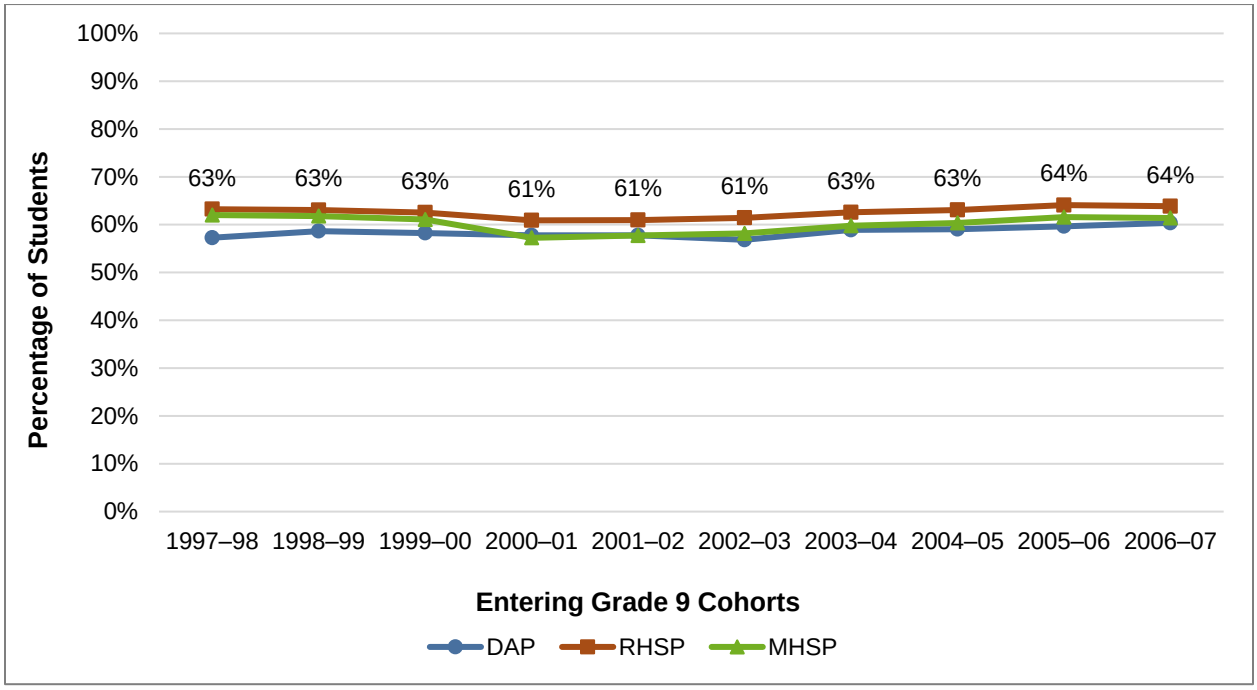


Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one, three, and five years after their actual or expected high school graduation date.

Results of the student group analyses showed that students who completed the MHSP, RHSP, or DAP were employed during the fourth quarter at approximately the same rate five years after their actual or expected high school graduation date. As shown in Figure 3.10, the employment rates of students who

completed each graduation program are nearly identical and change very little over time. The employment rates range from approximately 57% to 64% across cohorts.

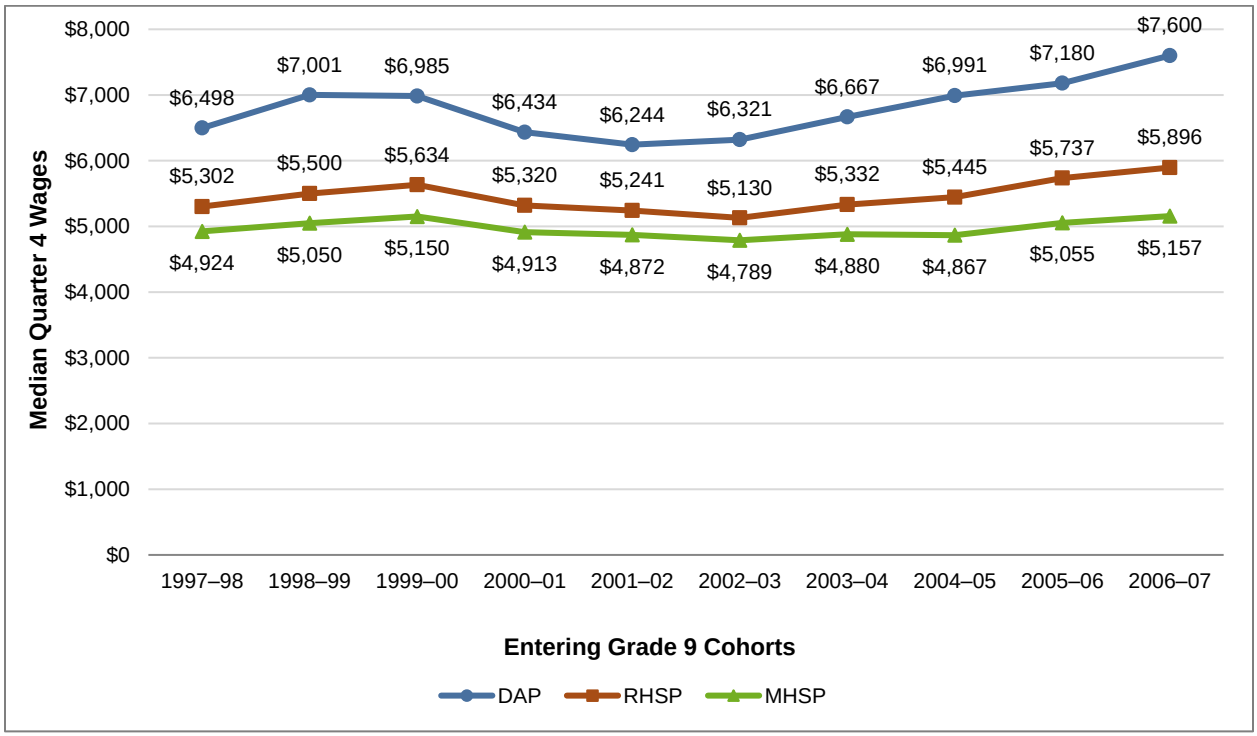
Figure 3.10. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 Five Years After Actual or Expected High School Graduation Date, by Graduation Program



Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2010.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year five years after their actual or expected high school graduation date by the type of high school graduation program they completed—Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

However, the results of the student group analyses revealed that the median quarterly wages of students who completed the DAP were considerably higher than those of students who completed the other graduation programs during the fourth quarter five years after actual or expected high school graduation. As shown in Figure 3.11, students in the 2006–07 cohort who completed the DAP earned approximately $1,700 more in the fourth quarter than students who completed the RHSP. The difference in median quarterly wages is likely because students who completed the DAP were more likely than students who completed any of the other graduation programs to have earned a bachelor's degree within four years or to be enrolled in a four-year college five years after their actual or expected graduation from high school.

Figure 3.11. Median Quarterly Wages for Students in Each Cohort Who Were Employed During the Fourth Quarter Five Years After Actual or Expected High School Graduation Date, by High School Graduation Program



Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year five years after their actual or expected high school graduation date by the type of high school graduation program they completed—Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

3.9 Summary

This chapter presents updates to outcomes for students who entered high school under the MHSP, RHSP, and DAP—students who entered Grade 9 in a Texas public high school during the 1997–98 through 2013–14 academic years. The updates provide additional data on the outcomes for two or three cohorts, depending on the outcome. Overall, the analyses were designed to provide context for future analyses that will examine the influence of HB 5 on students' college and career readiness outcomes for students required to graduate under the Foundation High School Program.

Results of these analyses revealed the following:

- High school graduation rates improved considerably across entering Grade 9 cohorts over time.

- Achievement gaps with regard to high school graduation decreased over time. There were large gaps in four-year high school graduation rates between students from different racial/ethnic backgrounds for students in the entering Grade 9 cohorts of 1997–98 through 2006–07; however, these gaps narrowed considerably for students in the entering Grade 9 cohorts of 2007–08 through 2012–13.

- Trends in TSI readiness rates in reading, mathematics, and writing also revealed improvement in these areas across entering Grade 9 cohorts from 2002–03 to 2010–11.

- Because of the significant changes in testing requirements for the 2011–12 cohort, the measured TSI readiness rates cannot be directly compared to rates of earlier cohorts for the purpose of describing trends in true college readiness. Approximately 60% of students in the 2011–12 cohort met TSI readiness standards in both reading and writing. A smaller percentage (50%) met readiness standards in mathematics.

The results also show improvements in four-year college graduation rates for students who enrolled in four-year colleges within one year of graduating from high school. Specifically, the results of the analyses show the following:

- Enrollment in Texas two-year and four-year colleges remained relatively consistent across entering Grade 9 cohorts.

- Trends in completion of two-year college degrees and certificates, as well as completion of four-year college degrees, also were relatively consistent across entering Grade 9 cohorts. However, the percentage of students who enrolled in a four-year college within one year of high school graduation who graduated from a four-year college within five years increased from 70% for the 2005–06 cohort to 75% for the 2007–08 cohort.

College outcomes did vary considerably by the type of high school diploma that a student earned:

- Across entering Grade 9 cohorts, students who completed the RHSP were the most likely to enroll in a Texas two-year college, followed by students who completed the MHSP.

- Similarly, across cohorts, students who completed the RHSP were more likely than students who completed the MHSP or DAP to earn an associate's degree, earn a workforce certificate, or be enrolled in a Texas two-year college within three years of graduating from high school, although the gaps in enrollment were quite small.

- Students who completed the DAP were the most likely to enroll in a Texas public or independent four-year college or university across entering Grade 9 cohorts.

- Across entering Grade 9 cohorts, students who completed the DAP were considerably more likely to have earned a bachelor's degree within four years or be enrolled in a Texas public or independent four-year college or university within five years of their actual or expected high school graduation date than students who completed other graduation programs.

Finally, the results did not show improvement in the percentage of students employed in the fourth quarter or in median quarterly wages across entering Grade 9 cohorts. However, the results did reveal large differences in wages during the fourth quarter five years following students' actual or expected high school graduation dates according to the type of high school graduation program they completed. Five years after students' actual or expected high school graduation dates, the median quarterly wages during the fourth quarter of students who completed the DAP were considerably higher than the wages of

students who completed the other graduation programs. Students who completed the DAP earned approximately $1,700 more in the fourth quarter than students who completed the RHSP.

4. Implementation of the Foundation High School Program

In 2014–15, Texas replaced the MHSP, RHSP, and DAP with the Foundation High School Program, which was established to provide students with additional flexibility and the opportunity to pursue a series of courses focused on their interests. The Foundation High School Program provides students with the opportunity to earn an endorsement in STEM, business and industry, public services, arts and humanities, or multidisciplinary studies, as well as a distinguished level of achievement.

One of two main objectives of the evaluation is to "evaluate the implementation of HB 5 on curriculum and testing requirements for high school graduation." This chapter presents the results of a 2016–17 survey of district administrative staff of public school districts in Texas with high schools. The survey collected information on actions taken by districts to implement the curriculum requirements of the Foundation High School Program. The survey focused on the following areas:

- The endorsements districts are offering in their high schools, and any changes made since 2014–15;[35]
- The options districts are offering for students to complete an endorsement and any new courses that districts created to meet advanced ELA, mathematics, or science requirements;
- Any barriers that districts faced in offering certain endorsements; and
- How districts have been communicating with students about high school graduation requirements, including how they assist students who transfer into their district unable to complete the endorsement they previously were pursuing because the receiving district did not offer the particular endorsement.

The survey was administered via unique hyperlink within an email to 1,084 superintendents from mid-March through mid-May 2017. Superintendents had the ability to designate one or more district staff to complete the survey on their behalf. The survey consisted of 36 items, and not all items required a response. Appendix F provides more information on the process of survey administration, follow-up of nonrespondents, and distribution of responses across the district characteristics mentioned previously.

The final number of districts completing the survey was 741, and the number of districts beginning but not finishing the survey was 82. Of the 82 districts that had opened the survey, 46 did not answer any of the survey items and therefore were not included in the analytic sample. The final number of districts within the analytic sample is 777, and the final response rate of districts included in the analytic sample is 72%.

The group of school districts responding was largely representative of all school districts in the state on characteristics such as district type, district size, state accountability rating in the 2015–16 school year, and student demographic group proportions in the district, including economically disadvantaged students, ELL students, students served in special education, and race/ethnicity groups (see Table F1 in Appendix F).[36] The total number of district representatives responding to each survey item and whether the question was required for survey completion are listed in the notes section below each figure. For each survey item, further disaggregation of responses by district type (e.g., charter, urban, district size in

[35] Respondents noted the courses that their districts offered students, but their responses do not represent the courses that students completed.

[36] *District type* refers to the following designations: charter, independent town, major suburban, major urban, nonmetropolitan fast growing, nonmetropolitan stable, other central city, other central city suburban, and rural.

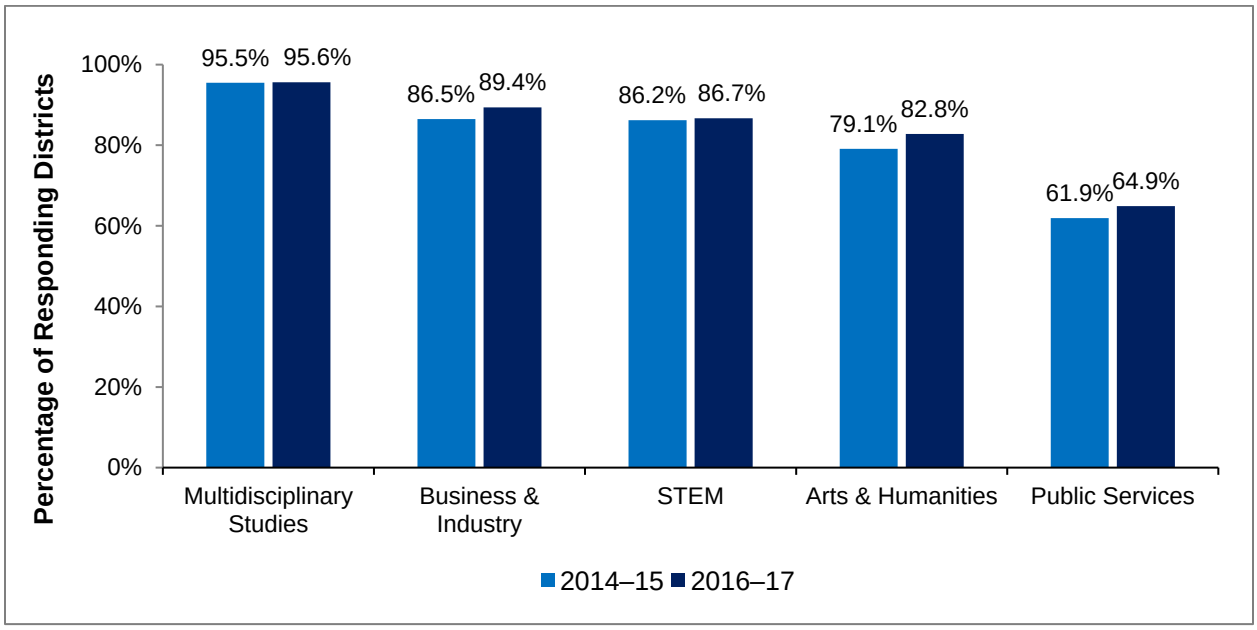
terms of student enrollment, state accountability rating, and postsecondary distinctions in the 2016 state accountability rating) can be found in Appendix G.

A similar 44-item survey was conducted in March through May 2015 as part of the 2015 evaluation. In 2015, the final number of districts within the analytic sample was 893, and the final response rate of districts included in the analytic sample was 81%. Although comparisons to 2015 results are summarized in this chapter, the same districts did not necessarily complete the survey both years. However, results are representative of the state in both years.

4.1 District Endorsement Offerings

Per Foundation High School Program requirements, five endorsements are available to high school students. Districts can offer one to five endorsements; however, districts that offer only one endorsement are required to offer multidisciplinary studies.[37] As displayed in Figure 4.1, multidisciplinary studies was the most frequently offered endorsement in 2014–15 and 2016–17, with 96% of districts offering the endorsement both years; public services was the least frequently offered, with 65% offering the endorsement in 2016–17, a slight increase from 2014–15. There also were slight increases in the percentage of districts offering the business and industry, STEM, and arts and humanities endorsements since 2014–15. Note that the percentages displayed within Figure 4.1 do not sum to 100% given that districts may offer more than one endorsement, and nearly all districts do offer more than one.

Figure 4.1. Percentages of Responding Districts Offering Each Endorsement, 2014–15 and 2016–17

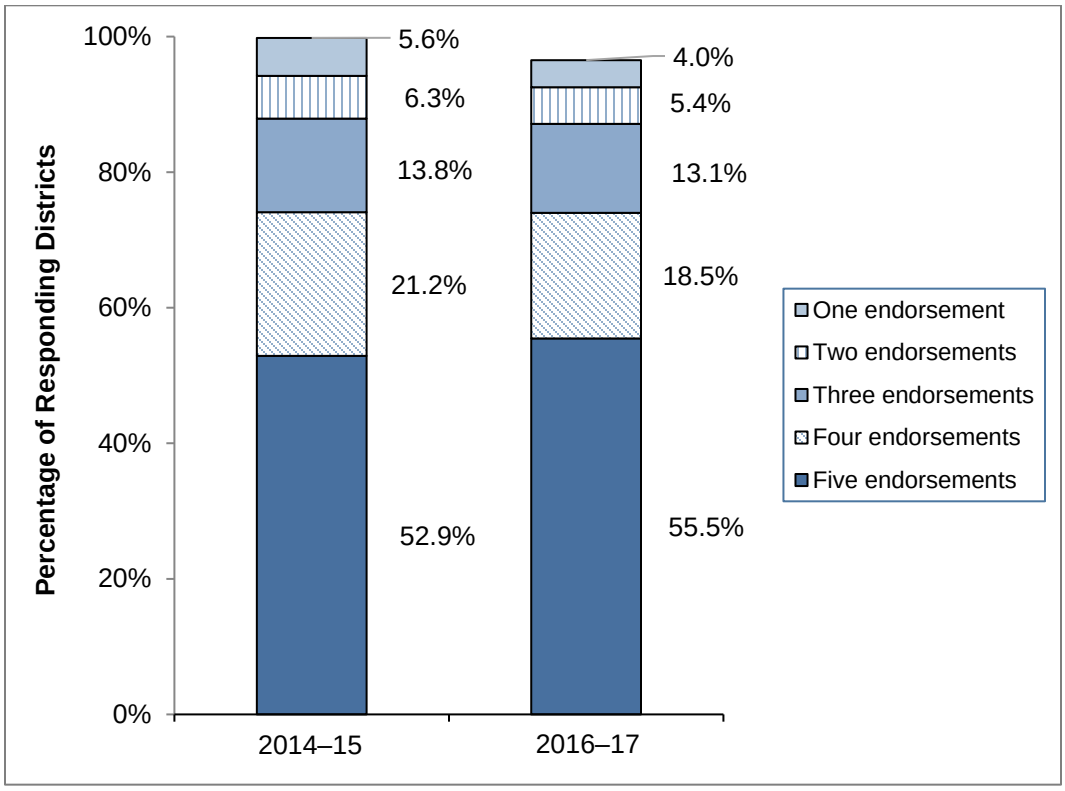


Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. *N* = 890 for 2015, and *N* = 760 for 2017. STEM = science, technology, engineering, and mathematics. Respondents were required to indicate whether they offered each endorsement. The same school districts may not have completed the survey for both evaluation years.

[37] Per TEC § 28.025 (c-4).

As Figure 4.2 displays, at least half of all responding districts (56%) offer all five possible endorsements, and 4% of districts offer only one endorsement. Compared to 2014–15, there was a slight increase in the number of districts offering five endorsements in 2016–17.

Figure 4.2. Percentages of Responding Districts Offering One to Five (All) Endorsements to Students, 2014–15 and 2016–17

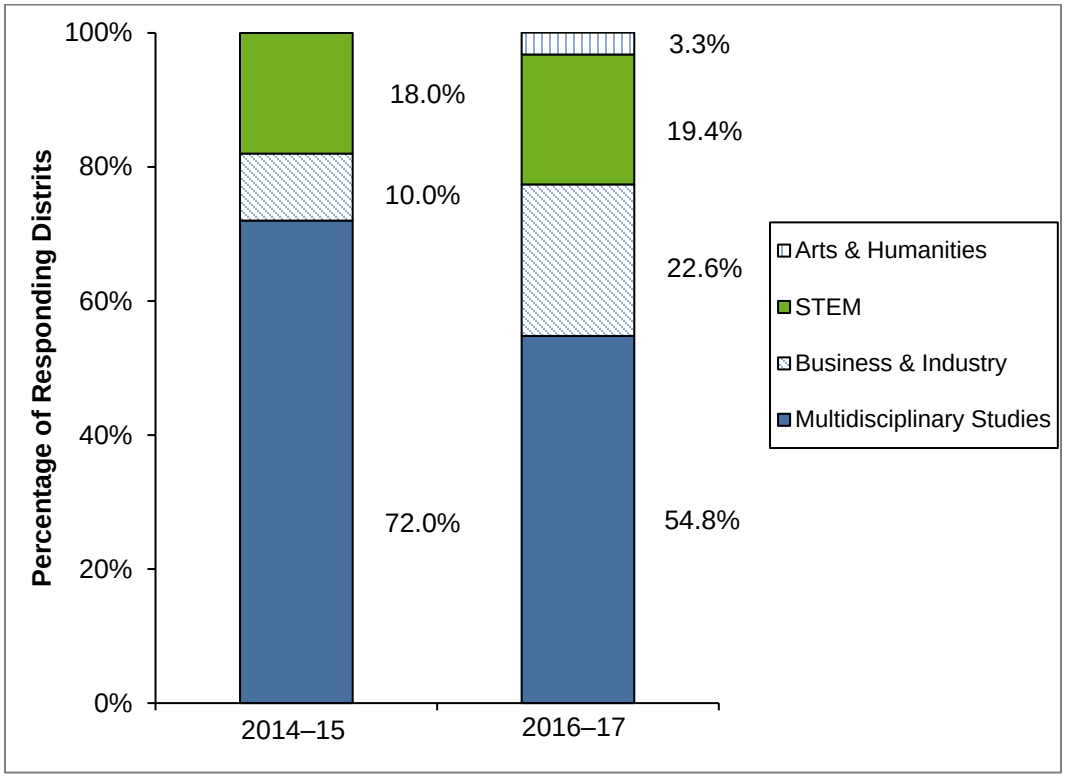


Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. *N* = 890 for 2015, and *N* = 777 for 2017. All districts are required by law to offer at least one endorsement to students. Some responding districts did not indicate which endorsements are offered to students; thus, they do not appear as part of the figure. The same school districts may not have completed the survey for both evaluation years.

Of the relatively small percentage of districts offering only one endorsement, about 55% of those districts selected the multidisciplinary endorsement to offer to students in 2016–17, compared to 72% of districts in 2014–15. However, the remaining 45% (14 districts) reported the STEM, arts and humanities, or business and industry endorsement as their sole endorsement offering, as displayed in Figure 4.3.[38] None of the districts offering only one endorsement in 2014–15 offered arts and humanities as its sole endorsement.

[38] Statute (TEC § 28.025 (c-4)) and TEA guidance state that districts that offer only one endorsement must offer multidisciplinary studies.

Figure 4.3. Types of Endorsements Offered by Responding Districts Providing Only One Endorsement to Students, 2014–15 and 2016–17

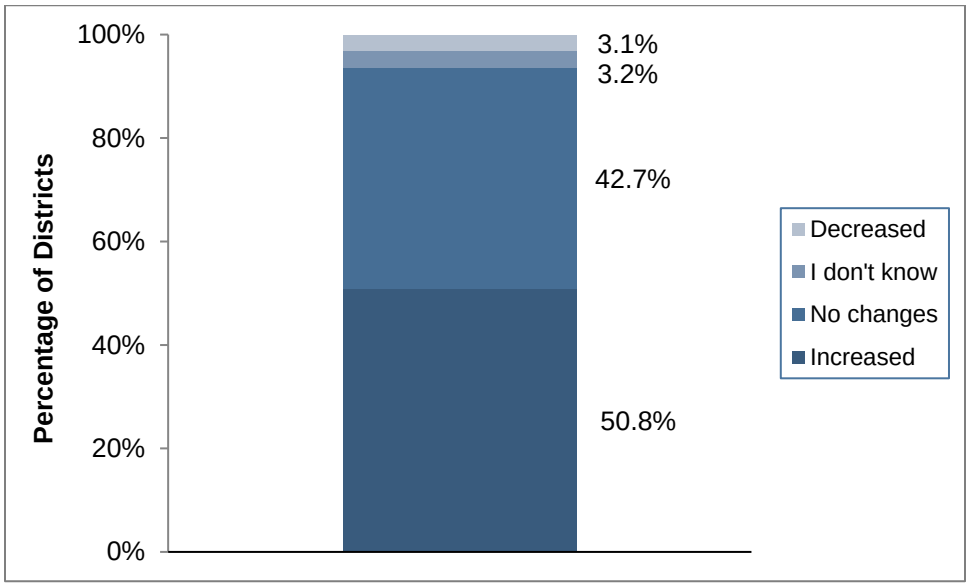


Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey and Spring 2017 District Survey (2017).
Notes. *N* = 50 for 2015, and *N* = 31 for 2017. STEM = science, technology, engineering, and mathematics. Respondents were required to complete these questions. The same school districts may not have completed the survey for both evaluation years.

Most districts with more than one high school reported providing the same endorsements to all high school campuses. According to data compiled from the 2016 Accountability Ratings, 231 of the responding districts, or 30%, have more than one high school campus. Of those districts, 95% reported offering the same endorsements at all high school campuses. Tables G17 through G32 in Appendix G show the types of endorsements offered by responding districts for districts offering two to five endorsements.

Districts also were asked what changes they made to the number of endorsement offerings since the 2014–15 academic year. As Figure 4.4 illustrates, more than half of responding districts (51%) reported that they increased the number of endorsement offerings since the 2014–15 academic year. Forty-three percent of responding districts made no change to the number of endorsement offerings, and 3% decreased the number of endorsement offerings.

Figure 4.4. Changes to Endorsement Offerings Since 2014–15



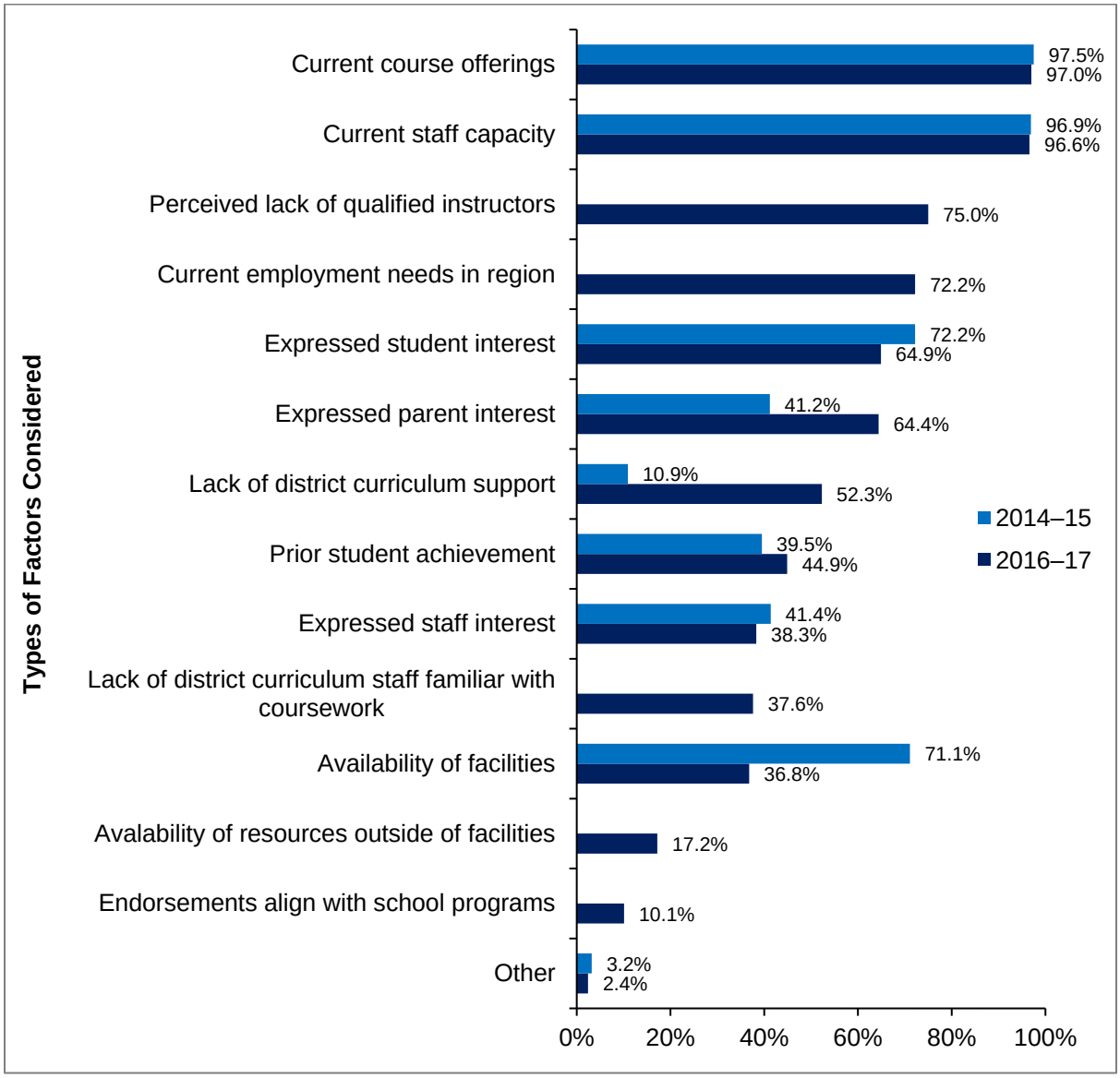
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. *N* = 744.

4.1.1. Factors Districts Considered When Deciding Which Endorsements to Offer

Districts were asked to respond to several items about the factors that were considered when making decisions about HB 5 implementation and the endorsements that would be offered to students in their high schools. Districts were able to select all that applied from a list of provided factors as well as provide any additional explanation of other factors considered.

As shown in Figure 4.5, nearly all districts (97%) reported considering current course offerings provided in their districts, as well as current staff capacity to teach the courses necessary to offer endorsements, prior to the implementation of HB 5. These two factors also were the top responses for the 2014–15 survey, and they had the same percentages. A majority of districts also reported taking into consideration the lack of qualified instructors (75%) as well as current employment needs in the region (72%), expressed student and parent interest (65% and 64%, respectively), and lack of district curriculum support (52%). In the open-ended response, 146 districts cited other factors that they had taken into consideration. Twelve of these 146 districts referenced existing district partnerships with community colleges, universities, and other organizations to offer specific services, such as student access to advanced technology labs. The remaining responses were elaborations on categories already selected and displayed in Figure 4.5.

Figure 4.5. Factors That Districts Considered When Deciding Which Endorsements to Offer, 2014–15 and 2016–17



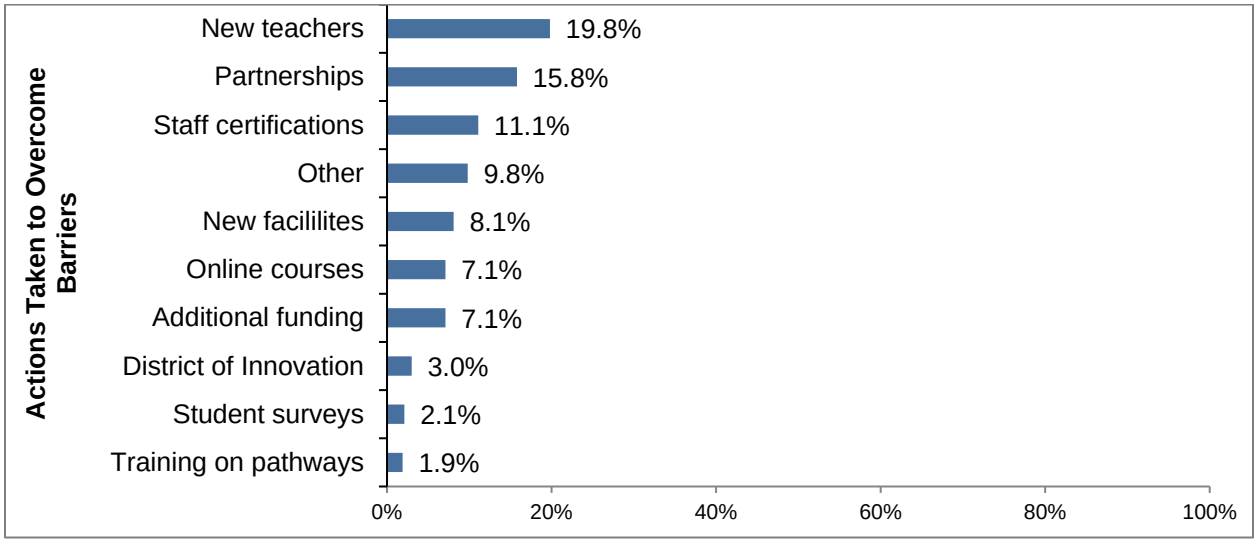
Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. *N* = 888 for 2015, and *N* = 744 for 2017. Respondents could select more than one factor and were not required to complete this item. The same school districts may not have completed the survey for both evaluation years. Types of factors considered without a comparison year were not included on both the 2015 and 2017 surveys.

4.1.2. Barriers to Offering Endorsements

Districts were asked to describe any barriers they faced in offering certain endorsements. Figure 4.6 shows how districts overcame barriers to offering certain endorsements since the 2014–15 academic year. The most popular action that districts took to overcome barriers to offering certain endorsements was to recruit and hire new teachers certified in the areas needed or with the necessary skills to teach within the endorsements (20%). Districts reported building partnerships with other school districts, local community colleges, universities, employers, and industries in order to provide courses and opportunities within the endorsements (16%). Districts also reported encouraging staff to pursue certifications necessary to teach

much-needed courses (11%), and constructing (or making plans to construct) new facilities to support the endorsement offerings (8%). Seven percent of districts pursued online courses for advanced courses that they did not currently offer, and 7% obtained additional funding to support their endorsement offerings. Three percent of districts reported that they were in the process of becoming designated as a District of Innovation.

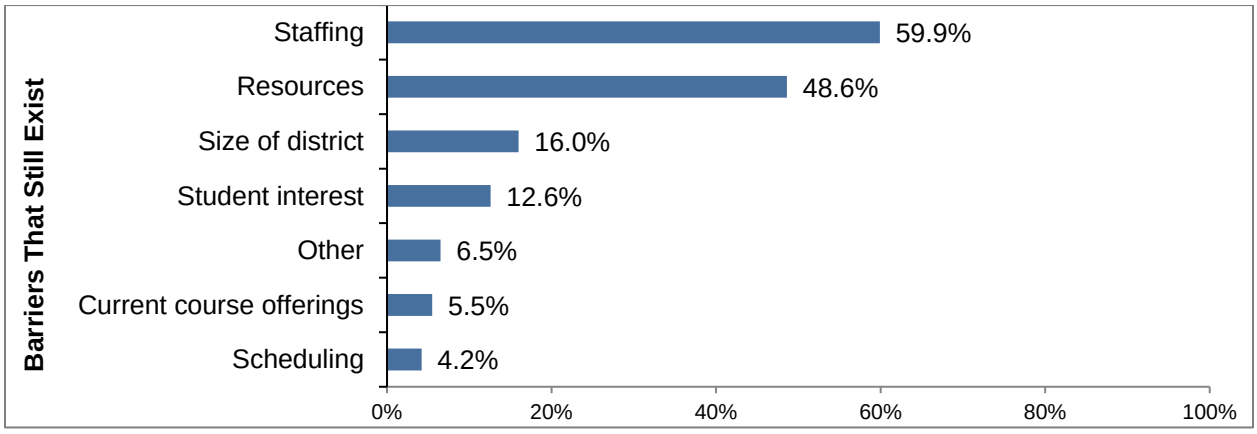
Figure 4.6. Actions Taken to Overcome Barriers to Offering Certain Endorsements Since 2014–15



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. N = 420. Respondents had an opportunity to provide an open-text description of the actions taken to overcome barriers to offering certain endorsements since the 2014–15 academic year. This item was not required.

Districts were asked to describe any barriers to offering certain endorsements that still exist in 2016–17. As shown in Figure 4.7, more than half of respondents (60%) reported staffing concerns around teacher qualifications and staff capacity as a continued barrier to offering certain endorsements. Slightly fewer than half of respondents reported a lack of resources (funding, curriculum, facilities, equipment, etc.) as a continued barrier. Less cited responses include a district's current course offerings (6%) and scheduling obstacles (4%).

Figure 4.7. Barriers to Offering Certain Endorsements That Still Exist in 2016–17



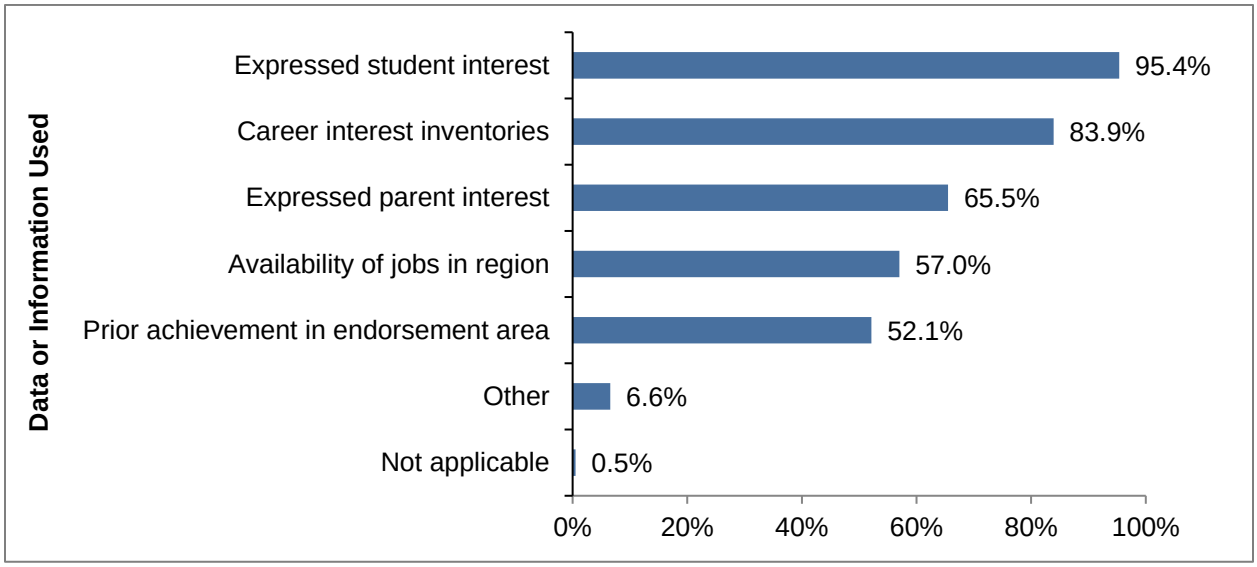
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).

Notes. N=506. Respondents had an opportunity to provide an open text description of the barriers to offering certain endorsements that still exist in 2016–17. This item was not required.

4.1.3. Encouraging Endorsement Selection and the Distinguished Level of Achievement

Districts were asked about any data or information that is used to recommend particular endorsements to students, and any specific actions being taken by the district to encourage the completion of the distinguished level of achievement. As shown in Figure 4.8, most districts (95%) used expressed student interest when recommending particular endorsements to students. Many districts (84%) also reported using career interest inventories when recommending particular endorsements to students. The remaining responses were elaborations on categories already selected and are displayed in Figure 4.8.

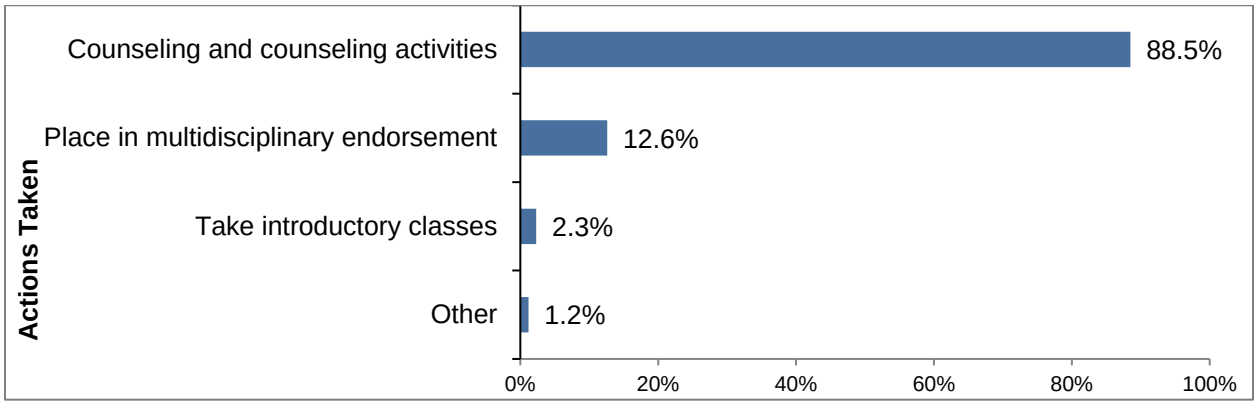
Figure 4.8. Data or Information Used to Recommend Particular Endorsements in 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. *N* = 777. Respondents were required to complete this item.

On the survey, districts were asked what actions they took to support students who were undecided about which endorsement to take. As shown in Figure 4.9, the majority of districts (89%) reported that they supported undecided students through counseling and counseling activities (such as completing interest inventories, organizing information nights and career/college fairs, meeting with parents, and providing informational materials on the various endorsements). Thirteen percent of districts reported that they encouraged undecided students to choose the multidisciplinary endorsement. Two percent of districts reported that they enrolled students in introductory courses across the various endorsements so that they could experience firsthand what the endorsement entailed.

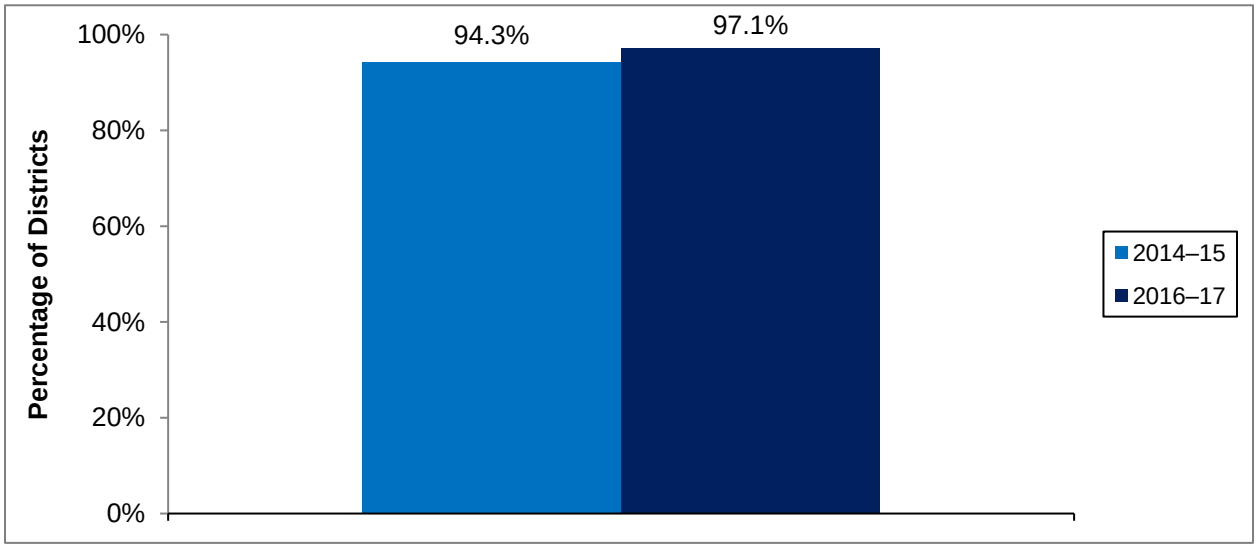
Figure 4.9. Actions Taken to Support Undecided Students in Choosing an Endorsement in 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. N = 642. Respondents had an opportunity to provide an open-text description of actions their district took to support undecided students in choosing an endorsement. This item was not required.

Districts also were asked whether they encouraged students to earn a distinguished level of achievement. As shown in Figure 4.10, the vast majority of districts (97%) reported encouraging students to complete the distinguished level of achievement in 2016–17. This is slightly higher than the 94% of districts who reported encouraging students to complete the distinguished level of achievement in 2014–15. Out of responding districts, 95% of districts that received a postsecondary distinction in the 2016 Accountability Ratings also encouraged students to complete the distinguished level of achievement (see Figure G14 in Appendix G).

Figure 4.10. Percentage of Districts That Encouraged Students to Earn the Distinguished Level of Achievement, 2014–15 and 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. N = 889 for 2015, and *N* = 765 for 2017. Respondents were not required to complete this item. The same school districts may not have completed the survey for both evaluation years.

When asked to report which actions the district was taking to encourage completion of the distinguished level of achievement, 91% of districts reported that guidance counselors were encouraging students to earn the distinguished level of achievement (see Table 4.1). A majority of responding districts also

reported that the distinguished level of achievement was promoted at parent meetings (76%), in meetings with students (69%), by teachers (59%), and in the student handbook (58%). Districts also reported encouraging students to complete Algebra II (71%) and automatically including coursework toward the distinguished level of achievement (61%). Slightly fewer than half of responding districts (46%) reported requiring students to complete Algebra II to graduate from high school. In addition, approximately 23% of districts reported promoting the distinguished level of achievement on their website.

Compared to 2014–15, a greater percentage of districts now report automatically including coursework toward the distinguished level of achievement (49% in 2015 versus 61% in 2017), promoting the distinguished level of achievement in the student handbook (49% in 2015 versus 58% in 2017), and requiring students to complete Algebra II for graduation (37% in 2015 versus 46% in 2017). A smaller percentage of districts reported promoting the distinguished level of achievement at parent meetings (82% in 2015 versus 76% in 2017) and at student meetings (75% in 2015 versus 69% in 2017).

Table 4.1. District Actions Taken to Encourage the Distinguished Level of Achievement, 2014–15 and 2016–17

Action Taken	2014–15 Percentage of Districts	2016–17 Percentage of Districts
Counselors Encourage Distinguished Level of Achievement	91.8%	90.9%
District Promotes at Parent Meetings	81.6%	75.9%
District Encourages Students to Complete Algebra II	72.0%	70.5%
District Promotes at Student Meetings	74.7%	68.6%
District Automatically Includes Coursework Toward Distinguished Level of Achievement	49.2%	60.7%
Teachers Encourage Distinguished Level of Achievement	60.4%	59.4%
District Promotes Distinguished Level of Achievement in Student Handbook	48.5%	57.5%
District Requires Students to Complete Algebra II for Graduation	36.8%	45.6%
District Promotes Distinguished Level of Achievement on Website	23.5%	23.3%
District Promotes Distinguished Level of Achievement in Other Ways	5.0%	2.7%

Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. N = 830 for 2015, and *N* = 743 for 2017. Respondents received this question if they reported encouraging students to earn the distinguished level of achievement but were not required to complete this item. The same school districts may not have completed the survey for both evaluation years.

4.2 Options Available Under Each Endorsement

As mentioned earlier, districts made choices about which of the five endorsements to offer to students in their high schools; at the same time, districts made many additional choices about which course options would be available to students to complete each endorsement selected. The five endorsements each had between two and five possible options approved by the State Board of Education (SBOE), and districts could offer multiple endorsement options, any of which students could complete. This section presents the percentage of responding districts offering each endorsement option, including applicable CTE career clusters.

4.2.1. Arts and Humanities Options Offered

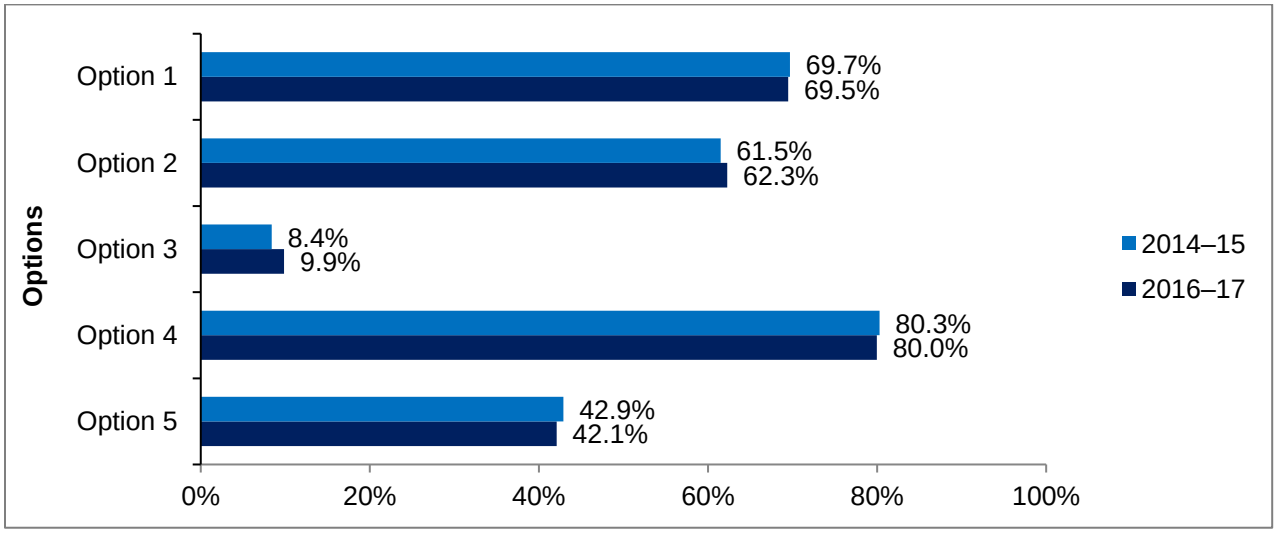
As shown in Table 4.2, five options were approved by the SBOE for the arts and humanities endorsement. Social studies, languages other than English, American Sign Language, approved fine arts or innovative courses, or approved English elective courses are all possible options for a district to offer students to complete the endorsement.

Table 4.2. Options to Complete the Arts and Humanities Endorsement

Option	Description
1	A total of five social studies credits
2	Four levels of the same language in a language other than English OR two levels of the same language in a language other than English and two levels of another language other than English
3	Four levels of American Sign Language
4	A coherent sequence of four credits by selecting courses from one or two categories or disciplines in fine arts or innovative courses approved by the commissioner
5	Four English elective credits from the list of approved courses

As shown in Figure 4.11, a majority of districts offering this endorsement reported offering Option 4 (disciplines in fine arts, 80%), Option 1 (social studies courses, 70%), or Option 2 (four levels of one language or two levels of two languages, 62%) in 2016–17. Districts reported similar responses for the 2014–15 survey.

Figure 4.11. Types of Arts and Humanities Options Offered by Responding Districts, 2014–15 and 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. N = 704 for 2015, and *N* = 639 for 2017. Respondents received this item only if they reported offering the arts and humanities endorsement. Respondents could select more than one option and were required to complete this item. The same school districts may not have completed the survey for both evaluation years.

4.2.2. Business and Industry Options Offered

As shown in Table 4.3, four options were approved by the SBOE for the business and industry endorsement. Combinations of courses in CTE, English courses from approved areas, and technology applications courses are all possible options for a district to offer students to complete the endorsement.

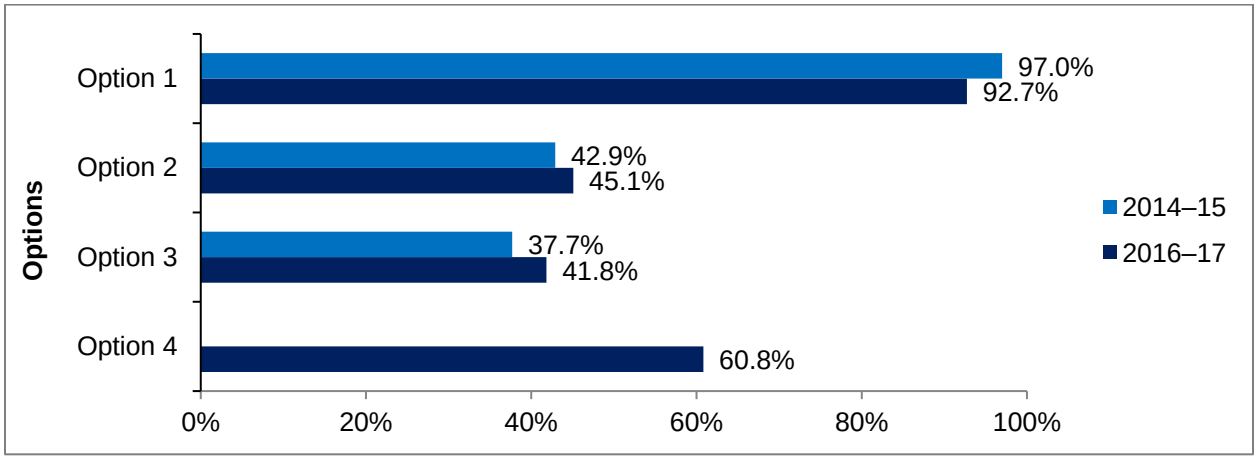
Table 4.3. Options to Complete the Business and Industry Endorsement

Option	Description
1	A coherent sequence of courses for four or more credits in career and technical education (CTE) that consists of at least two courses in the same career cluster, including at least one advanced CTE course, which includes any course that is the third or higher course in a sequence. The courses may be selected from courses in all CTE career clusters or CTE innovative courses approved by the commissioner of education.[a]
2	Four English elective credits by selecting three levels from approved areas.
3	Four technology applications credits from approved areas.
4	A coherent sequence of four credits from Options 1, 2, or 3.

[a] The ten career cluster options are displayed in Figure 4.13.

As shown in Figure 4.12, nearly all (93%) districts that offered this endorsement reported offering Option 1 in 2016–17, less than the 97% of districts in 2014–15 who reported offering it. Sixty percent offered Option 4 (a sequence from Options 1, 2, or 3). Fewer than half of the districts offering the endorsement allowed Option 2 (approved English courses, 45%) or Option 3 (technology applications courses, 42%).

Figure 4.12. Types of Business and Industry Options Offered by Responding Districts, 2014–15 and 2016–17

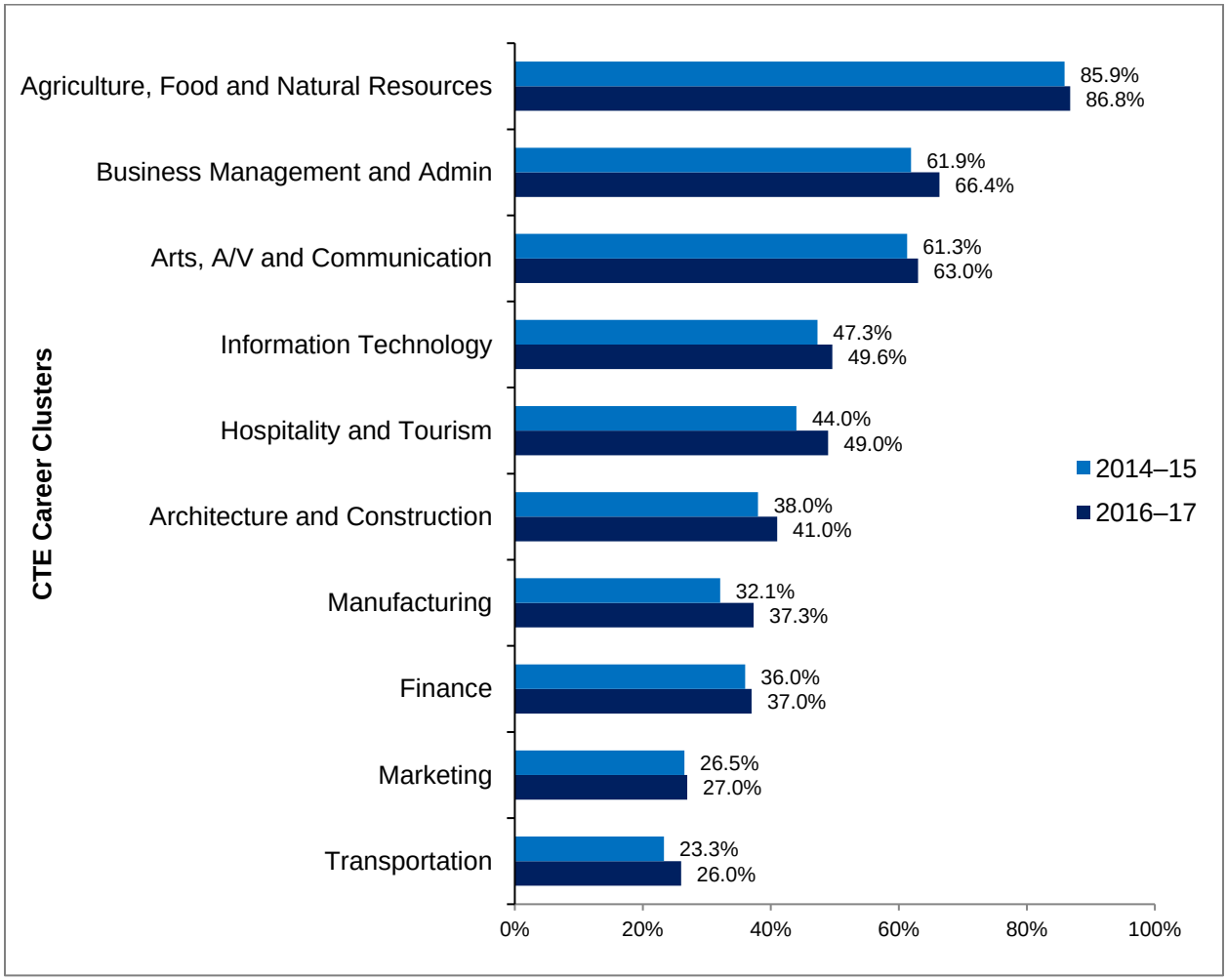


Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. N = 770 for 2015, and *N* = 674 for 2017. Respondents received this question only if they reported offering the business and industry endorsement. Respondents could select more than one option and were required to complete this item. In 2015, districts were not asked whether they offered Option 4 on the survey because of an inadvertent omission during survey development. The same school districts may not have completed the survey for both evaluation years.

Within Option 1—the coherent sequence of CTE courses—10 possible career clusters were approved by the SBOE. Figure 4.13 displays the percentage of reporting districts offering Option 1 that offered each of the possible CTE career clusters. A majority of reporting districts offered the Agriculture, Food, and Natural Resources Career Cluster (87%), followed by the Business Management and Administration

Career Cluster (66%), the Arts, Audio/Visual, and Communication Career Cluster (63%), and the Information Technology Cluster (50%). These three CTE career clusters also were the top options of 2014–15 survey respondents. The remaining six career clusters displayed in Figure 4.13 were offered by fewer than half of the districts offering Option 1 to complete this endorsement.

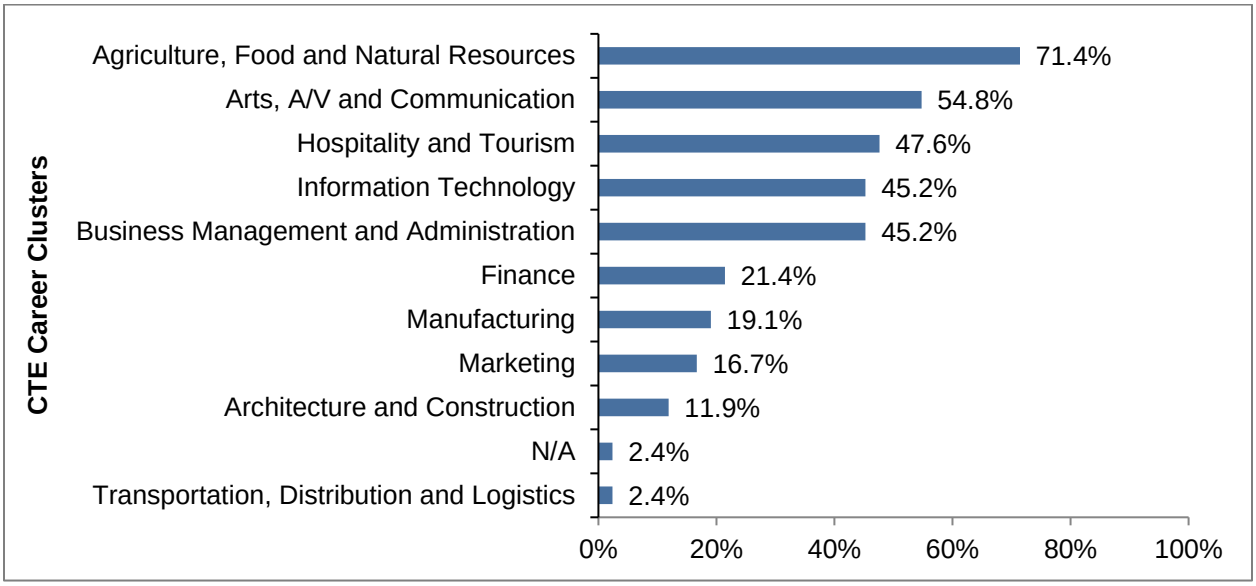
Figure 4.13. Types of Business and Industry CTE Career Clusters Offered by Districts That Offer Option 1, 2014–15 and 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. *N* = 747 for 2015, and *N* = 627 for 2017. CTE = career and technical education. A/V = audio/visual. Respondents received this question only if they reported offering Option 1 within the business and industry endorsement. They could select more than one cluster and were required to complete this item. The same school districts may not have completed the survey for both evaluation years.

Within Option 4—the coherent sequence of four credits from Options 1, 2, or 3—ten possible career clusters may be approved by the SBOE. Figure 4.14 displays the percentage of reporting districts offering Option 4 that offered each of the possible CTE career clusters. A majority of reporting districts offered the Agriculture, Food, and Natural Resources Career Cluster (71%), followed by the Arts, Audio/Visual Technology and Communications Career Cluster (55%). The remaining eight career clusters displayed in Figure 4.14 were offered by fewer than half of the districts offering Option 4 to complete this endorsement.

Figure 4.14. Types of Business and Industry CTE Career Clusters Offered by Districts That Offer Option 4 in 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. N = 42. CTE = career and technical education. A/V = audio/visual. Respondents received this question only if they reported offering Option 4 (and not Option 1) within the business and industry endorsement. They could select more than one cluster and were required to complete this item.

4.2.3. Multidisciplinary Studies Options Offered

As shown in Table 4.4, three options were approved by the SBOE for the multidisciplinary studies endorsement. For Option 1, four advanced courses from any of the endorsement areas or within one endorsement area that were judged by the district to "prepare a student to enter the workforce successfully or postsecondary education without remediation" can be used to fulfill the option. For Option 2, four credits within each of the four foundation subject areas (ELA, mathematics, science, and social studies), including English IV and chemistry and/or physics, fulfilled the option. For Option 3, four credits of Advanced Placement® (AP®), International Baccalaureate® (IB®), or dual-credit courses selected from English, mathematics, science, social studies, economics, languages other than English, or fine arts satisfy the option.

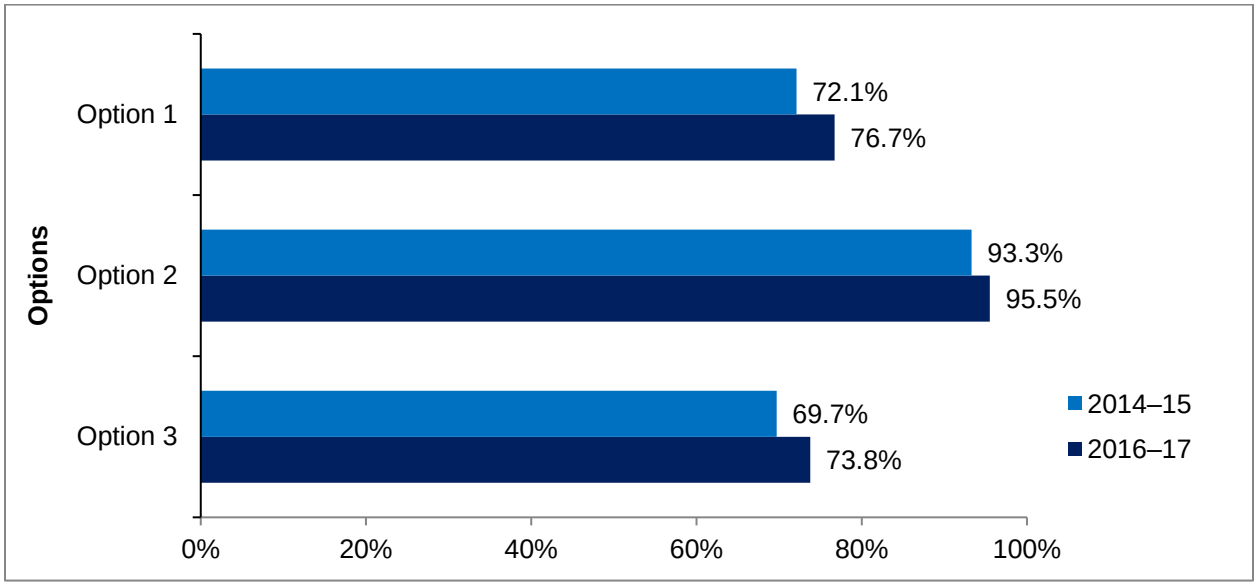
Table 4.4. Options to Complete the Multidisciplinary Studies Endorsement

Option	Description
1	Four advanced courses that prepare a student to enter the workforce successfully or postsecondary education without remediation from within one endorsement area or among endorsement areas that are not in a coherent sequence.
2	Four credits in each of the four foundation subject areas to include English IV and chemistry and/or physics.
3	Four credits in AP, IB, or dual-credit courses selected from English, mathematics, science, social studies, economics, languages other than English, or fine arts.

As shown in Figure 4.15, a large majority of districts responding to the 2016–17 survey offered Option 2 (four credits in foundation subject areas including English IV and chemistry and/or physics, 96%), followed by Option 1 (four advanced courses from any of the endorsement areas or within one

endorsement area that were judged to "prepare a student to enter the workforce successfully or postsecondary education without remediation," 77%) and Option 3 (four credits in AP, IB, or dual-credit courses, 74%). There was a similar response pattern for the 2014–15 survey, with a greater percentage of districts in 2016–17 reporting that they offered each of the three options.

Figure 4.15. Types of Multidisciplinary Studies Options Offered by Responding Districts, 2014–15 and 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. N = 850 in 2015, and *N* = 713 in 2017. Respondents received this item only if they reported offering the multidisciplinary studies endorsement. Respondents could select more than one option and were required to complete this item. The same school districts may not have completed the survey for both evaluation years.

4.2.4. Public Services Endorsement Options Offered

Two options were approved by the SBOE for the public services endorsement, as Table 4.5 illustrates. Combinations of courses in five CTE career clusters approved by the SBOE or four courses in the Junior Reserve Officer Training Corps (JROTC) are allowed.

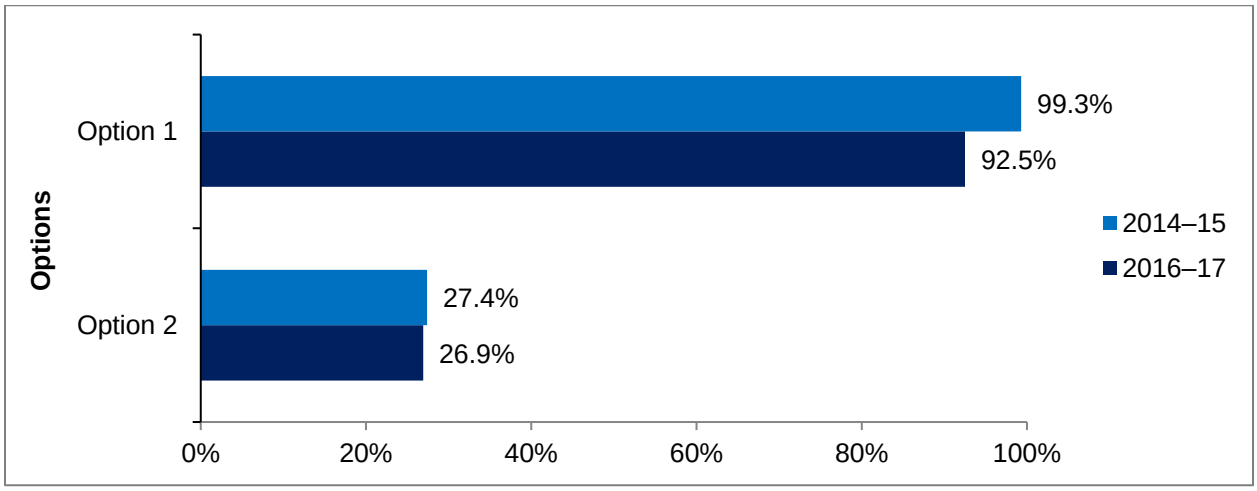
Table 4.5. Options to Complete the Public Service Endorsement

Option	Description
1	A coherent sequence of courses for four or more credits in career and technical education (CTE) that consists of at least two courses in the same career cluster including at least one advanced CTE course, which includes any course that is the third or higher course in a sequence. The courses may be selected from courses in all CTE career clusters or CTE innovative courses approved by the commissioner of education.[a]
2	Four courses in Junior Reserve Officer Training Corps.

[a] The five career cluster options are displayed in Figure 4.17.

As shown in Figure 4.16, nearly all responding districts offering this endorsement chose Option 1 (CTE courses, 93%), whereas 27% of districts offering this endorsement chose Option 2 (JROTC). In 2014–15, nearly all responding districts offering this endorsement chose Option 1 (99%).

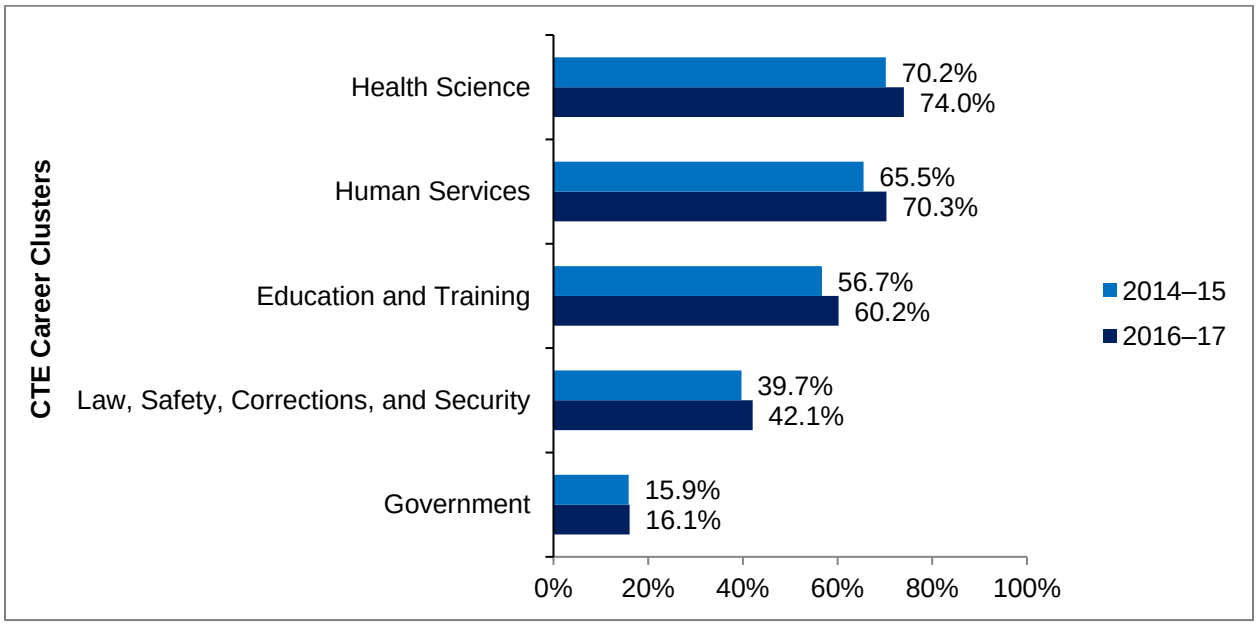
Figure 4.16. Types of Public Service Options Offered by Responding Districts, 2014–15 and 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. *N* = 551 for 2015, and *N* = 520 for 2017. Respondents received this item only if they reported offering the public service endorsement. Respondents could select more than one option and were required to complete this item. The same school districts may not have completed the survey for both evaluation years.

Of districts offering Option 1 (CTE courses), a majority reported offering the Health Science Career Cluster (74%), Human Services Career Cluster (70%), and Education and Training Career Cluster (60%), as displayed in Figure 4.17. A greater percentage of districts reported that they offered each of the five clusters in 2014–15.

Figure 4.17. Types of Public Services CTE Career Clusters Offered by Responding Districts, 2014–15 and 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. N = 547 in 2015, and *N* = 485 in 2017. CTE = career and technical education. Respondents received this question only if they reported offering Option 1 within the public service endorsement. They could select more than one option and were required to complete this item. The same school districts may not have completed the survey for both evaluation years.

4.2.5. STEM Options Offered

Five STEM options were approved by the SBOE, as Table 4.6 shows. Combinations of courses in CTE, computer science, mathematics, or science were all possible options for a district to offer students. The fifth option allows students to take three additional credits from a maximum of two disciplines that are represented in options (1)–(4).

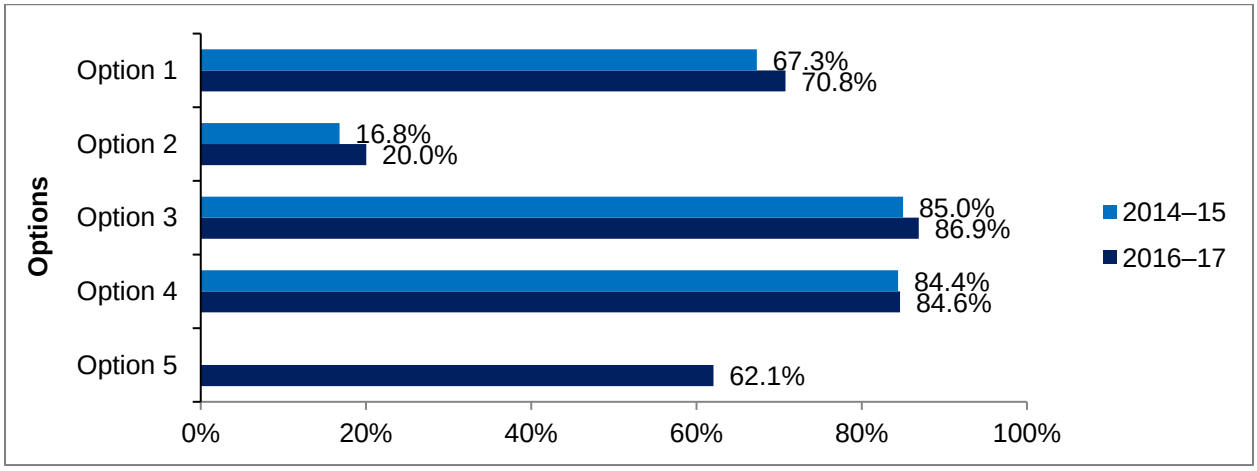
Table 4.6. Course Sequence Options to Complete the STEM Endorsement

Option	Description
1	A coherent sequence of courses for four or more credits in CTE that consists of at least two courses in the same career cluster, including at least one advanced CTE course, which includes any course that is the third or higher course in a sequence. The courses may be selected from courses in all CTE career clusters or CTE innovative courses approved by the commissioner of education. The final course in the sequence must be selected from the STEM career cluster.
2	A coherent sequence of four credits in computer science.
3	A total of five mathematics credits earned by successfully completing Algebra I, geometry, Algebra II, and two additional mathematics courses for which Algebra II is a prerequisite.
4	A total of five credits in science by successfully completing biology, chemistry, physics, and two additional science courses.
5	In addition to Algebra II, chemistry, and physics, a coherent sequence of three additional credits from one or two disciplines represented by the other options.

Notes. STEM = science, technology, engineering, and mathematics. CTE = career and technical education.

As Figure 4.18 illustrates, a large majority of districts offered Option 3 (mathematics, 87%), Option 4 (science, 85%), and Option 1 (CTE, 71%). Relatively few districts offered Option 2 (computer science, 20%). There was a similar response pattern for the 2014–15 survey, with a greater percentage of districts in 2016–17 reporting that they offered each of the five options.

Figure 4.18. Types of STEM Options Offered by Responding Districts, 2014–15 and 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015) and Spring 2017 District Survey (2017).
Notes. N = 767 in 2015, and *N* = 664 in 2017. STEM = science, technology, engineering, and mathematics. Respondents received this question only if they reported offering the STEM endorsement. Respondents could select more than one option and were required to complete this item. The same school districts may not have completed the survey for both evaluation years. In 2015, districts were not asked whether they offered Option 5 on the survey because of an inadvertent omission during survey development. In 2015, 11 of the 710 districts that provided an open-ended response describing how they decided which options to offer to complete the STEM endorsement reported that they offered the fifth option to their students.

4.3 District Barriers for Determination of Endorsement Course Sequence Options

For each endorsement that survey respondents reported offering, respondents were asked to elaborate on what factors prevented their district from offering the other course sequences available for each endorsement. Across endorsements, more than half of districts reported that staffing issues (teacher qualifications and staff capacity) prevented their district from offering the other course sequences. Between one-quarter and one-third of districts reported that a lack of resources (funding, curriculum, facilities, equipment, etc.) prevented their district from offering the other course sequences. The percentages of districts that reported each of these main themes in their written responses for the 2016–17 survey are provided in Table 4.7.

Table 4.7. Most Frequently Reported Key Factors That Prevented Districts From Offering Other Endorsement Options, 2016–17

Category of Response	Arts and Humanities (*N* = 491)	Business and Industry (*N* = 424)	Multi-disciplinary Studies (*N* = 206)	Public Services (*N* = 292)	STEM (*N* = 484)
Current course offerings	16%	13%	16%	16%	17%
Lack of resources (funding, facilities, equipment, curriculum, etc.)	25%	34%	25%	32%	25%
Staffing issues (teacher qualifications, staff capacity)	53%	55%	56%	60%	59%
Lack of student interest	19%	20%	6%	19%	17%
Small district	14%	14%	25%	10%	14%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. STEM = science, technology, engineering, and mathematics. For each endorsement selected, respondents had the opportunity to provide an open-text description of the factors that prevented their district from offering the other course sequences for that endorsement. This item was not required.

Table 4.8 shows the most frequently reported key considerations for offering endorsement options from the 2014–15 survey. Similar to 2016–17, districts most often reported selecting endorsement options that were possible given their current staff capacity, teacher qualifications, existing curriculum, and course offerings.

Table 4.8. Most Frequently Reported Key District Considerations for Offering Endorsement Options, 2014–15

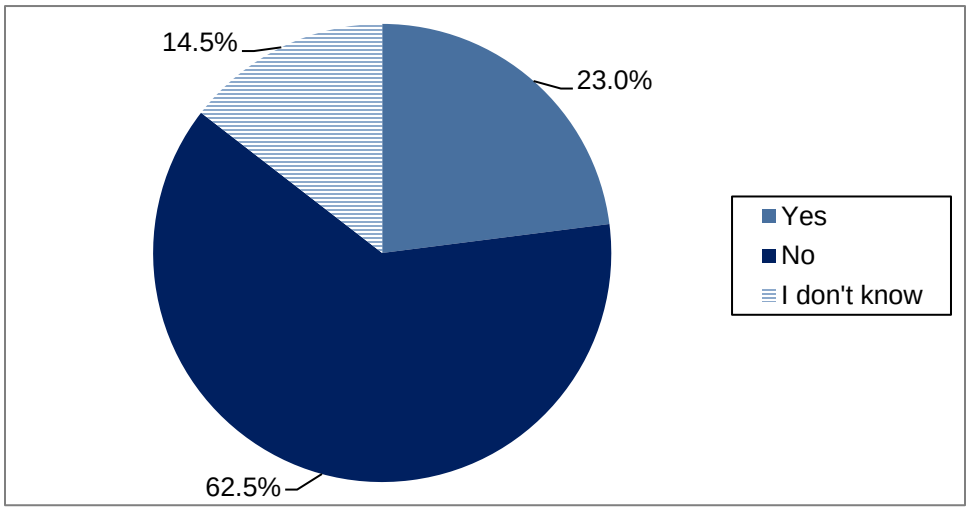
Category of Response	Arts and Humanities (*N* = 626)	Business and Industry (*N* = 683)	Multi-disciplinary Studies (*N* = 742)	Public Services (*N* = 503)	STEM (*N* = 706)
Consideration of district resources such as staffing, teacher certifications, and existing courses	70%	71%	68%	73%	76%
Communications with students and/or parents about student preferences	25%	28%	26%	29%	23%

Source. Texas House Bill 5 Evaluation—Spring 2015 District Survey (2015).
Notes. STEM = science, technology, engineering, and mathematics. For each endorsement selected, respondents had the opportunity to provide an open-text description of the factors they considered when deciding which course sequence options to offer. This item was not required.

4.4 Transfer Students

Respondents were asked whether they had students transfer into their district who were unable to complete the endorsements they previously were pursuing. As Figure 4.19 illustrates, 23% of districts indicated that they had students transfer into their districts who were unable to complete the endorsement they were pursuing, while 15% of districts did not know.

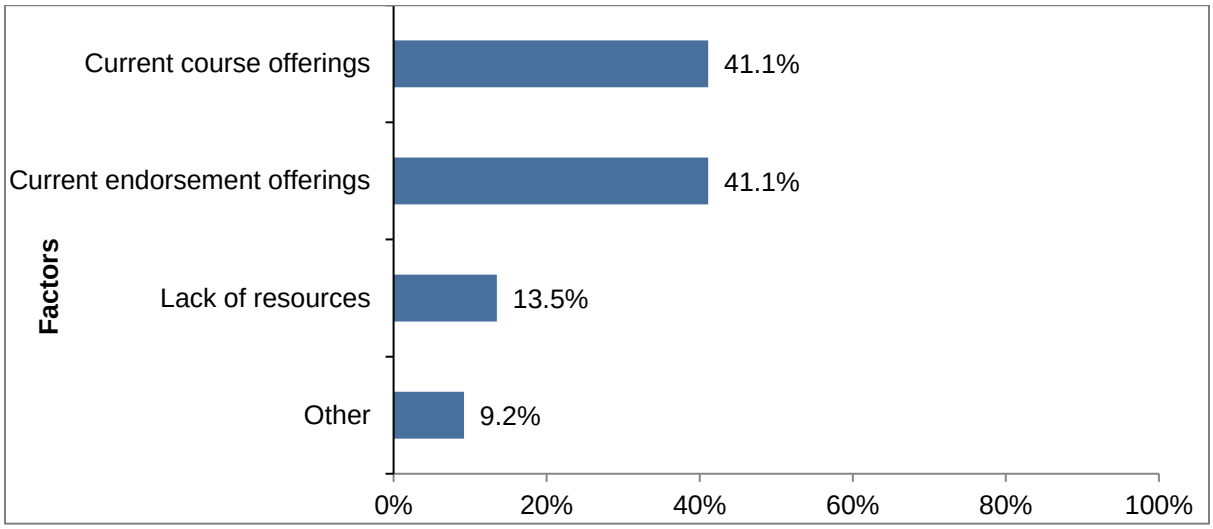
Figure 4.19. Transfer Students Unable to Complete Endorsements in 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. N = 744. This item was not required.

Respondents were asked what factors prevented transfer students from completing the endorsement in their district. As Figure 4.20 shows, 41% of responding districts reported that transfer students did not complete their endorsement in their district because the district's current course offerings did not include the courses they needed, or because the district did not offer a particular endorsement. Fourteen percent of responding districts reported that resources such as staff, funding, facilities, etc. prevented transfer students from completing the endorsement in their district.

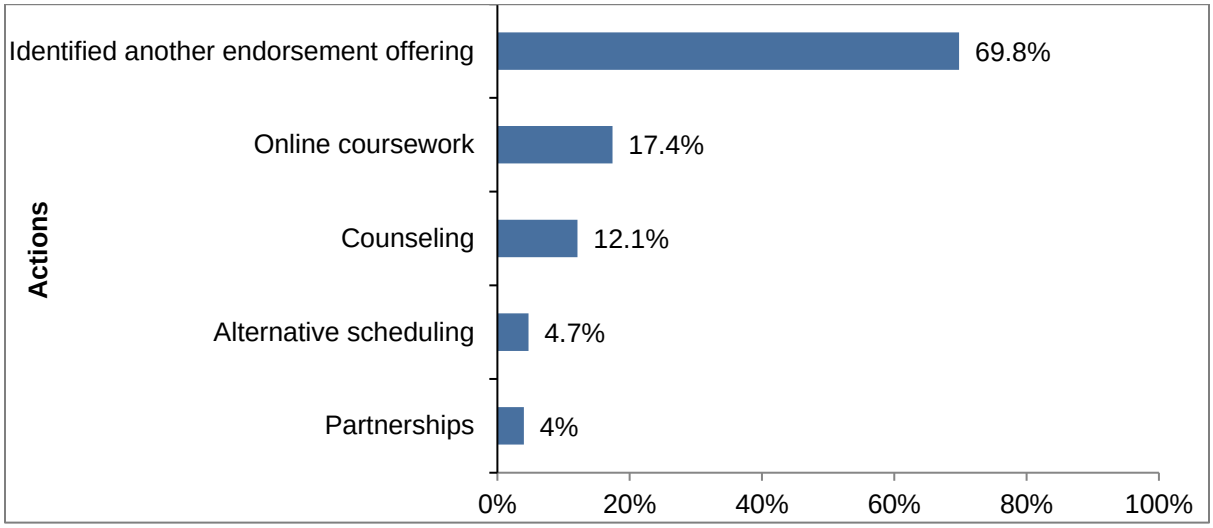
Figure 4.20. Factors Preventing Transfer Students From Completing Endorsements in 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. N = 163. Respondents received this question only if they responded that they did have students transfer into their district who were unable to complete the endorsement they previously were pursuing. Respondents had an opportunity to provide an open-text description of the factors that prevented students from completing the endorsement in their district. This item was not required.

Respondents were asked what actions their districts took to support transfer students in completing an endorsement. As Figure 4.21 illustrates, most respondents (70%) indicated that their district identified another endorsement option that was appropriate for the student, based on current endorsement offerings. Often, this other option was the multidisciplinary endorsement. Other actions include offering the students the option to complete their current endorsement via online coursework (17%), counseling the students to identify their interests and goals (12%), creating alternative scheduling options (5%), and partnering with local community colleges or other school districts to offer the coursework needed (4%).

Figure 4.21. Actions to Support Transfer Students in Completing an Endorsement in 2016–17

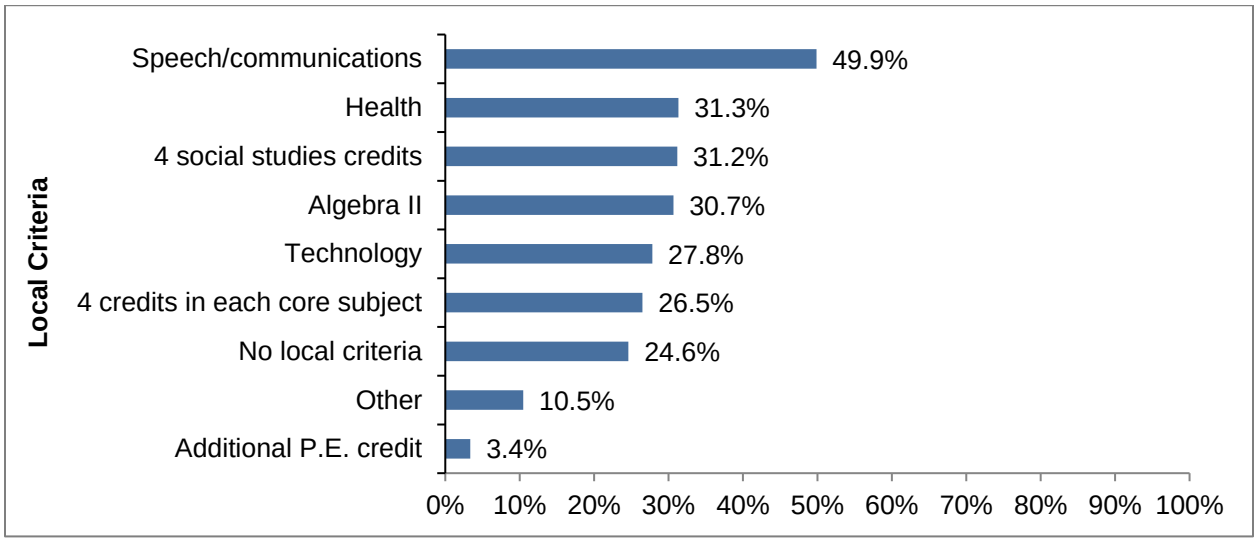


Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. N = 149. Respondents received this question only if they responded that they did have students transfer into their district who were unable to complete the endorsement they previously were pursuing. Respondents had an opportunity to provide an open-text description of actions their district took to support students in completing an endorsement. This item was not required.

4.5 Local Criteria in Addition to State Graduation Requirements

Survey respondents were asked to indicate any local criteria that students in their district must complete in addition to the state graduation requirements. As Figure 4.22 shows, half of the respondents reported that students must complete a speech/professional communications course in addition to the state graduation requirements. Close to a third of districts reported that students must complete a health course, four social studies credits, or Algebra II. A quarter of respondents reported that their district does not have any local criteria in addition to the state graduation requirements.

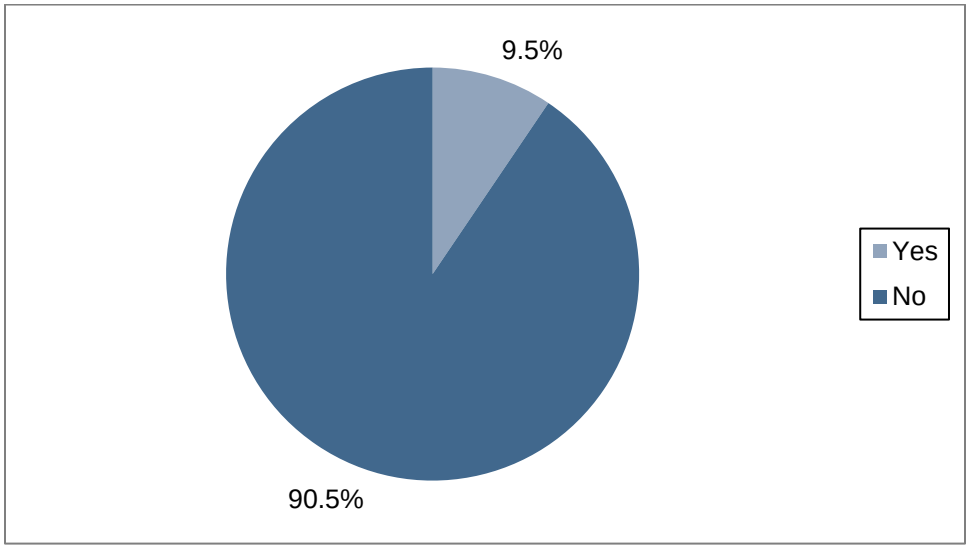
Figure 4.22. Local Criteria in Addition to State Graduation Requirements in 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. N = 744 for 2017. Respondents could select more than one factor and were not required to complete this item.

Survey respondents also were asked whether their district offers any locally developed courses that may satisfy an ELA, mathematics, or science graduation requirement. This includes activities needed to obtain an industry-recognized credential or certificate. As Figure 4.23 illustrates, the vast majority of districts (91%) do not offer a locally developed course to satisfy an ELA, mathematics, or science graduation requirement.

Figure 4.23. Districts That Offer Locally Developed Courses for an ELA, Math, or Science Graduation Requirement in 2016–17



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017).
Notes. N = 739 for 2017. Respondents were not required to complete this item. ELA = English Language Arts

4.6 Additional Information

Survey respondents were asked whether there was anything additional they would like to share about the Foundation High School Program graduation requirements and endorsements. There were thirteen comments indicating that the Foundation High School Program has made a positive change in Texas school districts and that students have embraced the endorsement concept and have benefited from the endorsement programs. Ten respondents commented that the Foundation High School Program graduation requirements and endorsements are overly complicated for parents and students to understand and burden counselors with additional work. Twenty-two respondents commented that the program and endorsements need to come with additional funding for school districts so that they can hire additional teachers, upgrade facilities, and invest in curriculum. Fourteen rural school districts commented that it is much harder for them to implement the Foundation High School Program graduation requirements and endorsements because of the size of their high schools and the lack of community resources.

4.7 Summary

The following are key findings from the survey on implementation of HB 5 that was administered to public school districts in Texas with a high school:

Endorsement Offerings

- Fifty-six percent of responding districts offer all five endorsements, which is an increase from the 2015 survey.
- Eighty-seven percent of districts offer three or more endorsements.
- The multidisciplinary studies endorsement is the most frequently offered (96% of districts).
- The public services endorsement is the least frequently offered (65% of districts).

- Arts and humanities is now offered by 83% of districts, an increase of 4 percentage points since 2015. This endorsement saw the largest increase since 2015.
- Fifty-one percent of districts reported that they had increased their endorsement offerings since 2015.
- The most popular action that districts took to overcome barriers to offering certain endorsements was to recruit and hire new teachers certified in the areas needed or with the necessary skills to teach within the endorsements, and building partnerships with other school districts, local community colleges, universities, employers, and industries to provide courses and opportunities within the endorsements.
- Staffing concerns around teacher qualifications and staff capacity and a lack of resources (funding, curriculum, facilities, equipment, etc.) were the top existing barriers to offering certain endorsements reported by districts as an existing barrier to offering certain endorsements.

Factors Considered When Deciding Which Endorsements to Offer

- Current course offerings in the district and staff capacity were the top considerations reported by districts when deciding which endorsements to offer, similar to what was reported in the 2015 survey.

Encouraging Students to Select Particular Endorsements

- Expressed student interest and career interest inventories were the top considerations reported by districts when recommending particular endorsements to students.
- Districts supported students who were undecided about which endorsement to take through additional counseling and various counseling activities (such as completing interest inventories, organizing information nights and career/college fairs, meeting with parents, and providing informational materials on the various clusters).

Encouraging Obtainment of the Distinguished Level of Achievement

- Ninety-seven percent of responding districts reported encouraging students to obtain the distinguished level of achievement, an increase from 94% in 2015.

Endorsement-Aligned Course Offerings

- Within the arts and humanities, multidisciplinary studies, and STEM endorsements, a majority of districts offered at least three options.
- In the Business and Industry endorsement, Option 1 and Option 4—both related to CTE courses—were the only course sequences offered by the majority of districts.
  - Within the Option 1 offering, a majority of districts reported offering at least three CTE career cluster course sequences.
  - Within the Option 4 offering, a majority of districts reported offering the Agriculture, Food, and Natural Resources and the Arts, A/V, and Communication career clusters.
- In a majority of cases, if districts had more than one high school campus, they reported offering the same course sequence options to fulfill endorsements within all of their high schools.

Factors That Influenced Course Offerings

- Across endorsements, more than half of districts reported that staffing issues (teacher qualifications and staff capacity) prevented their district from offering the other course sequences. Between a quarter and a third of districts reported that a lack of resources (funding, curriculum, facilities, equipment, etc.) prevented their district from offering the other course sequences.

Transfer Students

- Twenty-three percent of districts reported they had transfer students who were unable to complete the endorsement they previously were pursuing.
- Current course offerings and the endorsements offered were the top factors reported by districts regarding why transfer students could not complete their previous endorsement in a new school district. Most districts reported assisting these students by identifying another endorsement option for them.

State Graduation Requirements

- Speech/professional communications, health, four social studies credits, and Algebra II were the top considerations reported by districts regarding the local criteria in addition to the state graduation requirements.
- A quarter of respondents reported that their district does not have any local criteria in addition to the state graduation requirements.
- The vast majority of districts (91%) do not offer a locally developed course to satisfy an ELA, mathematics, or science graduation requirement.

Overall, although many districts are offering multiple endorsements to their students (almost 90% are providing three or more endorsements), most appear to be meeting the requirements of the Foundation High School Program by aligning their staffing, resources, and course selection to the endorsements chosen.

5. Outcomes for the Foundation High School Program Cohorts

This chapter provides student outcomes for students who graduated or will graduate from high school under the Foundation High School Program. Whereas students in incoming Grade 9 cohorts who enrolled in a public high school in Texas during the 1997–98 through 2010–11 academic year were required to graduate under the MHSP, RHSP, or DAP, students in the 2011–12, 2012–13, and 2013–14 cohorts were given the option to pursue graduation under the Foundation High School Program (19 TAC, Subchapter BB, §§ 74.1021-74.1022, 2014). Outcomes in this chapter are presented for students in the 2011–12 and 2012–13 cohorts who opted to graduate under the Foundation High School Program, as well as for students in the 2014–15 and 2015–16 cohorts who are required to graduate under the Foundation High School Program.[39]

Students in the 2011–12 and 2012–13 incoming Grade 9 cohorts who graduated under the Foundation High School Program were identified using the graduation files. Using the cohorts 2011–12 and 2012–13, students were selected if they graduated under the Foundation High School Program. As described in Chapter 3, these students were removed from all analyses investigating outcomes for students who graduated under the MHSP, RHSP, and DAP. The 2014–15 and 2015–16 cohorts of entering Grade 9 students were created using the same procedures used to create the cohorts of students who graduated or are expected to graduate under the MHSP, RHSP, and DAP. These procedures are described in Chapter 3 and Appendix B. Figures displaying the results of analyses conducted using all students in the cohort are presented in the narrative of this report. Tables displaying the numerators, denominators, and percentages for these figures are included in Appendix E. Student-level student group analyses also were conducted to examine differences by key student characteristics. These student characteristics include race/ethnicity (i.e., African American, American Indian or Alaskan Native, Asian, Hispanic, multiracial, Pacific Islander, White), gender, race/ethnicity by gender, special education status, ELL status, and economic disadvantage status. Tables displaying the numerators, denominators, and percentages for these figures are also included in Appendix E.

5.1 Outcomes for Students in the 2011–12 and 2012–13 Cohorts

As described previously, students in the 2011–12 and 2012–13 cohorts were given the opportunity to graduate under the Foundation High School Program graduation requirements, rather than the MHSP, RHSP, and DAP requirements, if desired.[40] Districts were required to report to TEA which students were pursuing graduation under the new program.[41] Using data from students' expected year of graduation,

[39] Outcomes for students in the 2013–14 cohort will not be presented given that these students graduated in May 2017 and data on their graduation plan were not available for this evaluation. These students were not required to graduate under the Foundation High School Program. Thus, it is not possible to determine which students in this cohort completed the graduation requirements for the Foundation High School Program and graduated under this program.

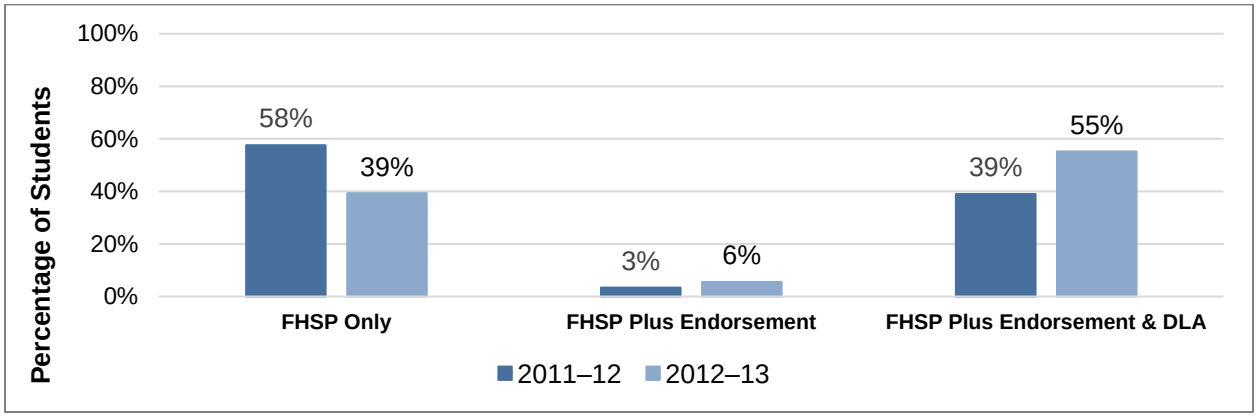
[40] It should be noted that this analysis should be treated as preliminary and interpreted with caution as students who chose the option of graduating under the Foundation High School Program were in their last year or two of high school when they chose to refocus their graduation program and may have been unable to graduate under the MHSP, RHSP, or DAP, suggesting a very selective group of students that may not be representative of students who will be required to graduate under the Foundation High School Program.

[41] While districts have had years of experience reporting data on the specific programs under which students graduate, data regarding students' pursuit of specific graduation programs were newly required upon the implementation of the Foundation High School Program. Data collections that are new to PEIMS are generally prone to instances of reporting error, so the reader should note that percentages based on this new pursuit indicator may not reflect the true number of students pursuing the Foundation High School Program in the 2011–12 and 2012–13 cohorts.

analyses were conducted to examine graduation rates of students who reported pursuing graduation under the Foundation High School Program compared to rates of students who did not choose to pursue the Foundation High School Program.[42] For both the 2011–12 and 2012–13 cohorts, students who chose to pursue the Foundation High School Program have approximately similar graduation rates compared to those who did not choose to opt into the new graduation program.[43]

Figure 5.1 shows which of the graduation options that students in the 2011–12 and 2012–13 cohorts who opted to graduate under the Foundation High School Program completed. As shown, the majority of students (58%) in the 2011–12 cohort completed the graduation requirements for the Foundation High School Program, whereas the majority of students (55%) in the 2012–13 cohort completed the graduation requirements for the Foundation High School Program plus endorsement and distinguished level of achievement.

Figure 5.1. FHSP Graduation Options Completed by Students in the 2011–12 and 2012–13 Cohorts Who Opted to Graduate Under the FHSP



Source. Public Education Information Management System (PEIMS), 2015–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed who were pursuing graduation under the Foundation High School Program (FHSP). For example, students in the 2011–12 cohort entered Grade 9 for the first time in the fall 2011 semester and had a record in the PEIMS Graduation files indicating that they had graduated under an FHSP graduation code. Percentages shown in the figure represent the students in each cohort who completed the graduation requirements for the FHSP only, FHSP plus endorsement, or FHSP endorsement plus distinguished level of achievement (DLA).

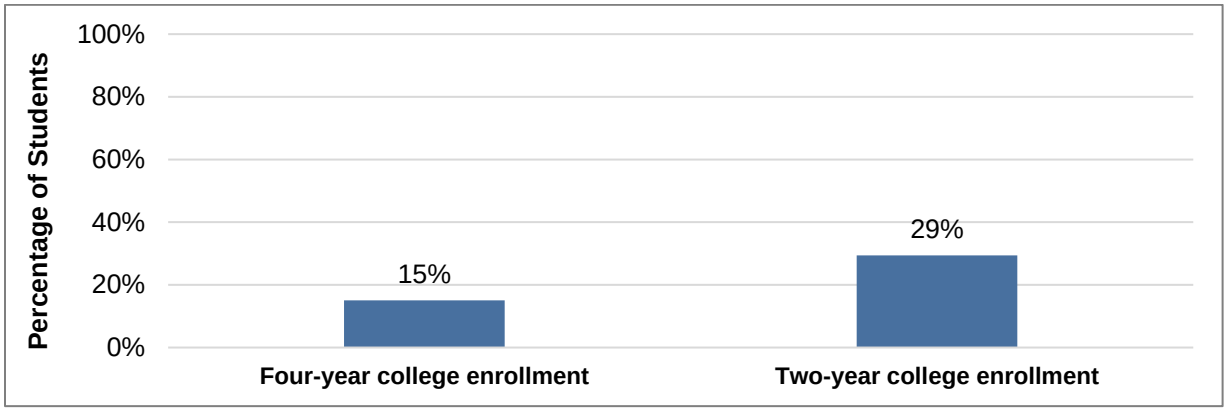
Post-high school graduation outcomes, including two-year college enrollment, four-year college enrollment, and college readiness, were available only for students in the 2011–12 cohort because of timing and data availability.[44] THECB enrollment files for two-year colleges and four-year colleges, as well as the TSI completion files, were used for these analyses.

[42] For the 2011–12 cohort, the students who reported pursuing graduation under the Foundation High School Program were identified using data from 2014–15, whereas students who reported pursuing graduation under the Foundation High School Program in the 2012–13 cohort were identified using data from 2015–16.
[43] For both of the 2011–12 and 2012–13 cohorts, students who reported pursuing the Foundation High School Program and ultimately graduated did not necessarily graduate under the Foundation High School Program. That is, a small proportion of students pursuing the Foundation High School Program ultimately graduated under the MHSP, RHSP, or DAP. Similarly, a small proportion of students who chose to remain on the MHSP, RHSP, or DAP ultimately graduated under the Foundation High School Program.
[44] Students in the 2012–13 cohort were expected to graduate from high school during the 2015–16 academic year. Data indicating whether a student met the TSI requirements, enrolled in a two-year or four-year college, or were employed in the state of Texas were not available for the 2016–17 academic year at the time this report was completed.

The first set of analyses examined college enrollment rates for students in the 2011–12 cohort who opted to graduate under the Foundation High School Program. The college enrollment files contain records only for students who enrolled in two-year and four-year colleges in Texas. Thus, students who enrolled in out-of-state two-year or four-year colleges were not included in these analyses. Students were identified as having enrolled in a college if they enrolled in a Texas two-year or four-year college during the year (i.e., fall, spring, summer I, and/or summer II semesters) following their actual or expected high school graduation date.[45] Four-year colleges include Texas four-year public colleges and universities as well as independent colleges and universities. Students were assigned to only one college type. If a student had a record in the two-year college enrollment file and a record in either the public four-year college and university or the independent four-year college and university file, the student was identified as being enrolled in a four-year college or university. The denominators for the two-year and four-year college enrollment analyses are the same.

Figure 5.2 shows the percentage of students in the 2011–12 cohort who opted to graduate under the Foundation High School Program who enrolled in a two-year college or four-year college within one year of the students' actual or expected high school graduation. As shown, students in the 2011–12 cohort who opted to graduate under the Foundation High School Program were more likely to enroll in a two-year college than a four-year college. Approximately 15% of students in the 2011–12 cohort who opted to graduate under the Foundation High School Program enrolled in a four-year college, whereas about 29% of students enrolled in a two-year college (see Table E37 in appendix E for percentages by student group).

Figure 5.2. Percentage of Students in the 2011–12 Cohort Who Opted to Graduate Under the FHSP Who Enrolled in a Two-year College or Four-year College Within One Year of Their Actual or Expected Graduation Date From High School



Source. Texas Higher Education Coordinating Board, Two-Year College Enrollment and Four-Year College Enrollment files, 2012–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed who had a record in the Public Education Information Management System graduation files indicating that they graduated under the Foundation High School Program (FHSP). Students in this cohort were expected to graduate from high school during or prior to the spring semester of 2015. Students in this cohort were coded as having enrolled in a Texas two-year college if they showed up in any one of the fall, spring, summer I, and/or summer II data files for the 2013–2015 academic years. Students in this cohort were coded as having enrolled in a Texas four-year college if they showed up in any one of the fall, spring, or summer data files for the 2013–2016 academic years.

The second set of analyses looked at the college readiness of students in the 2011–12 cohort who opted to graduate under the Foundation High School Program, as defined by meeting the TSI requirements in reading, writing, and mathematics. TSI is a state-mandated program designed to determine whether a

[45] The total number of students in the original entering cohort is used in the denominator in these analyses. This may include, for example, students who did not graduate from high school, dropped out, or moved out of state.

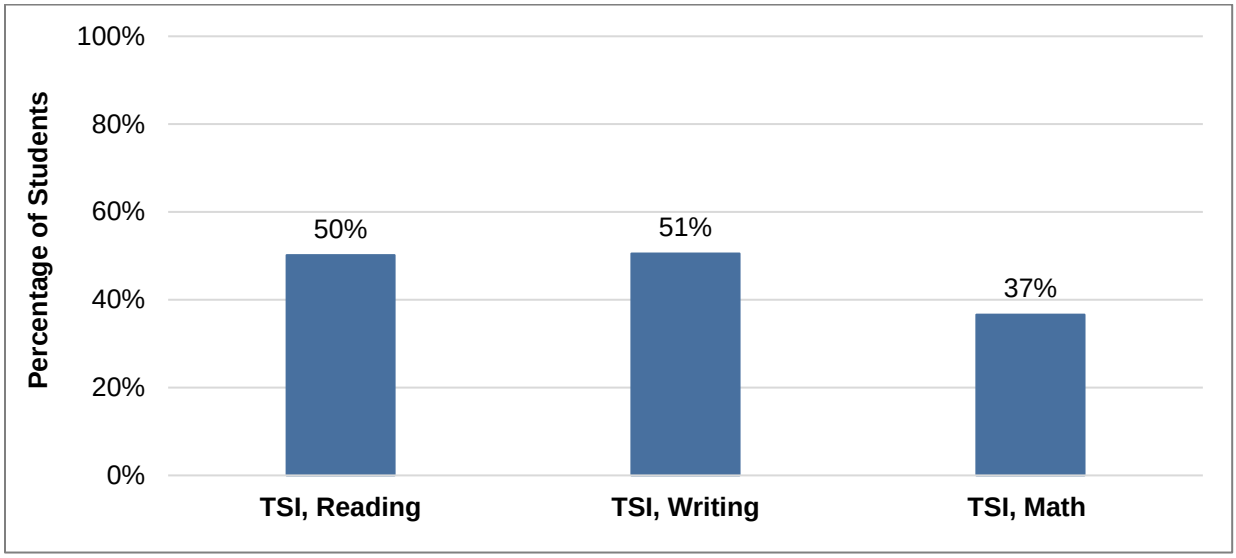
student is ready for college-level coursework in the general areas of reading, writing, and mathematics. Beginning in fall 2003, the law required all students entering a Texas public two-year or four-year college or university to be assessed for college readiness unless the student qualified for an exemption.[46] Students could meet the TSI readiness standard by meeting or exceeding specified score thresholds on approved college readiness exams, including ASSET, Compass, THEA, and ACCUPLACER.[47] In 2013, the THECB launched the TSIA, which is used in place of the ASSET, Compass, THEA, and ACCUPLACER. Each student who failed to meet the minimum passing standard of the exam offered by the institution was placed in a developmental education program designed to help the student achieve college readiness. As previously noted in Section 3.5 this cohort was the first cohort that was not able to earn an exemption from TSI through the Grade 11 exit-level TAKS assessment. Although STAAR Algebra II and English III EOC assessments could be used, these assessments are not required and not universally offered across districts. Therefore, the measured TSI readiness rates for this cohort cannot be directly compared to rates of earlier cohorts for the purpose of describing trends in true college readiness.

Student-level data from THECB's TSI files were used to estimate college readiness rates for students who enrolled in a Texas public two-year or four-year college within one year of their actual or expected high school graduation date. These files contain variables indicating whether a student has met the TSI readiness standards in reading, mathematics, and writing. Figure 5.3 shows the percentages of students in the 2011–12 cohort who opted to graduate under the Foundation High School Program who were college ready in reading, writing, and mathematics. As shown, about half of students in the 2011–12 cohort who opted to graduate under the Foundation High School Program met the TSI requirements in reading and writing, whereas about 37% of these students met the TSI requirement in mathematics (see Table E38 in appendix E for percentages by student group).

[46] For more information regarding the means by which a student could qualify for a TSI exemption, please see Section 3.5 in this report. Students may also be exempt from completing college readiness exams by satisfying either of the following requirements: 1) serving in the military for at least three years preceding enrollment, or 2) enrolling in a level-one certificate program for one year or less at a public two-year, technical institute, or private college.

[47] For information about these exams, see the following websites: ASSET (http://www.act.org), Compass (http://www.act.org/products/higher-education-act-compass/), THEA (http://www.thea.nesinc.com/), ACCUPLACER (https://accuplacer.collegeboard.org/students).

Figure 5.3. Percentage of Students in the 2011–12 Cohort Who Opted to Graduate Under the FHSP Who Were College Ready (Met the TSI Requirements) in Reading, Writing, and Mathematics



Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2012–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed who had a record in the Public Education Information Management System graduation files indicating that they graduated under the Foundation High School Program (FHSP). Students in this cohort were expected to graduate from high school during or prior to the spring semester of 2015. Percentages shown in the figure represent the students in the cohort who enrolled in a Texas two-year or public four-year college or university within one year of their actual or expected high school graduation date and met the TSI readiness standards in mathematics, reading, or writing.

5.2 Preliminary Effects of House Bill 5 on Student Outcomes

To investigate the preliminary impact of HB 5 on student outcomes, propensity score matching and multilevel modeling were used to estimate the effect of HB 5 for students who opted in to the FHSP on two-year and four-year college enrollment.[48] Because data on most of the key outcomes of interest are not yet available for students entering Grade 9 in 2014–15, the first cohort of students required to graduate under the Foundation High School Program, the impact analyses were conducted using students from an earlier cohort. Propensity score matching was used to match Grade 9 students from the 2011–12 cohort who opted to graduate under the Foundation High School Program with similar students from the entering cohort of 2009–10, who did not have the opportunity to graduate under the Foundation High School Program and therefore graduated under the MHSP, RHSP, and DAP graduation plans.[49] Students in the 2011–12 cohort were matched with similar students in the 2009–10 cohort who had graduated from the same school (within-school matching). By matching students who opted to graduate

[48] High school graduation is not included as an outcome given that students were identified as having opted to graduate under the Foundation High School Program through the PEIMS graduation files. Data for other student outcomes, including Quarter 4 employment and wage data for 2015–16, were not available at the time of this report. Student outcomes with regard to two-year and four-year college completion or certificate completion were not available for students in the 2011–12 cohort because not enough time has passed for students to reach these milestones. College readiness, as defined by meeting TSI readiness standards, was also not included as an outcome due to the transition in testing requirements that was implemented for the 2011–12 cohort. Please see Sections 3.1 and 3.5 of this report for further details regarding why TSI readiness rates are not comparable across these cohorts.
[49] There is a limitation associated with using a comparison group of students from earlier cohorts. The impact of HB 5 may be confounded with any other initiative (or historical factor) that may have led to changes in the outcomes. Propensity score matching will eliminate demographic, motivational, and achievement influences on selection, but the treatment effect may not be isolated to only this treatment. However, as our previous policy review shows, policies implemented during this period are unlikely to influence the outcomes.

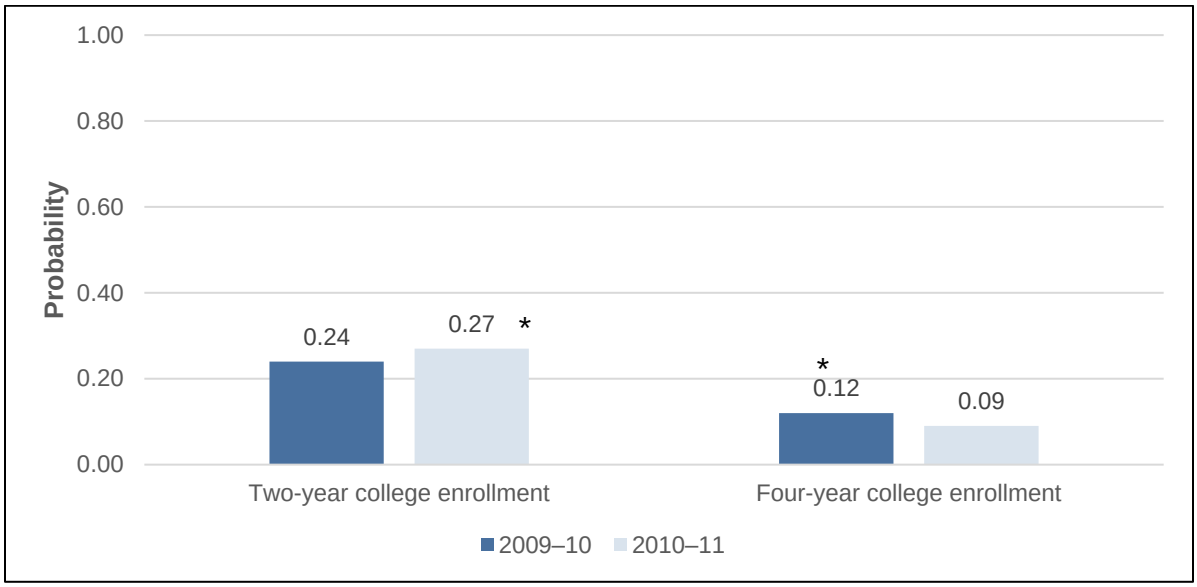
under the Foundation High School Program with students from an earlier cohort who did not have the option to graduate under the program, selection bias was reduced. Students were matched on demographic characteristics (i.e., race/ethnicity, gender, economic disadvantage status), special education and ELL status, and prior academic performance (i.e., Grade 8 TAKS math and ELA scores). However, students who chose the option of graduating under the Foundation High School Program may have been unable to graduate under the MHSP, RHSP, or DAP, suggesting a very selective group of students that may not be representative of students who will be required to graduate under the Foundation High School Program. Because students were not matched on other characteristics that might affect graduation program choice such as academic progress toward graduation, on grade level for age, and curricular concentration or achievements, the two cohorts of students may still be inherently different from one another due to unobserved and unmatched characteristics; therefore, selection bias cannot be completely eliminated.

Once matched, multilevel modeling with students nested within schools was used to evaluate differences among the groups with regard to students' probability of enrolling in a two-year college in Texas and probability of enrolling in a Texas four-year college.[50] Because all of the outcomes for these analyses were binary, generalized least squares (logistic regression) models were used for the analyses. The results presented in the narrative of this report were converted from log odds to probabilities for ease of interpretation (see Table E39 in appendix E for the logistic regression coefficients). A complete description of the propensity score matching process and the multilevel analyses conducted is included in Appendix B.

Figure 5.4 compares the probabilities of enrolling in a two-year or four-year college for students in the 2011–12 cohort who opted to graduate under the Foundation High School Program and a matched group of students in the 2009–10 cohort. Significant differences between the two groups are flagged with an asterisk (*). The asterisk is placed next to the value for the group for which the outcome is significantly higher at $p < 0.05$. As shown, students in the 2011–12 cohort who opted to graduate under the Foundation High School Program were significantly more likely to enroll in a two-year college than matched students in the 2009–10 cohort. However, students who opted to graduate under the Foundation High School Program were significantly less likely to enroll in a four-year college than matched students in the 2009–10 cohort.

[50] Although scientifically preferable, random assignment is not always practical—for example, when a policy (e.g., HB 5) is rolled out statewide. Propensity score matching attenuates some of the bias associated with nonrandom assignment, allowing researchers to more closely estimate the causal effect of interest (e.g., the difference between students' educational and employment outcomes before and after implementation of the new Foundation High School Program graduation requirements).

Figure 5.4. Probability of Enrolling in a Two-year or Four-year College for Students in the 2011–12 Cohort Who Opted to Graduate Under the FHSP Compared to a Matched Group of Students in the 2009–10 Cohort



Source. Public Education Information Management System (PEIMS), 2010–2015; Texas Higher Education Coordinating Board, Two-Year College Enrollment files, Four-Year Public College Enrollment files, Four-Year Independent College Enrollment files, 2011–2015.
Notes. The 2011–12 cohort is made up of students who entered Grade 9 in the academic year listed who had a record in the PEIMS graduation files indicating that they graduated under the Foundation High School Program (FHSP). Students in this cohort were matched with similar students who entered Grade 9 in the same schools during the 2009–10 academic year. Students in this cohort did not have the opportunity to graduate under the FHSP. Multilevel modeling was used to estimate and compare the probability of students enrolling in two-year and four-year colleges in Texas within one year of graduation from high school. Differences statistically significant at $p < 0.05$ between students in each cohort are flagged with an asterisk (*).

5.3 Baseline Outcomes for Students in the 2014–15 and 2015–16 Cohorts

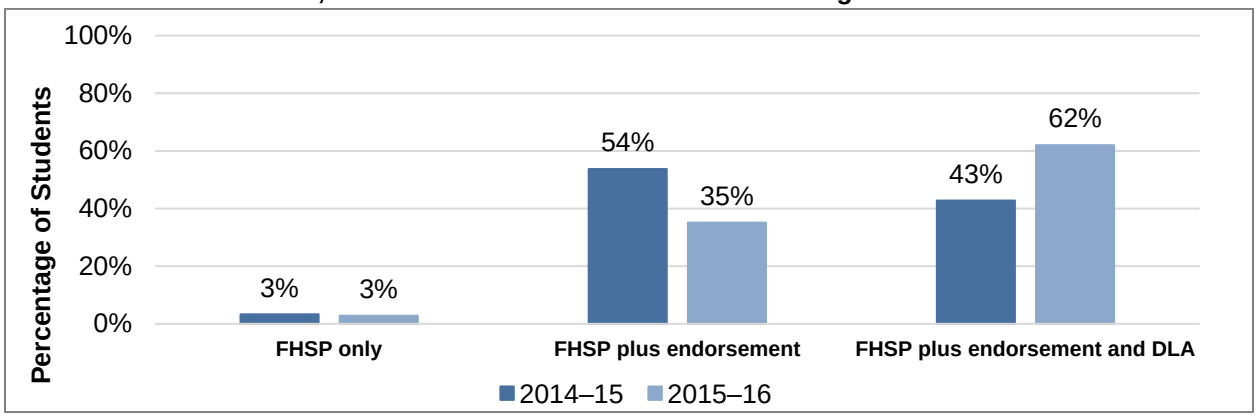
Whereas students in the 2011–12 and 2012–13 cohorts were given the option to graduate under the Foundation High School Program, students in the 2014–15 and 2015–16 cohorts are required to graduate under the Foundation High School Program.[51] When these students enrolled in their Grade 9 classes, they were required to select one or more endorsements to pursue—arts and humanities, business and industry, multidisciplinary, public service, or STEM—and could elect to pursue a distinguished level of achievement. At the end of Grade 10, students can choose to drop their endorsement(s), with parent permission, and graduate under the Foundation High School Program without earning an endorsement.

Figure 5.5 shows the percentage of students in the 2014–15 and 2015–16 cohorts pursuing the Foundation High School Program only, the Foundation High School Program plus one or more endorsements, and the Foundation High School Program plus endorsement(s) and distinguished level of achievement. As shown, only about 3% of students in each cohort are pursuing the Foundation High School Program only (without earning an endorsement). The majority of students in the 2014–15 cohort (54%) are pursuing the Foundation High School Program plus one or more endorsements, and a slightly lower percentage (43%) pursuing the

[51] While districts have had years of experience reporting data on the specific programs under which students graduate, data regarding students' pursuit of specific graduation programs were newly required upon the implementation of the Foundation High School Program. Data collections that are new to PEIMS are generally prone to instances of reporting error, so the reader should note that percentages based on this new pursuit indicator may not reflect the true number of students pursuing the Foundation High School Program endorsements in the 2014–15 and 2015–16 cohorts.

Foundation High School Program with one or more endorsements and distinguished level of achievement. In contrast, 62% of students in the 2015–16 cohort are pursuing the Foundation High School Program with one or more endorsements and the distinguished level of achievement, with only 35% pursuing the Foundation High School Program plus endorsement. However, students may opt to drop to the Foundation High School Program only (with parent permission) from the end of Grade 10 through graduation.

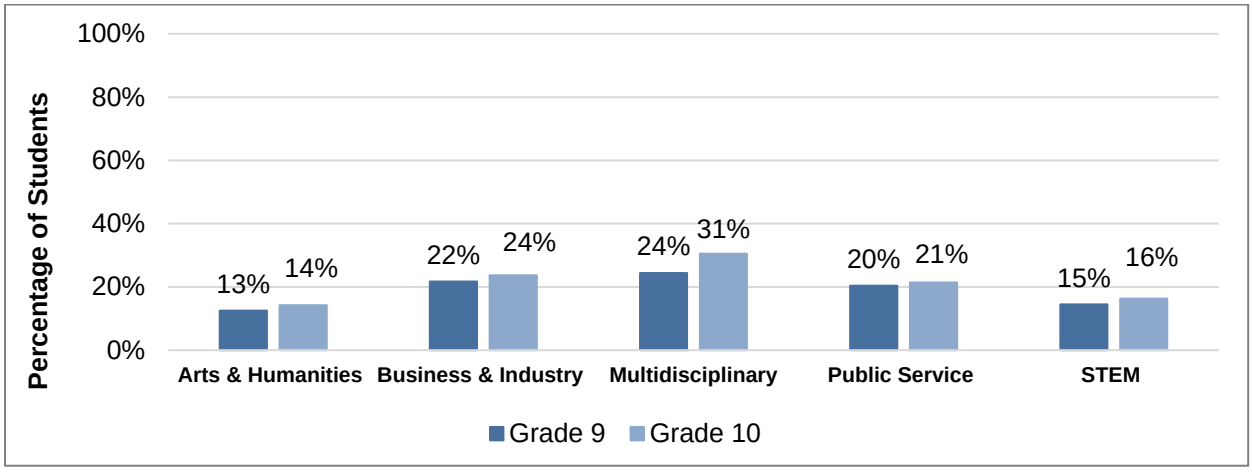
Figure 5.5. Percentages of Students in the 2014–15 and 2015–16 Cohorts Pursuing FHSP Only, FHSP Plus Endorsement, and FHSP Plus Endorsement and Distinguished Level of Achievement



Source. Public Education Information Management System, 2015–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the figure represent the students in each cohort who were pursuing the Foundation High School Program only (FHSP only), the FHSP plus one of more endorsement(s) (FHSP plus endorsement), or the FHSP plus endorsement and Distinguished Level of Achievement (FHSP plus endorsement and DLA).

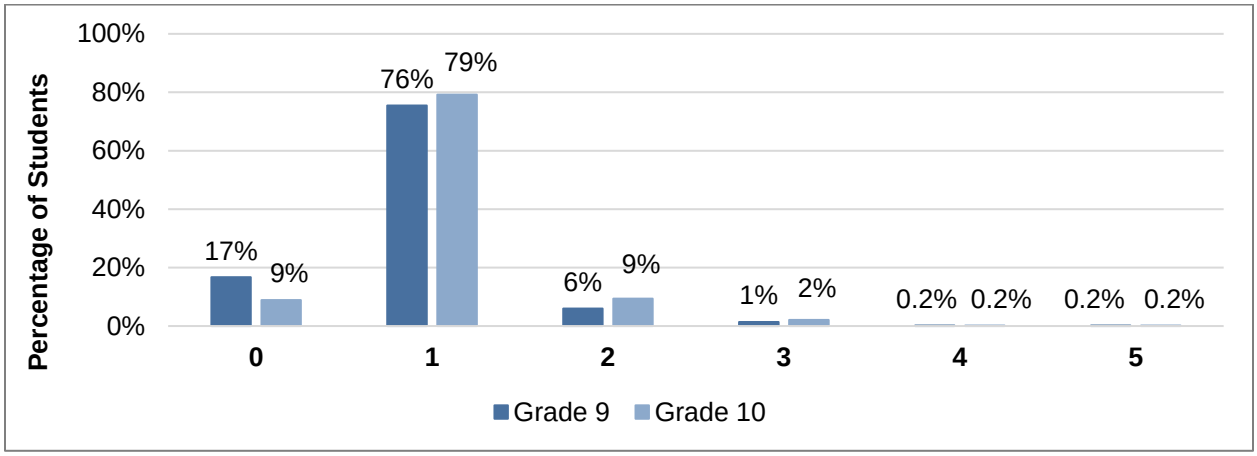
Figure 5.6 shows the percentages of students in the 2014–15 cohort who were pursuing each of the endorsements during Grade 9 and Grade 10, and Figure 5.8 shows the number of endorsements that students were pursuing during these years. As illustrated in Figure 5.6, the percentage of students pursuing each of the endorsements increased across the two years. As shown, the highest percentage of students in each cohort opted to complete the multidisciplinary endorsement, which is the endorsement offered by the highest number of districts. However, as shown in Figure 5.7, a considerable number of students (17%) had not selected an endorsement in Grade 9. In addition, Figure 5.7 shows that higher percentages of students were pursuing more than one endorsement in Grade 10 than in Grade 9. In Grade 9, 6% of students in the 2014–15 cohort were pursuing two endorsements, and 1% of students were pursuing three endorsements. In Grade 10, these percentages increased to 9% and 2%, respectively. Moreover, approximately 15% of students in the 2014–15 cohort changed from one endorsement to another. Thus, some of the changes in the percentages of students pursuing each endorsement are due to students selecting an endorsement for the first time, some of the changes are due to additional students pursuing more than one endorsement, and some are due to students changing the endorsement they are pursuing.

Figure 5.6. Percentage of Students in the 2014–15 Cohort Pursuing Each Endorsement During Grades 9 and 10



Source. Public Education Information Management System (PEIMS), 2015–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Students who entered high school in 2014–15 were required to graduate under the Foundation High School Program (FHSP). Percentages shown in the figure represent the students in the cohort who were pursuing each of the endorsements during their Grade 9 and Grade 10 years in high school. Percentages do not equal 100% because some students pursued more than one endorsement, whereas other students did not have an endorsement in the PEIMS data files.

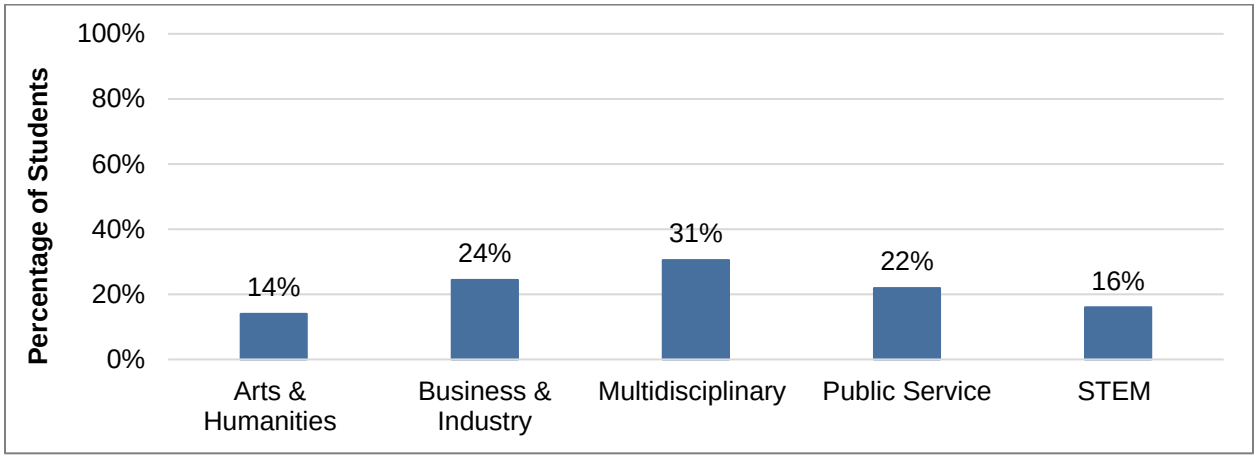
Figure 5.7. Number of Endorsements Pursued by Students in the 2014–15 Cohort During Grades 9 and 10



Source. Public Education Information Management System, 2015–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the figure represent the students in the cohort who were pursuing zero through five endorsements during their Grade 9 and Grade 10 years in high school.

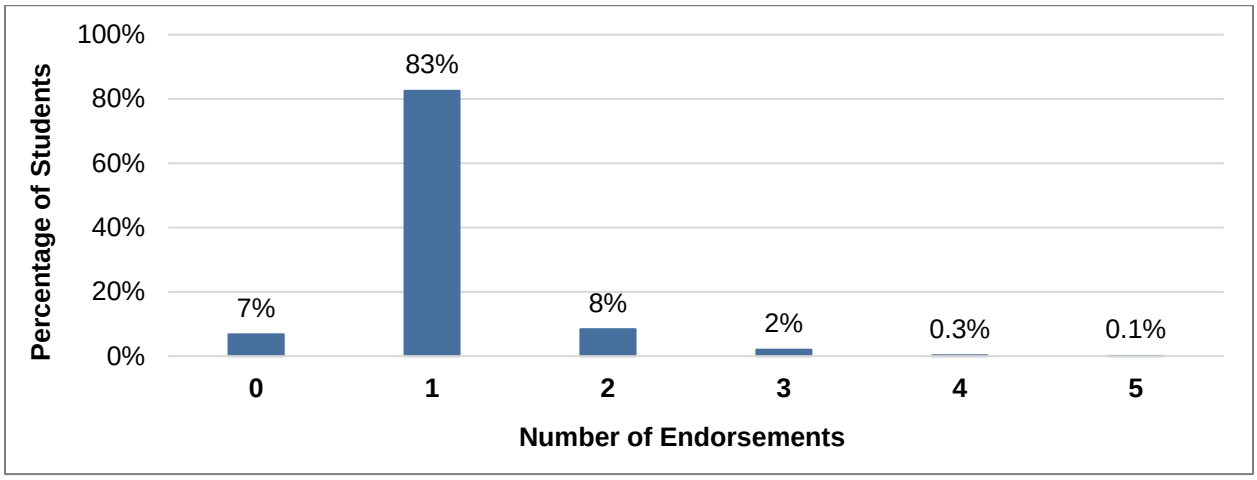
Figure 5.8 shows the percentage of students in the 2015–16 cohort pursuing each endorsement during the 2015–16 academic year, whereas Figure 5.9 shows the number of endorsements being pursued by students in the 2015–16 cohort. The percentages of students in the 2015–16 cohort who are pursuing each of the endorsements are similar to those in the 2014–15 cohort during the 2015–16 school year. Comparing the data from 2015–16 between the two cohorts, the percentages of students pursuing each of the endorsements is almost the same. This suggests that schools and districts perhaps are becoming more comfortable with counseling students on endorsement selection. However, in comparison to the 2014–15 cohort, students in the 2015–16 cohort are pursuing fewer endorsements (Figure 5.9). Approximately 83% of students in the 2015–16 cohort are pursuing one endorsement, 8% are pursuing two endorsements, and slightly more than 2% of students are pursuing three or more endorsements.

Figure 5.8. Percentage of Students in the 2015–16 Cohort Pursuing Each Endorsement During Grade 9



Source. Public Education Information Management System (PEIMS), 2015–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2015–16 cohort entered Grade 9 for the first time in the fall 2015 semester. Percentages shown in the figure represent the students in each cohort of entering Grade 9 students in the cohort who were pursuing each of the endorsements (including students indicating having successfully completed the requirements for the endorsement) during their Grade 9 year in high school. Percentages do not equal 100% because some students pursued more than one endorsement, whereas other students did not have an endorsement in the PEIMS data files.

Figure 5.9. Number of Endorsements Pursued by Students in the 2015–16 Cohort During Grade 9



Source. Public Education Information Management System, 2015–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2015–16 cohort entered Grade 9 for the first time in the fall 2015 semester. Percentages shown in the figure represent the students in the cohort who were pursuing zero through five endorsements during their Grade 9 year in high school.

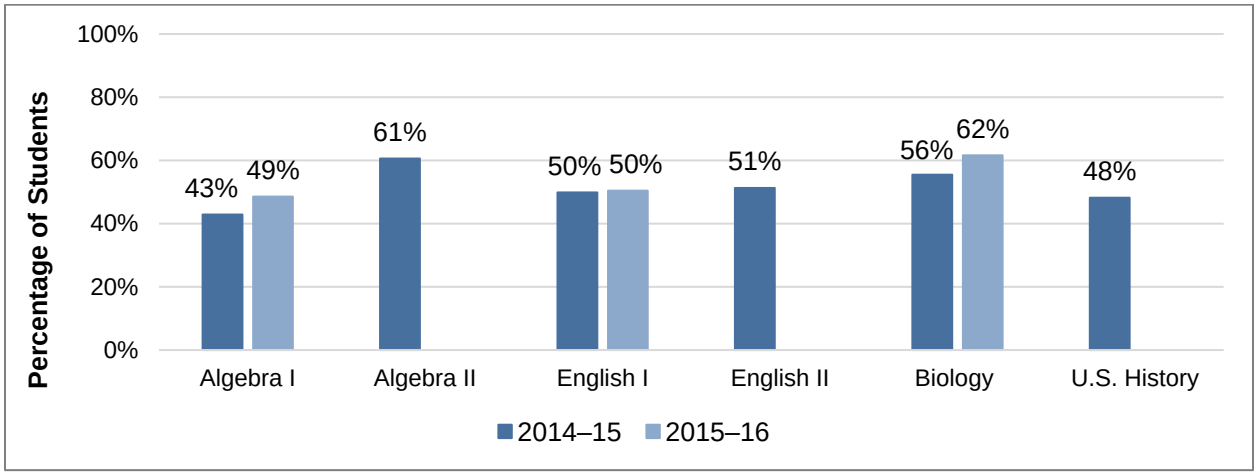
Data from the STAAR EOC assessments were used to assess the performance of students in the 2014–15 and 2015–16 cohorts. The data used in these analyses represent students' first attempt at passing each of the EOCs. Students in the 2014–15 cohort, who were in Grade 10 at the time of this report, were expected to have completed the Algebra I, English I, English II, and Biology assessments, whereas students in the 2015–16 cohort, who were in Grade 9 at the time of this report, were expected to have completed the Algebra I, English I, and Biology assessments. Small percentages of students in the 2014–15 cohort also

completed the U.S. History (11%) and Algebra II (1.6%) assessments, which is expected given that most students complete U.S. History during Grade 11 and the Algebra II assessment was optional.[52]

Figure 5.10 shows the percentages of students in the 2014–15 and 2015–16 cohorts who met Level II at the final standard on the Algebra I, Algebra II, English I, English II, Biology, and/or U.S. History STAAR EOC assessments on their first attempt at passing each of the assessments. These percentages are for the students within the cohort who completed each of the assessments, rather than all students in the cohorts.

As shown, fewer than half of students in the 2014–15 cohort who completed the assessment met Level II at the final standard on the Algebra I (43%) and English I (50%) EOCs on their first attempt, whereas 56% passed Biology and 51% passed English II on their first attempt. With regard to students in the 2015–16 cohort, fewer than half of the students who took the Algebra I EOC passed on their first attempt, whereas 50% of these students passed the English I EOC and 62% passed the Biology EOC on the first attempt. Additional data for this figure are shown in Tables E28 through E36 in Appendix E.

Figure 5.10. Percentages of Students in the 2014–15 and 2015–16 Cohorts Who Met Level II at the Final Standard on the Algebra I, Algebra II, English I, English 2, Biology, and/or U.S. History STAAR EOCs



Source. State of Texas Assessments of Academic Readiness End-of-Course (STAAR EOC) assessment files, 2014–16, first time testers only

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the figure represent the students in each cohort who took the assessment and who met Level II at the final standard on the STAAR EOCs in Algebra I, Algebra II, English I, English II, Biology, and U.S. History on their first attempt at passing each of the tests.

5.5 Summary

The goal of these analyses is to examine the preliminary impact of HB 5 on student outcomes. Because the first cohort of students required to graduate under the Foundation High School Program (the entering Grade 9 cohort of 2014–15) will not graduate until 2017–18, preliminary impact is presented for students in the 2011–12 and 2012–13 cohorts who opted to graduate under the program. Baseline outcomes for students in the 2014–15 and 2015–16 cohorts are also summarized.

[52] Although students in the 2014–15 cohort were in Grade 11 at the time of this report, state assessment data were not yet available; therefore, only STAAR EOC data through students' grade 10 years were included in these analyses. The Algebra II EOC was administered during the 2011–12 academic year but was not required for graduation. After 2011–12, the Algebra II EOC was not administered again until the 2015–16 academic year as an optional assessment.

The results of the preliminary impact of HB 5 on two- and four-year college enrollment reveal the following:

- The probability of enrolling in a two-year college within one year of graduation from high school for students who graduated under the MHSP, RHSP, or DAP was 0.24 compared to 0.27 for students who opted to graduate under the Foundation High School Program.
- The probability of enrolling in a four-year college within one year of graduation from high school for students who graduated under the MHSP, RHSP, or DAP was 0.12 compared to 0.09 for students who opted to graduate under the Foundation High School Program.

Baseline outcomes for students required to graduate under the Foundation High School Program show an increase in the percentage of students selecting Foundation High School Program plus endorsement and distinguished level of achievement from the 2014–15 to the 2015–16 cohort:

- Almost 43% of the 2014–15 cohort selected the Foundation High School Program plus endorsement and distinguished level of achievement during Grade 9 versus 62% of the 2015–16 cohort in Grade 9.[53]

The highest percentages of students were pursuing the multidisciplinary (31%) and business and industry (24%) endorsements.

Results also show that around 50% of students in the 2014–15 cohort who completed various EOC assessments met Level II at the final standard on their first attempt:

- Forty-three percent of students in the 2014–15 cohort reached Level II at the final standard in Algebra I, 50% of students reached Level II at the final standard in English I, and 48% of students in this cohort reached Level II at the final standard in U.S. History.
- Higher percentages of students in the 2015–16 cohort passed the Algebra I (49%) and Biology (62%) EOC assessments than in the 2014–15 cohort.

[53] While districts have had years of experience reporting data on the specific programs under which students graduate, data regarding students' pursuit of specific graduation programs were newly required upon the implementation of the Foundation High School Program. Data collections that are new to PEIMS are generally prone to instances of reporting error, so the reader should note that percentages based on this new pursuit indicator may not reflect the true number of students pursuing the Foundation High School Program in the 2014–15 and 2015–16 cohorts.

6. Summary of Findings

The Foundation High School Program was implemented in all Texas public school districts in 2014–15. As part of the legislation, HB 5 Section 83(a), the Texas Education Agency (TEA), in collaboration with the Texas Higher Education Coordinating Board (THECB), and the Texas Workforce Commission (TWC), is required to conduct an evaluation that estimates the effects of these changes on several key outcomes.

In response to these requirements, TEA, in collaboration with THECB and TWC, contracted with American Institutes for Research (AIR) in spring 2015 to conduct an initial report and in spring 2017 to conduct the final report on the evaluation of HB 5. Both reports focused on meeting the following two objectives:

1. Evaluate the implementation of HB 5 on curriculum and testing requirements for high school graduation.
2. Estimate the effect of the changes that HB 5 made to curriculum and testing requirements on high school graduation rates, college readiness, college admissions, college completion, obtainment of workforce certificates, employment rates, and earnings.[54]

This final report provides (1) an update on changes made to the current policy for graduation, including curriculum, testing, and accountability during the 84th and 85th Texas Legislative Sessions, (2) an update on the implementation of HB 5 by school districts since 2014–15, and (3) a preliminary look at the Foundation High School Program that students are pursuing, including the endorsements and distinguished level of achievement. report also examines student outcomes for the Foundation High School Program cohorts.

6.1 Updates to Graduation Requirements in Texas

With the passage of HB 5 in 2013, the Foundation High School Program became the graduation program for all Texas public high school students beginning with the entering Grade 9 students in 2014–15. The new graduation requirements introduced greater flexibility for students in earning a high school diploma. Updates to graduation requirements from the last two legislative sessions continue to add support and flexibility in how students meet state graduation requirements. In 2015, the 84th Texas Legislature extended the expiration date for meeting graduation requirements through an IGC two more years to September 1, 2019. In 2017, the 85th Texas Legislature removed the course-sequencing requirements that students needed to adhere to when meeting English and mathematics requirements, giving students more flexibility to graduate in three years or make up a previous failed course and still graduate in four years. The 85th Texas Legislature also allowed for students required to graduate under the TAKS exit-level requirements to meet state graduation requirements through other national assessments, in addition to STAAR EOC exams.

The last two Texas legislative sessions also have brought significant changes to the state accountability system. In 2015, the 84th Texas Legislature passed HB 2804, which changed the state accountability system to an A–F rating in each of five domains and overall. Provisions of the bill required the commissioner of education to release a provisional A–F ratings report showing the ratings that each district and campus would have received for Domains I–IV for the 2015–16 school year if the A–F rating system had been in place. However, in 2017, the 85th Texas Legislature passed HB 22, which changes

[54] This first evaluation report can be found on TEA's website at http://tea.texas.gov/Reports_and_Data/Program_Evaluations/Research_Reports/Program_Evaluation___Research_Reports/

the state A–F accountability system in several ways, including reducing the number of domains, introducing locally developed accountability domains, changing the calculation of the summative accountability grade, realigning the unacceptable cut-point at the F rating, and changing the timeline for implementation to August 2018 for districts and August 2019 for campuses.

6.2 Outcomes for Students Graduating Under the MSHP, RHSP, and DAP

The analyses of outcomes for students who entered high school under the MHSP, RHSP, and DAP were designed to provide context for future analyses that will examine the influence of HB 5 on students' college and career readiness outcomes for students required to graduate under the Foundation High School Program. Results show that high school graduation rates improved considerably over time. Results show improvements in four-year college graduation rates for students who enrolled in four-year colleges within one year of graduating from high school; however, college outcomes did vary considerably by the type of high school diploma that a student earned. Finally, results did not show improvement in the percentage of students employed in the fourth quarter or in median quarterly wages across entering Grade 9 cohorts. However, the results did reveal large differences in wages during the fourth quarter five years following students' actual or expected high school graduation dates according to the type of high school graduation program they completed. Five years after students' actual or expected high school graduation dates, the median quarterly wages during the fourth quarter of students who completed the DAP were considerably higher than the wages of students who completed the other graduation programs. Students who completed the DAP earned approximately $1,700 more in the fourth quarter than students who completed the RHSP.

The results of the preliminary impact of HB 5 on student outcomes show that the probability of enrolling in a Texas four-year college was higher for students graduating under the MHSP, RHSP, or DAP than for students who opted to graduate under the Foundation High School Program. The probability of enrolling in a two-year college was higher for students who opted to graduate under the Foundation High School Program. However, results should be interpreted with caution as students who chose the option of graduating under the Foundation High School Program were in their last year or two of high school and may have been unable to graduate under the MHSP, RHSP, or DAP, suggesting a very selective group of students that may not be representative of students who will be required to graduate under the Foundation High School Program.

6.3 Outcomes for Students Who are Required to Graduate Under the Foundation High School Program

Baseline outcomes for students required to graduate under the Foundation High School Program show an increase in the percentage of students selecting Foundation High School Program plus endorsement and distinguished level of achievement from the 2014–15 to the 2015–16 cohort. The percentages of students pursuing each of the various endorsements were spread across the five endorsements, with the highest percentages of students pursuing the multidisciplinary endorsement. Results also show that around 50% of students in the 2014–15 cohort who completed various EOC assessments met Level II at the final standard on their first attempt.

6.4 Survey of Texas Districts

About 72% of districts responded to the survey. These districts were largely representative of all districts in the state relative to district size, type of community in which the district resides, accountability ratings received, and demographics of their student population. Overall, although many districts are offering multiple endorsements to their students, most appear to be meeting the requirements of the Foundation High School Program by aligning their current staffing, resources, and course selection to the endorsements chosen. More than half of responding districts reported staffing concerns around teacher qualifications and staff capacity as a continued barrier to offering certain endorsements. District respondents also were asked to indicate any local criteria that students in their district must complete in addition to the state graduation requirements. About 75% of districts indicated that students in their district must complete local criteria in addition to the state graduation requirements. Speech/professional communications, health, four social studies credits, and Algebra II were the top local criteria required by districts in addition to the state graduation requirements.

6.5 Limitations of the Findings

The major limitation of the evaluation of HB 5 is the length of time that students have progressed since the Foundation High School Program was implemented. The first cohort of Grade 9 students required to complete the requirements under the Foundation High School Program will not graduate until spring 2018. Although an estimate of the effect of HB 5 on student outcomes was conducted using a cohort of graduates who had the option of graduating under the Foundation High School Program, these estimates are limited and preliminary given that this option was made retroactively and students were able to plan their coursework under the Foundation High School Program only during their senior year.

Another limitation concerns the comparisons conducted between students who graduated under the Minimum, Recommended, and Distinguished high school diplomas and the students who opted to graduate under the Foundation High School Program. Students in the 2011–12 and 2012–13 cohorts who opted to graduate under the Foundation High School Program chose to do so in the last two years of high school. These students may not be comparable to later cohorts who began the Foundation High School Program in Grade 9 or those students in the 2011–12 and 2012–13 cohorts who graduated under the Distinguished Achievement Program, or the Recommended or Minimum High School Programs.

An additional evaluation report completed in December 2019, after these students have graduated from high school (spring 2018), would be beneficial to the Texas Legislature because impacts to high school graduation and college enrollment will be evident. In addition, more cohorts will be entering high school under the Foundation High School Program, giving the Texas Legislature more opportunities to see trends in these outcomes.

7. References

American Institutes for Research. (2015). House Bill 5 evaluation. Austin, TX: Author. Retrieved from http://tea.texas.gov/Reports_and_Data/Program_Evaluations/Research_Reports/Program_Evaluation___Research_Reports/

Pearson Education. (2006). TAKS Higher Education Readiness Component (HERC) contrasting groups study. Centennial, CO: Pearson Education. Retrieved from http://tea.texas.gov/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=2147494130&libID=2147494126

Texas Administrative Code, Title 19, Education, Ch. 74, Subchapter G, § 74.71-74.74 (2014). Retrieved from http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074g.html

Texas Administrative Code, Title 19, Education, Ch. 74, Subchapter BB, § 74.1021-74.1022 (2014). Retrieved from http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074bb.html

Texas Education Agency. (2008). *2008 accountability manual*. Austin, TX: Author. Retrieved from https://rptsvr1.tea.texas.gov/perfreport/account/2008/manual/index.html

Texas Education Agency. (2010). *House Bill 3 transition plan: A report to the 82nd Texas Legislature from the Texas Education Agency.* Austin, TX: Author. Retrieved from http://tea.texas.gov/student.assessment/hb3plan/

Texas Education Agency. (2013). *2013 accountability manual for Texas public districts and campuses*. Austin, TX: Author. Retrieved from https://rptsvr1.tea.texas.gov/perfreport/account/2013/manual/index.html

Texas Education Agency. (2014a). *2014 accountability manual.* Austin, TX: Author. Retrieved from https://rptsvr1.tea.texas.gov/perfreport/account/2014/manual/index.html

Texas Education Agency. (2014b) *Graduation toolkit: Information for planning your high school years & beyond*. Austin, TX: Author. Retrieved from http://tea.texas.gov/communications/brochures.aspx

Texas Education Agency. (2014c). *House Bill 5: Foundation High School Program*. Austin, TX: Author. Retrieved from http://tea.texas.gov/graduation-requirements/hb5.aspx

Texas Education Agency. (2014e). *State graduation requirements*. Austin, TX: Texas Education Agency. Retrieved from http://tea.texas.gov/graduation.aspx

Texas Education Agency. (2014f). *Technical digest*: *For the academic year 2012–2013*. Austin, TX: Author. Retrieved from http://tea.texas.gov/Student_Testing_and_Accountability/Testing/Student_Assessment_Overview/Technical_Digest_2012-2013/

Texas Education Agency. (2015a). *Assessment graduation requirements as amended by Senate Bill (SB) 149.* Austin, TX: Author. Retrieved from http://tea.texas.gov/About_TEA/News_and_Multimedia/Correspondence/TAA_Letters/Assessment_Graduation_Requirements_as_Amended_by_Senate_Bill_(SB)_149/

Texas Education Agency. (2015c). *Summary of commissioner of education final decisions regarding 2015 state accountability*. Austin, TX: Author. Retrieved from https://www.tasanet.org/cms/lib/TX01923126/Centricity/domain/14/capwatch/2015/2015-accountability-changes.pdf

Texas Education Agency. (2016a). 2016 accountability manual. Austin, TX: Author. Retrieved from http://tea.texas.gov/2016accountability.aspx.

Texas Education Agency. (2016b). *2015-16 A-F Ratings: A report to the 85th Texas Legislature from the Texas Education Agency*. Austin, TX: Author.

Texas Education Agency. (2016c). Processing of district four-year longitudinal graduation and dropout rates, class of 2016 technical report. Austin, TX: Author. Retrieved from http://tea.texas.gov/acctres/dropcomp_4yr_processing_class_2016.pdf.

Texas Education Agency. (2017). Secondary school completion and dropouts in Texas public schools, 2015–16 (Document No. GE17 601 13). Austin, TX: Author.

Texas Legislative Council. (1993). Summary of enactments, 73rd legislature, regular session. Austin, TX: Author. Retrieved from http://www.lrl.state.tx.us/scanned/sessionOverviews/summary/soe73.pdf

Texas Legislative Council. (1995). *Summary of enactments, 74th legislature, regular session.* Austin, TX: Author. Retrieved from http://www.lrl.state.tx.us/scanned/sessionOverviews/summary/soe74.pdf

Texas Legislative Council. (1999). *Summary of enactments, 76th legislature, regular session.* Austin, TX: Author. Retrieved from http://www.tlc.state.tx.us/pubssoe/76soe/76soe.pdf

Texas Legislative Council. (2001). *Summary of enactments, 77th legislature, regular session.* Austin, TX: Author. Retrieved from http://www.tlc.state.tx.us/pubssoe/77soe/77soe.pdf

Texas Legislative Council. (2006). *Summary of enactments, 79th legislature, third called session.* Austin, TX: Author. Retrieved from http://www.tlc.state.tx.us/pubssoe/79soe/79soe3.pdf

Texas Legislative Council. (2007). *Summary of enactments, 80th legislature, regular session.* Austin, TX: Author. Retrieved from http://www.tlc.state.tx.us/pubssoe/80soe/80soe.pdf

Texas Legislative Council. (2009). *Summary of enactments, 81st legislature, regular session, first called session.* Austin, TX: Author. Retrieved from http://www.tlc.state.tx.us/pubssoe/81soe/81soe.pdf

Texas Legislative Council. (2013). *Summary of enactments, 83rd legislature, regular session, first, second, and third called sessions.* Austin, TX: Author. Retrieved from http://www.tlc.state.tx.us/pubssoe/83soe/83soe.pdf

Appendix A. Spring 2017 District and Charter School Survey

This PDF copy of the survey is provided to enable the respondent to view all of the survey items in their entirety in order to identify the best person within the school district to complete the survey. The survey should first be forwarded to the district superintendent, who should complete the survey or designate the appropriate individual(s) to complete the survey on his or her behalf.

THIS SURVEY SHOULD ONLY BE COMPLETED IN THE ONLINE FORM.

DO NOT COMPLETE THIS SURVEY IN PAPER FORM.

Texas House Bill 5 Evaluation—Spring 2017 District Survey

Why am I receiving this survey invitation?

During the 2014–15 school year, new high school graduation requirements enacted under House Bill 5 (HB 5) from the 83rd Texas Legislature, Regular Session, were implemented in public school districts and charter schools across Texas (in this survey, the word "district" is used to refer to both districts and charter schools). As part of the legislation, HB 5 Section 83(a) requires that the Texas Education Agency (TEA) in collaboration with the Texas Higher Education Coordinating Board and the Texas Workforce Commission conduct an evaluation that estimates the effects of these changes on several key outcomes. An initial report to the governor, lieutenant governor, and members of the legislature was published in 2015: http://tea.texas.gov/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=25769823287&libID=25769823385. A final report is required to be submitted not later than December 1, 2017. The final report on the statewide evaluation of the implementation of the new graduation requirements is being conducted by the American Institutes for Research (AIR). Collecting input from school districts is a critical part of this evaluation. Your school district has recently received a communication from TEA regarding this survey. This *To the Administrator Addressed* (TAA) communication can be accessed here.

The purpose of the survey is to find out how districts across Texas are promoting and implementing high school graduation requirements and associated endorsements. The survey includes both multiple-choice and short, open-ended questions. The survey will take approximately 15-25 minutes to complete, depending on the number of endorsements offered within your school district. Please read the questions carefully and review all of the response choices before making your selections.

We ask that the district superintendent complete this survey or that the superintendent forward this survey to the person who is most knowledgeable about Texas high school graduation requirements with regard to endorsements offered, course alignment, courses added, and information dissemination to parents.

Why should I participate?

This survey asks for information about how graduation requirements and endorsements are being promoted and implemented in your district. Your participation is voluntary, but your input plays an important role in describing how graduation plans and endorsements are being implemented across Texas, as well as describing any changes to curriculum districts have made in response to the policy. Your survey responses will also help TEA and the Texas Legislature better understand how the changes made to curriculum and testing requirements under HB 5 have affected high school student outcomes, such as high school graduation, college readiness, college enrollment, and obtainment of workforce certifications.

Who can I contact for questions or support in completing the survey?

If you encounter technical or substantive issues with survey content during completion, please direct your questions by phone or email to 312-588-7327 or TXHB5Eval@air.org.

Are my responses confidential?

Yes. Your responses are confidential to the extent permitted by law, and no individuals or districts will be identified by name in the reporting of study findings. Only aggregate results will be reported. It is also important to note that AIR is not evaluating you or your district; rather, we are trying to ascertain how graduation requirements and endorsements are being promoted and implemented in districts across Texas. Survey results from district administrators will be aggregated in all reports, and you will not be linked to any results. If any of the open-ended comments are used in future reporting, all identifying information (such as names of schools, districts, or individuals) will be omitted.

By completing the survey, you consent to let AIR use your responses and comments anonymously in AIR's HB 5 Evaluation reports.

Statement of Consent

If you agree to participate in the survey, click on the "NEXT" button below.

Texas House Bill 5 Evaluation—District Staff Survey

Part I: Communicating with Students

We are interested in learning how your district has been communicating with students about high school graduation requirements. The next several questions ask about whether your district is encouraging students to complete specific endorsements or earn a Distinguished Level of Achievement.

1. **What kinds of data or information are you using to recommend particular endorsements to students?** (*Select all that apply.)*

   ☐ Career interest inventories
   ☐ Availability of jobs in the region
   ☐ Expressed student interest
   ☐ Expressed parent interest
   ☐ Prior student achievement in endorsement subject area
   ☐ Not applicable
   ☐ Other *(Please describe)*:

   [Open unlimited text box]

2. **Is your district encouraging students to earn a Distinguished Level of Achievement?** *(Select one)*

   ☐ Yes
   ☐ No

<Respondents will receive item 2a if they answer Yes to item 2>

2a. Which of the following actions is your district taking to encourage students to earn a Distinguished Level of Achievement? *(Select all that apply)*

☐ Requiring students to complete Algebra II for graduation
☐ Automatically including course work towards the completion of a Distinguished Level of Achievement
☐ Encouraging students to complete Algebra II
☐ Promoting the Distinguished Level of Achievement on the district webpage
☐ Promoting the Distinguished Level of Achievement at parent meetings
☐ Promoting the Distinguished Level of Achievement at school assemblies/student meetings
☐ Promoting the Distinguished Level of Achievement in the student handbook
☐ Having counselors encourage students to earn a Distinguished Level of Achievement
☐ Having teachers encourage students to earn a Distinguished Level of Achievement
☐ Other (Please describe):

[Open unlimited text box]

Part II: Endorsement Offerings

We are interested in learning about the endorsements and aligned courses being offered in your district. The next several questions will ask you to fill in information about which of the five endorsements are being offered, options students can complete to fulfill each of these endorsements, and any new courses your district created to meet advanced English language arts, mathematics, or science credits.

1. **Do all of the high schools in your district offer the same set of endorsements?**

   ☐ Yes
   ☐ No

STEM Endorsement

1. **Does your district offer students the opportunity to complete the STEM endorsement?**

   ☐ Yes
   ☐ No

<Respondents will receive item 4a if they answer Yes to item 4>

4a. Please select which of the following options students in your district can select from in order to complete the STEM endorsement. *(Select all that apply)*

☐ Option 1: A coherent sequence of courses for four or more credits in Career and Technical Education (CTE) that consists of at least two courses in the same career cluster including at least one advanced CTE course which includes any course that is the third or higher course in a sequence. The courses may be selected from courses in all CTE career clusters or CTE innovative courses approved by the commissioner of education. The final course in the sequence must be selected from the STEM career cluster.

☐ Option 2: A coherent sequence of four credits in computer science.

☐ Option 3: A total of five mathematics credits earned by successfully completing Algebra I, geometry, Algebra II and two additional mathematics courses for which Algebra II is a prerequisite.

☐ Option 4: A total of five credits in science by successfully completing biology, chemistry, physics, and two additional science courses.

☐ Option 5: In addition to Algebra II, chemistry, and physics, a coherent sequence of three additional credits from one or two disciplines represented by the other options.

<Respondents will receive item 4b if they **do not** select all options in item 4a>

4b. What factors prevented your district from offering the other options? *(Type your response in the box)*

[Open unlimited text box]

Business & Industry Endorsement

1. **Does your district offer students the opportunity to complete the Business & Industry endorsement?**

   ☐ Yes
   ☐ No

<Respondents will receive item 5a if they answer Yes to item 5>

5a. Please select which of the following options students in your district can select from in order to complete the Business & Industry endorsement. *(Select all that apply.)*

☐ Option 1: A coherent sequence of courses for four or more credits in CTE that consists of at least two courses in the same career cluster including at least one advanced CTE course which includes any course that is the third or higher course in a sequence. The courses may be selected from courses in all CTE career clusters or CTE innovative courses approved by the commissioner of education.
☐ Option2: Four English elective credits by selecting three levels from approved areas.
☐ Option 3: Four technology applications credits from approved areas.
☐ Option 4: A coherent sequence of four credits from Options 1, 2, or 3.

<Respondents will receive item 5b if they select Option 1 in item 5a>

5b. Please indicate which of the following CTE Career Clusters aligned with the Business & Industry endorsement your district offers to students. *(Select all that apply.)*

☐ Agriculture, Food and Natural Resources
☐ Architecture and Construction
☐ Arts, Audio/Video Technology and Communications
☐ Business Management and Administration
☐ Finance
☐ Hospitality and Tourism
☐ Information Technology
☐ Manufacturing
☐ Marketing
☐ Transportation, Distribution and Logistics

<Respondents will receive item 5c if they select Option 4 (and not Option 1) in item 5a>

5c. Please indicate which of the following CTE Career Clusters aligned with the Business & Industry endorsement your district offers to students. *(Select all that apply.)*

☐ Agriculture, Food and Natural Resources
☐ Architecture and Construction
☐ Arts, Audio/Video Technology and Communications
☐ Business Management and Administration
☐ Finance
☐ Hospitality and Tourism
☐ Information Technology
☐ Manufacturing
☐ Marketing
☐ Transportation, Distribution and Logistics
☐ Not applicable

<Respondents will receive item 5d if they do not select all options in item 5a>

5d. What factors prevented your district from offering the other options?
(Type your response in the box)

[Open unlimited text box]

Public Services Endorsement

1. **Does your district offer students the opportunity to complete the Public Services endorsement?**

☐ Yes
☐ No

<Respondents will receive item 6a if they answer Yes to item 6>

6a. Please select which of the following options students in your district can select from in order to complete the Public Services endorsement. *(Select all that apply)*

☐ Option 1: A coherent sequence of courses for four or more credits in CTE that consists of at least two courses in the same career cluster including at least one advanced CTE course which includes any course that is the third or higher course in a sequence. The courses may be selected from courses in all CTE career clusters or CTE innovative courses approved by the commissioner of education.

☐ Option 2: Four courses in Junior Reserve Officer Training Corps (JROTC).

<Respondents will receive item 6b if they select Option 1 in item 6a>

6b. Please indicate which of the following CTE Career Clusters aligned with the Public Services endorsement your district offers to students. *(Select all that apply)*

☐ Education and Training
☐ Government and Public Administration
☐ Health Science
☐ Human Services
☐ Law, Public Safety, Corrections, and Security

<Respondents will receive item 6c if they do not select all options in item 6a>

6c. What factors prevented your district from offering the other options?
(Type your response in the box)

[Open unlimited text box]

Arts & Humanities Endorsement

1. **Does your district offer students the opportunity to complete the Arts & Humanities endorsement?**

   ☐ Yes
   ☐ No

<Respondents will receive item 7a if they answer Yes to item 7>

7a. Please specify which of the following options students in your district can select from in order to complete the Arts & Humanities endorsement. *(Select all that apply)*

☐ Option 1: A total of five social studies credits.
☐ Option 2: Four levels of the same language in a language other than English OR two levels of the same language in a language other than English and two levels of another language other than English.
☐ Option 3: Four levels of American Sign Language.
☐ Option 4: A coherent sequence of four credits by selecting courses from one or two categories or disciplines in fine arts or innovative courses approved by the commissioner.
☐ Option 5: Four English elective credits from the list of approved courses.

<Respondents will receive item 7b if they do not select all options in item 7a>

7b. What factors prevented your district from offering the other options?
(Type your response in the box)

[Open unlimited text box]

Multidisciplinary Studies Endorsement

1. **Does your district offer students the opportunity to complete the Multidisciplinary Studies endorsement?**

   ☐ Yes
   ☐ No

<Respondents will receive item 8a if they answer Yes to item 8>

8a. Please specify which of the following options students in your district can select from in order to complete the Multidisciplinary Studies endorsement. *(Select all that apply)*

☐ Option 1: Four advanced courses that prepare a student to enter the workforce successfully or postsecondary education without remediation from within one endorsement area or among endorsement areas that are not in a coherent sequence.
☐ Option 2: Four credits in each of the four foundation subject areas to include English IV and chemistry and/or physics.
☐ Option 3: Four credits in Advanced Placement®, International Baccalaureate®, or dual credit selected from English, mathematics, science, social studies, economics, languages other than English, or fine arts.

<Respondents will receive item 8b if they do not select all options in item 8a>

8b. What factors prevented your district from offering the other options?
(Type your response in the box)

[Open unlimited text box]

2. **Please select or describe the factors that your school district considered when deciding which endorsements to offer to students.** (*Select all that apply.)*

- ☐ Current course offerings in the district aligned with endorsements
- ☐ Current staff capacity to instruct the courses necessary to offer endorsements
- ☐ The endorsement(s) aligns with our school's specialized program(s)
- ☐ Perceived lack of qualified instructors in the local educator labor market
- ☐ Lack of district curriculum support
- ☐ Lack of district curriculum staff familiarity with appropriate, aligned coursework necessary for particular endorsements
- ☐ Availability of facilities necessary to offer endorsements
- ☐ Availability of resources, other than staff or facilities, necessary to offer endorsements
- ☐ Expressed staff interest in particular endorsements
- ☐ Expressed parent interest in particular endorsements
- ☐ Expressed student interest in particular endorsements
- ☐ Prior student achievement in courses aligned to particular endorsement areas
- ☐ Current employment needs in the region align with the endorsements
- ☐ Other *(Please describe)*:

[Open unlimited text box]

3. **Since the 2014–15 academic year what changes has your district made to the number of endorsement offerings?**

- ☐ Increased the number of endorsement offerings
- ☐ Decreased the number of endorsement offerings
- ☐ Have made no changes to the number of endorsement offerings
- ☐ I don't know

4. **Have you had students transfer into your district who were unable to complete the endorsement they previously were pursuing?**

- ☐ Yes
- ☐ No
- ☐ I don't know

<Respondents will receive item 11a and 11b if they answer Yes to item 11>

11a. What were the factors that prevented students from completing the endorsement in your district?
(Type your response in the box)

[Open unlimited text box]

11b. What action(s) did the district take to support those students in completing an endorsement?
(Type your response in the box)

[Open unlimited text box]

5. **What action(s) does the district take to support students who may be undecided about which endorsement to take?**
(Type your response in the box)

[Open unlimited text box]

The next two questions will ask you to describe any barriers your district faced in offering certain endorsements. Please discuss barriers that your district overcame, as well as barriers that still exist.

13a. Please describe how the district overcame any barriers to offering certain endorsements since the 2014–15 academic year, if applicable.
(Type your response in the box)

[Open unlimited text box]

13b. Please describe what barriers to offering certain endorsements still exist in your district, if applicable.
(Type your response in the box)

[Open unlimited text box]

Part III: Additional Information

14. **Please indicate any local criteria students in your district must complete in addition to the state graduation requirements?** *(select all that apply)*

- ☐ My district does not require local criteria
- ☐ Algebra II
- ☐ Health
- ☐ Four social studies credits
- ☐ Four credits in each of the four core subject areas
- ☐ Additional physical education credit(s)
- ☐ Speech/professional communications
- ☐ Technology applications/computer science
- ☐ Other (Please describe)

[Open unlimited text box]

15. **Does your district offer locally developed courses, including activities needed to obtain an industry-recognized credential or certificate, that may satisfy an English language arts, mathematics, or science graduation requirement?**

☐ Yes
☐ No

<Respondents will receive item 15a, 15b, and 15c if they answer Yes to item 15>

15a. If applicable, which locally developed courses or activities does your district offer that satisfies an English language arts graduation requirement?
(Type your response in the box)

[Open unlimited text box]

15b. If applicable, which locally developed courses or activities does your district offer that satisfies a mathematics graduation requirement?
(Type your response in the box)

[Open unlimited text box]

15c. If applicable, which locally developed courses or activities does your district offer that satisfies a science graduation requirement?
(Type your response in the box)

[Open unlimited text box]

16. **Is there anything else that you would like to share with us about how your district is implementing the Foundation High School Program graduation requirements and endorsements?**
(Type your response in the box)

[Open unlimited text box]

Thank you for your time.
Your participation in this effort is sincerely appreciated!

Appendix B. Student Outcomes Analyses: Technical Details

B.1 Methodology for Constructing Grade 9 Cohorts

All baseline student outcomes analyses were based on cohorts made up of the incoming Grade 9 students for the specific academic year. For example, students who entered Grade 9 for the first time in fall 1997 were considered to be members of the 1997–98 cohort. Because the fall enrollment snapshot was used to identify first-time Grade 9 students, students entering later in the academic year were not included in the cohort or any of the outcomes analyses.

The Public Education Information Management System (PEIMS) p_enroll_demogyrf file for the appropriate years was used to identify Grade 9 students. To ensure that only first-time freshmen were included in the analyses, students were retained if they were classified as a Grade 8 student in the previous year or were missing from the enrollment file for the previous year (i.e., new to Texas public schools). Multiple observations for the same student were reduced to one record. To do so, student records were sorted by the variables *id2* and *dtupdate*, and the last records were selected and retained in the data file.

Incoming Grade 9 students contained in these data files formed the base for each cohort and were followed forward through high school, college, and career, as allowed by timeline and data availability. The student demographic characteristics contained in these files were retained for all analyses, even if they changed across years/data files. That is, if a student was classified as eligible for free/reduced price lunch, was an English language learner (ELL) student, or received special education services in Grade 9, he or she was classified as such for all years of data analysis. A new dummy variable was created to identify students with an economic disadvantage. This variable was created by coding values of “01,” “02,” and “99” to indicate students who were economically disadvantaged and values of “00” to indicate that students who were not economically disadvantaged. A student also retained the sex and race/ethnicity designation contained in his or her Grade 9 enrollment record.

Incoming Grade 9 students contained in these data files formed the base for each cohort and were followed forward through college and career, as allowed by timeline and data availability. The denominator for each student-level analysis was determined by the number of Grade 9 students included in each cohort file. For example, if there were 322,000 incoming Grade 9 students in the 1997–98 cohort file, the denominator for all student-level outcomes analyses for this cohort was 322,000. Students do not enter or exit a cohort for any reason, including dropout, transfer out of state, or transfer to a private school. The outcomes reported across time include college readiness, high school graduation, college enrollment, college completion, workforce certificate completion, employment, and wages.

The methods used to create these cohorts differ from the methodology employed by the Texas Education Agency (TEA). Per TEC § 39.053(c)(2)-(3), TEA calculates dropout and graduation rates in accordance with standards and definitions adopted by the National Center for Education Statistics of the United States Department of Education and in compliance with the No Child Left Behind Act of 2001 (20 U.S.C. Section 6301 et seq.). These requirements necessitate the calculation of an on-time high school graduation rate based on a cohort that takes into account students’ progression from grade to grade, data on graduation status, and data on students who transfer in and out of a school, district, or state during the high school years. TEA defines a cohort as the group of students who begin Grade 9 in Texas public schools for the first time at any time in the same school year plus students, who in the next three school years, enter the Texas public school

system in the grade level expected for the cohort. Students in the cohort are tracked to their expected graduation date, and all students remain in their original cohort. For the purposes of calculating the longitudinal graduation rate, students who leave the cohort for reasons other than graduating, receiving a general equivalency diploma, or dropping out or are excluded based on statutory requirements and are not included in the calculation. Please see http://tea.texas.gov/acctres/DropComp_2012–13.pdf for more information. TEA's methodology is not employed in this analysis to keep the number of students in a cohort consistent across time. Keeping the number of students in the cohort consistent allows for more consistent comparisons across time and analyses.

B.2 Chapter 3 Outcomes

B.2.1. High School Graduation Within Four Years

The *gradtype* variable contained in the PEIMS graduateyr files was used to track trends in the percentage of students who graduated from high school within four years.[55] A new dummy variable was created to flag students who graduated from a Texas public high school within four years. Students who graduated from a Texas public high school within four years received a code of 1; students who did not, including students who may have transferred to a private or out-of-state high school, received a code of 0. A variable indicating which graduation program a student completed (*hs_graddegree*) was also created. Students were coded as "pre-Minimum, Recommended, or Distinguished," "No Graduation Record," "Minimum," "Recommended," or "Distinguished."[56]

These analyses were produced using a different methodology from that employed by TEA. The methods used to conduct TEA's graduation rates are described in the *Secondary School Completion and Dropouts in Texas Public Schools, 2013–14* report (Texas Education Agency, 2015b) and the *Processing of District Four-Year Longitudinal Graduation and Dropout Rates, Class of 2013* technical report (Texas Education Agency, 2014f). As described previously, for this analysis students did not join or exit a cohort for any reason, including dropout or transfer out of state. As such, the denominators for these analyses include all students who entered the cohorts in Grade 9. All students were retained in the analyses to produce consistent estimates of graduation rates across time as TEA's graduation rate calculations have changed over time. In addition, this practice allows the percentages shown in the tables and figures to represent the same number of students over time and to have the same meaning.

B.2.2. Two-Year and Four-Year College Enrollment

With regard to two-year and four-year college enrollment, the Texas Higher Education Coordinating Board (THECB) enrollment files for two-years (c_cbm001), public four-year colleges (u_cbm001), and independent four-year colleges (i_cbm001) were used to assess trends. These files contained enrollment records for students who attended colleges and universities in Texas. Students who attended out-of-state colleges were not represented in these analyses. New dummy variables were created for these analyses: *twoyr_enroll* and *fouryr_enroll*. Students who had a record in the c_cbm001 files were coded as enrolled in a two-year college (*twoyr_enroll*), whereas students who had a record in either the i_cbm001 or u_cbm001 files were coded as enrolled in a four-year college (*fouryr_enroll*). Students who were included the THECB enrollment files during the fall, spring, summer I, or summer II semesters four years after

[55] These calculations were conducted using a different methodology from the one TEA uses to determine high school graduation rates. Results contained in this report should not be compared to those published in other TEA reports.
[56] This includes students who graduated under a diploma plan instituted prior to the Minimum High School Program, Recommended High School Program, and Distinguished Achievement Program.

enrolling in high school received a value of 1, and students who are not included in one of the files received a value of 0.[57] Students were coded to only one college type. If a student had a record in the c_cbm001 file and either the u_cbm001 or i_cbm001 files, the student was coded only as being enrolled in a four-year college.

B.2.3. Two-year and Four-year College Graduation or Persistence and Workforce Certificate Obtainment

The *graddegr* variable in the THECB degree-awarded files for two-year colleges (c_cbm009), public four-year colleges (u_cbm009), and independent four-year colleges (i_cbm009) was used to examine trends in college graduation and workforce certificate obtainment. For these analyses, seven new dummy variables were created: *CERT1, CERT2, CERT3, AA, bachelor's, persist_2yr,* and *persist_4yr*. Students who earned a level-1 certificate within three years of enrolling in a two-year college received a value of 1 for the CERT1 variable, students who earned a level-2 certificate within three years received a value of 1 for the *CERT2* variable, and students who earned a level-3 certificate within three years of enrolling in a community college received a value of 1 for the *CERT3* variable. Similarly, students who earned an associate's degree within three years of enrolling in a two-year college received a value of 1 on the *AA* variable, and students who earned a bachelor's degree within five years received a value of 1 for the *bachelor's* variable. Students who did not earn a certificate or degree but were enrolled in a two-year college within three years received a value of 1 on the *persist_2yr* variable, and students who did not earn a bachelor's degree but were enrolled in a four-year college within five years received a value of 1 on the *persist_4yr* variable. Students who did not have values of 1 received codes of 0 for the appropriate variables*. CERT1, CERT2, CERT3, AA,* and *persist_2yr* were combined for the analyses presented in Chapter 3, as were *bachelors* and *persist_4yr*.

B.2.4. College Readiness

Student-level data from the Texas Higher Education Coordinating Board Texas Success Initiative (TSI) pass files, which contain variables indicating whether a student has met the TSI readiness standards in reading (*read_pass)* and mathematics (*math_pass*), were used to assess college readiness for students who enrolled in a two-year or four-year college after high school graduation.

B.2.5. Employment and Wages

The Texas Workforce Commission (TWC) files were used to investigate trends in employment and wages. In conducting the analyses, the fourth quarter TWC files were used and the highest wage was selected if a student had more than one record in the quarter.[58] A new dummy variable was created to code whether or not a student was employed. Students who had a record in the fourth quarter file received a value of 1, whereas students who did not have a record received a code of 0. Employment and wage information is presented one, three, and five years after a student's actual or expected high school graduation date.

Employment and wage data from TWC are available only for individuals employed in Texas. Accordingly, students employed in other states were counted as unemployed in these analyses. The earnings data represent the highest wages earned among all jobs in which an individual was employed for the specific

[57] For students who graduated from high school, this value pertained to the year following high school graduation. For students who did not graduate from high school, it was the year following their expected high school graduation date.
[58] Higher education metrics often focus on the first semester following high school graduation, which generally coincides with October, November, and December—the fourth quarter of the same calendar year.

year. If an individual was employed at more than one job during a year, only the highest wage for that year was used in the analyses. As such, these numbers somewhat undercount actual wages across individuals. Since no information about the number of hours worked is captured in these files, the highest wage obtained from a single job was compared across students.

B.3 Chapter 5 Impact Analysis

In order to estimate the effect of House Bill (HB) 5 on student outcomes, AIR implemented a quasi-experimental design utilizing propensity score matching and multilevel modeling. Because data on most of the key outcomes of interest were not available for students entering Grade 9 in 2014–15, the first cohort of students required to graduate under the Foundation High School Program, the impact analyses was conducted using students from earlier cohorts.

Propensity score matching was used to match Grade 9 students from the entering cohort of 2011–12 cohort, who opted to graduate under the Foundation High School Program with similar students from the entering cohort of 2009–10, who graduated under the previous graduation program—Minimum, Recommended, or Distinguished Achievement High School Programs within the same school.[59],[60] By matching students who opted to graduate under the Foundation High School Program with students from an earlier cohort who graduated under the Minimum, Recommended, or Distinguished Achievement High School Programs and did not have the option to graduate under the Foundation High School Program, selection bias was reduced. By matching students who attended the same schools, differences in the outcomes that were due to between-school differences were reduced. The propensity score was estimated using the following equation:

$$logit(Z_i) = \alpha + X^i{}_i\beta,$$

where Z_i indicates the treatment status for student i ($Z_i = 1$ for students from the incoming Grade 9 cohorts in 2011–12 who opted to graduate under the Foundation High School Program, $Z_i = 0$ for students from the incoming Grade 9 cohort in 2009–10), a student's logit is a linear function of a vector of individual characteristics, $X^i{}_i$, and β is the corresponding coefficient vector. The variables included in the analysis are student demographic characteristics (i.e., race/ethnicity, gender, socioeconomic status), high school program participation (i.e., special education status, ELL status), and academic achievement (i.e., TAKS grade 8 mathematics and English Language Arts [ELA] scores).[61]

After propensity scores were calculated for each student, a nearest neighbor matching algorithm within school was employed to match each Foundation High School Program student from the incoming Grade 9 cohort of 2011–12 to a similar student from the incoming Grade 9 cohort of 2009–10 based on the propensity score. Once matched, baseline equivalence between groups of students was assessed. Table

[59] Students in the 2011–12 cohort were given the opportunity to transition to the Foundation High School Program graduation requirements or continue to complete the Minimum, Recommended, or Distinguished Achievement High School Program requirements.

[60] Students in the 2009–10 cohort did not have the opportunity to graduate under the Foundation High School Program. There is a limitation associated with using a comparison group of students from earlier cohorts. The impact of HB 5 may be confounded with any other initiative (or historical factor) that may have led to changes in your outcomes. Propensity score matching will get eliminate demographic, motivational, and achievement influences on selection, but the treatment effect may not be isolated to only this treatment. However, as our previous policy review shows, policies implemented during this period are unlikely to influence the outcomes.

[61] Due to changes in the scaling of the TAKS grade 8 mathematics and ELA scores, students' scale scores on were standardized using a z-score transformation. Z-score transformations were conducted separately by cohort and the Grade 8 school students attended. Students with missing TAKS scores were assigned a TAKS score of equal to the mean of their school and cohort. If students did not attend a Texas public school in Grade 8, they were assigned a TAKS score of 0, the mean of the z-score scale. Students' z-scores were used in place of scale scores in the propensity score matching process.

B1 shows baseline equivalence between the groups of students. As shown, there were significant differences between the groups of students with regard to English learner status and special education status. However, the actual differences between the groups is 1.1 percentage points or less.

Table B1. Baseline Equivalence on Matching Variables between Matched Students in the 2009–10 and 2011–12 Cohorts

	Cohort 2009–10		Cohort 2011–12		
Variable	**Number**	**Percentage**	**Number**	**Percentage**	**Significance**
Female	5,795	47.6	5,755	47.3	0.60
White	4,169	34.2	4,105	33.7	0.38
African American	1,282	10.5	1,290	10.6	0.87
Hispanic	6,312	51.8	6,351	52.2	0.62
Other race/ethnicity	414	3.4	432	3.5	0.53
English learner	669	5.5	746	6.1	0.04
Special education	562	4.6	693	5.7	0.00
Economic disadvantage	6,064	49.8	6,047	49.7	0.82
Variable	**Number**	**Mean**	**Number**	**Mean**	**Significance**
TAKS Grade 8 Mathematics, Z-score	12,177	-0.07	12,178	-0.06	0.10
TAKS Grade 8 ELA, Z-score	12,177	-0.15	12,178	-0.13	0.07

Sources. Public Education Information Management System (PEIMS) files, 2011–2015.
Notes. The 2011-12 cohort is made up of students who entered Grade 9 in the academic year listed who had a record in the PEIMS graduation files indicating that they graduated under the Foundation High School Program (FHSP). Students in this cohort were matched with similar students who entered Grade 9 in the same schools during the 2009-10 cohort. Students in this cohort did not have the opportunity to graduate under the FHSP. The values in the table compare the student characteristics of students in these two groups.

Next, multilevel modeling, with students nested within schools, was used to estimate the impact of HB 5 on student outcomes. The model for the analysis is shown below:

Level 1 (student) $log\left(\frac{p_{ij}}{1-p_{ij}}\right) = n_{ij}, n_{ij} = \pi_{0\mathrm{j}} + \pi_{1\mathrm{j}} FHSP_{ij} + X_{ij} + e_{ij}$

Level 2 (school) $\pi_{nj} = \gamma_{n0} + r_j$

Since all of the outcome variables are binary, a logit link function was used. At Level 1, n_i is the outcome for student *i,* $FHSP_{ij}$ is an indicator of whether student *i* graduated under Foundation High School Program, and X_{ij} is a vector of student-level characteristics. All variables in the level-1 model, with the exception of $FHSP_{ij}$ were group-mean centered. In the Level 2 model, π_{nj} is the average value across schools for each π_{nj} included in the level-1 model, and r_j is the difference for each school from the average. Analyses investigating the differential effects of HB 5 included interaction terms as necessary to investigate difference by subgroup. These subgroups included: gender, race/ethnicity, special education status, ELL status, and economic disadvantage status.

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Appendix C. Descriptive Statistics of Each Grade 9 Cohort

This appendix presents descriptive statistics for the entering Grade 9 students within the 2011–12 through 2015–16 cohorts.[62]

Table C1. 2011–12 Entering Grade 9 Cohort Descriptives

Student Group	Number	Percentage
Racial/Ethnic Groups		
African American	46,929	13.0%
American Indian	1,779	0.5%
Asian	13,314	3.7%
Hispanic	176,549	48.8%
Multiracial	5,705	1.6%
Pacific Islander	490	0.1%
White	116,967	32.3%
Students Identified as		
Economically disadvantaged	198,919	55.0%
English language learners	26,126	7.2%
Students Participating in Programs for		
Special education	32,777	9.1%

Source. Public Education Information Management System Enrollment file, 2012.
Notes. *N* = 361,733. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2011–12 cohort entered Grade 9 for the first time in the fall 2011 semester. Racial/ethnic group categories are mutually exclusive.

[62] Descriptive statistics for the entering Grade 9 students examined in Chapter 3 can be found in Appendix C of the December 2015 HB 5 Evaluation report (American Institutes for Research, 2015). Please see the report at http://tea.texas.gov/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=25769823287&libID=25769823385

Table C2. 2012–13 Entering Grade 9 Cohort Descriptives

Student Group	Number	Percentage
Racial/Ethnic Groups		
African American	48,002	13.0%
American Indian	1,692	0.5%
Asian	13,314	3.6%
Hispanic	182,467	49.5%
Multiracial	6,191	1.7%
Pacific Islander	497	0.1%
White	116,500	31.6%
Students Identified as		
Economically disadvantaged	204,319	55.4%
English language learners	27,305	7.4%
Students Participating in Programs for		
Special education	32,464	8.8%

Source. Public Education Information Management System Enrollment file, 2013
Notes. *N* = 368,663. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2012–13 cohort entered Grade 9 for the first time in the fall 2012 semester. Racial/ethnic group categories are mutually exclusive.

Table C3. 2013–14 Entering Grade 9 Cohort Descriptives

Student Group	Number	Percentage
Racial/Ethnic Groups		
African American	48,057	12.8%
American Indian	1,543	0.4%
Asian	13,576	3.6%
Hispanic	187,158	49.9%
Multiracial	6,536	1.7%
Pacific Islander	523	0.1%
White	117,681	31.4%
Students Identified as		
Economically disadvantaged	206,823	55.1%
English language learners	29,490	7.9%
Students Participating in Programs for		
Special education	31,906	8.5%

Source. Public Education Information Management System Enrollment file, 2014.
Notes. *N* = 375,074. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2013–14 cohort entered Grade 9 for the first time in the fall 2013 semester. Racial/ethnic group categories are mutually exclusive.

Table C4. 2014–15 Entering Grade 9 Cohort Descriptives

Student Group	Number	Percentage
Racial/Ethnic Groups		
African American	49,293	12.7%
American Indian	1,541	0.4%
Asian	15,141	3.9%
Hispanic	197,344	50.7%
Multiracial	6,925	1.8%
Pacific Islander	506	0.1%
White	118,896	30.5%
Students Identified as		
Economically disadvantaged	179,579	46.1%
English language learners	35,309	9.1%
Students Participating in Programs for		
Special education	32,812	8.4%

Source. Public Education Information Management System Enrollment file, 2015.
Notes. *N* = 389,646. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Racial/ethnic group categories are mutually exclusive.

Table C5. 2015–16 Entering Grade 9 Cohort Descriptives

Student Group	Number	Percentage
Racial/Ethnic Groups		
African American	50,043	12.6%
American Indian	1,591	0.4%
Asian	16,150	4.1%
Hispanic	205,058	51.5%
Multiracial	7,230	1.8%
Pacific Islander	578	0.1%
White	117,681	29.5%
Students Identified as		
Economically disadvantaged	184,828	46.4%
English language learners	39,917	10.0%
Students Participating in Programs for		
Special education	34,799	8.7%

Source. Public Education Information Management System Enrollment file, 2016.
Notes. *N* = 398,331. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2015–16 cohort entered Grade 9 for the first time in the fall 2015 semester. Racial/ethnic group categories are mutually exclusive.

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Appendix D. Student Outcomes by Student Groups

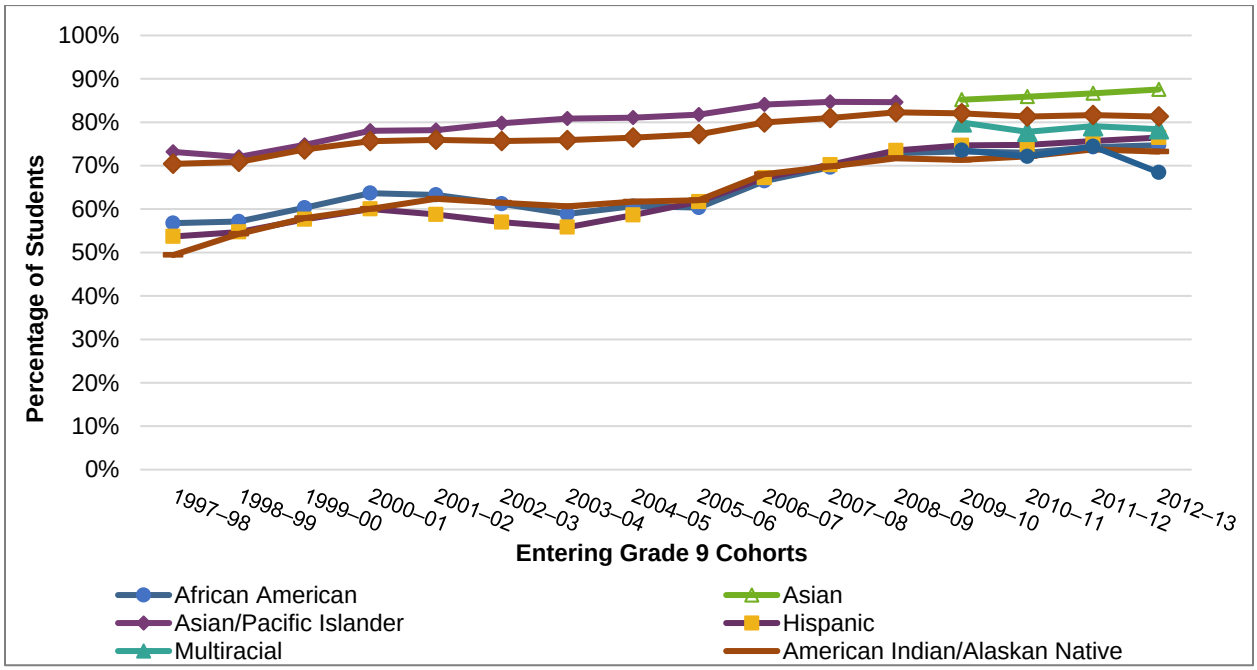
To facilitate ease of reading, the data provided in Chapter 3 primarily include findings for all students in the entering Grade 9 cohorts. Student group analyses highlighting findings of interest are also included in Chapter 3. This appendix presents figures displaying results of the analyses by student group for all outcomes.

Figures reporting findings by racial/ethnic background include the following assumptions:

- Because of the adoption of a new racial/ethnic background classification system, the number of racial/ethnic background categories changed from five to seven in 2009–10.
- There is a gap in the line for Asian/Pacific Islanders because of the adoption of the new system of racial/ethnic group categories. In the new system, Asian students and Pacific Islander students are reported separately.
- Beginning in 2009–10, students could be classified as multiracial, indicating that their background includes more than one racial/ethnic group. However, students are not counted twice. All racial/ethnic group classifications are mutually exclusive.

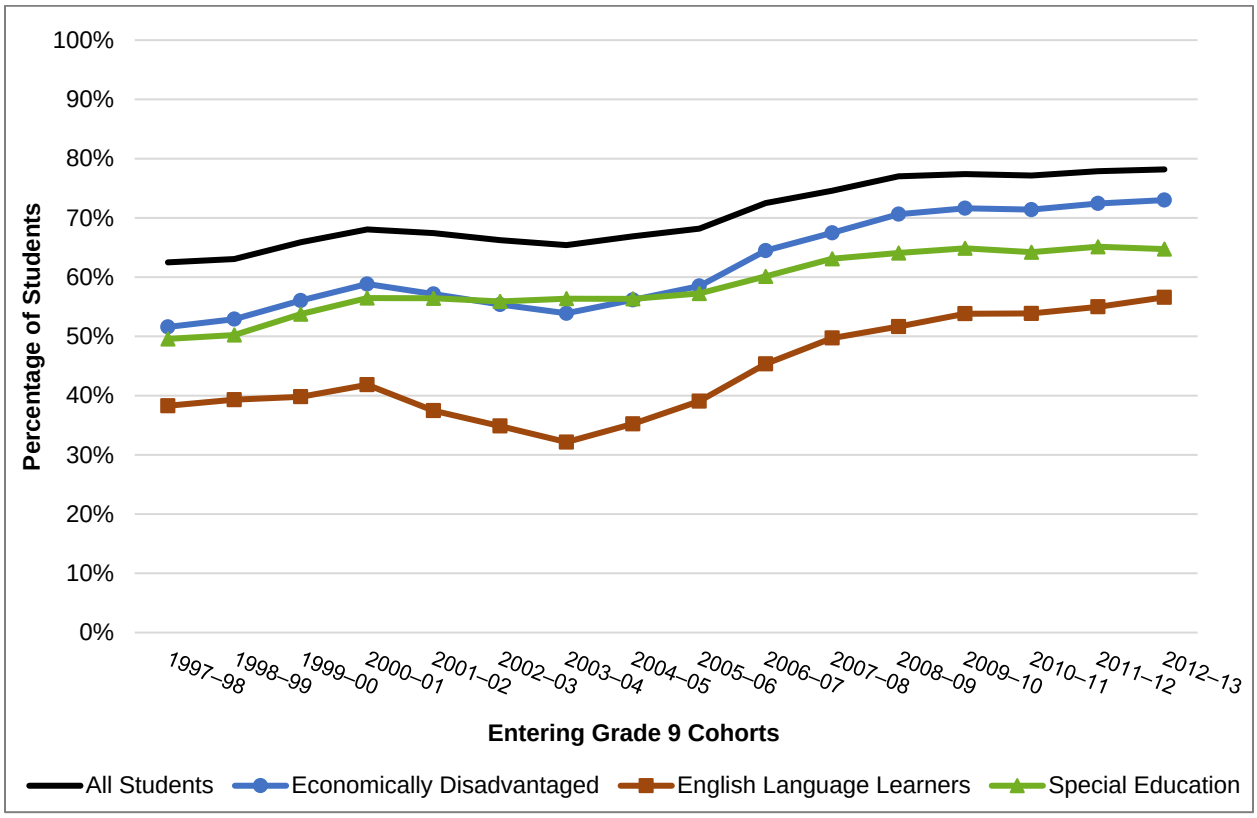
D.1 High School Graduation

Figure D1. Percentages of Students in Each Cohort Who Graduated From a Texas Public High School Within Four Years, by Race/Ethnicity



Source. Public Education Information Management System (PEIMS) files, 1998–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering Grade 9 cohort who had a graduation record in the Texas Education Agency PEIMS Graduation files within four years of entering Grade 9, by race/ethnicity.

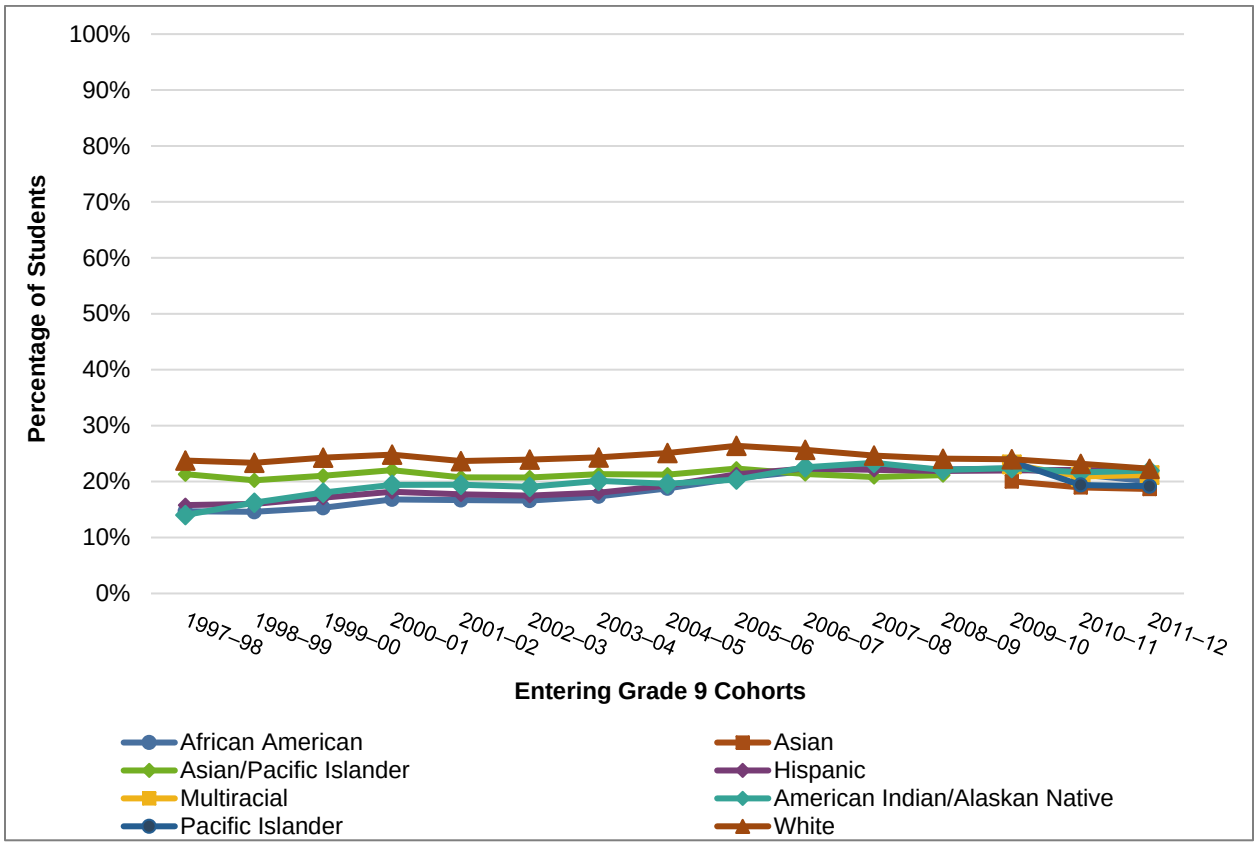
Figure D2. Percentages of Students in Each Cohort Who Graduated From a Texas Public High School Within Four Years for Economically Disadvantaged Students, English Language Learner Students, and Special Education Students, Compared to All Students



Source. Public Education Information Management System (PEIMS) files, 1998–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering Grade 9 cohort who have a graduation record in the Texas Education Agency PEIMS Graduation files within four years of entering Grade 9 for economically disadvantaged students, English language learner students, and special education students, compared to all students.

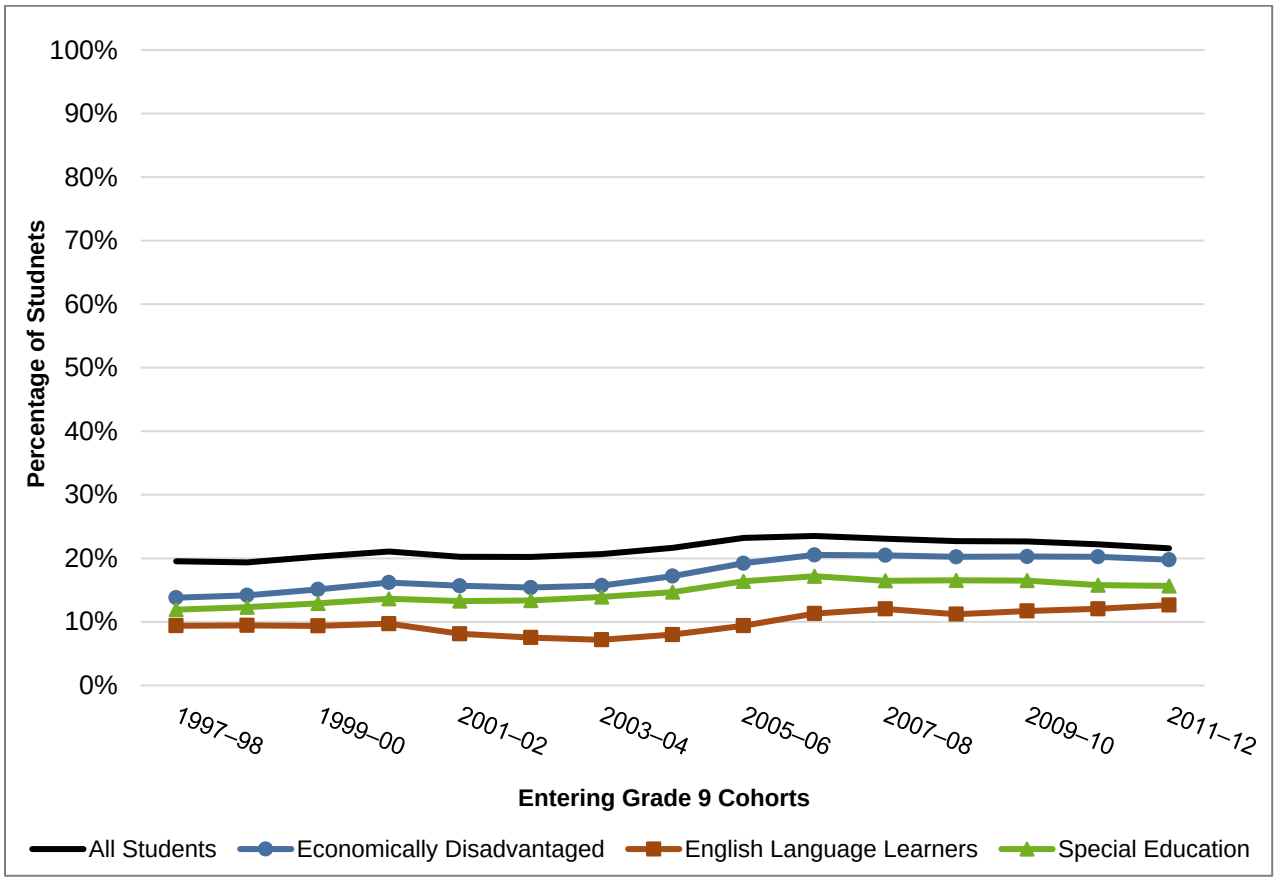
D.2 Two-Year College Enrollment

Figure D3. Percentages of Students in Each Cohort Who Enrolled in a Texas Two-Year College Within One Year of Actual or Expected Graduation Date From High School, by Race/Ethnicity



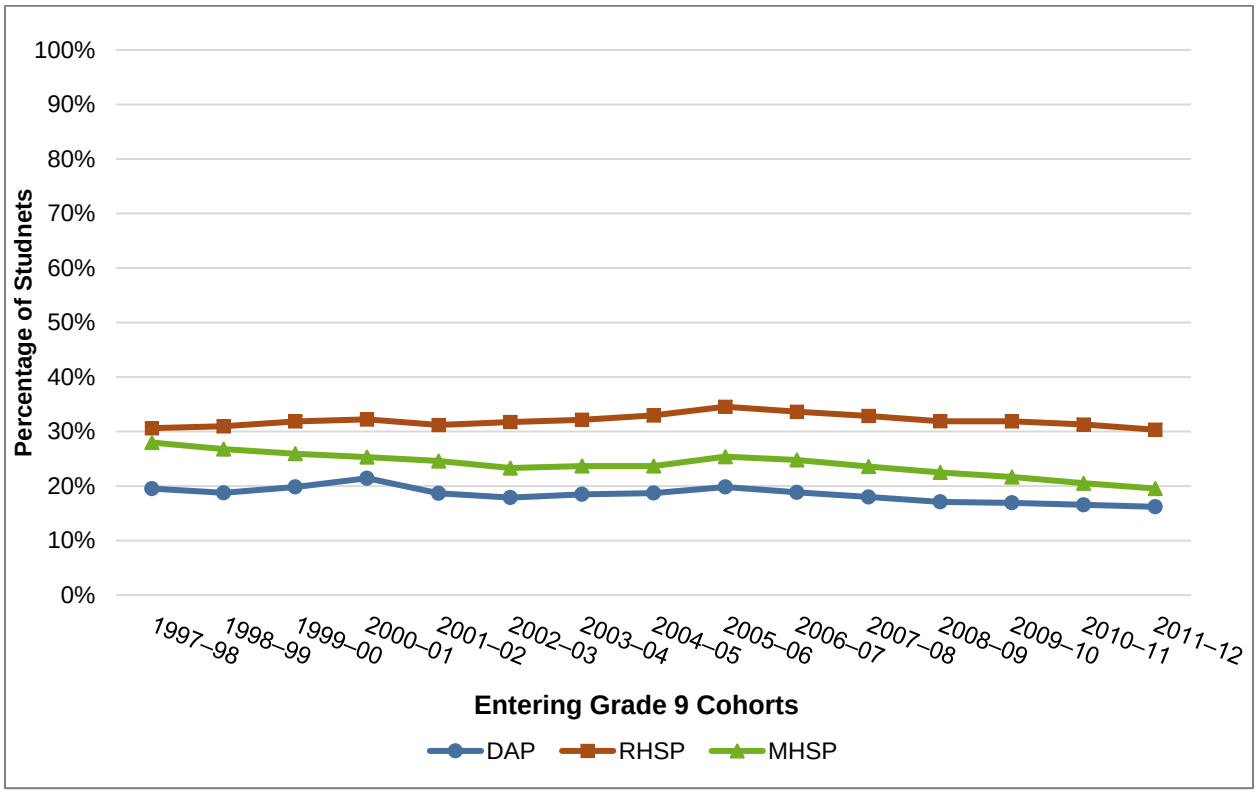
Source. Texas Higher Education Coordinating Board, Two-Year College Enrollment files, 1999–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Students in this cohort were expected to graduate from high school during or prior to the spring semester of 2001. Students in this cohort were coded as having enrolled in a Texas two-year college if they showed up in the fall, spring, summer I, and/or summer II data files for the 2001–02 academic year.

Figure D4. Percentages of Students in Each Cohort Who Enrolled in a Texas Two-Year College Within One Year of Actual or Expected Graduation Date for Economically Disadvantaged Students, English Language Learner Students, Special Education Students, Compared to All Students



Source. Texas Higher Education Coordinating Board, Two-Year College Enrollment files, 1999–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Students in this cohort were expected to graduate from high school during or prior to the spring semester of 2001. Students in this cohort were coded as having enrolled in a Texas two-year college if they showed up in the fall, spring, summer I, and/or summer II data files for the 2001–02 academic year. Data are shown for economically disadvantaged students, English language learner students, and special education students, compared to all students in the cohort.

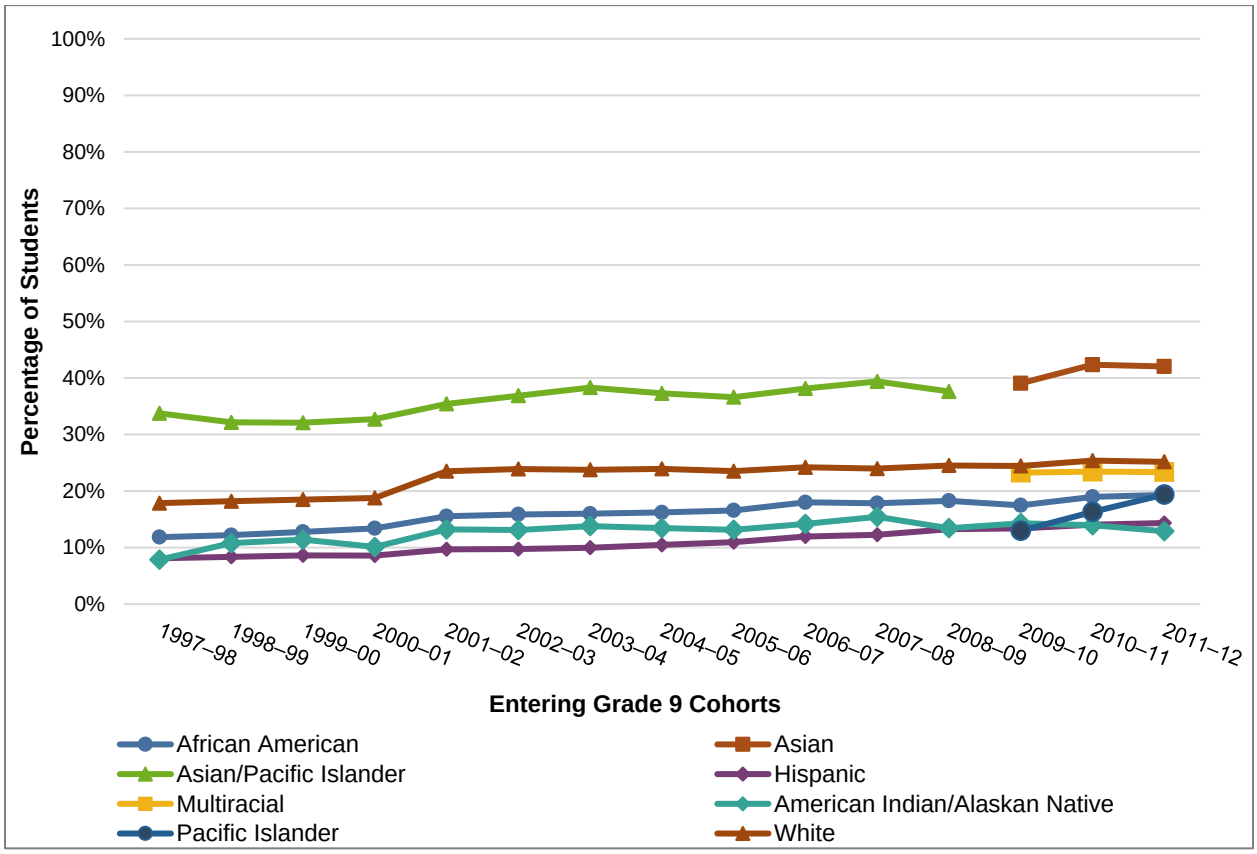
Figure D5. Percentages of Students in Each Cohort Who Enrolled in a Texas Two-Year College Within One Year of Actual or Expected Graduation Date From High School, by High School Graduation Program



Source. Texas Higher Education Coordinating Board, Two-Year College Enrollment files, 1999–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Students in this cohort were expected to graduate from high school during or prior to the spring semester of 2001. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP. Students in this cohort were coded as having enrolled in a Texas two-year college if they showed up in the fall, spring, summer I, and/or summer II data files for the 2001–02 academic year.

D.3 Four-Year College Enrollment

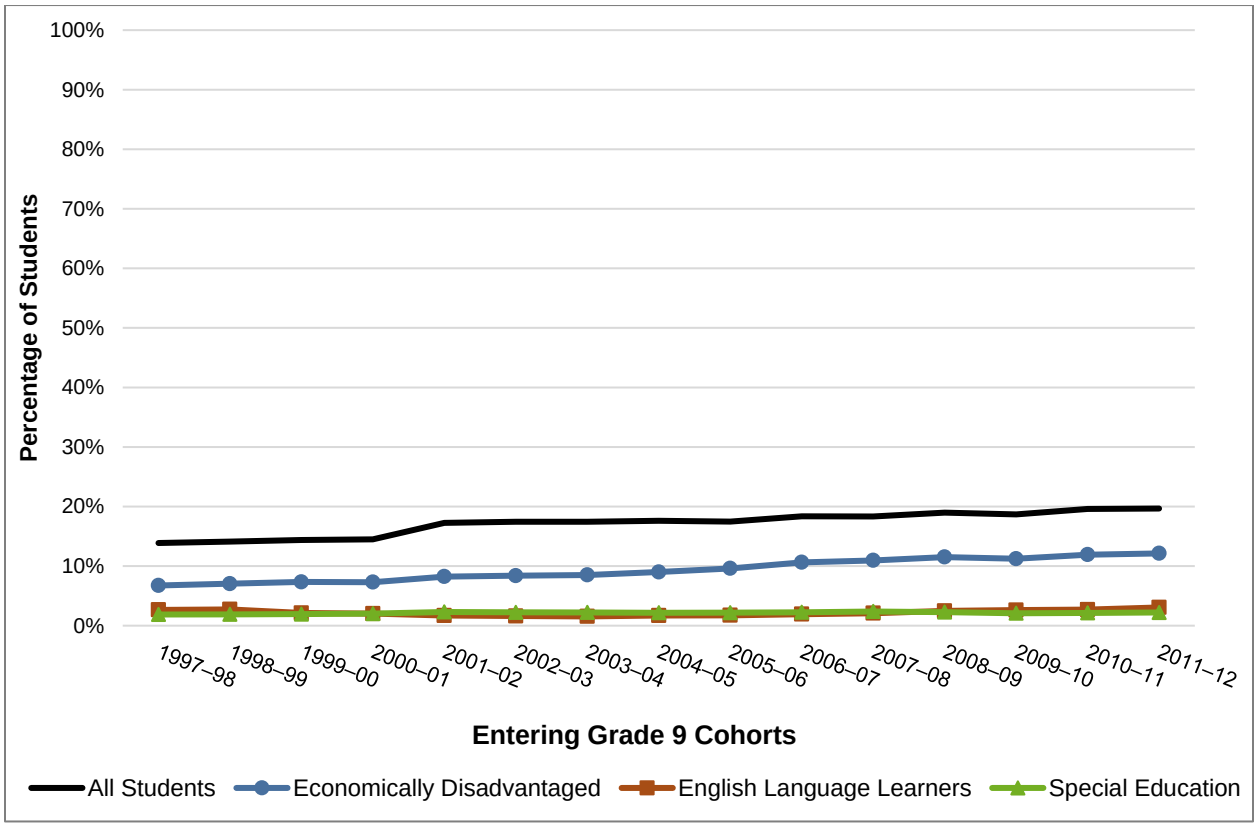
Figure D6. Percentages of Students in Each Cohort Who Enrolled in a Texas Public or Independent Four-Year College or University Within One Year of Actual or Expected Graduation Date, by Race/Ethnicity



Source. Texas Higher Education Coordinating Board (THECB), Public College and University Enrollment files, 1999–2016; THECB, Private and Independent College and University files, 2002–2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Students in this cohort were expected to graduate during or prior to the spring semester of 2002. Students in this cohort were coded as having enrolled in a Texas four-year college or university if they showed up as enrolled during the fall, spring, or summer semesters of the 2001–02 academic year. Data for Texas independent universities were not available for entering Grade 9 cohorts prior to 2001–02.

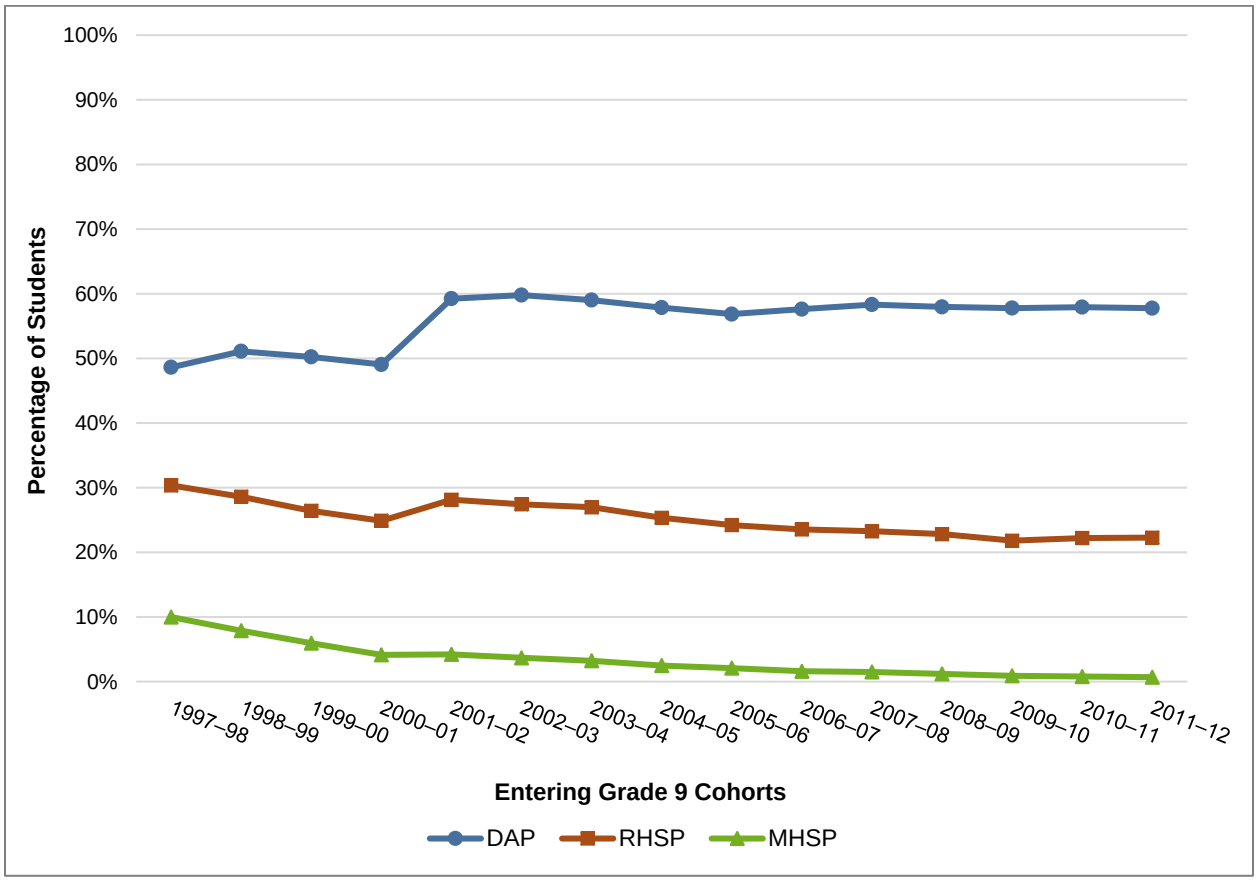
Figure D7. Percentages of Students in Each Cohort Who Enrolled in a Texas Public or Independent Four-Year College or University Within One Year of Actual or Expected Graduation Date for Economically Disadvantaged Students, English Language Learner Students, and Special Education Students, Compared to All Students



Source. Texas Higher Education Coordinating Board (THECB), Public College and University Enrollment files, 1999–2016; THECB, Private and Independent College and University files, 2002–2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Students in this cohort were expected to graduate during or prior to the spring semester of 2002. Students in this cohort were coded as having enrolled in a Texas four-year college or university if they showed up as enrolled during the fall, spring, or summer semesters of the 2001–02 academic year. Data for Texas independent universities were not available for entering Grade 9 cohorts prior to 2001–02. Data are shown for economically disadvantaged students, English language learner students, and special education students, compared to all students in the cohort.

Figure D8. Percentages of Students in Each Cohort Who Enrolled in a Texas Public or Independent Four-Year College or University Within One Year of Actual or Expected Graduation Date, by High School Graduation Program

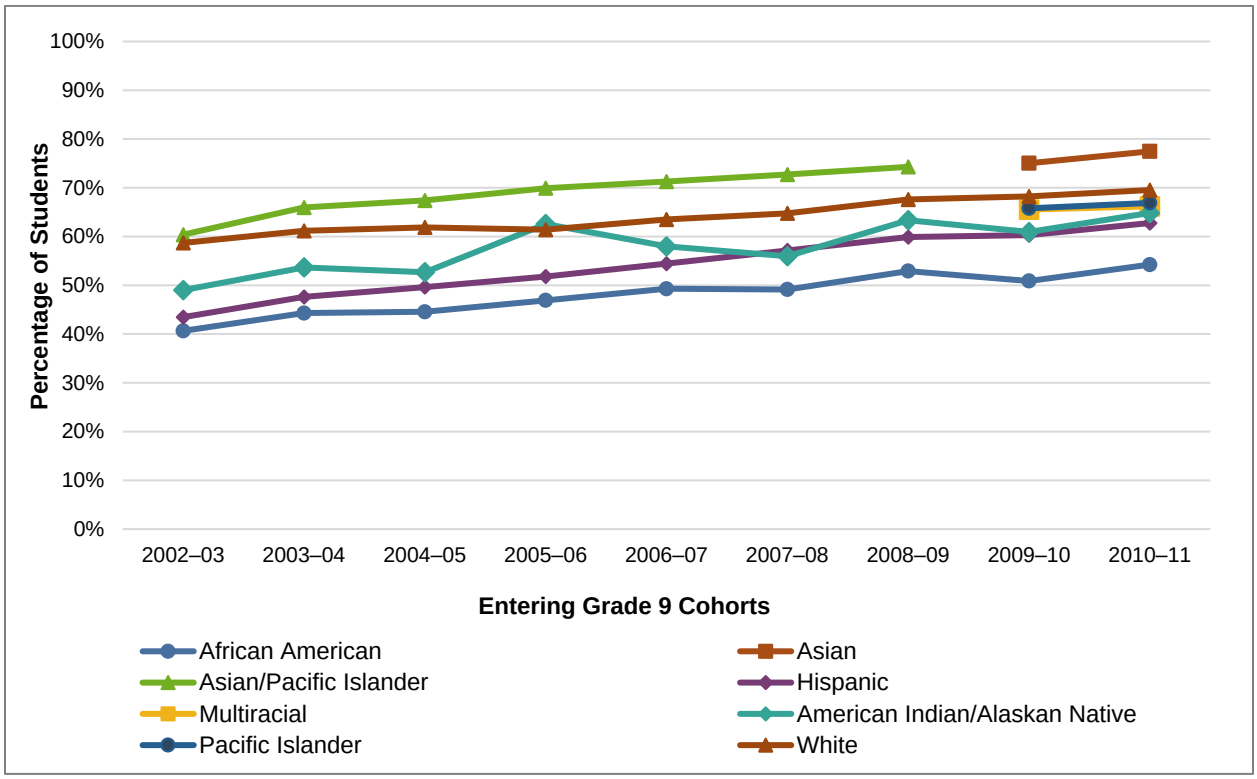


Source. Texas Higher Education Coordinating Board (THECB), Public College and University Enrollment files, 1999–2016; THECB, Private and Independent College and University files, 2002–2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Students in this cohort were expected to graduate during or prior to the spring semester of 2002. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP. Students in this cohort were coded as having enrolled in a Texas four-year college or university if they showed up as enrolled during the fall, spring, or summer semesters of the 2001–02 academic year.

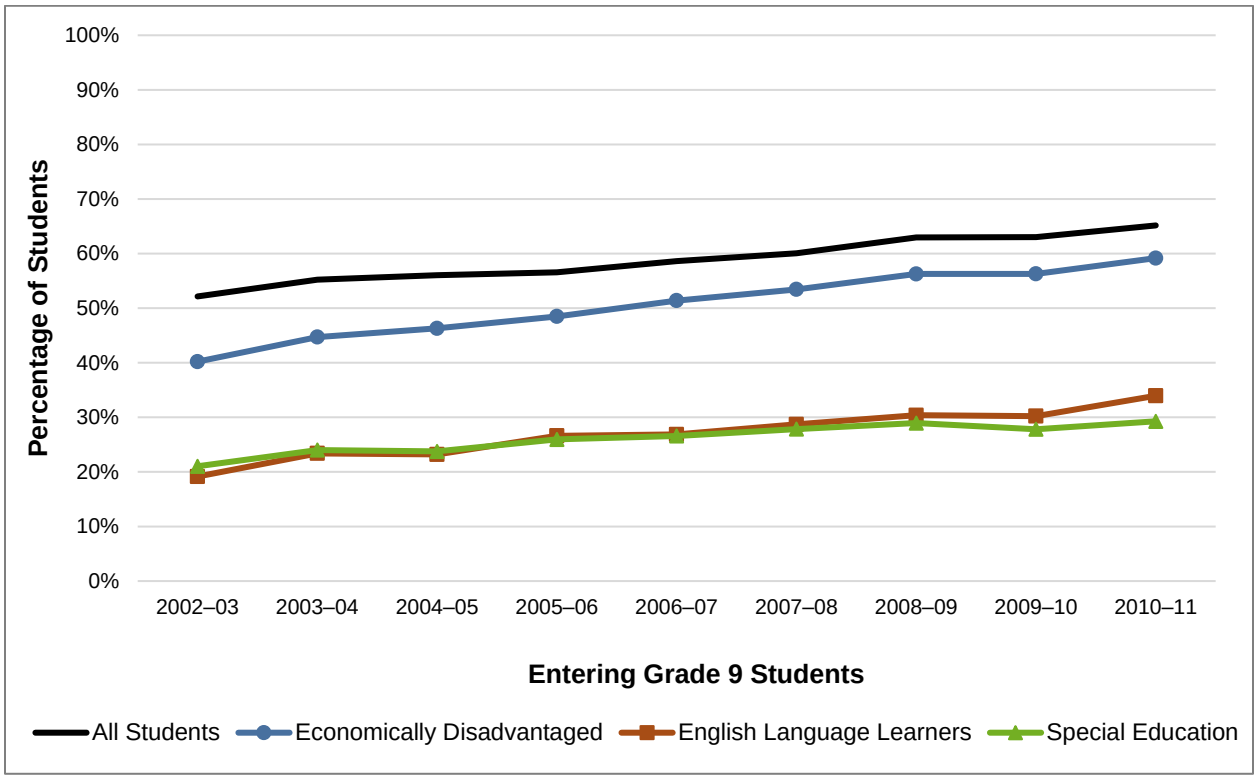
D.4 Texas Success Initiative

Figure D9. Percentages of Students in Each Cohort Who Met the TSI Readiness Standards in Reading, by Race/Ethnicity



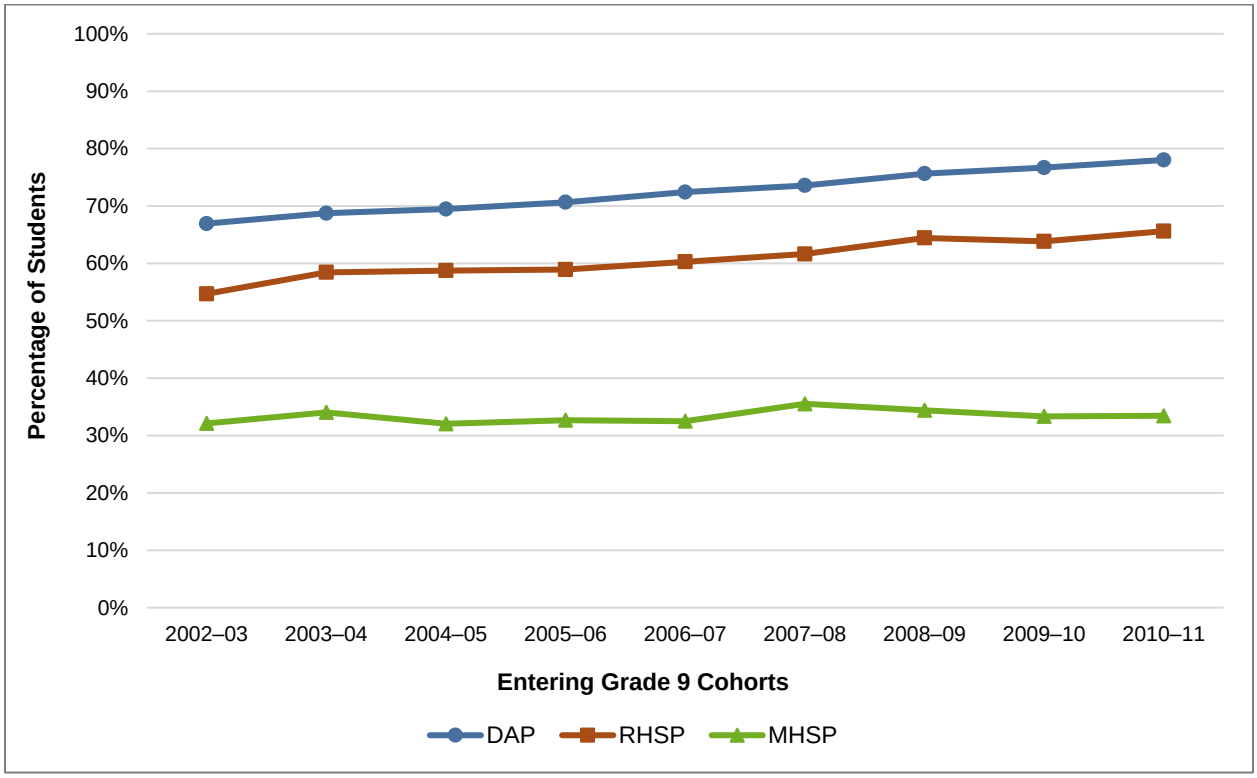
Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2004–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2002–03 cohort entered Grade 9 for the first time in the fall 2002 semester. Percentages shown in the figure represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of their actual or expected high school graduation date and met the TSI Readiness Standards in reading, by race/ethnicity.

Figure D10. Percentages of Students in Each Cohort Who Met the TSI Readiness Standards in Reading for Economically Disadvantaged Students, English Language Learner Students, and Special Education Students, Compared to All Students



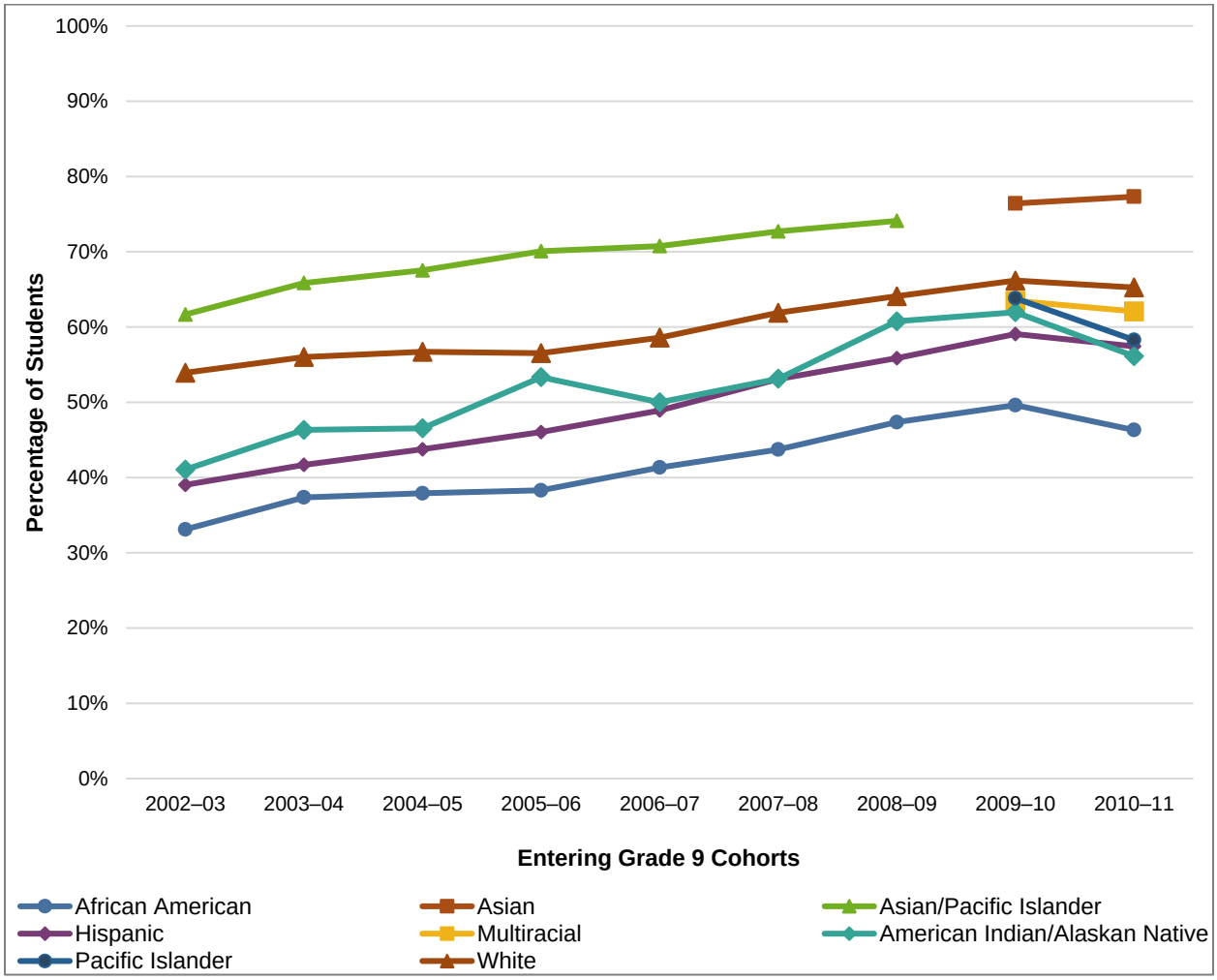
Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2004–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2002–03 cohort entered Grade 9 for the first time in the fall 2002 semester. Percentages shown in the figure represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of their actual or expected high school graduation date and met the TSI Readiness Standards in reading for economically disadvantaged students, English language learner students, and special education students, compared to all students.

Figure D11. Percentages of Students in Each Cohort Who Met the TSI Readiness Standards in Reading, by High School Graduation Program



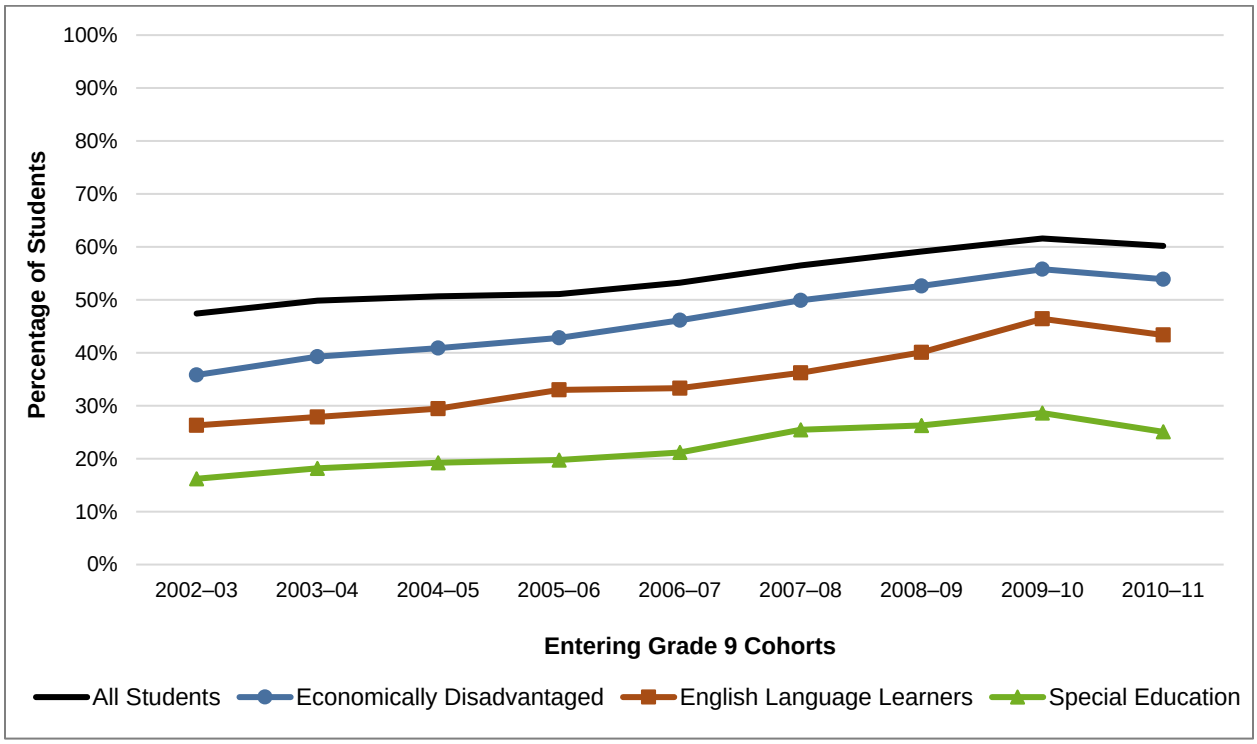
Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2004–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2002–03 cohort entered Grade 9 for the first time in the fall 2002 semester. Percentages shown in the figure represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of their actual or expected high school graduation date and met the TSI Readiness Standards in reading, by high school graduation program. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

Figure D12. Percentages of Students in Each Cohort Who Met the TSI Readiness Standards in Mathematics, by Race/Ethnicity



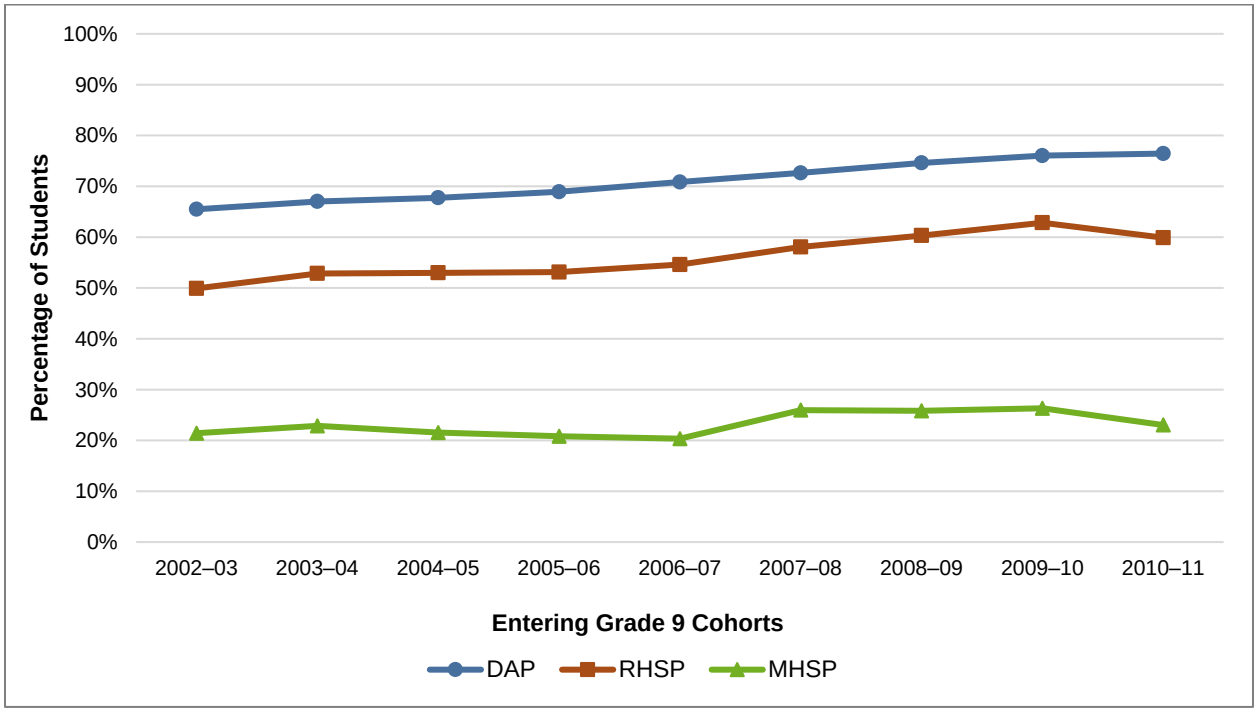
Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2004–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2002–03 cohort entered Grade 9 for the first time in the fall 2002 semester. Percentages shown in the figure represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of their actual or expected high school graduation date and met the TSI Readiness Standards in mathematics, by race/ethnicity.

Figure D13. Percentages of Students in Each Cohort Who Met the TSI Readiness Standards in Mathematics for Economically Disadvantaged Students, English Language Learner Students, and Special Education Students, Compared to All Students



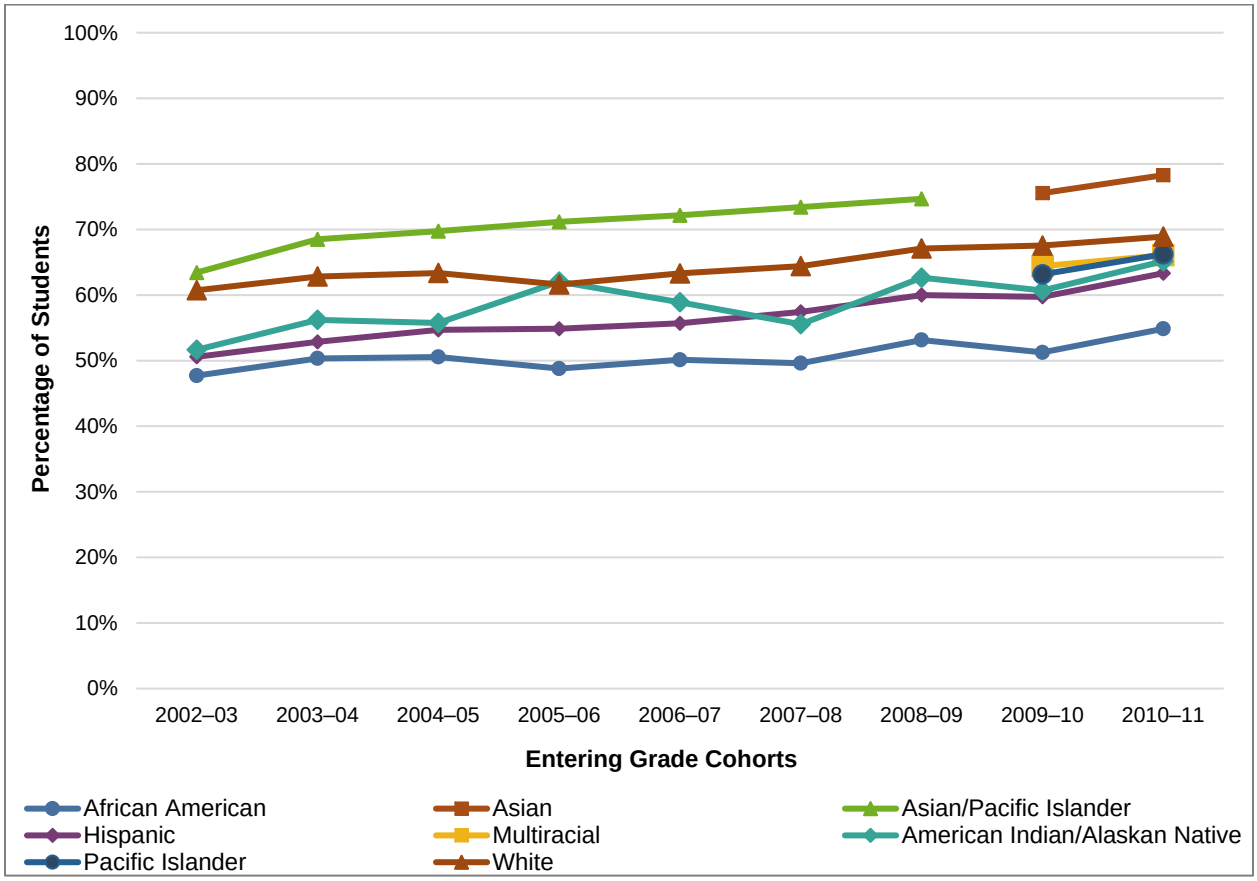
Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2004–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2002–03 cohort entered Grade 9 for the first time in the fall 2002 semester. Percentages shown in the figure represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of their actual or expected high school graduation date and met the TSI Readiness Standards in mathematics for economically disadvantaged students, English language learner students, and special education students, compared to all students.

Figure D14. Percentages of Students in Each Cohort Who Met the TSI Readiness Standards in Mathematics, by High School Graduation Program



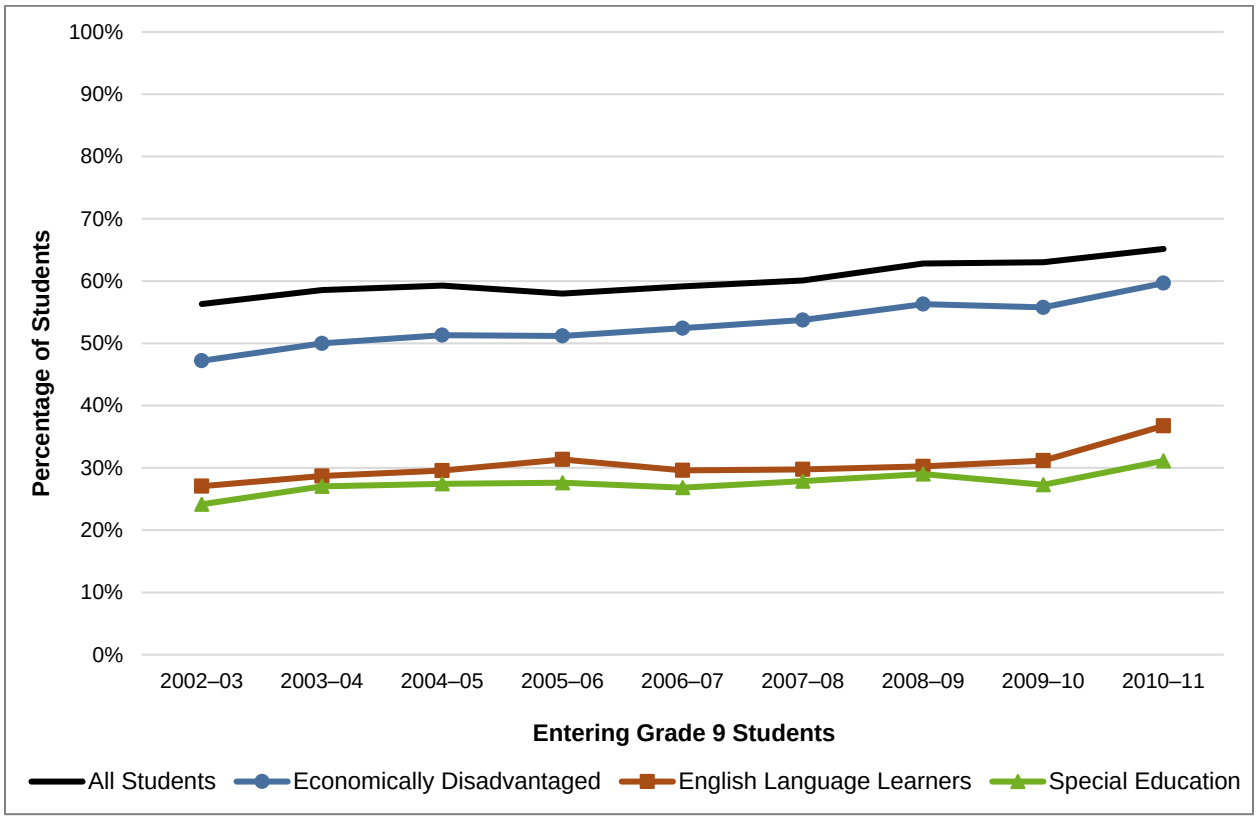
Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2004–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2002–03 cohort entered Grade 9 for the first time in the fall 2002 semester. Percentages shown in the figure represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of their actual or expected high school graduation date and met the TSI Readiness Standards in mathematics, by high school graduation program. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

Figure D15. Percentages of Students in Each Cohort Who Met the TSI Readiness Standards in Writing, by Race/Ethnicity



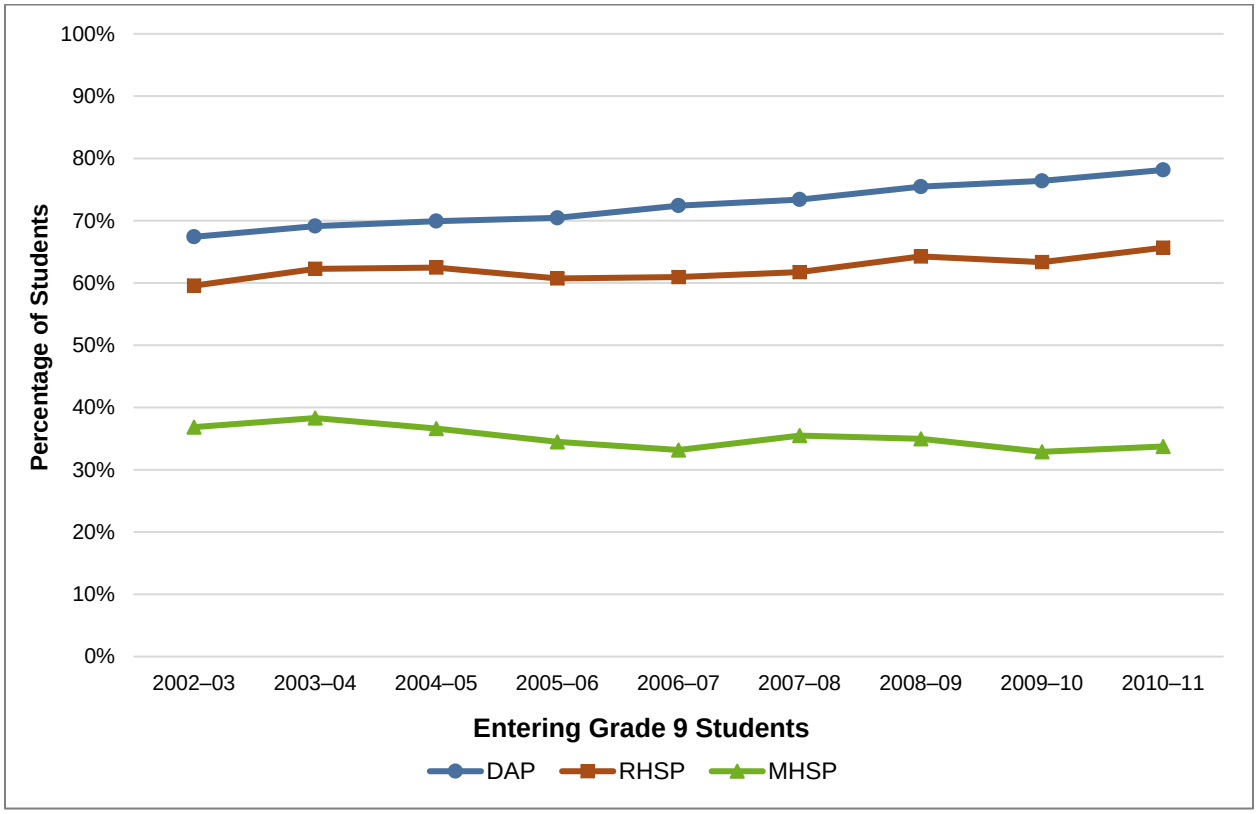
Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2004–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2002–03 cohort entered Grade 9 for the first time in the fall 2002 semester. Percentages shown in the figure represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of their actual or expected high school graduation date and met the TSI Readiness Standards in writing, by race/ethnicity.

Figure D16. Percentages of Students in Each Cohort Who Met the TSI Readiness Standards in Writing for Economically Disadvantaged Students, English Language Learner Students, and Special Education Students, Compared to All Students



Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2004–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2002–03 cohort entered Grade 9 for the first time in the fall 2002 semester. Percentages shown in the figure represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of their actual or expected high school graduation date and met the TSI Readiness Standards in writing for economically disadvantaged students, English language learner students, and special education students compared to all students.

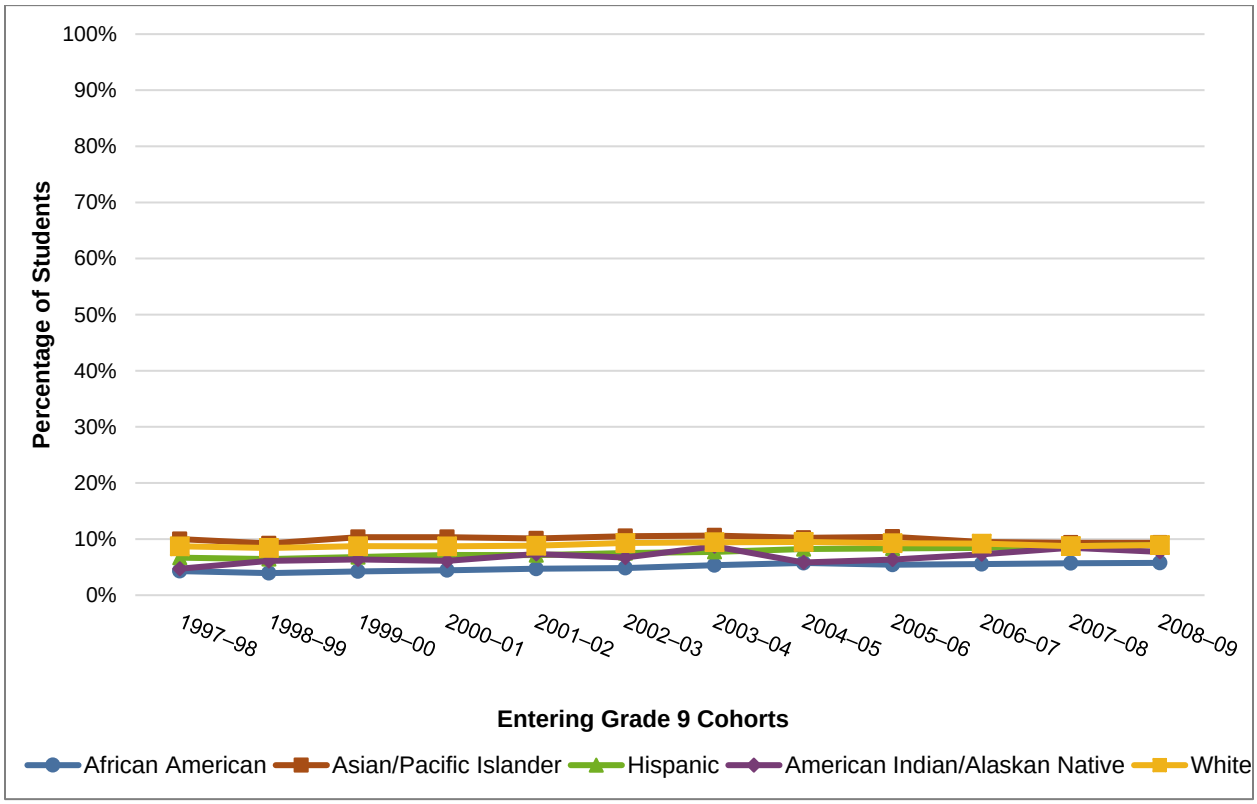
Figure D17. Percentages of Students in Each Cohort Who Met the TSI Readiness Standards in Writing, by High School Graduation Program



Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2004–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2002–03 cohort entered Grade 9 for the first time in the fall 2002 semester. Percentages shown in the figure represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of their actual or expected high school graduation date and met the TSI Readiness Standards in writing, by high school graduation program. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

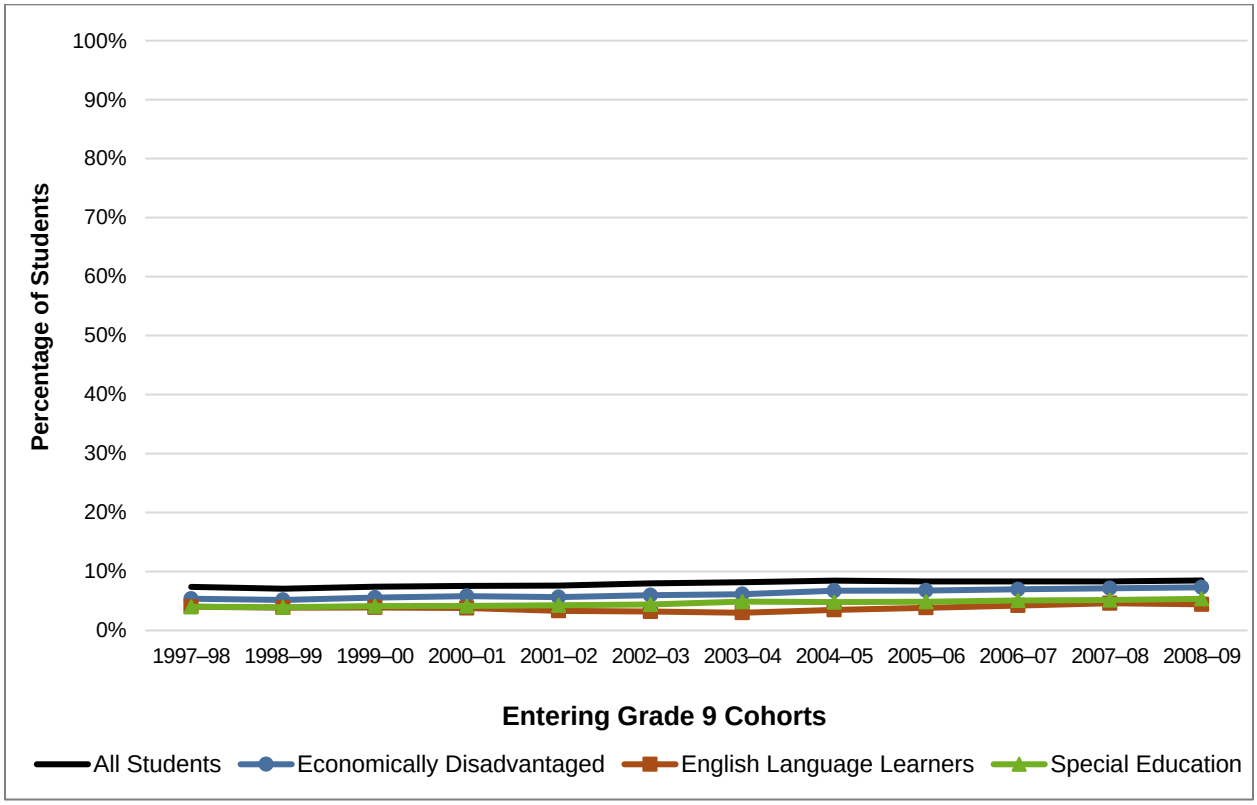
D.5 Two-year College Completion and Persistence

Figure D18. Percentages of Students in Each Cohort Who Earned an Associate's Degree or Workforce Certificate Within Three Years or Were Enrolled in a Texas Two-Year College Within Four Years of Actual or Expected High School Graduation Date, by Race/Ethnicity



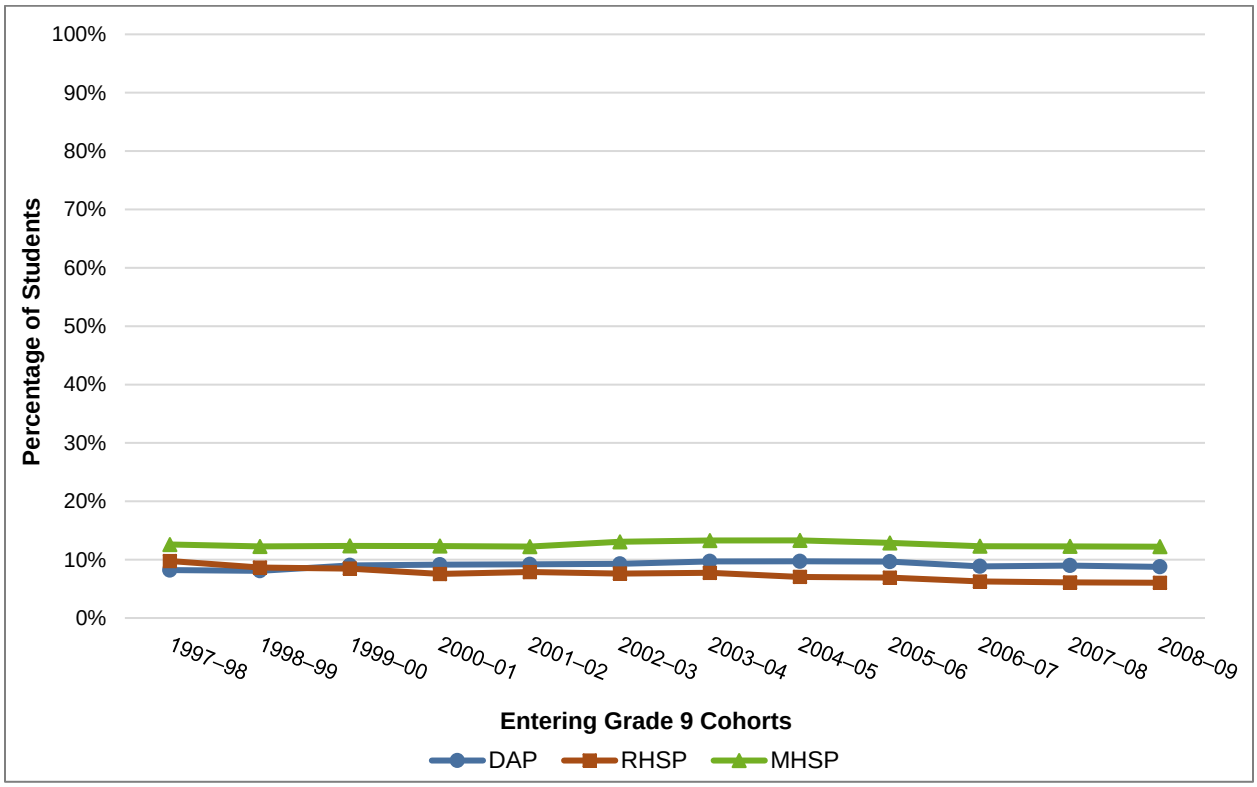
Source. Texas Higher Education Coordinating Board, Two-Year College Graduation files, 1999–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who earned an associate's degree or a level-1, level-2, or advanced technology certificate from a Texas two-year college within three years or were enrolled within four years of their actual or expected high school graduation date, by race/ethnicity.

Figure D19. Percentages of Students in Each Cohort Who Earned an Associate's Degree or Workforce Certificate Within Three Years or Were Enrolled in a Texas Two-Year College Within Four Years of Actual or Expected High School Graduation Date for Economically Disadvantaged Students, English Language Learner Students, Special Education Students, Compared to All Students



Source. Texas Higher Education Coordinating Board, Two-Year College Graduation files, 1999–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who earned an associate's degree or a level-1, level-2, or advanced technology certificate from a Texas two-year college within three years or were enrolled within four years of their actual or expected high school graduation date for economically disadvantaged students, English language learner students, and special education students compared to all students.

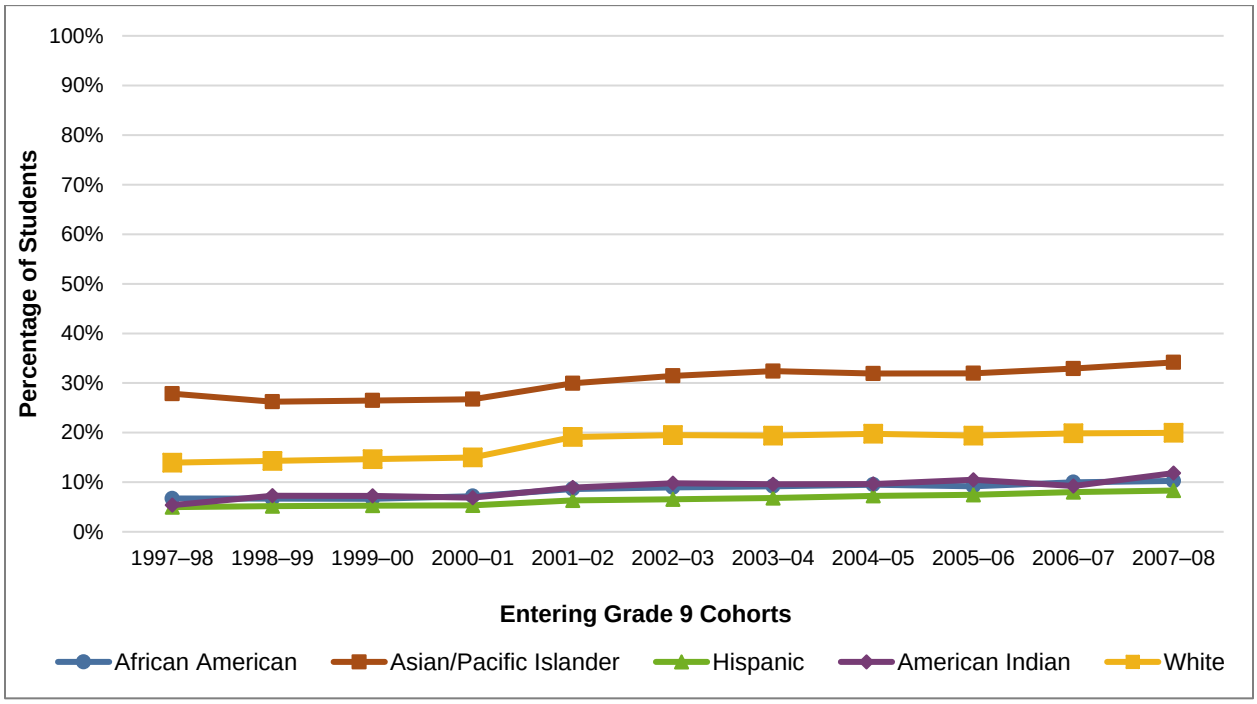
Figure D20. Percentages of Students in Each Cohort Who Earned an Associate's Degree or Workforce Certificate Within Three Years or Were Enrolled in a Texas Two-Year College Within Four Years of Actual or Expected High School Graduation Date, by High School Graduation Program



Source. Texas Higher Education Coordinating Board, Two-Year College Graduation files, 1999–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who earned an associate's degree or a level-1, level-2, or advanced technology certificate from a Texas two-year college within three years or were enrolled within four years of their actual or expected high school graduation date, by high school graduation program. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

D.6 Four-Year College Completion and Persistence

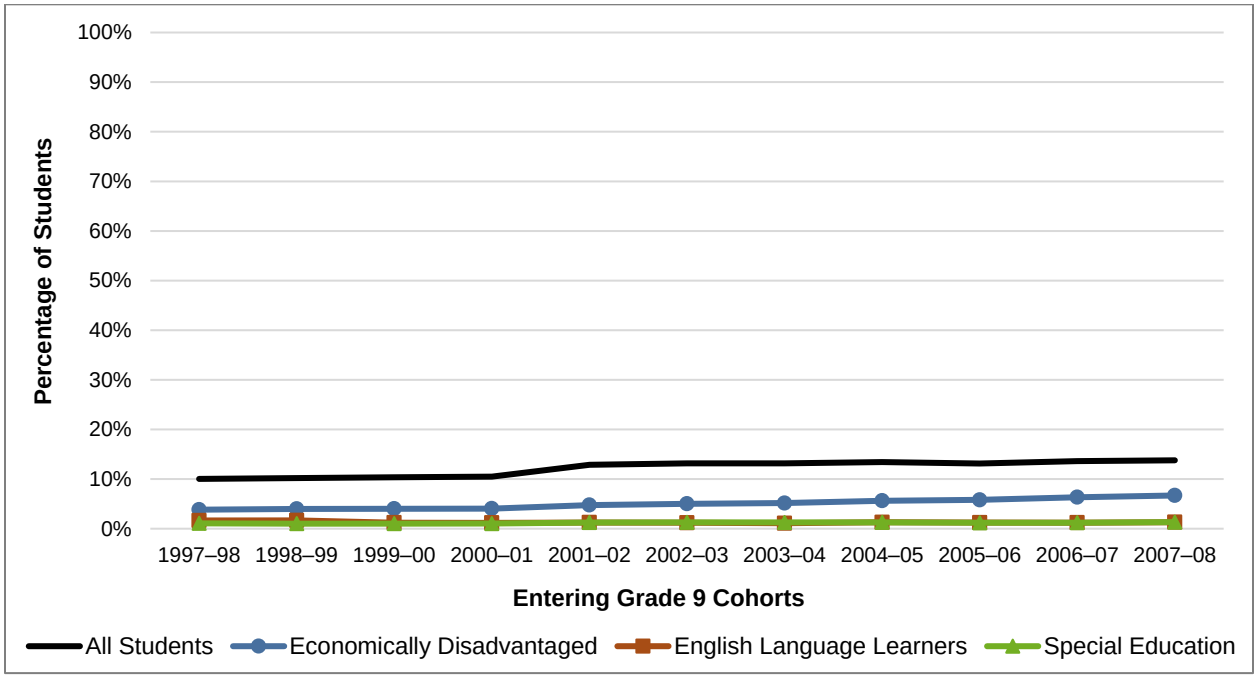
Figure D21. Percentages of Students in Each Cohort Who Earned a Bachelor's Degree Within Four Years or Were Enrolled in a Texas Public or Independent Four-Year College or University Within Five Years of Actual or Expected High School Graduation Date, by Race/Ethnicity



Source. Texas Higher Education Coordinating Board (THECB), Public University Graduation files, 1999–2016; THECB, Private and Independent University Graduation files, 2003–2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who earned a bachelor's degree within four years or were enrolled in a Texas public or independent four-year university or college within five years of their actual or expected high school graduation date, by race/ethnicity. Data for Texas independent universities were not available for entering Grade 9 cohorts prior to 2001–02.

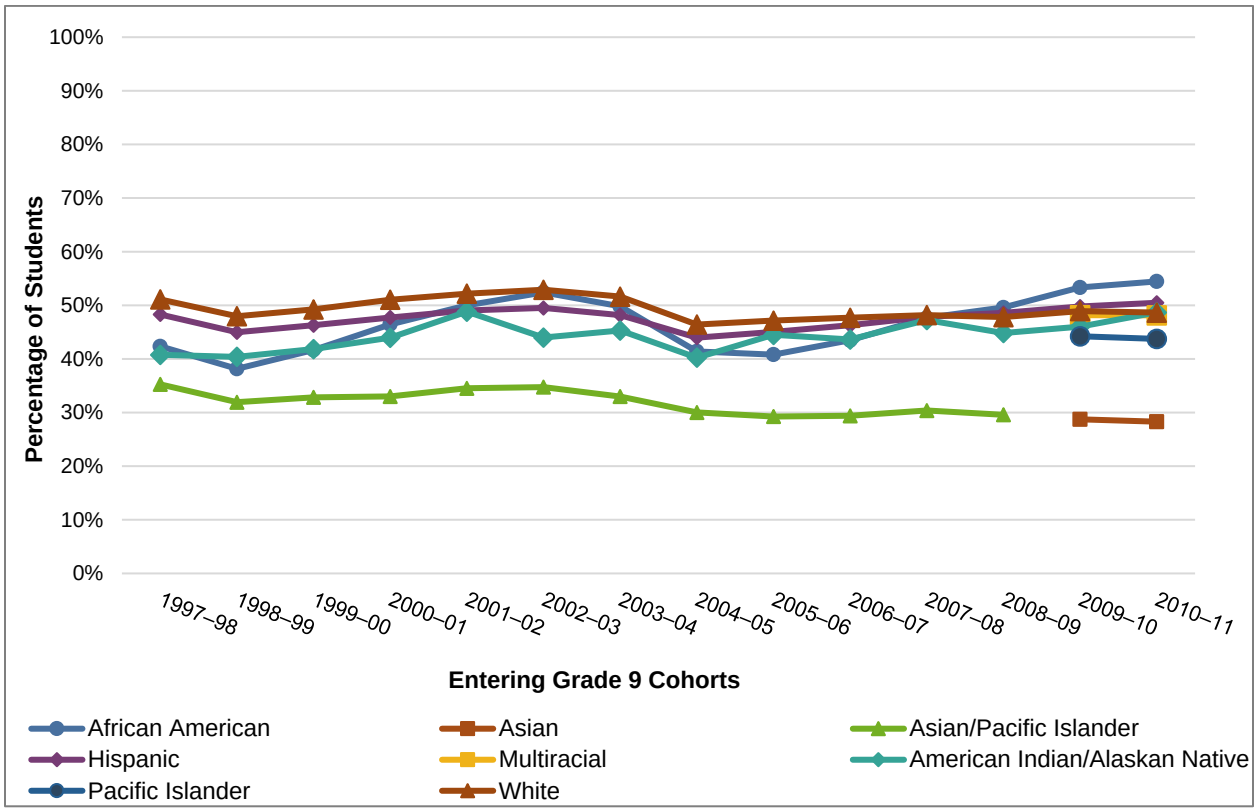
Figure D22. Percentages of Students in Each Cohort Who Earned a Bachelor's Degree Within Four Years or Were Enrolled in a Texas Public or Independent Four-Year College or University Within Five Years of Actual or Expected High School Graduation Date for Economically Disadvantaged Students, English Language Learner Students, Special Education Students, Compared to All Students



Source. Texas Higher Education Coordinating Board (THECB), Public University Graduation files, 1999–2016; THECB, Private and Independent University Graduation files, 2003–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who earned a bachelor's degree within four years or were enrolled in a Texas public or independent four-year university or college within five years of their actual or expected high school graduation date for economically disadvantaged students, English language learner students, and special education students compared to all students. Data for Texas independent universities were not available for entering Grade 9 cohorts prior to 2001–02.

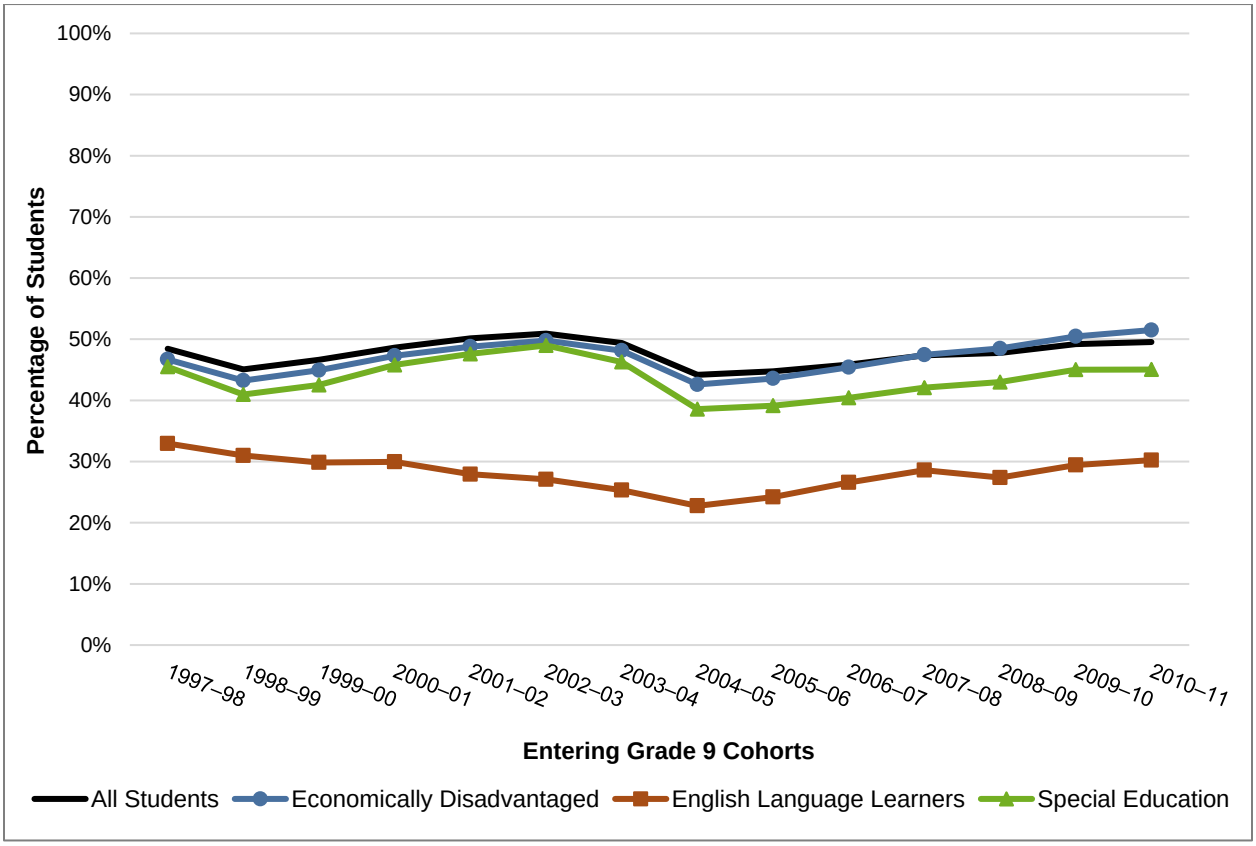
D.7 Employment and Wages

Figure D23. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 One Year After Actual or Expected High School Graduation Date, by Race/Ethnicity



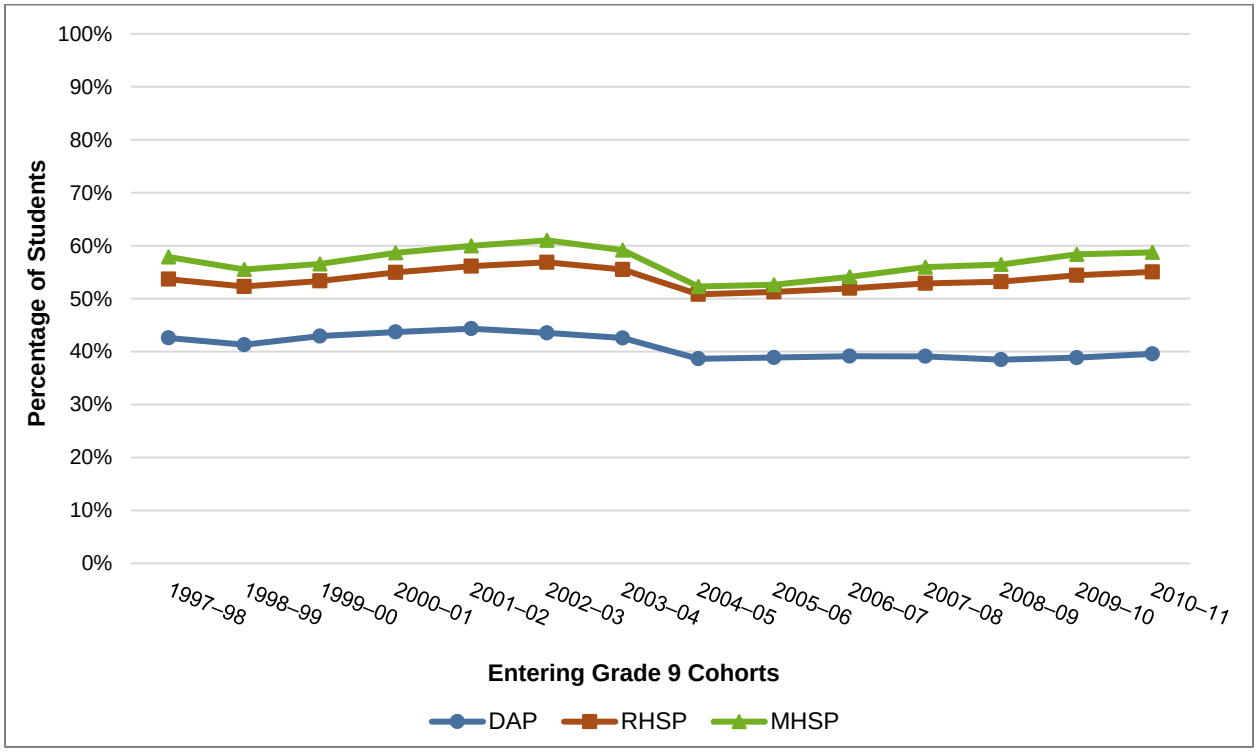
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one year after their actual or expected high school graduation date, by race/ethnicity.

Figure D24. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 One Year After Actual or Expected High School Graduation Date for Economically Disadvantaged Students, English Language Learner Students, and Special Education Students, Compared to All Students



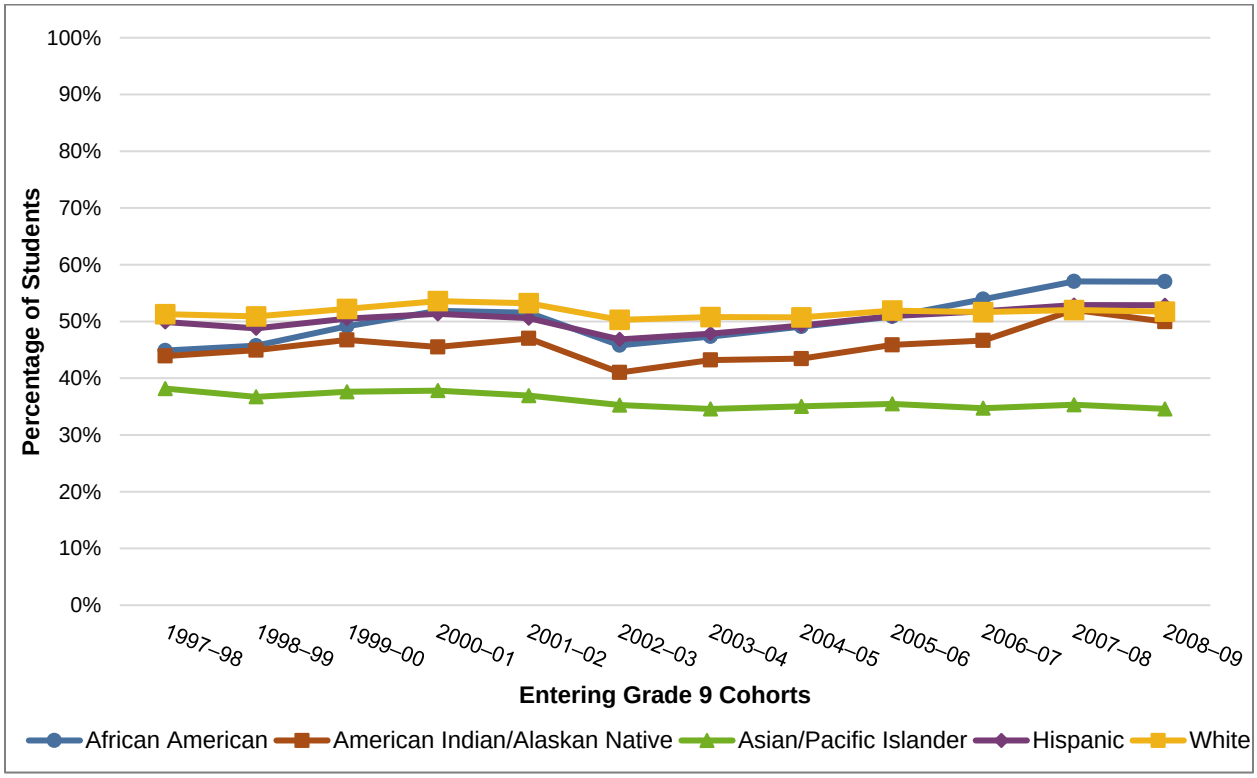
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one year after their actual or expected high school graduation date for economically disadvantaged students, English language learner students, and special education students compared to all students.

Figure D25. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 One Year After Actual or Expected High School Graduation Date, by High School Graduation Program



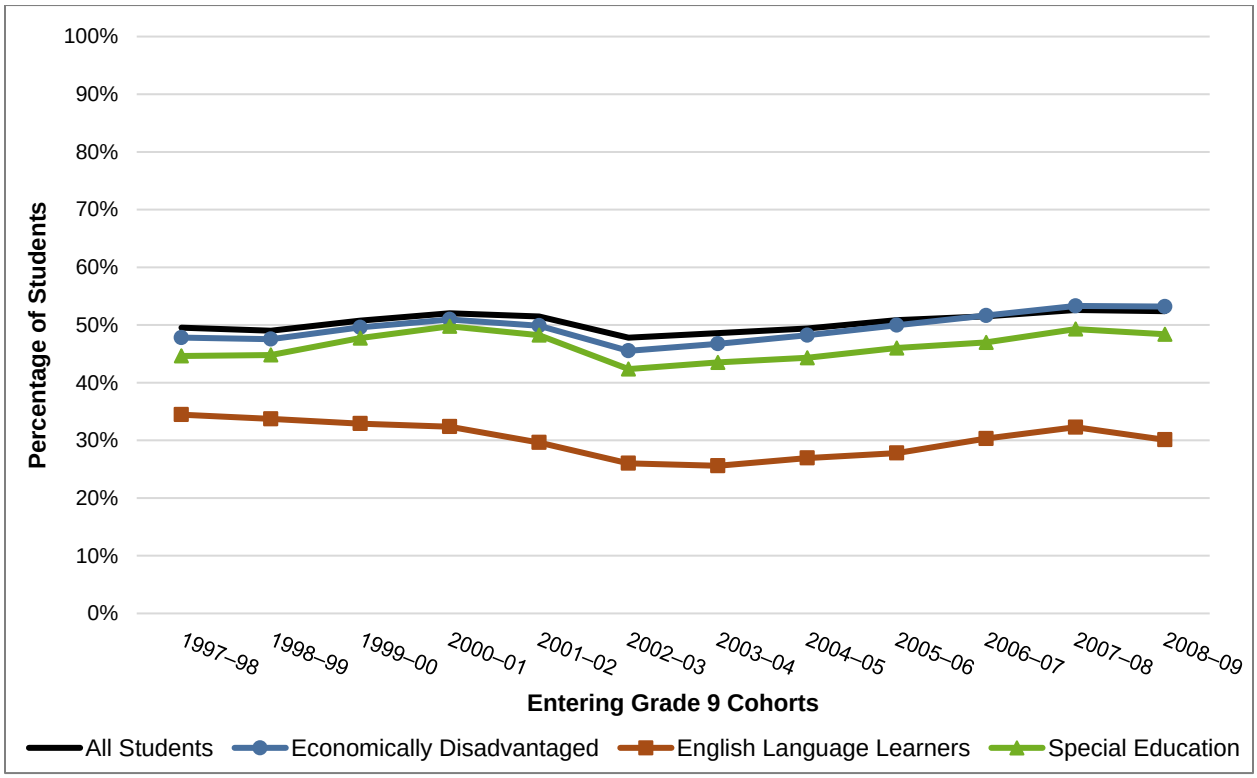
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one year after their actual or expected high school graduation date, by high school graduation program. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

Figure D26. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 Three Years After Actual or Expected High School Graduation Date, by Race/Ethnicity



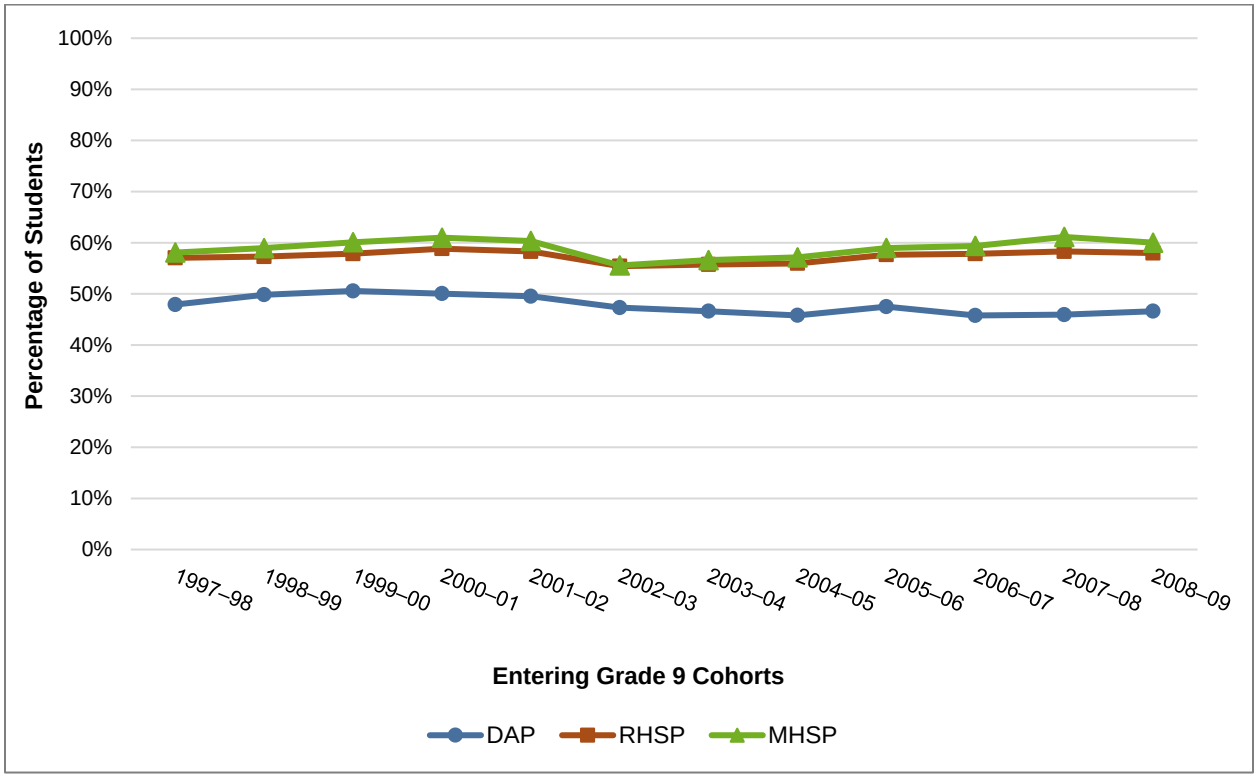
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year three years after their actual or expected high school graduation date, by race/ethnicity.

Figure D27. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 Three Years After Actual or Expected High School Graduation Date for Economically Disadvantaged Students, English Language Learner Students, and Special Education Students, Compared to All Students



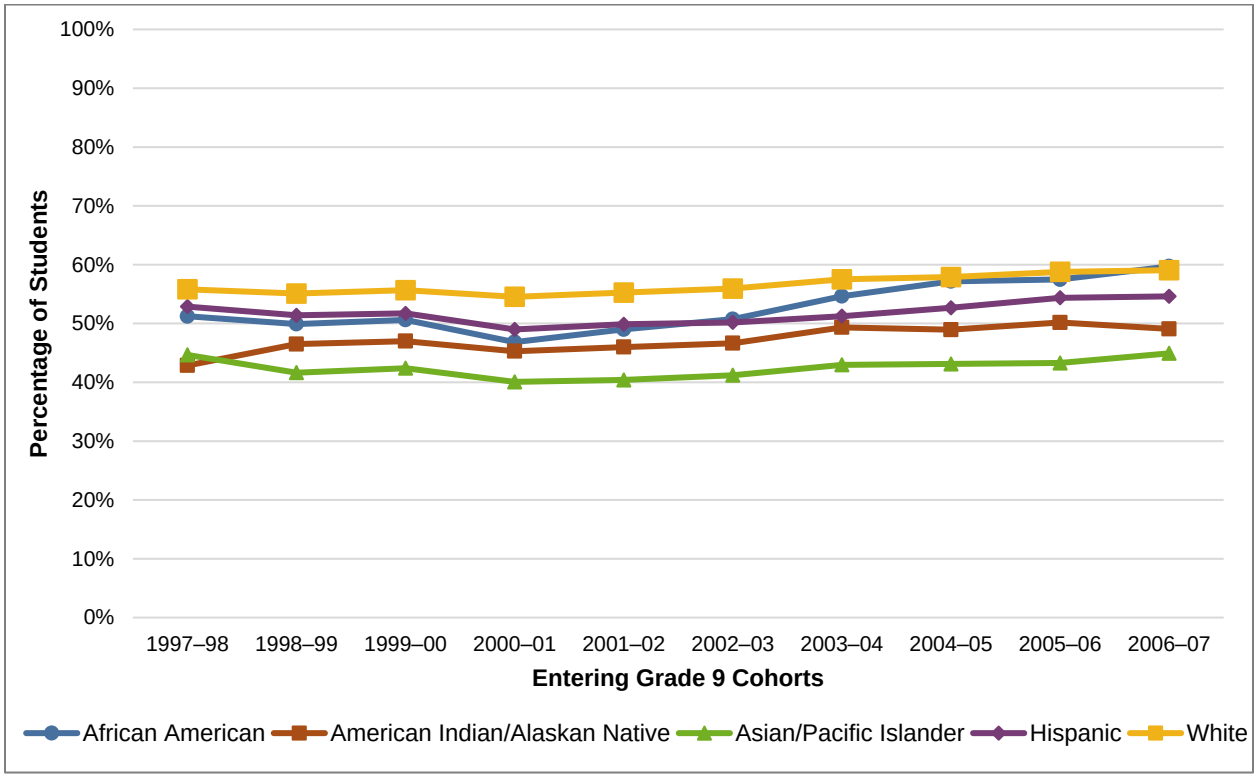
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year three years after their actual or expected high school graduation date for economically disadvantaged students, English language learner students, and special education students compared to all students.

Figure D28. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 Three Years After Actual or Expected High School Graduation Date, by High School Graduation Program



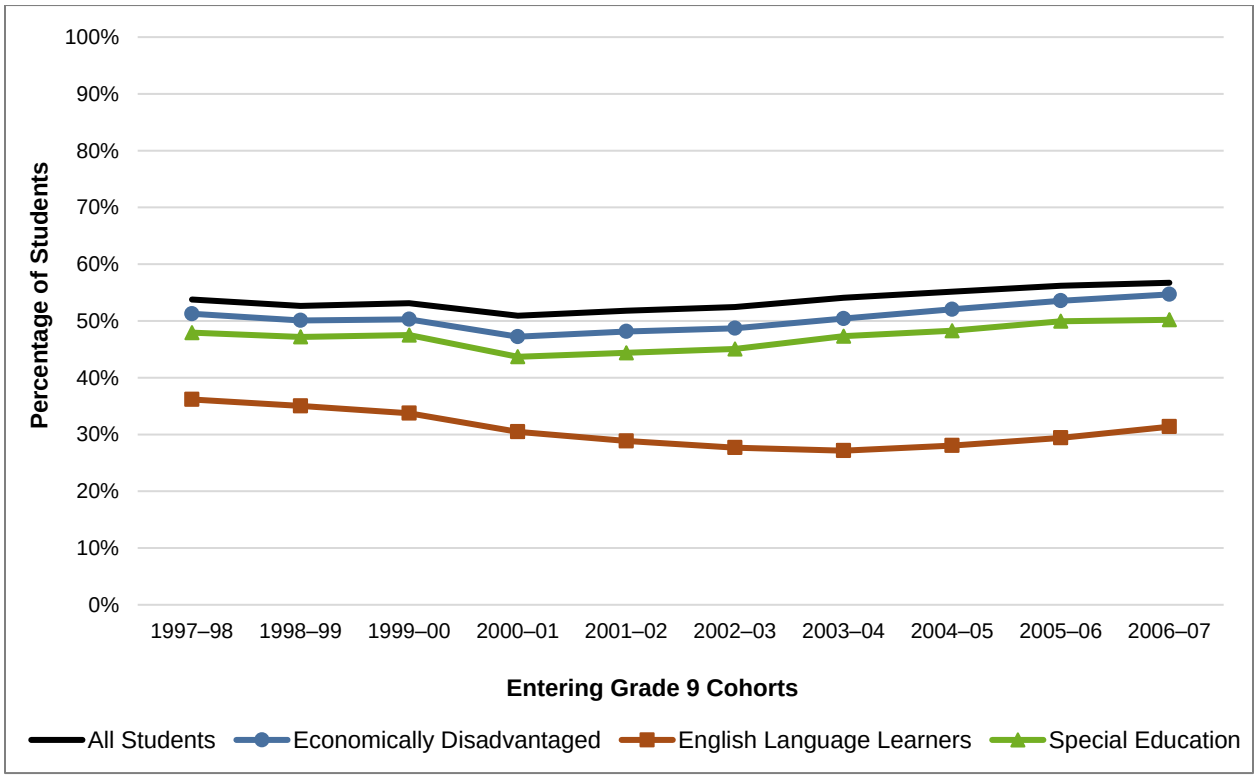
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year three years after their actual or expected high school graduation date, by high school graduation program. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

Figure D29. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 Five Years After Actual or Expected High School Graduation Date, by Race/Ethnicity



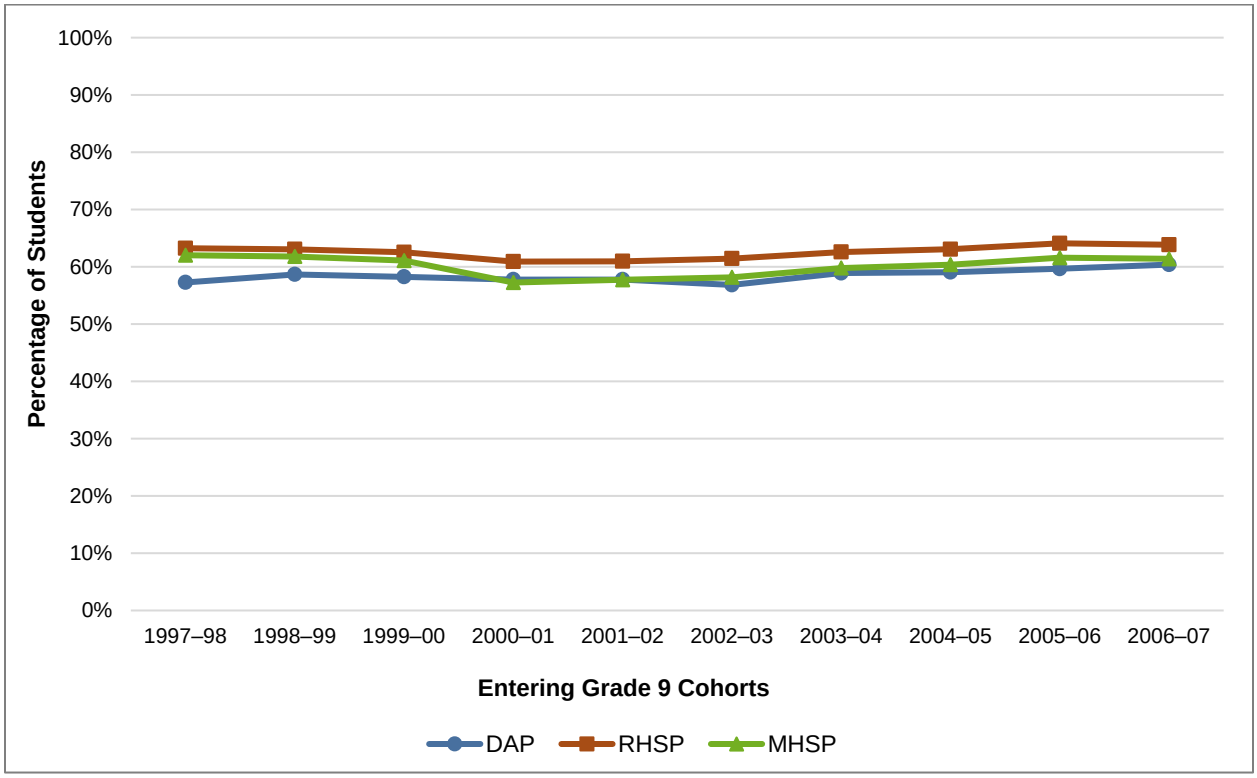
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal five years after their actual or expected high school graduation date, by race/ethnicity.

Figure D30. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 Five Years After Actual or Expected High School Graduation Date for Economically Disadvantaged Students, English Language Learner Students, and Special Education Students, Compared to All Students



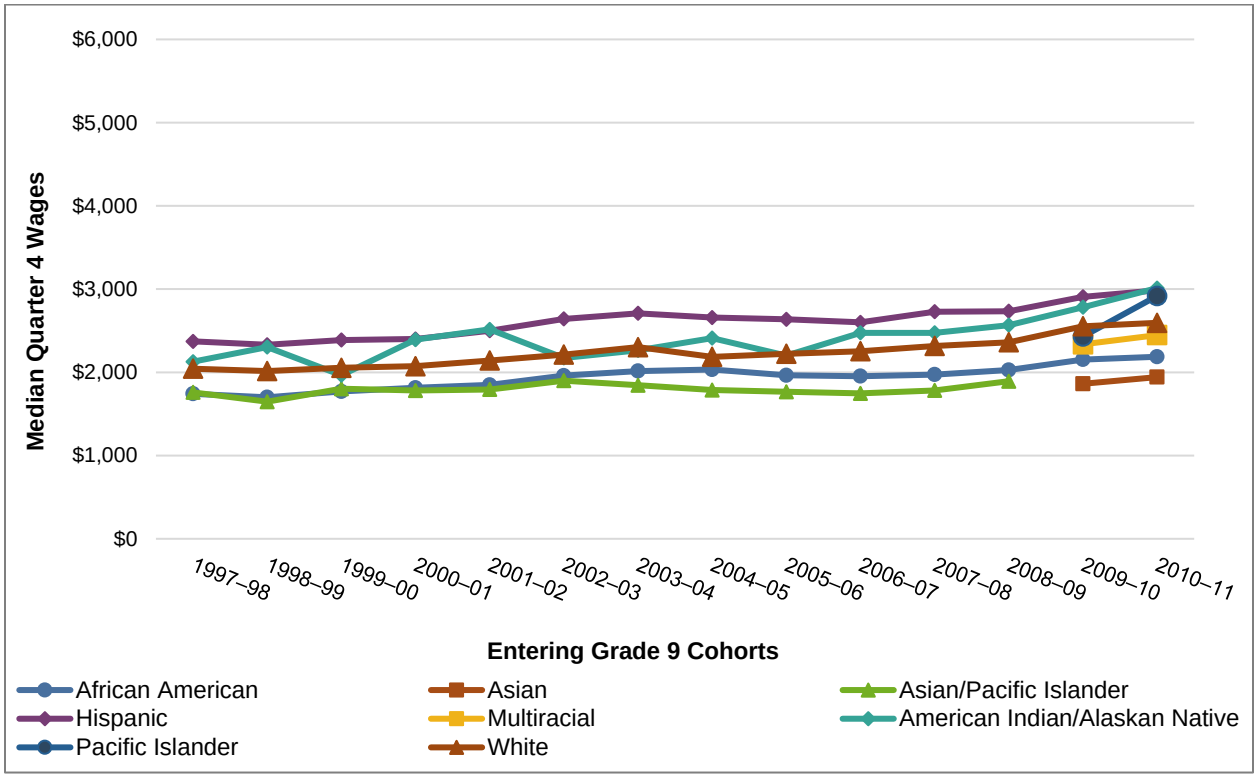
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year five years after their actual or expected high school graduation date for economically disadvantaged students, English language learner students, and special education students compared to all students.

Figure D31. Percentages of Students in Each Cohort Who Were Employed During Quarter 4 Five Years After Actual or Expected High School Graduation Date, by High School Graduation Program



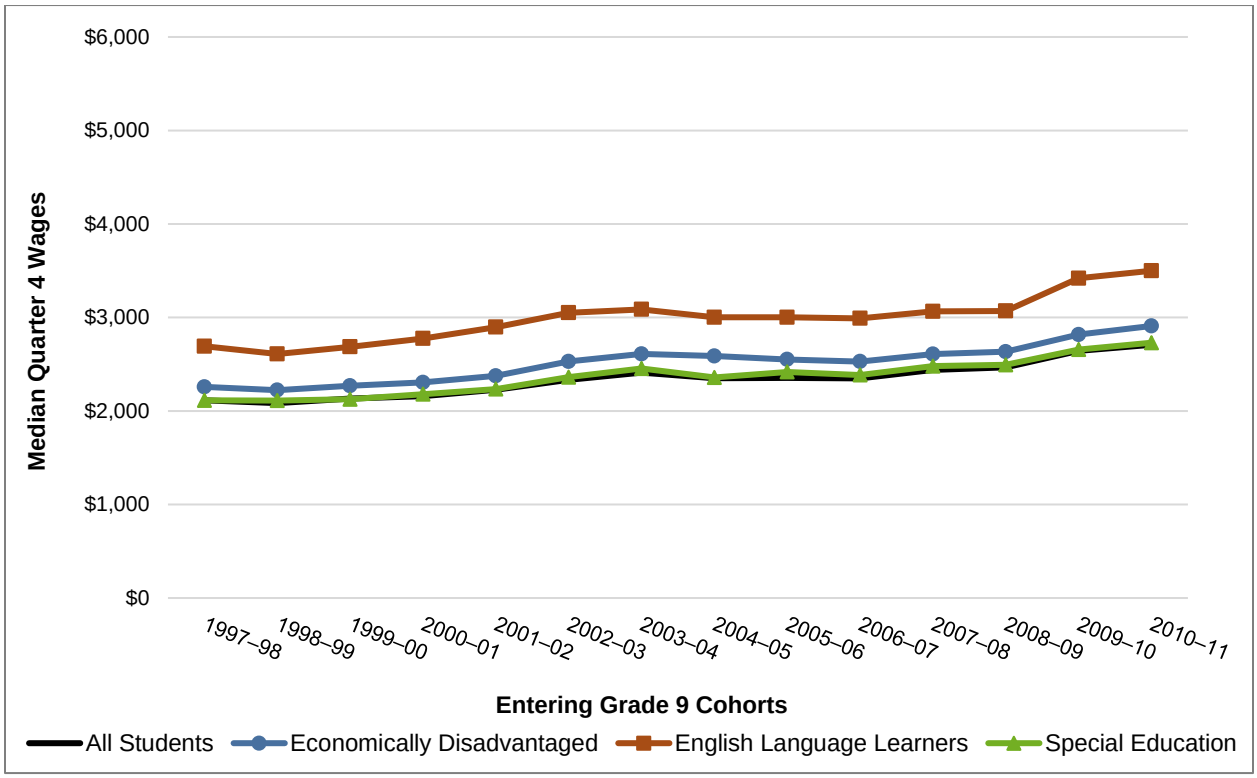
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year five years after their actual or expected high school graduation date, by high school graduation program. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

Figure D32. Median Wages for Students in Each Cohort Who Were Employed During Quarter 4 One Year After Actual or Expected High School Graduation Date, by Race/Ethnicity



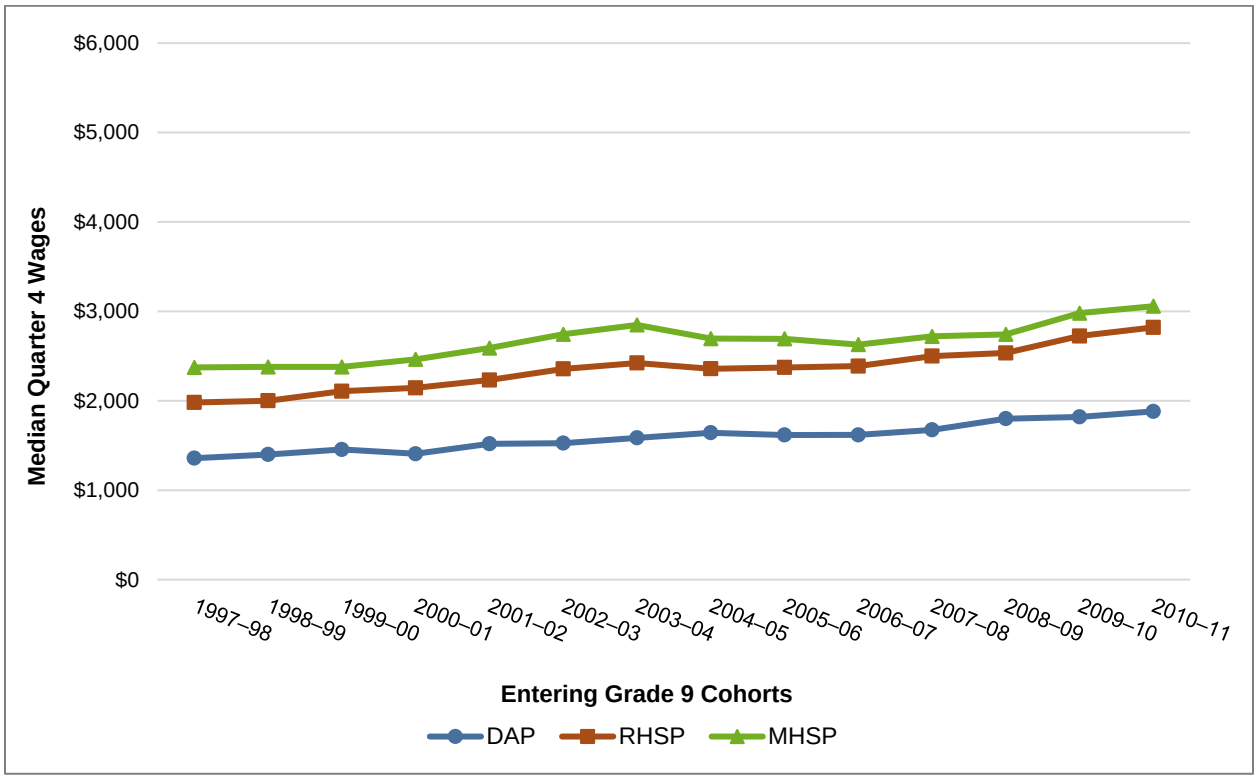
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one year after their actual or expected high school graduation date, by race/ethnicity.

Figure D33. Median Wages for Students in Each Cohort Who Were Employed During Quarter 4 One Year After Actual or Expected High School Graduation Date for Economically Disadvantaged Students, English Language Learner Students, and Special Education Students, Compared to All Students



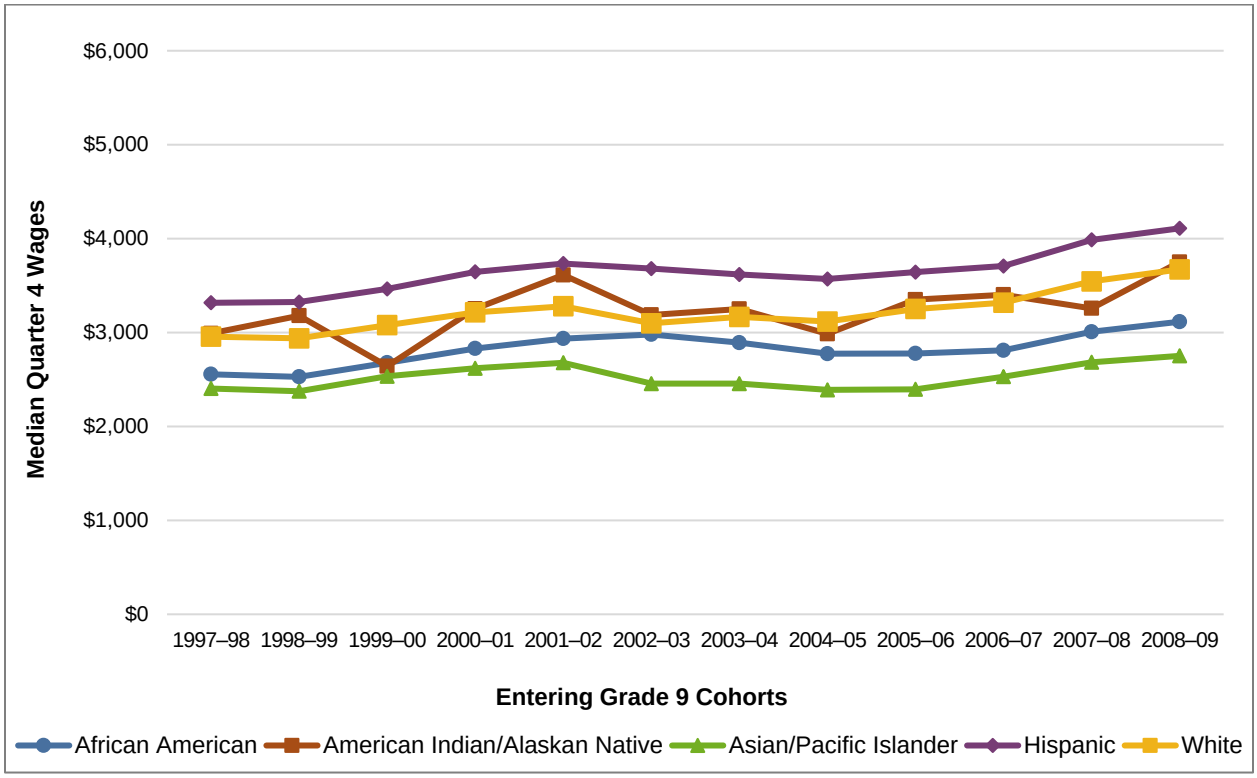
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one year after their actual or expected high school graduation date for economically disadvantaged students, English language learner students, and special education students compared to all students.

Figure D34. Median Wages for Students in Each Cohort Who Were Employed During Quarter 4 One Year After Actual or Expected High School Graduation Date, by High School Graduation Program



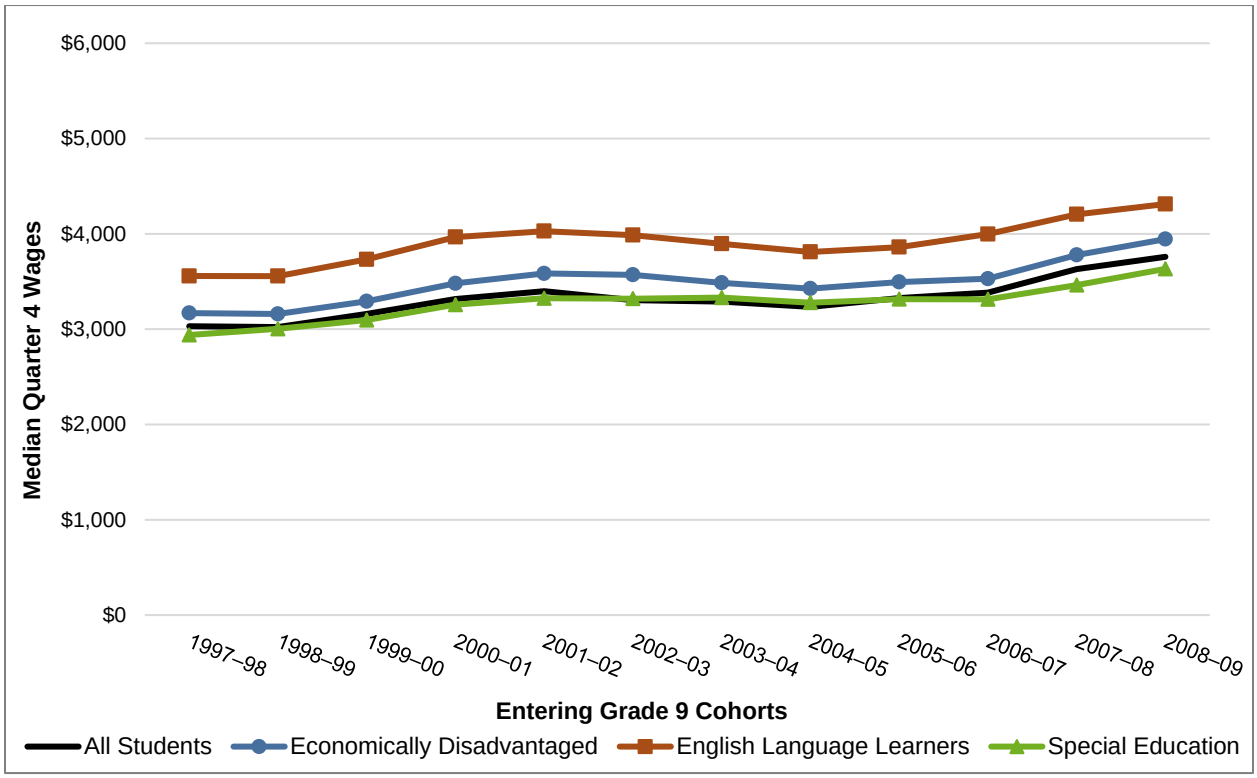
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one year after their actual or expected high school graduation date, by high school graduation program. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

Figure D35. Median Wages for Students in Each Cohort Who Were Employed During Quarter 4 Three Years After Actual or Expected High School Graduation Date, by Race/Ethnicity



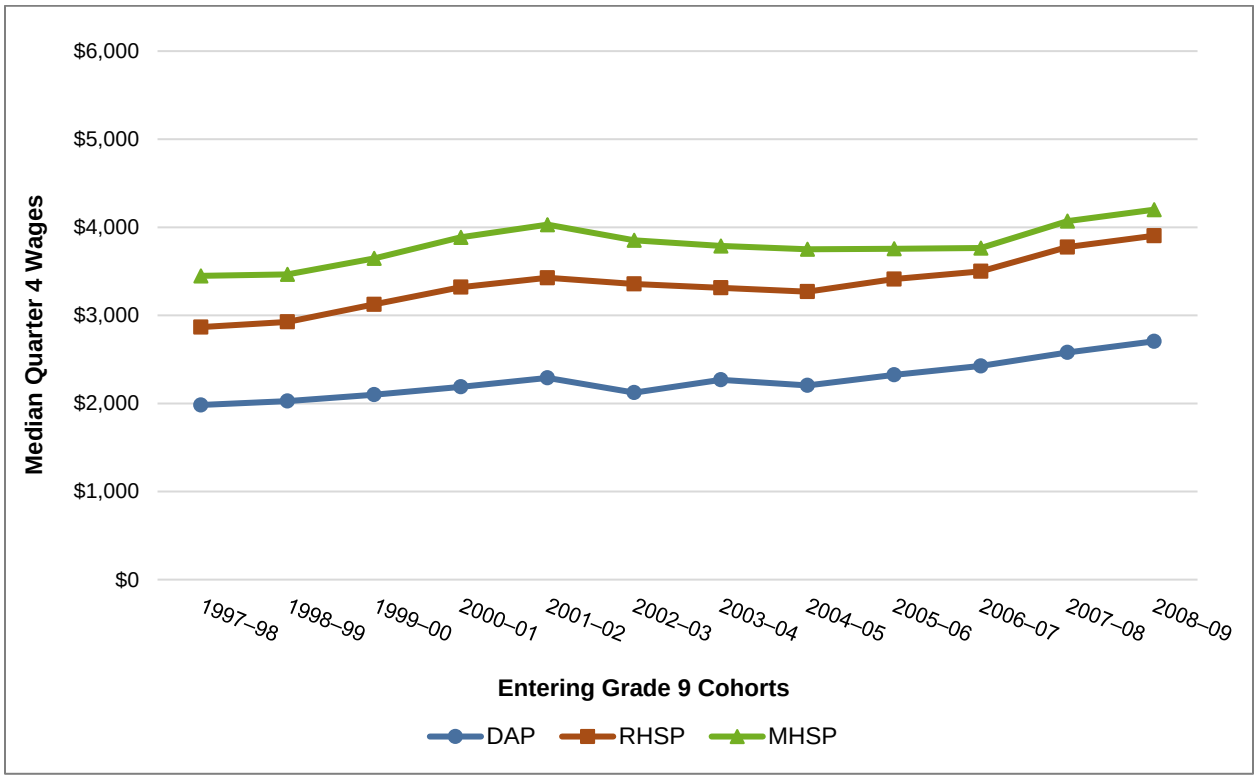
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year three years after their actual or expected high school graduation date, by race/ethnicity.

Figure D36. Median Wages for Students in Each Cohort Who Were Employed During Quarter 4 Three Years After Actual or Expected High School Graduation Date for Economically Disadvantaged Students, English Language Learner Students, Special Education Students, Compared to All Students



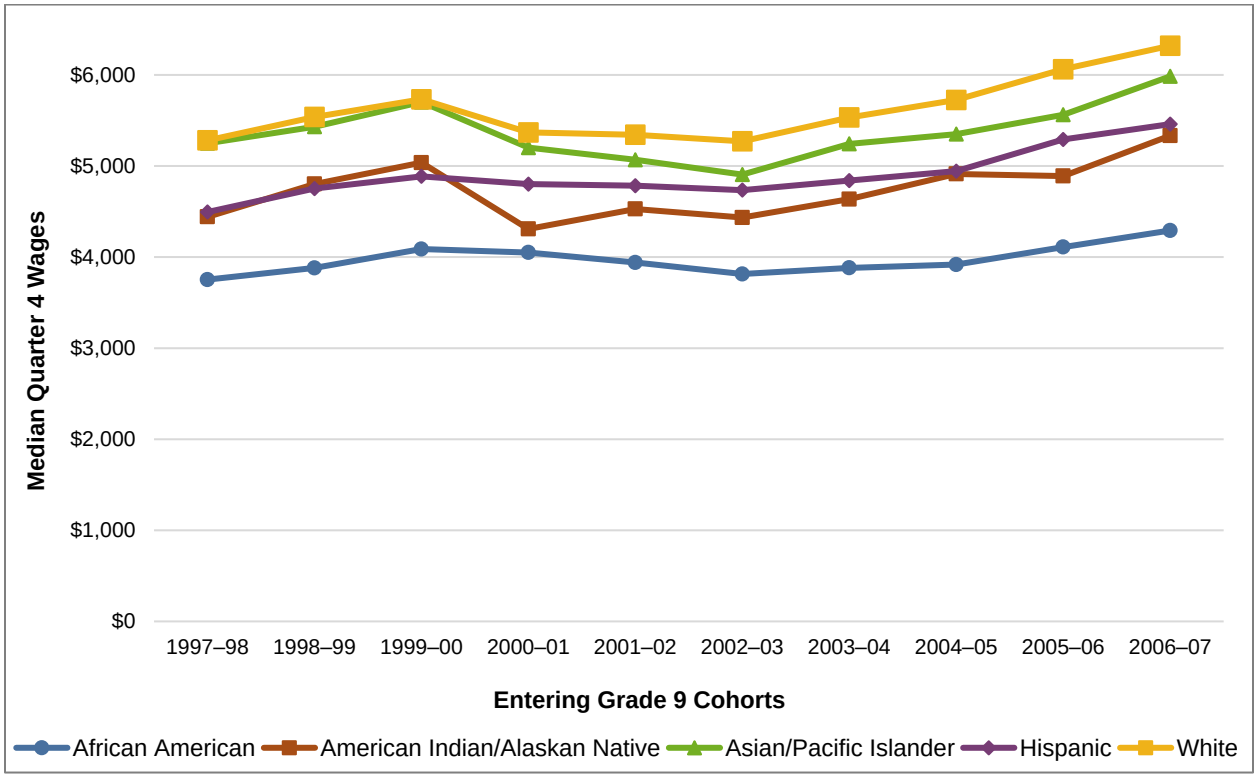
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year three years after their actual or expected high school graduation date for economically disadvantaged students, English language learner students, and special education students compared to all students.

Figure D37. Median Wages for Students in Each Cohort Who Were Employed During Quarter 4 Three Years After Actual or Expected High School Graduation Date, by High School Graduation Program



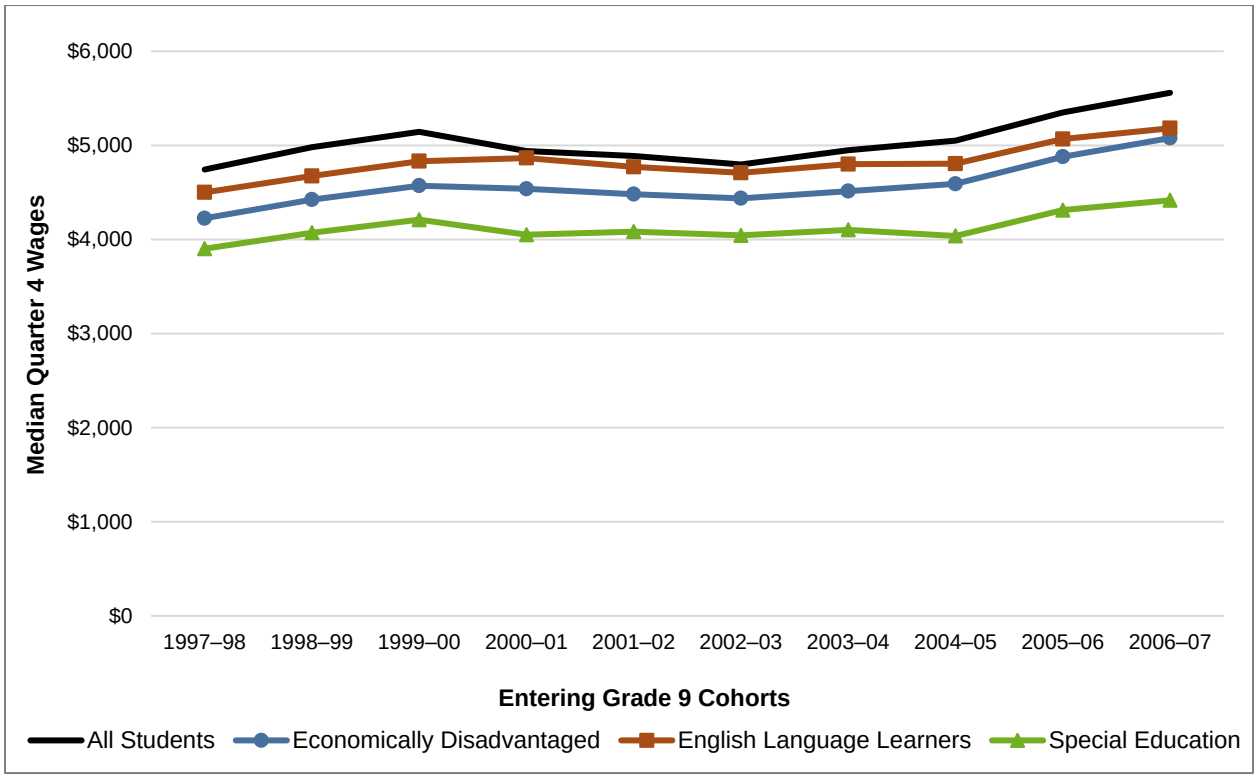
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year three years after their actual or expected high school graduation date, by high school graduation program. During this period, students could graduate under the Minimum High School Program (MHSP), Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). Students receiving a diploma prior to the MHSP, RHSP, and DAP as well as students receiving special education or related services who completed the minimum curriculum and credit requirements for graduation under the MHSP, RHSP, and DAP and who also participated in the exit-level instrument identified in their individualized education program (IEP) or who graduated on the MHSP and had curriculum content modifications through the students' IEPs are omitted from this figure to show findings for only those students who met all statutory requirements for graduation under the MHSP, RHSP, and DAP.

Figure D38. Median Wages for Students in Each Cohort Who Were Employed During Quarter 4 Five Years After Actual or Expected High School Graduation Date, by Race/Ethnicity



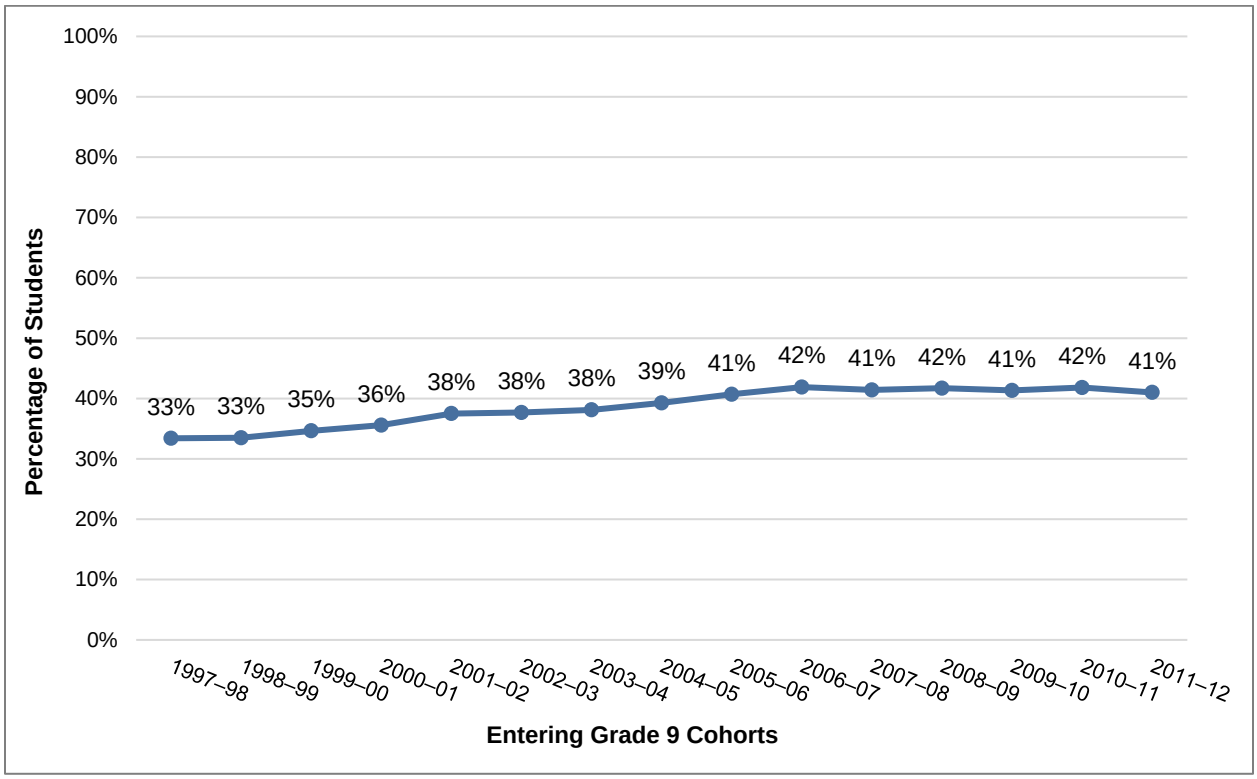
Source. Texas Workforce Commission, Quarterly Employment and Wage files, 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year five years after their actual or expected high school graduation date, by race/ethnicity.

Figure D39. Median Wages for Students in Each Cohort Who Were Employed During Quarter 4 Five Years After Actual or Expected High School Graduation Date for Economically Disadvantaged Students, English Language Learner Students, and Special Education Students, Compared to All Students



Source. Texas Workforce Commission, Quarterly Employment and Wage files 1999–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year five years after their actual or expected high school graduation date for economically disadvantaged students, English language learner students, and special education students compared to all students.

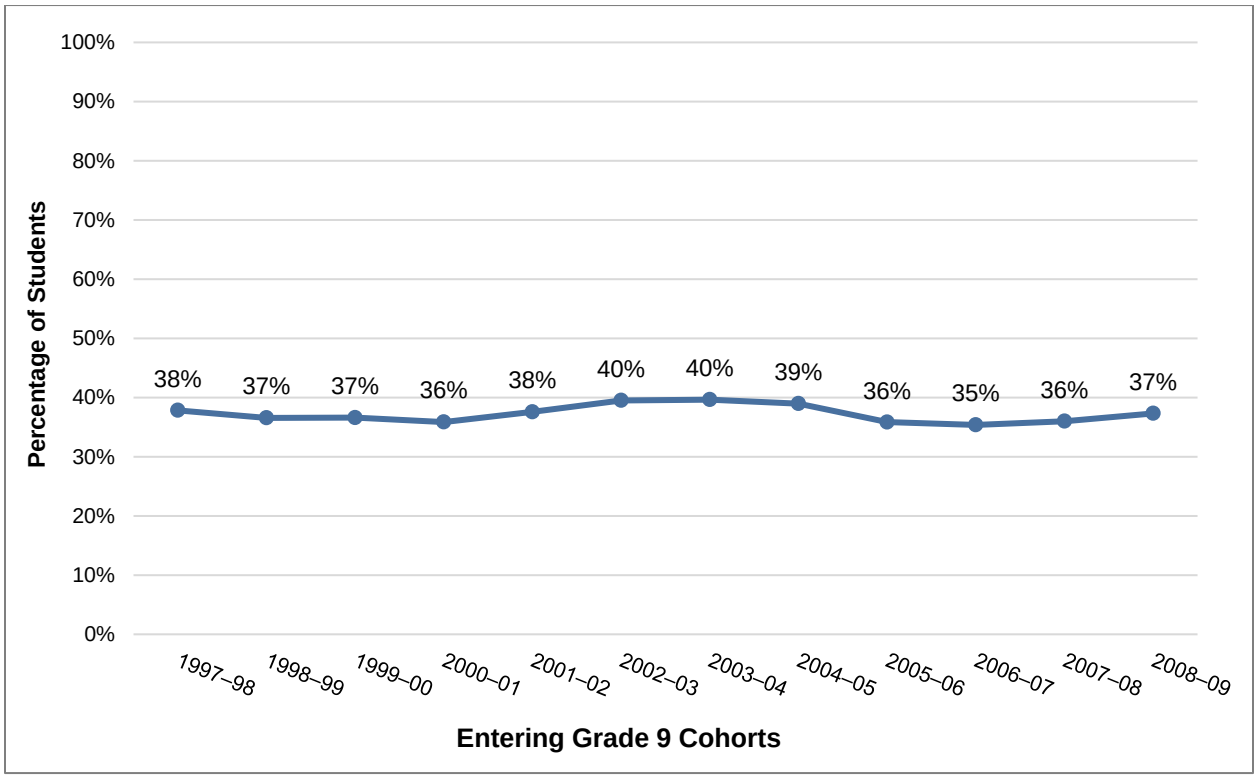
Figure D40. Percentages of Students in Each Cohort Who Enrolled in a Texas Two-Year College or Four-Year Public or Independent College or University Within One Year of Actual or Expected Graduation Date From High School



Source. Texas Higher Education Coordinating Board (THECB), Two Year College Enrollment files, 1999–2016; THECB, Public College and University Enrollment files, 1999 through 2016; THECB, Private and Independent College and University files, 2002–2016.

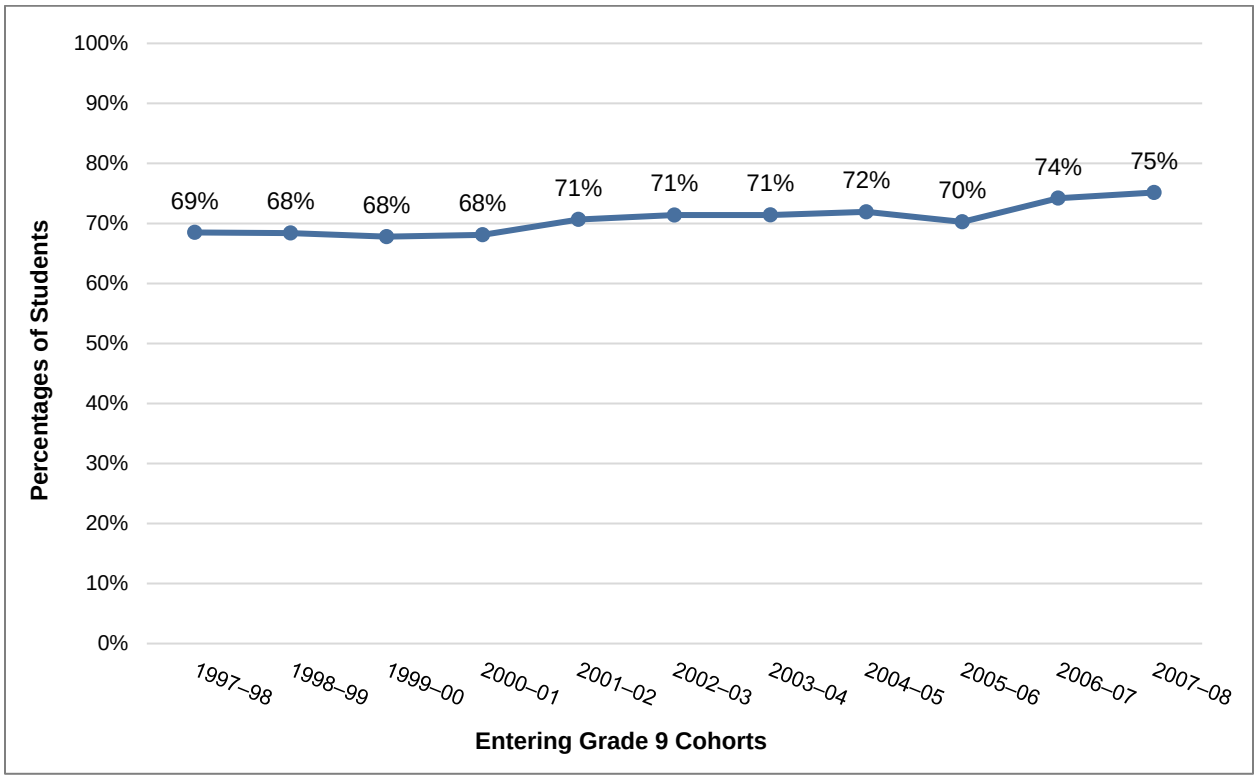
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Students in this cohort were expected to graduate during or prior to the spring semester of 2002. Students were coded as having enrolled in a Texas community college if they showed up in the fall, spring, summer I, and/or summer II data files for the academic year. Students were coded as having enrolled in a Texas four-year college or university if they showed up as enrolled during the fall, spring, or summer semesters of the academic year. Data for Texas private and independent universities were not available for entering Grade 9 cohorts prior to 2001–02.

Figure D41. Percentages of Students in Each Cohort Who Earned an Associate's Degree, Workforce Certificate Within Three Years or Were Enrolled in a Texas Two-Year College Within Four Years of Actual or Expected High School Graduation Date for Students Who Enrolled in a Texas Two-Year College Within One Year of Actual or Expected High School Graduation Date



Source. Texas Higher Education Coordinating Board, Two-Year College Graduation files, 1999–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who earned an Associate's degree or a level-1, level-2, or advanced technology certificate from a Texas two-year college within three years or were enrolled within four years of their actual or expected high school graduation date for students who enrolled in a Texas two-year college within one year of their actual or expected high school graduation date.

Figure D42. Percentages of Students in Each Cohort Who Earned a Bachelor's Degree Within Four Years or Were Enrolled in a Texas Public or Independent Four-Year College or University Within Five Years of Actual or Expected High School Graduation Date



Source. Texas Higher Education Coordinating Board (THECB), Public University Graduation files, 1999–2016; THECB, Private and Independent University Graduation files, 2003–2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 1997–98 cohort entered Grade 9 for the first time in the fall 1997 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who earned a bachelor's degree within four years or were enrolled in a Texas public or independent four-year university or college within five years of their actual or expected high school graduation date for students who enrolled in a four-year college within one year of their actual or expected high school graduation date. Data for Texas independent universities were not available for entering Grade 9 cohorts prior to 2001–02.

Appendix E. Student Outcomes Tables

For all tables reporting findings by racial/ethnic background:

1. Because of the adoption of a new racial/ethnic background classification system, the number of racial/ethnic background categories changed from five to seven in 2009–10.
2. Beginning in 2009–10, students could be classified as multiracial, indicating that their background includes more than one racial/ethnic group. However, students are not counted twice. All racial/ethnic group classifications are mutually exclusive.

E.1 High School Graduation

Table E1. Percentages of Students in 2010–11 Entering Grade 9 Cohort Who Graduated From High School Within Four Years, by Student Group

Student Group	Total	Graduated From High School Within Four Years	
		Number	Percentage
2010–11 Entering Grade 9 Students	352,435	271,910	77.2%
Race/Ethnicity Groups			
African American	45,776	33,409	73.0%
American Indian	1,742	1,257	72.2%
Asian	12,668	10,880	85.9%
Hispanic	169,477	126,776	74.8%
Multiracial	5,585	4,345	77.8%
Pacific Islander	423	305	72.1%
White	116,764	94,938	81.3%
Students Identified as			
Economically disadvantaged	189,382	135,206	71.4%
English language learners	26950	14,515	53.9%
Students Who Participated in			
Special education	34,299	22,021	64.2%
Students Who Completed Each Graduation Program			
No graduation record	352,435	80,525	22.9%
Special education	352,435	4,813	1.4%
Minimum	352,435	33,389	9.5%
Recommended	352,435	190,086	53.9%
Distinguished	352,435	43,622	12.4%

Sources: Public Education Information Management System (PEIMS) files, 2011–2014.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2010–11 cohort entered Grade 9 for the first time in the fall 2010 semester. Percentages shown in the table represent the students in each entering Grade 9 cohort who have a graduation record in the Texas Education Agency PEIMS Graduation files within four years of entering Grade 9.

Table E2. Percentages of Students in 2011–12 Entering Grade 9 Cohort Who Graduated From High School Within Four Years, by Student Group

Student Group	Total	Graduated From High School Within Four Years	
		Number	Percentage
2011–12 Entering Grade 9 Students	348,522	271,407	77.9%
Race/Ethnicity Groups			
African American	45,509	33,809	74.3%
American Indian	1,729	1,275	73.7%
Asian	13,083	11,338	86.7%
Hispanic	169,727	128,425	75.7%
Multiracial	5,535	4,378	79.1%
Pacific Islander	485	361	74.4%
White	112,454	91,821	81.7%
Students Identified as			
Economically disadvantaged	191,598	138,779	72.4%
English language learners	25,379	13,955	55.0%
Students Who Participated in			
Special education	32,026	20,859	65.1%
Students Who Completed Each Graduation Program			
No graduation record	348,522	77,115	22.1%
Special education	348,522	4,637	1.3%
Minimum	348,522	31,950	9.2%
Recommended	348,522	193,000	55.4%
Distinguished	348,522	41,820	12.0%

Sources: Public Education Information Management System (PEIMS) files, 2012–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2011–12 cohort entered Grade 9 for the first time in the fall 2011 semester. Percentages shown in the table represent the students in each entering Grade 9 cohort who have a graduation record in the Texas Education Agency PEIMS Graduation files within four years of entering Grade 9.

Table E3. Percentages of Students in 2012–13 Entering Grade 9 Cohort Who Graduated From High School Within Four Years, by Student Group

Student Group	Total	Graduated From High School Within Four Years	
		Number	Percentage
2012–13 Entering Grade 9 Students	345,408	270,049	78.2%
Race/Ethnicity Groups			
African American	45,546	34,027	74.7%
American Indian	1,592	1,166	73.2%
Asian	12,895	11,290	87.6%
Hispanic	170,975	130,770	76.5%
Multiracial	5,877	4,607	78.4%
Pacific Islander	485	332	68.5%
White	108,038	87,857	81.3%
Students Identified as			
Economically disadvantaged	191,312	139,660	73.0%
English language learners	26,136	14,791	56.6%
Students Who Participated in			
Special education	31,050	20,100	64.7%
Students Who Completed Each Graduation Program			
No graduation record	345,408	75,359	21.8%
Special education	345,408	4,038	1.2%
Minimum	345,408	29,245	8.5%
Recommended	345,408	194,047	56.2%
Distinguished	345,408	42,719	12.4%

Sources: Public Education Information Management System (PEIMS) files, 2013–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2012–13 cohort entered Grade 9 for the first time in the fall 2012 semester. Percentages shown in the table represent the students in each entering Grade 9 cohort who have a graduation record in the Texas Education Agency PEIMS Graduation files within four years of entering Grade 9.

E.2 Two-Year and Four-Year College Enrollment

Table E4. Percentages of Students in the 2010–11 Entering Grade 9 Cohort Who Enrolled in a Texas Two-Year or Four-Year College or University Within One Year of Actual or Expected High School Graduation Date, by Student Group

Student Group	Total	Enrolled in a Two-Year College Within One Year of High School Graduation		Total	Enrolled in a Four-Year College Within One Year of High School Graduation	
		Number	Percentage		Number	Percentage
2010–11 Entering Grade 9 Students	352,435	78,283	22.2%	352,435	69,113	19.6%
Race/Ethnicity Groups						
African American	45,776	9,732	21.3%	45,776	8,685	19.0%
American Indian	1,742	377	21.6%	1,742	243	13.9%
Asian	12,668	2,402	19.0%	12,668	5,365	42.4%
Hispanic	169,477	37,458	22.1%	169,477	23,796	14.0%
Multiracial	5,585	1,167	20.9%	5,585	1,309	23.4%
Pacific Islander	423	82	19.4%	423	69	16.3%
White	116,764	27,065	23.2%	116,764	29,646	25.4%
Students Identified as						
Economically disadvantaged	189,382	38,348	20.2%	189,382	22,577	11.9%
English language learners	26,950	3,247	12.0%	26,950	727	2.7%
Students Who Participated in						
Special education	34,299	5,412	15.8%	34,299	734	2.1%
Students Who Completed Each Graduation Program						
Special education	4,813	793	16.5%	4,813	12	0.2%
Minimum	33,389	6,851	20.5%	33,389	262	0.8%
Recommended	190,086	59,501	31.3%	190,086	42,215	22.2%
Distinguished	43,622	7,224	16.6%	43,622	25,264	57.9%

Source. Texas Higher Education Coordinating Board, Two-Year College Enrollment files, 2011–2014.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2010–11 cohort entered Grade 9 for the first time in the fall 2010 semester. Percentages shown in the table represent the students in each entering Grade 9 cohort who enrolled in a Texas two-year college within one year of actual or expected high school graduation date.

Table E5. Percentages of Students in the 2011–12 Entering Grade 9 Cohort Who Enrolled in a Texas Two-Year or Four-Year College or University Within One Year of Actual or Expected High School Graduation Date, by Student Group

Student Group	Total	Enrolled in a Two-Year College Within One Year of High School Graduation		Total	Enrolled in a Four-Year College Within One Year of High School Graduation	
		Number	Percentage		Number	Percentage
2011–12 Entering Grade 9 Students	348,522	75,196	21.6%	348,522	68,563	19.7%
Race/Ethnicity Groups						
African American	45,509	9,126	20.1%	45,509	8,787	19.3%
American Indian	1,729	380	22.0%	1,729	223	12.9%
Asian	13,083	2,443	18.7%	13,083	5,499	42.0%
Hispanic	169,727	36,904	21.7%	169,727	24,353	14.3%
Multiracial	5,535	1,172	21.2%	5,535	1,293	23.4%
Pacific Islander	485	93	19.2%	485	94	19.4%
White	112,454	25,078	22.3%	112,454	28,314	25.2%
Students Identified as						
Economically disadvantaged	191,598	37,895	19.8%	191,598	23,243	12.1%
English language learners	25,379	3,208	12.6%	25,379	776	3.1%
Students Who Participated in						
Special education	32,026	5,011	15.6%	32,026	708	2.2%
Students Who Completed Each Graduation Program						
Special education	4,637	763	16.5%	4,637	24	0.5%
Minimum	31,950	6,247	19.6%	31,950	219	0.7%
Recommended	193,000	58,564	30.3%	193,000	42,993	22.3%
Distinguished	41,820	6,773	16.2%	41,820	24,156	57.8%

Source. Texas Higher Education Coordinating Board, Two-Year College Enrollment files, 2012–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2011–12 cohort entered Grade 9 for the first time in the fall 2011 semester. Percentages shown in the table represent the students in each entering Grade 9 cohort who enrolled in a Texas two-year college within one year of actual or expected high school graduation date.

E.3 Texas Success Initiative (TSI)

Table E6. Percentages of Students in the 2009–10 Entering Grade 9 Cohort Who Met the TSI Readiness Standards in Reading, Mathematics, and Writing, by Student Group

Student Group	TSI Readiness Standard Reading			TSI Readiness Standard Mathematics			TSI Readiness Standard Writing		
		Met Standard			Met Standard			Met Standard	
	Total	Number	Percentage	Total	Number	Percentage	Total	Number	Percentage
2009–10 Entering Grade 9 Students	145,766	91,862	63.0%	145,766	89,775	61.6%	145,766	91,215	62.6%
Race/Ethnicity Groups									
African American	18,784	9,557	50.9%	18,784	9,321	49.6%	18,784	9,627	51.3%
American Indian	786	479	60.9%	786	487	62.0%	786	477	60.7%
Asian	7,021	5,268	75.0%	7,021	5,365	76.4%	7,021	5,304	75.5%
Hispanic	58,954	35,541	60.3%	58,954	34,823	59.1%	58,954	35,213	59.7%
Multiracial	2,478	1,624	65.5%	2,478	1,573	63.5%	2,478	1,596	64.4%
Pacific Islander	152	100	65.8%	152	97	63.8%	152	96	63.2%
White	57,591	39,293	68.2%	57,591	38,109	66.2%	57,591	38,902	67.5%
Students Identified as									
Economically disadvantaged	59,450	33,461	56.3%	59,450	33,158	55.8%	59,450	33,155	55.8%
English language learners	3,786	1,144	30.2%	3,786	1,757	46.4%	3,786	1,180	31.2%
Students Who Participated in									
Special education	6,766	1,882	27.8%	6,766	1,936	28.6%	6,766	1,846	27.3%
Students Who Completed Each Graduation Program									
Special education	912	130	14.3%	912	135	14.8%	912	122	13.4%
Minimum High School Program	8,706	2,903	33.3%	8,706	2,292	26.3%	8,706	2,863	32.9%
Recommended High School Program	101,219	64,614	63.8%	101,219	63,595	62.8%	101,219	64,119	63.3%
Distinguished Achievement Program	30,133	23,106	76.7%	30,133	22,911	76.0%	30,133	23,019	76.4%

Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2010–2014.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2009–10 cohort entered Grade 9 for the first time in the fall 2009 semester. Percentages shown in the table represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of actual or expected high school graduation date who met the TSI Readiness Standards in mathematics, reading, and writing, by student group.

Table E7. Percentages of Students in the 2010–11 Entering Grade 9 Cohort Who Met the TSI Readiness Standards in Reading, Mathematics, and Writing, by Student Group

Student Group	TSI Readiness Standard Reading			TSI Readiness Standard Mathematics			TSI Readiness Standard Writing		
		Met Standard			Met Standard			Met Standard	
	Total	Number	Percentage	Total	Number	Percentage	Total	Number	Percentage
2010–11 Entering Grade 9 Students	147,396	96,041	65.2%	147,396	88,694	60.2%	147,396	96,188	65.3%
Race/Ethnicity Groups									
African American	18,417	9,991	54.2%	18,417	8,530	46.3%	18,417	10,102	54.9%
American Indian	620	402	64.8%	620	348	56.1%	620	404	65.2%
Asian	7,767	6,017	77.5%	7,767	6,005	77.3%	7,767	6,080	78.3%
Hispanic	61,254	38,453	62.8%	61,254	35,178	57.4%	61,254	38,789	63.3%
Multiracial	2,476	1,639	66.2%	2,476	1,537	62.1%	2,476	1,636	66.1%
Pacific Islander	151	101	66.9%	151	88	58.3%	151	100	66.2%
White	56,711	39,438	69.5%	56,711	37,008	65.3%	56,711	39,077	68.9%
Students Identified as									
Economically disadvantaged	60,925	36,049	59.2%	60,925	32,832	53.9%	60,925	36,348	59.7%
English language learners	3,974	1,349	33.9%	3,974	1,723	43.4%	3,974	1,460	36.7%
Students Who Participated in									
Special education	6,146	1,799	29.3%	6,146	1,541	25.1%	6,146	1,913	31.1%
Students Who Completed Each Graduation Program									
Special education	805	110	13.7%	805	124	15.4%	805	136	16.9%
Minimum High School Program	7,113	2,379	33.4%	7,113	1,639	23.0%	7,113	2,400	33.7%
Recommended High School Program	101,716	66,743	65.6%	101,716	60,921	59.9%	101,716	66,785	65.7%
Distinguished Achievement Program	32,488	25,349	78.0%	32,488	24,833	76.4%	32,488	25,387	78.1%

Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2012–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2010–11 cohort entered Grade 9 for the first time in the fall 2010 semester. Percentages shown in the table represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of actual or expected high school graduation date who met the TSI Readiness Standards in mathematics, reading, and writing, by student group.

Table E8. Percentages of Students in the 2011–12 Entering Grade 9 Cohort Who Met the TSI Readiness Standards in Reading, Mathematics, and Writing, by Student Group

Student Group	TSI Readiness Standard Reading			TSI Readiness Standard Mathematics			TSI Readiness Standard Writing		
		Met Standard			Met Standard			Met Standard	
	Total	Number	Percentage	Total	Number	Percentage	Total	Number	Percentage
2011–12 Entering Grade 9 Students	143,759	84,271	58.6%	143,759	71,521	49.8%	143,759	85,852	59.7%
Race/Ethnicity Groups									
African American	17,913	8,274	46.2%	17,913	6,178	34.5%	17,913	8,569	47.8%
American Indian	603	348	57.7%	603	293	48.6%	603	347	57.5%
Asian	7,942	6,047	76.1%	7,942	5,999	75.5%	7,942	6,186	77.9%
Hispanic	61,257	33,231	54.2%	61,257	27,351	44.6%	61,257	34,792	56.8%
Multiracial	2,465	1,546	62.7%	2,465	1,342	54.4%	2,465	1,543	62.6%
Pacific Islander	187	121	64.7%	187	101	54.0%	187	126	67.4%
White	53,392	34,704	65.0%	53,392	30,257	56.7%	53,392	34,289	64.2%
Students Identified as									
Economically disadvantaged	61,138	30,777	50.3%	61,138	24,922	40.8%	61,138	32,265	52.8%
English language learners	3,984	1,048	26.3%	3,984	1,134	28.5%	3,984	1,359	34.1%
Students Who Participated in									
Special education	5,719	1,162	20.3%	5,719	775	13.6%	5,719	1,299	22.7%
Students Who Completed Each Graduation Program									
Special education	787	46	5.8%	787	20	2.5%	787	70	8.9%
Minimum High School Program	6,466	1,490	23.0%	6,466	593	9.2%	6,466	1,540	23.8%
Recommended High School Program	101,557	57,934	57.0%	101,557	47,504	46.8%	101,557	59,384	58.5%
Distinguished Achievement Program	30,929	23,728	76.7%	30,929	22,596	73.1%	30,929	23,788	76.9%

Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2013–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2011–12 cohort entered Grade 9 for the first time in the fall 2011 semester. Percentages shown in the table represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent four-year college or university within one year of actual or expected high school graduation date who met the TSI Readiness Standards in mathematics, reading, and writing, by student group.

E.4 Two-Year and Four-Year College Graduation and Persistence

Table E9. Percentages of Students in the 2006–07 Entering Grade 9 Cohort Who Earned an Associate's Degree or Workforce Certificate Within Three Years or Were Enrolled in a Texas Two-Year College Within Four Years of Actual or Expected High School Graduation Date or Who Earned a Bachelor's Degree Within Four Years or Were Enrolled in a Texas Public or Independent Four-Year College or University Within Five Years of Actual or Expected High School Graduation Date

Student Group	Graduated or Enrolled in a Two-Year College			Graduated or Enrolled in a Four-Year College		
	Total	Number	Percentage	Total	Number	Percentage
2006–07 Entering Grade 9 Students	343,329	28,556	8.3%	343,329	46,787	13.6%
Race/Ethnicity Groups						
African American	50,659	2,806	5.5%	50,659	5,058	10.0%
American Indian	1,192	87	7.3%	1,192	110	9.2%
Asian/Pacific Islander	10,961	1,040	9.5%	10,961	3,608	32.9%
Hispanic	149,341	12,565	8.4%	149,341	11,961	8.0%
White	131,176	12,058	9.2%	131,176	26,050	19.9%
Students Identified as						
Economically disadvantaged	168,482	11,754	7.0%	168,482	10,691	6.3%
English language learners	28,270	1,193	4.2%	28,270	341	1.2%
Students Who Participated in						
Special education	39,478	2,013	5.1%	39,478	477	1.2%
Students Who Completed Each Graduation Program						
Special education	5,572	300	5.4%	5,572	10	0.2%
Minimum High School Program	30,223	1,894	6.3%	30,223	187	0.6%
Recommended High School Program	180,536	22,225	12.3%	180,536	29,431	16.3%
Distinguished Achievement Program	32,602	2,887	8.9%	32,602	16,434	50.4%

Source. Texas Higher Education Coordinating Board, Two-Year College Graduation files, 2008–2014.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2006–07 cohort entered Grade 9 for the first time in the fall 2006 semester. Percentages shown in the table represent the students in each entering cohort of Grade 9 students who earned an Associate's degree or a Level-1, Level-2, or Advanced Technology certificate from a Texas two-year college within three years or were enrolled within four years of their actual or expected high school graduation date.

Table E10. Percentages of Students in the 2007–08 Entering Grade 9 Cohort Who Earned an Associate's Degree or Workforce Certificate Within Three Years or Were Enrolled in a Texas Two-Year College Within Four Years of Actual or Expected High School Graduation Date or Who Earned a Bachelor's Degree Within Four Years or Were Enrolled in a Texas Public or Independent Four-Year College or University Within Five Years of Actual or Expected High School Graduation Date

Student Group	Graduated or Enrolled in a Two-Year College			Graduated or Enrolled in a Four-Year College		
	Total	Number	Percentage	Total	Number	Percentage
2007–08 Entering Grade 9 Students	346,584	28,798	8.3%	346,584	47,771	13.8%
Race/Ethnicity Groups						
African American	51,421	2,927	5.7%	51,421	5,276	10.3%
American Indian	1,276	108	8.5%	1,276	151	11.8%
Asian/Pacific Islander	11,538	1,078	9.3%	11,538	3,941	34.2%
Hispanic	154,226	13,479	8.7%	154,226	12,836	8.3%
White	128,123	11,206	8.7%	128,123	25,567	20.0%
Students Identified as						
Economically disadvantaged	171,072	12,243	7.2%	171,072	11,449	6.7%
English language learners	29,799	1,376	4.6%	29,799	392	1.3%
Students Who Participated in						
Special education	38,882	2,009	5.2%	38,882	515	1.3%
Students Who Completed Each Graduation Program						
Special education	5,715	265	4.6%	5,715	13	0.2%
Minimum High School Program	39,139	2,388	6.1%	39,139	197	0.5%
Recommended High School Program	179,139	21,995	12.3%	179,139	29,155	16.3%
Distinguished Achievement Program	34,505	3,100	9.0%	34,505	17,654	51.2%

Source. Texas Higher Education Coordinating Board, Two-Year College Graduation files, 2009–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2007–08 cohort entered Grade 9 for the first time in the fall 2007 semester. Percentages shown in the table represent the students in each entering cohort of Grade 9 students who earned an Associate's degree or a Level-1, Level-2, or Advanced Technology certificate from a Texas two-year college within three years or were enrolled within four years of their actual or expected high school graduation date.

Table E11. Percentages of Students in the 2008–09 Entering Grade 9 Cohort Who Earned an Associate's Degree or Workforce Certificate Within Three Years or Were Enrolled in a Texas Two-Year College Within Four Years of Actual or Expected High School Graduation Date

Student Group	Graduated or Enrolled in a Two-Year College			Graduated or Enrolled in a Four-Year College		
	Total	Number	Percentage	Total	Number	Percentage
2008–09 Entering Grade 9 Students	339,746	28,816	8.4%	–	–	–
Race/Ethnicity Groups						
African American	49,023	2,824	5.8%	–	–	–
American Indian	1,191	92	7.7%	–	–	–
Asian/Pacific Islander	12,292	1,149	9.3%	–	–	–
Hispanic	152,958	13,657	8.9%	–	–	–
White	124,282	11,094	8.9%	–	–	–
Students Identified as						
Economically disadvantaged	171,159	12,523	7.3%	–	–	–
English language learners	25,381	1,124	4.4%	–	–	–
Students Who Participated in						
Special education	37,188	1,994	5.4%	–	–	–
Students Who Completed Each Graduation Program						
Special education	5,364	233	4.3%	–	–	–
Minimum High School Program	38,603	2,334	6.0%	–	–	–
Recommended High School Program	180,001	22,000	12.2%	–	–	–
Distinguished Achievement Program	37,688	3,307	8.8%	–	–	–

Source. Texas Higher Education Coordinating Board, Two-Year College Graduation files, 2010–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2007–08 cohort entered Grade 9 for the first time in the fall 2007 semester. Percentages shown in the table represent the students in each entering cohort of Grade 9 students who earned an Associate's degree or a Level-1, Level-2, or Advanced Technology certificate from a Texas two-year college within three years or were enrolled within four years of their actual or expected high school graduation date. A dash (–) indicates data were not available for four-year college graduation at the time of analysis.

E.5 Employment

Table E12. Percentages of Students in the 2006–07 Entering Grade 9 Cohort Who Were Employed During Quarter 4 One, Three, and Five Years After Actual or Expected High School Graduation Date, by Student Group

Student Groups	One Year After Actual or Expected High School Graduation			Three Years After Actual or Expected High School Graduation			Five Years After Actual or Expected High School Graduation		
		Employed Quarter 4			Employed Quarter 4			Employed Quarter 4	
	Total	Number	Percentage	Total	Number	Percentage	Total	Number	Percentage
2006–07 Entering Grade 9 Students	343,329	157,452	45.9%	343,329	176,763	51.4%	343,329	194,786	56.7%
Race/Ethnicity Groups									
African American	50,659	22,028	43.5%	50,659	27,315	53.9%	50,659	30,241	59.7%
American Indian	1,192	520	43.6%	1,192	556	46.6%	1,192	585	49.1%
Asian/Pacific Islander	10,961	3,222	29.4%	10,961	3,806	34.7%	10,961	4,924	44.9%
Hispanic	149,341	69,125	46.3%	149,341	77,343	51.8%	149,341	81,557	54.6%
White	131,176	62,557	47.7%	131,176	67,743	51.6%	131,176	77,479	59.1%
Students Identified as									
Economically disadvantaged	168,482	76,516	45.4%	168,482	87,005	51.6%	168,482	92,127	54.7%
English language learners	28,270	7,516	26.6%	28,270	8,567	30.3%	28,270	8,872	31.4%
Students Who Participated in									
Special education	39,478	15,959	40.4%	39,478	18,545	47.0%	39,478	19,819	50.2%
Students Who Completed Each Graduation Program									
Special education	5,572	2,475	44.4%	5,572	2,883	51.7%	5,572	3,062	55.0%
Minimum High School Program	30,223	16,354	54.1%	30,223	17,945	59.4%	30,223	18,554	61.4%
Recommended High School Program	180,536	93,762	51.9%	180,536	104,433	57.8%	180,536	115,272	63.8%
Distinguished Achievement Program	32,602	12,756	39.1%	32,602	14,925	45.8%	32,602	19,684	60.4%

Source. Texas Workforce Commission, Quarterly Employment and Wage files, 2008–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2006–07 cohort entered Grade 9 for the first time in the fall 2006 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one and three years after their actual or expected high school graduation date, by student group.

Table E13. Percentages of Students in the 2007–08 Entering Grade 9 Cohort Who Were Employed During Quarter 4 One and Three Years After Actual or Expected High School Graduation Date, by Student Group

Student Groups	One Year After Actual or Expected High School Graduation			Three Years After Actual or Expected High School Graduation			Five Years After Actual or Expected High School Graduation		
		Employed Quarter 4			Employed Quarter 4			Employed Quarter 4	
	Total	Number	Percentage	Total	Number	Percentage	Total	Number	Percentage
2007–08 Entering Grade 9 Students	346,584	164,153	47.4%	346,584	182,297	52.6%	–	–	–
Race/Ethnicity Groups									
African American	51,421	24,510	47.7%	51,421	29,339	57.1%	–	–	–
American Indian	1,276	603	47.3%	1,276	664	52.0%	–	–	–
Asian/Pacific Islander	11,538	3,505	30.4%	11,538	4,076	35.3%	–	–	–
Hispanic	154,226	73,801	47.9%	154,226	81,576	52.9%	–	–	–
White	128,123	61,734	48.2%	128,123	66,642	52.0%	–	–	–
Students Identified as									
Economically disadvantaged	171,072	81,177	47.5%	171,072	91,185	53.3%	–	–	–
English language learners	29,799	8,520	28.6%	29,799	9,618	32.3%	–	–	–
Students Who Participated in									
Special education	38,882	16,362	42.1%	38,882	19,164	49.3%	–	–	–
Students Who Completed Each Graduation Program									
Special education	5,715	2,658	46.5%	5,715	3,046	53.3%	–	–	–
Minimum High School Program	39,139	21,896	55.9%	39,139	23,926	61.1%	–	–	–
Recommended High School Program	179,139	94,729	52.9%	179,139	104,414	58.3%	–	–	–
Distinguished Achievement Program	34,505	13,489	39.1%	34,505	15,851	45.9%	–	–	–

Source. Texas Workforce Commission, Quarterly Employment and Wage files, 2009–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2007–08 cohort entered Grade 9 for the first time in the fall 2007 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one year after their actual or expected high school graduation date, by student group. A dash (–) indicates employment data were not available three and five years after actual or expected high graduation.

Table E14. Percentages of Students in the 2008–09 Entering Grade 9 Cohort Who Were Employed During Quarter 4 One and Three Years After Actual or Expected High School Graduation Date, by Student Group

Student Groups	One Year After Actual or Expected High School Graduation			Three Years After Actual or Expected High School Graduation			Five Years After Actual or Expected High School Graduation		
		Employed Quarter 4			Employed Quarter 4			Employed Quarter 4	
	Total	Number	Percentage	Total	Number	Percentage	Total	Number	Percentage
2008–09 Entering Grade 9 Students	339,746	162,235	47.8%	339,746	177,962	52.4%	–	–	–
Race/Ethnicity Groups									
African American	49,023	24,317	49.6%	49,023	27,954	57.0%	–	–	–
American Indian	1,191	534	44.8%	1,191	595	50.0%	–	–	–
Asian/Pacific Islander	12,292	3,638	29.6%	12,292	4,252	34.6%	–	–	–
Hispanic	152,958	74,323	48.6%	152,958	80,860	52.9%	–	–	–
White	124,282	59,423	47.8%	124,282	64,301	51.7%	–	–	–
Students Identified as									
Economically disadvantaged	171,159	83,003	48.5%	171,159	91,026	53.2%	–	–	–
English language learners	25,381	6,950	27.4%	25,381	7,639	30.1%	–	–	–
Students Who Participated in									
Special education	37,188	15,988	43.0%	37,188	17,997	48.4%	–	–	–
Students Who Completed Each Graduation Program									
Special education	5,364	2,422	45.2%	5,364	2,756	51.4%	–	–	–
Minimum High School Program	38,603	21,791	56.4%	38,603	23,169	60.0%	–	–	–
Recommended High School Program	180,001	95,758	53.2%	180,001	104,377	58.0%	–	–	–
Distinguished Achievement Program	37,688	14,499	38.5%	37,688	17,564	46.6%	–	–	–

Source. Texas Workforce Commission, Quarterly Employment and Wage files, 2010–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2008–09 cohort entered Grade 9 for the first time in the fall 2008 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one year after their actual or expected high school graduation date, by student group. A dash (–) indicates employment data were not available three and five years after actual or expected high graduation.

Table E15. Percentages of Students in the 2009–10 Entering Grade 9 Cohort Who Were Employed During Quarter 4 One Year After Actual or Expected High School Graduation Date, by Student Group

Student Groups	One Year After Actual or Expected High School Graduation			Three Years After Actual or Expected High School Graduation			Five Years After Actual or Expected High School Graduation		
		Employed Quarter 4			Employed Quarter 4			Employed Quarter 4	
	Total	Number	Percentage	Total	Number	Percentage	Total	Number	Percentage
2009–10 Entering Grade 9 Students	352,937	173,638	49.2%	–	–	–	–	–	–
Race/Ethnicity Groups									
African American	47,239	25,192	53.3%	–	–	–	–	–	–
American Indian	2,145	987	46.0%	–	–	–	–	–	–
Asian	11,884	3,415	28.7%	–	–	–	–	–	–
Hispanic	166,897	83,065	49.8%	–	–	–	–	–	–
Multiracial	5,353	2,578	48.2%	–	–	–	–	–	–
Pacific Islander	416	184	44.2%	–	–	–	–	–	–
White	119,003	58,217	48.9%	–	–	–	–	–	–
Students Identified as									
Economically disadvantaged	188,883	95,327	50.5%	–	–	–	–	–	–
English language learners	26,458	7,788	29.4%	–	–	–	–	–	–
Students Who Participated in									
Special education	36,534	16,449	45.0%	–	–	–	–	–	–
Students Who Completed Each Graduation Program									
Special education	5,256	2,525	48.0%	–	–	–	–	–	–
Minimum High School Program	38,912	22,710	58.4%	–	–	–	–	–	–
Recommended High School Program	188,643	102,624	54.4%	–	–	–	–	–	–
Distinguished Achievement Program	40,339	15,667	38.8%	–	–	–	–	–	–

Source. Texas Workforce Commission, Quarterly Employment and Wage files, 2010–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2009–10 cohort entered Grade 9 for the first time in the fall 2009 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one year after their actual or expected high school graduation date, by student group. A dash (–) indicates employment data were not available three and five years after actual or expected high graduation.

Table E16. Percentages of Students in the 2010–11 Entering Grade 9 Cohort Who Were Employed During Quarter 4 One Year After Actual or Expected High School Graduation Date, by Student Group

Student Groups	One Year After Actual or Expected High School Graduation			Three Years After Actual or Expected High School Graduation			Five Years After Actual or Expected High School Graduation		
		Employed Quarter 4			Employed Quarter 4			Employed Quarter 4	
	Total	Number	Percentage	Total	Number	Percentage	Total	Number	Percentage
2010–11 Entering Grade 9 Students	352,435	174,576	49.5%	–	–	–	–	–	–
Race/Ethnicity Groups									
African American	45,776	24,927	54.5%	–	–	–	–	–	–
American Indian	1,742	848	48.7%	–	–	–	–	–	–
Asian	12,668	3,585	28.3%	–	–	–	–	–	–
Hispanic	169,477	85,548	50.5%	–	–	–	–	–	–
Multiracial	5,585	2,688	48.1%	–	–	–	–	–	–
Pacific Islander	423	185	43.7%	–	–	–	–	–	–
White	116,764	56,795	48.6%	–	–	–	–	–	–
Students Identified as									
Economically disadvantaged	189,382	97,533	51.5%	–	–	–	–	–	–
English language learners	26,950	8,148	30.2%	–	–	–	–	–	–
Students Who Participated in									
Special education	34,299	15,450	45.0%	–	–	–	–	–	–
Students Who Completed Each Graduation Program									
Special education	4,813	2,317	48.1%	–	–	–	–	–	–
Minimum High School Program	33,389	19,615	58.7%	–	–	–	–	–	–
Recommended High School Program	190,086	104,622	55.0%	–	–	–	–	–	–
Distinguished Achievement Program	43,622	17,259	39.6%	–	–	–	–	–	–

Source. Texas Workforce Commission, Quarterly Employment and Wage files, 2010–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2010–11 cohort entered Grade 9 for the first time in the fall 2010 semester. Percentages shown in the figure represent the students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one year after their actual or expected high school graduation date, by student group. A dash (–) indicates employment data were not available three and five years after actual or expected high graduation.

E.6 Wages

Table E17. Median Wages for Students in the 2006–07 Entering Grade 9 Who Were Employed During Quarter 4 One, Three, and Five Years After Actual or Expected High School Graduation Date, by Student Group

Student Groups	Quarter 4 Wages— One Year After Actual or Expected High School Graduation		Quarter 4 Wages— Three Years After Actual or Expected High School Graduation		Quarter 4 Wages— Five Years After Actual or Expected High School Graduation	
	Number	Median	Number	Median	Number	Median
2006–07 Entering Grade 9 Students	343,329	$2,349	343,329	$3,384	343,329	$5,559
Race/Ethnicity Groups						
African American	50,659	$1,954	50,659	$2,810	50,659	$4,292
American Indian	1,192	$2,475	1,192	$3,402	1,192	$5,333
Asian/Pacific Islander	10,961	$1,747	10,961	$2,530	10,961	$5,984
Hispanic	149,341	$2,601	149,341	$3,707	149,341	$5,460
White	131,176	$2,253	131,176	$3,318	131,176	$6,320
Students Identified as						
Economically disadvantaged	168,482	$2,529	168,482	$3,529	168,482	$5,078
English language learners	28,270	$2,991	28,270	$3,998	28,270	$5,181
Students Who Participated in						
Special education	39,478	$2,385	39,478	$3,313	39,478	$4,416
Students Who Completed Each Graduation Program						
Special education	5,572	$2,519	5,572	$3,459	5,572	$4,450
Minimum	30,223	$2,629	30,223	$3,765	30,223	$5,157
Recommended	180,536	$2,388	180,536	$3,500	180,536	$5,896
Distinguished	32,602	$1,618	32,602	$2,426	32,602	$7,600

Source. Texas Workforce Commission, Quarterly Employment and Wage files, 2008–2013.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2006–07 cohort entered Grade 9 for the first time in the fall 2006 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one, three, and five years after their actual or expected graduation date

Table E18. Median Wages for Students in the 2007–08 Entering Grade 9 Cohort Who Were Employed During Quarter 4 One and Three Years After Actual or Expected High School Graduation Date, by Student Group

Student Groups	Quarter 4 Wages— One Year After Actual or Expected High School Graduation		Quarter 4 Wages— Three Years After Actual or Expected High School Graduation		Quarter 4 Wages— Five Years After Actual or Expected High School Graduation	
	Number	Median	Number	Median	Number	Median
2007–08 Entering Grade 9 Students	346,584	$2,440	346,584	$3,630	–	–
Race/Ethnicity Groups						
African American	51,421	$1,973	51,421	$3,007	–	–
American Indian	1,276	$2,475	1,276	$3,258	–	–
Asian/Pacific Islander	11,538	$1,783	11,538	$2,684	–	–
Hispanic	154,226	$2,728	154,226	$3,986	–	–
White	128,123	$2,317	128,123	$3,544	–	–
Economically disadvantaged	171,072	$2,609	171,072	$3,778	–	–
English language learners	29,799	$3,066	29,799	$4,205	–	–
Students Who Participated in						
Special education	38,882	$2,481	38,882	$3,463	–	–
Students Who Completed Each Graduation Program						
Special education	5,715	$2,518	5,715	$3,438	–	–
Minimum	39,139	$2,720	39,139	$4,071	–	–
Recommended	179,139	$2,499	179,139	$3,775	–	–
Distinguished	34,505	$1,674	34,505	$2,579	–	–

Source. Texas Workforce Commission, Quarterly Employment and Wage files, 2009–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2007–08 cohort entered Grade 9 for the first time in the fall 2007 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one, three, and five years after their actual or expected graduation date. A dash (–) indicates wage data were not available three and five years after actual or expected high graduation.

Table E19. Median Wages for Students in the 2008–09 Entering Grade 9 Cohort Who Were Employed During Quarter 4 One and Three Years After Actual or Expected High School Graduation Date, by Student Group

Student Groups	Quarter 4 Wages— One Year After Actual or Expected High School Graduation		Quarter 4 Wages— Three Years After Actual or Expected High School Graduation		Quarter 4 Wages— Five Years After Actual or Expected High School Graduation	
	Number	Median	Number	Median	Number	Median
2008–09 Entering Grade 9 Students	339,746	$2,467	339,746	$3,759	–	–
Race/Ethnicity Groups						
African American	49,023	$2,028	49,023	$3,115	–	–
American Indian	1,191	$2,567	1,191	$3,751	–	–
Asian/Pacific Islander	12,292	$1,893	12,292	$2,751	–	–
Hispanic	152,958	$2,734	152,958	$4,109	–	–
White	124,282	$2,361	124,282	$3,672	–	–
Students Identified as						
Economically disadvantaged	171,159	$2,634	171,159	$3,945	–	–
English language learners	25,381	$3,070	25,381	$4,313	–	–
Students Who Participated in						
Special education	37,188	$2,494	37,188	$3,633	–	–
Students Who Completed Each Graduation Program						
Special education	5,364	$2,589	5,364	$3,603	–	–
Minimum	38,603	$2,743	38,603	$4,200	–	–
Recommended	180,001	$2,534	180,001	$3,904	–	–
Distinguished	37,688	$1,800	37,688	$2,706	–	–

Source. Texas Workforce Commission, Quarterly Employment and Wage files, 2010–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2008–09 cohort entered Grade 9 for the first time in the fall 2008 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one, three, and five years after their actual or expected graduation date. A dash (–) indicates wage data were not available three and five years after actual or expected high graduation.

Table E20. Median Wages for Students in the 2009–10 Entering Grade 9 Cohort Who Were Employed During Quarter 4 One Year After Actual or Expected High School Graduation Date, by Student Group

Student Groups	Quarter 4 Wages— One Year After Actual or Expected High School Graduation		Quarter 4 Wages— Three Years After Actual or Expected High School Graduation		Quarter 4 Wages— Five Years After Actual or Expected High School Graduation	
	Number	Median	Number	Median	Number	Median
2009–10 Entering Grade 9 Students	352,937	$2,643	–	–	–	–
Race/Ethnicity Groups						
African American	47,239	$2,154	–	–	–	–
American Indian	2,145	$2,782	–	–	–	–
Asian	11,884	$1,863	–	–	–	–
Hispanic	166,897	$2,907	–	–	–	–
Multiracial	5,353	$2,337	–	–	–	–
Pacific Islander	416	$2,431	–	–	–	–
White	119,003	$2,554	–	–	–	–
Students Identified as						
Economically disadvantaged	188,883	$2,818	–	–	–	–
English language learners	26,458	$3,419	–	–	–	–
Students Who Participated in						
Special education	36,534	$2,657	–	–	–	–
Students Who Completed Each Graduation Program						
Special education	5,256	$2,621	–	–	–	–
Minimum	38,912	$2,980	–	–	–	–
Recommended	188,643	$2,724	–	–	–	–
Distinguished	40,339	$1,820	–	–	–	–

Source. Texas Workforce Commission, Quarterly Employment and Wage files, 2011–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2009–10 cohort entered Grade 9 for the first time in the fall 2009 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one, three, and five years after their actual or expected graduation date. A dash (–) indicates wage data were not available three and five years after actual or expected high graduation.

Table E21. Median Wages for Students in the 2010–11 Entering Grade 9 Cohort Who Were Employed During Quarter 4 One Year After Actual or Expected High School Graduation Date, by Student Group

Student Groups	Quarter 4 Wages— One Year After Actual or Expected High School Graduation		Quarter 4 Wages— Three Years After Actual or Expected High School Graduation		Quarter 4 Wages— Five Years After Actual or Expected High School Graduation	
	Number	Median	Number	Median	Number	Median
2010–11 Entering Grade 9 Students	352,435	$2,709	–	–	–	–
Race/Ethnicity Groups						
African American	45,776	$2,187	–	–	–	–
American Indian	1,742	$3,012	–	–	–	–
Asian	12,668	$1,943	–	–	–	–
Hispanic	169,477	$2,986	–	–	–	–
Multiracial	5,585	$2,447	–	–	–	–
Pacific Islander	423	$2,918	–	–	–	–
White	116,764	$2,595	–	–	–	–
Students Identified as						
Economically disadvantaged	189,382	$2,910	–	–	–	–
English language learners	26,950	$3,500	–	–	–	–
Students Who Participated in						
Special education	34,299	$2,730	–	–	–	–
Students Who Completed Each Graduation Program						
Special education	4,813	$2,768	–	–	–	–
Minimum	33,389	$3,057	–	–	–	–
Recommended	190,086	$2,820	–	–	–	–
Distinguished	43,622	$1,882	–	–	–	–

Source. Texas Workforce Commission, Quarterly Employment and Wage files, 2012–2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2010–11 cohort entered Grade 9 for the first time in the fall 2010 semester. Median quarterly wages shown in the figure represent the median fourth-quarter wages of students in each entering cohort of Grade 9 students who were employed during the fourth quarter of the fiscal year one, three, and five years after their actual or expected graduation date. A dash (–) indicates wage data were not available three and five years after actual or expected high graduation.

E.7 Foundation High School Program Students are Pursuing

Table E22. Percentages of Students in 2014–15 Grade 9 Cohort Who Pursued Each Foundation High School Program, First Year (Grade 9)

Student Group	Total	FHSP Pursued by Students		
		FHSP Only	FHSP plus Endorsement	FHSP plus Endorsement and DLA
2014–15 Entering Grade 9 Students	389,646	3.3%	53.7%	42.8%
Race/Ethnicity Groups				
African American	49,293	3.5%	54.8%	41.5%
American Indian	1,541	4.2%	56.2%	39.3%
Asian	15,141	1.8%	57.8%	40.2%
Hispanic	197,344	4.1%	51.6%	44.2%
Multiracial	6,925	2.4%	55.7%	41.8%
Pacific Islander	506	3.6%	55.5%	40.7%
White	118,896	2.1%	56.2%	41.6%
Race/Ethnicity by Gender Groups				
African American – Female	24,042	3.3%	54.3%	42.2%
African American – Male	25,251	3.8%	55.3%	40.8%
American Indian – Female	688	3.5%	54.1%	42.3%
American Indian – Male	853	4.8%	57.9%	36.9%
Asian – Female	7,421	1.7%	56.7%	41.4%
Asian – Male	7,720	1.9%	58.8%	39.1%
Hispanic – Female	96,623	3.9%	51.6%	44.4%
Hispanic – Male	100,721	4.3%	51.6%	44.0%
Multiracial – Female	3,482	2.4%	56.1%	41.4%
Multiracial – Male	3,443	2.4%	55.2%	42.2%
Pacific Islander – Female	243	3.3%	58.4%	37.9%
Pacific Islander – Male	263	3.8%	52.9%	43.4%

Student Group	Total	FHSP Pursued by Students		
		FHSP Only	FHSP plus Endorsement	FHSP plus Endorsement and DLA
White – Female	57,528	2.0%	55.7%	42.2%
White – Male	61,368	2.2%	56.7%	41.0%
Gender				
Female	190,027	3.1%	53.5%	43.3%
Male	199,619	3.4%	54.0%	42.4%
Students Identified as				
Economically disadvantaged	179,579	4.0%	54.5%	41.3%
English language learners	35,309	7.9%	51.4%	40.3%
Students Participating in Programs for				
Special education	32,812	5.8%	57.8%	36.1%

Source. Public Education Information Management System files, 2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the table represent the students in each cohort who were pursuing the Foundation High School Program only (FHSP only), the Foundation High School Program plus one of more endorsement(s) (FHSP plus endorsement), or the Foundation High School Program plus endorsement and distinguished level of achievement (FHSP plus endorsement and DLA) during their first year (Grade 9) of high school.

Table E23. Percentages of Students in 2014–15 Grade 9 Cohort Who Pursued Each Foundation High School Program, Second Year (Grade 10)

Student Group	Total	FHSP Pursued by Students		
		FHSP Only	FHSP plus Endorsement	FHSP plus Endorsement and DLA
2014–15 Entering Grade 9 Students	389,646	2.4%	31.5%	62.4%
Race/Ethnicity Groups				
African American	49,293	3.1%	37.3%	55.4%
American Indian	1,541	2.6%	32.8%	56.5%
Asian	15,141	1.6%	31.6%	63.7%
Hispanic	197,344	2.8%	32.0%	61.7%
Multiracial	6,925	2.0%	30.5%	62.5%
Pacific Islander	506	4.2%	28.7%	59.7%
White	118,896	1.5%	28.2%	66.5%
Race/Ethnicity by Gender Groups				
African American – Female	24,042	2.6%	36.8%	56.6%
African American – Male	25,251	3.6%	37.7%	54.3%
American Indian – Female	688	2.3%	30.8%	59.6%
American Indian – Male	853	2.8%	34.5%	53.9%
Asian – Female	7,421	1.7%	30.9%	64.3%
Asian – Male	7,720	1.4%	32.3%	63.2%
Hispanic – Female	96,623	2.5%	31.9%	62.2%
Hispanic – Male	100,721	3.0%	32.1%	61.2%
Multiracial – Female	3,482	1.8%	31.0%	62.3%
Multiracial – Male	3,443	2.2%	30.1%	62.6%
Pacific Islander – Female	243	4.5%	29.2%	58.0%
Pacific Islander – Male	263	3.8%	28.1%	61.2%
White – Female	57,528	1.4%	27.9%	67.0%

Student Group	Total	FHSP Pursued by Students		
		FHSP Only	FHSP plus Endorsement	FHSP plus Endorsement and DLA
White - Male	61,368	1.7%	28.4%	65.9%
Gender				
Female	190,027	2.1%	31.3%	63.0%
Male	199,619	2.6%	31.6%	61.9%
Students Identified as				
Economically disadvantaged	179,579	3.0%	34.7%	58.5%
English language learners	35,309	5.9%	32.9%	52.5%
Students Participating in Programs for				
Special education	32,812	5.3%	37.4%	52.8%

Source. Public Education Information Management System files, 2015–2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the table represent the students in each cohort who were pursuing the Foundation High School Program only (FHSP only), the Foundation High School Program plus one of more endorsement(s) (FHSP plus endorsement), or the Foundation High School Program plus endorsement and distinguished level of achievement (FHSP plus endorsement and DLA) during their second year (Grade 10) of high school.

Table E24. Percentages of Students in 2015–16 Grade 9 Cohort Who Pursued Each Foundation High School Program, First Year (Grade 9)

Student Group	Total	FHSP Pursued by Students		
		FHSP Only	FHSP plus Endorsement	FHSP plus Endorsement and DLA
2015–16 Entering Grade 9 Students	398,331	2.8%	35.1%	62.0%
Race/Ethnicity Groups				
African American	50,043	3.6%	39.5%	56.8%
American Indian	1,591	3.5%	37.2%	59.3%
Asian	16,150	1.0%	40.2%	58.7%
Hispanic	205,058	3.3%	34.9%	61.7%
Multiracial	7,230	2.0%	34.2%	63.8%
Pacific Islander	578	3.8%	33.6%	62.3%
White	117,681	1.9%	32.9%	65.1%
Race/Ethnicity by Gender Groups				
African American – Female	24,371	3.2%	38.9%	57.8%
African American – Male	25,672	4.0%	40.1%	55.8%
American Indian – Female	767	2.7%	38.3%	58.9%
American Indian – Male	824	4.1%	36.2%	59.6%
Asian – Female	7,888	1.0%	39.8%	59.0%
Asian – Male	8,262	1.0%	40.6%	58.3%
Hispanic – Female	100,285	3.3%	34.8%	61.8%
Hispanic – Male	104,773	3.4%	34.9%	61.6%
Multiracial – Female	3,593	2.2%	34.2%	63.5%
Multiracial – Male	3,637	1.9%	34.1%	64.0%
Pacific Islander – Female	278	2.5%	34.2%	62.6%
Pacific Islander – Male	300	5.0%	33.0%	62.0%
White – Female	57,140	1.8%	32.4%	65.7%
White – Male	60,541	2.0%	33.4%	64.5%

Student Group	Total	FHSP Pursued by Students		
		FHSP Only	FHSP plus Endorsement	FHSP plus Endorsement and DLA
Gender				
Female	194,322	2.7%	34.8%	62.3%
Male	204,009	2.9%	35.3%	61.6%
Students Identified as				
Economically disadvantaged	184,828	3.2%	37.7%	59.1%
English language learners	39,917	4.5%	36.8%	58.5%
Students Participating in Programs for				
Special education	34,799	5.0%	38.0%	56.7%

Source. Public Education Information Management System files, 2016.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2015–16 cohort entered Grade 9 for the first time in the fall 2015 semester. Percentages shown in the table represent the students in each cohort who were pursuing the Foundation High School Program only (FHSP only), the Foundation High School Program plus one of more endorsement(s) (FHSP plus endorsement), or the Foundation High School Program plus endorsement and distinguished level of achievement (FHSP plus endorsement and DLA) during their first year (Grade 9) of high school.

E.8 Endorsements Students are Pursuing

Table E25. Percentages of Students in 2014–15 Grade 9 Cohort Who Pursued Each Endorsement in the FHSP, First Year (Grade 9)

Student Group	Total	Endorsement Pursued by Students				
		Arts & Humanities	Business & Industry	Multidisciplinary Studies	Public Services	STEM
2014–15 Entering Grade 9 Students	389,646	12.5%	21.7%	24.4%	20.4%	14.5%
Race/Ethnicity Groups						
African American	49,293	10.9%	22.1%	22.4%	19.9%	10.8%
American Indian	1,541	12.5%	20.6%	22.1%	17.6%	13.5%
Asian	15,141	11.9%	10.9%	28.0%	17.8%	29.8%
Hispanic	197,344	12.6%	23.3%	21.1%	24.0%	12.9%
Multiracial	6,925	14.1%	17.9%	27.7%	16.3%	16.5%
Pacific Islander	506	10.7%	19.8%	21.2%	20.0%	13.6%
White	118,896	13.1%	20.4%	30.1%	15.1%	16.5%
Race/Ethnicity by Gender Groups						
African American – Female	24,042	13.7%	16.9%	21.6%	27.7%	7.8%
African American – Male	25,251	8.3%	27.0%	23.1%	12.5%	13.6%
American Indian – Female	688	15.3%	17.0%	23.0%	25.4%	9.3%
American Indian – Male	853	10.3%	23.6%	21.3%	11.3%	16.9%
Asian – Female	7,421	14.7%	9.0%	29.0%	23.7%	23.6%
Asian – Male	7,720	9.2%	12.8%	27.1%	12.2%	35.8%
Hispanic – Female	96,623	15.7%	16.5%	21.2%	32.5%	9.2%
Hispanic – Male	100,721	9.7%	29.9%	21.0%	15.9%	16.5%
Multiracial – Female	3,482	18.3%	13.3%	27.6%	21.5%	11.8%
Multiracial – Male	3,443	9.8%	22.6%	27.9%	11.0%	21.1%
Pacific Islander – Female	243	12.4%	18.5%	23.1%	23.1%	9.9%
Pacific Islander – Male	263	9.1%	20.9%	19.4%	17.1%	17.1%
White – Female	57,528	17.2%	14.5%	30.6%	21.3%	12.5%

Student Group	Total	Endorsement Pursued by Students				
		Arts & Humanities	Business & Industry	Multidisciplinary Studies	Public Services	STEM
White - Male	61,368	9.1%	26.0%	29.7%	9.2%	20.3%
Gender						
Female	199,619	9.3%	27.5%	24.3%	13.2%	18.1%
Male	190,027	15.9%	15.6%	24.5%	28.0%	10.6%
Students Identified as						
Economically disadvantaged	179,579	12.2%	23.2%	21.9%	21.5%	11.6%
English language learners	35,309	10.3%	23.8%	21.0%	20.2%	8.8%
Students Participating in Programs for						
Special education	32,812	10.4%	23.5%	25.0%	15.9%	5.9%

Source. Public Education Information Management System files, 2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the table represent the students in each cohort of entering Grade 9 students in the cohort who were pursuing each of the endorsements during their Grade 9 year in high school. Students may be pursuing more than one endorsement, so the percentages may not add to 100%.

Table E26. Percentages of Students in 2014–15 Grade 9 Cohort Who Pursued Each Endorsement in the FHSP, Second Year (Grade 10)

Student Group	Total	Endorsement Pursued by Students				
		Arts & Humanities	Business & Industry	Multidisciplinary Studies	Public Services	STEM
2014–15 Entering Grade 9 Students	389,646	14.2%	23.7%	30.5%	21.4%	16.3%
Racial/Ethnicity Groups						
African American	49,293	12.2%	24.1%	28.0%	21.1%	12.0%
American Indian	1,541	13.4%	22.3%	28.1%	18.9%	15.7%
Asian	15,141	15.0%	11.1%	36.0%	18.6%	36.6%
Hispanic	197,344	14.2%	25.2%	26.1%	24.9%	14.0%
Multiracial	6,925	15.4%	19.6%	34.8%	17.9%	18.8%
Pacific Islander	506	11.3%	21.7%	27.5%	22.9%	14.6%
White	118,896	15.1%	22.9%	37.9%	16.2%	19.0%
Race/Ethnicity by Gender Groups						
African American – Female	24,042	15.1%	18.3%	27.1%	30.1%	9.0%
African American – Male	25,251	9.3%	29.7%	28.8%	12.6%	14.9%
American Indian – Female	688	16.7%	16.7%	29.1%	27.3%	11.2%
American Indian – Male	853	10.7%	26.7%	27.3%	12.1%	19.3%
Asian – Female	7,421	17.9%	9.0%	36.6%	24.9%	30.1%
Asian – Male	7,720	12.1%	13.0%	35.4%	12.7%	43.0%
Hispanic – Female	96,623	17.5%	17.7%	26.3%	34.1%	10.3%
Hispanic – Male	100,721	11.0%	32.4%	25.9%	16.0%	17.6%
Multiracial – Female	3,482	19.4%	14.3%	35.0%	24.2%	14.2%
Multiracial – Male	3,443	11.3%	24.9%	34.7%	11.5%	23.5%
Pacific Islander – Female	243	13.2%	19.3%	30.0%	27.6%	11.1%
Pacific Islander – Male	263	9.5%	24.0%	25.1%	18.6%	17.9%
White – Female	57,528	19.7%	16.2%	38.5%	23.2%	14.9%
White – Male	61,368	10.7%	29.1%	37.3%	9.6%	22.9%

Student Group	Total	Endorsement Pursued by Students				
		Arts & Humanities	Business & Industry	Multidisciplinary Studies	Public Services	STEM
Gender						
Female	190,027	17.9%	16.9%	30.7%	29.7%	12.4%
Male	199,619	10.8%	30.1%	30.3%	13.4%	20.0%
Students Identified as						
Economically disadvantaged	179,579	13.7%	25.5%	28.2%	22.6%	12.7%
English language learners	210,067	14.7%	22.2%	32.5%	20.3%	19.3%
Students Participating in Programs for						
Special education	32,812	11.2%	26.2%	31.8%	16.4%	6.0%

Source. Public Education Information Management System files, 2015–2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the table represent the students in each cohort of entering Grade 9 students in the cohort who were pursuing each of the endorsements during their Grade 10 year in high school. Students may be pursuing more than one endorsement, so the percentages may not add to 100%.

Table E27. Percentages of Students in 2015–16 Grade 9 Cohort Who Pursued Each Endorsement in the FHSP, First Year (Grade 9)

Student Group	Total	Endorsement Pursued by Students				
		Arts & Humanities	Business & Industry	Multidisciplinary Studies	Public Services	STEM
2015–16 Entering Grade 9 Students	398,331	14.0%	24.4%	30.6%	21.9%	16.0%
Racial/Ethnicity Groups						
African American	50,043	12.7%	25.6%	27.2%	21.5%	11.9%
American Indian	1,591	13.1%	25.2%	29.7%	19.5%	15.1%
Asian	16,150	13.3%	12.8%	35.7%	18.6%	35.5%
Hispanic	205,058	14.1%	25.7%	26.2%	25.4%	14.1%
Multiracial	7,230	15.9%	21.1%	35.6%	18.3%	17.7%
Pacific Islander	578	12.8%	23.2%	26.8%	22.7%	14.9%
White	117,681	14.3%	23.3%	38.6%	16.6%	18.5%
Race/Ethnicity by Gender Groups						
African American – Female	24,371	16.2%	19.6%	26.2%	30.1%	8.5%
African American – Male	25,672	9.5%	31.3%	28.1%	13.3%	15.1%
American Indian – Female	767	16.3%	21.0%	30.8%	26.0%	11.9%
American Indian – Male	824	10.1%	29.1%	28.6%	13.5%	18.1%
Asian – Female	7,888	16.8%	10.6%	37.0%	25.0%	28.2%
Asian – Male	8,262	10.0%	14.9%	34.4%	12.5%	42.5%
Hispanic – Female	100,285	17.5%	18.3%	26.1%	34.5%	10.2%
Hispanic – Male	104,773	10.8%	32.8%	26.3%	16.7%	17.8%
Multiracial – Female	3,593	20.1%	15.2%	36.2%	25.0%	12.1%
Multiracial – Male	3,637	11.8%	26.9%	35.0%	11.7%	23.2%
Pacific Islander – Female	278	18.0%	15.1%	24.8%	29.5%	13.0%
Pacific Islander – Male	300	8.0%	30.7%	28.7%	16.3%	16.7%
White – Female	57,140	18.9%	16.9%	39.2%	23.4%	14.3%
White – Male	60,541	9.9%	29.3%	38.0%	10.2%	22.4%

Student Group	Total	Endorsement Pursued by Students				
		Arts & Humanities	Business & Industry	Multidisciplinary Studies	Public Services	STEM
Gender						
Female	194,322	17.8%	17.7%	30.6%	30.1%	12.0%
Male	204,009	10.4%	30.7%	30.5%	14.1%	19.9%
Students Identified as						
Economically disadvantaged	184,828	13.8%	26.5%	28.6%	23.1%	13.0%
English language learners	39,917	12.0%	27.9%	24.9%	23.4%	10.4%
Students Participating in Programs for						
Special education	34,799	11.7%	26.6%	32.8%	17.5%	6.9%

Source. Public Education Information Management System files, 2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2015–16 cohort entered Grade 9 for the first time in the fall 2015 semester. Percentages shown in the table represent the students in each cohort of entering Grade 9 students in the cohort who were pursuing each of the endorsements during their Grade 9 year in high school. Students may be pursuing more than one endorsement, so the percentages may not add to 100%.

E.9 Results on STAAR End-of-Course Exams

Table E28. Percentages of Students in 2014–15 Entering Grade 9 Cohort Who Met Level II at the Final Standard on the Algebra I STAAR EOC

Student Group	Total Test-Takers	Achieved Level II Final Standard on Algebra I EOC	
		Number	Percentage
2014–15 Entering Grade 9 Students	367,515	155,459	42.3%
Racial/Ethnic Groups			
African American	46,596	12,954	27.8%
American Indian	1,396	514	36.8%
Asian	13,883	11,023	79.4%
Hispanic	186,228	65,925	35.4%
Multiracial	6,456	3,370	52.2%
Pacific Islander	471	207	44.0%
White	112,485	63,667	56.6%
Race/Ethnicity by Gender Groups			
African American – Female	22,872	7,045	30.8%
African American – Male	23,724	5,789	24.4%
American Indian – Female	628	257	40.9%
American Indian – Male	768	256	33.3%
Asian – Female	6,846	5,545	81.0%
Asian – Male	7,037	5,475	77.8%
Hispanic – Female	91,427	33,645	36.8%
Hispanic – Male	94,801	32,232	34.0%
Multiracial – Female	3,246	1,766	54.4%
Multiracial – Male	3,210	1,608	50.1%
Pacific Islander – Female	229	108	47.2%
Pacific Islander – Male	242	99	40.9%
White – Female	54,657	32,248	59.0%
White – Male	57,828	31,458	54.4%
Gender			
Female	179,905	80,597	44.8%
Male	187,610	76,920	41.0%
Students Identified as			
Economically disadvantaged	170,036	53,221	31.3%
English language learners	31,647	4,367	13.8%
Students Who Participated in			
Special education	27,706	1,718	6.2%
Students Pursuing Each Foundation High School Program			
Foundation High School Program Only	9,854	2,404	24.4%
Foundation High School Program Plus Endorsement	196,753	82,046	41.7%
Foundation High School Program Plus Endorsement With Distinguished Level of Achievement	160,767	72,988	45.4%

Sources. State of Assessments of Academic Readiness (STAAR) file 2015–2016 and Public Education Information Management System files, 2015.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. Students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the table represent the students in the 2014–15 Grade 9 cohort who met Level II at the final standard on the STAAR Algebra I end-of-course (EOC) assessment.

Table E29. Percentages of Students in 2014–15 Entering Grade 9 Cohort Who Met Level II at the Final Standard on the Algebra II STAAR EOC

Student Group	Total Test-Takers	Achieved Level II Final Standard on Algebra II EOC	
		Number	Percentage
2014–15 Entering Grade 9 Students	5,420	3,285	60.6%
Racial/Ethnic Groups			
African American	305	131	43.0%
American Indian	17	10	58.8%
Asian	132	105	79.6%
Hispanic	3,386	1,991	58.8%
Multiracial	6,456	4,067	63.0%
Pacific Islander	5	4	80.0%
White	1,521	1,011	66.5%
Race/Ethnic by Gender Groups			
African American – Female	166	65	39.2%
African American – Male	139	66	47.5%
American Indian – Female	*	*	*
American Indian – Male	13	7	53.9%
Asian – Female	61	46	75.4%
Asian – Male	71	59	83.1%
Hispanic – Female	1,772	1,021	57.6%
Hispanic – Male	1,614	972	60.2%
Multiracial – Female	27	19	70.4%
Multiracial – Male	27	15	55.6%
Pacific Islander – Female	*	*	*
Pacific Islander – Male	*	*	*
White – Female	780	517	66.3%
White – Male	741	494	66.7%
Gender			
Female	2,812	1,670	59.4%
Male	2,608	1,614	61.9%
Students Identified as			
Economically disadvantaged	2,537	1,451	57.2%
English language learners	212	98	46.2%
Students Who Participated in			
Special education	57	16	28.1%
Students Pursuing Each Foundation High School Program			
Foundation High School Program Only	708	447	63.1%
Foundation High School Program Plus Endorsement	2,645	1,513	57.2%
Foundation High School Program Plus Endorsement With Distinguished Level of Achievement	2,063	1,322	64.1%

Sources. State of Assessments of Academic Readiness (STAAR) file 2015–2016 and Public Education Information Management System files, 2015.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. Students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the table represent the students in the 2014–15 Grade 9 cohort who met Level II at the final standard on the STAAR Algebra II end-of-course (EOC) assessment. An * indicates data has been masked due to small sample sizes.

Table E30. Percentages of Students in 2014–15 Entering Grade 9 Cohort Who Met Level II at the Final Standard on the English I STAAR EOC

Student Group	Total Test-Takers	Achieved Level II Final Standard on English I EOC	
		Number	Percentage
2014–15 Entering Grade 9 Students	372,330	185,793	49.9%
Racial/Ethnic Groups			
African American	47,078	17,419	37.0%
American Indian	1,425	657	46.1%
Asian	14,473	11,434	79.0%
Hispanic	188,029	76,152	40.5%
Multiracial	6,597	4,143	62.8%
Pacific Islander	478	251	52.5%
White	114,250	75,634	66.2%
Race/Ethnic by Gender Groups			
African American – Female	23,122	10,382	44.9%
African American – Male	23,956	7,043	29.4%
American Indian – Female	641	374	58.4%
American Indian – Male	784	283	36.1%
Asian – Female	7,108	5,949	83.7%
Asian – Male	7,365	5,487	74.5%
Hispanic – Female	92,254	43,636	47.3%
Hispanic – Male	95,775	32,564	34.0%
Multiracial – Female	3,317	2,348	70.8%
Multiracial – Male	3,280	1,794	54.7%
Pacific Islander – Female	227	137	60.4%
Pacific Islander – Male	251	114	45.4%
White – Female	55,499	41,069	74.0%
White – Male	58,751	34,604	58.9%
Gender			
Female	182,168	103,836	57.0%
Male	190,162	81,960	43.1%
Students Identified as			
Economically disadvantaged	171,562	63,135	36.8%
English language learners	32,412	2,463	7.6%
Students Who Participated in			
Special education	27,959	1,845	6.6%
Students Pursuing Each Foundation High School Program			
Foundation High School Program Only	10,100	3,151	31.2%
Foundation High School Program plus Endorsement	199,607	97,807	49.0%
Foundation High School Program Plus Endorsement With Distinguished Level of Achievement	162,383	84,602	52.1%

Sources. State of Assessments of Academic Readiness (STAAR) file 2015–2016 and Public Education Information Management System files, 2015.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. Students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the table represent the students in the 2014–15 Grade 9 cohort who met Level II at the final standard on the STAAR English I end-of-course (EOC) assessment.

Table E31. Percentages of Students in 2014–15 Entering Grade 9 Cohort Who Met Level II at the Final Standard on the English II STAAR EOC

Student Group	Total Test-Takers	Achieved Level II Final Standard on English II EOC	
		Number	Percentage
2014–15 Entering Grade 9 Students	343,642	176,288	51.3%
Racial/Ethnic Groups			
African American	42,934	16,186	37.7%
American Indian	1,269	617	48.6%
Asian	13,739	11,101	80.8%
Hispanic	172,966	72,646	42.0%
Multiracial	6,117	3,872	63.3%
Pacific Islander	429	232	54.1%
White	106,188	71,571	67.4%
Race/Ethnic by Gender Groups			
African American – Female	21,294	9,667	45.4%
African American – Male	21,640	6,492	30.0%
American Indian – Female	576	339	58.9%
American Indian – Male	693	278	40.1%
Asian – Female	6,748	5,763	85.4%
Asian – Male	6,991	5,341	76.4%
Hispanic – Female	85,473	41,369	48.4%
Hispanic – Male	87,493	31,322	35.8%
Multiracial – Female	3,101	2,196	70.8%
Multiracial – Male	3,016	1,677	55.6%
Pacific Islander – Female	206	123	59.7%
Pacific Islander – Male	223	109	48.9%
White – Female	51,681	38,812	75.1%
White – Male	54,507	32,759	60.1%
Gender			
Female	169,079	98,235	58.1%
Male	174,563	131,097	75.1%
Students Identified as			
Economically disadvantaged	156,308	59,553	38.1%
English language learners	27,616	2,513	9.1%
Students Who Participated in			
Special education	24,704	1,952	7.9%
Students Pursuing Each Foundation High School Program			
Foundation High School Program Only	8,578	2,959	34.5%
Foundation High School Program plus Endorsement	183,623	92,362	50.3%
Foundation High School Program Plus Endorsement With Distinguished Level of Achievement	151,224	80,754	53.4%

Sources. State of Assessments of Academic Readiness (STAAR) file 2015–2016 and Public Education Information Management System files, 2015.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. Students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the table represent the students in the 2014–15 Grade 9 cohort who met Level II at the final standard on the STAAR English II end-of-course (EOC) assessment.

Table E32. Percentages of Students in 2014–15 Entering Grade 9 Cohort Who Met Level II at the Final Standard on the Biology STAAR EOC

Student Group	Total Test-Takers	Achieved Level II Final Standard on Biology EOC	
		Number	Percentage
2014–15 Entering Grade 9 Students	364,305	202,189	55.5%
Racial/Ethnic Groups			
African American	46,182	19,258	41.7%
American Indian	1,389	711	51.2%
Asian	14,240	12,033	84.5%
Hispanic	183,130	85,705	46.8%
Multiracial	6,490	4,400	67.8%
Pacific Islander	474	278	58.7%
White	112,400	79,804	71.0%
Race/Ethnic by Gender Groups			
African American – Female	22,708	10,082	44.4%
African American – Male	23,474	9,202	39.2%
American Indian – Female	634	347	54.7%
American Indian – Male	755	364	48.2%
Asian – Female	7,012	5,981	85.3%
Asian – Male	7,228	6,057	83.8%
Hispanic – Female	90,033	41,865	46.5%
Hispanic – Male	93,097	43,849	47.1%
Multiracial – Female	3,266	2,260	69.2%
Multiracial – Male	3,224	2,138	66.3%
Pacific Islander – Female	228	132	57.9%
Pacific Islander – Male	246	146	59.4%
White – Female	54,654	39,023	71.4%
White – Male	57,746	40,711	70.5%
Gender			
Female	178,535	99,801	55.9%
Male	185,770	102,545	55.2%
Students Identified as			
Economically disadvantaged	166,707	73,351	44.0%
English language learners	30,712	5,252	17.1%
Students Who Participated in			
Special education	26,720	3,073	11.5%
Students Pursuing Each Foundation High School Program			
Foundation High School Program Only	9,665	3,450	35.7%
Foundation High School Program Plus Endorsement	194,376	105,352	54.2%
Foundation High School Program Plus Endorsement With Distinguished Level of Achievement	160,059	93,314	58.3%

Sources. State of Assessments of Academic Readiness (STAAR) file 2015–2016 and Public Education Information Management System files, 2015.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. Students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the table represent the students in the 2014–15 Grade 9 cohort who met Level II at the final standard on the STAAR Biology end-of-course (EOC) assessment.

Table E33. Percentages of Students in 2014–15 Entering Grade 9 Cohort Who Met Level II at the Final Standard on the US History STAAR EOC

Student Group	Total Test-Takers	Achieved Level II Final Standard on US History EOC	
		Number	Percentage
2014–15 Entering Grade 9 Students	42,660	20,562	48.2%
Racial/Ethnic Groups			
African American	5,114	1,815	35.5%
American Indian	199	90	45.2%
Asian	891	611	68.6%
Hispanic	21,124	8,957	42.4%
Multiracial	762	406	53.3%
Pacific Islander	45	21	46.7%
White	14,525	8,657	59.6%
Race/Ethnic by Gender Groups			
African American – Female	2,510	851	33.9%
African American – Male	2,604	966	37.1%
American Indian – Female	94	42	44.7%
American Indian – Male	105	48	45.7%
Asian – Female	453	288	63.6%
Asian – Male	438	323	73.7%
Hispanic – Female	10,546	3,849	36.5%
Hispanic – Male	10,578	5,099	48.2%
Multiracial – Female	379	195	51.5%
Multiracial – Male	383	211	55.1%
Pacific Islander – Female	20	7	35.0%
Pacific Islander – Male	25	14	56.0%
White – Female	7,170	3,872	54.0%
White – Male	7,355	4,788	65.1%
Gender			
Female	21,172	9,104	43.0%
Male	21,488	11,453	53.3%
Students Identified as			
Economically disadvantaged	20,696	7,968	38.5%
English language learners	3,516	679	19.3%
Students Who Participated in			
Special education	3,539	439	12.4%
Students Pursuing Each Foundation High School Program			
Foundation High School Program Only	2,029	773	38.1%
Foundation High School Program Plus Endorsement	23,534	11,249	47.8%
Foundation High School Program Plus Endorsement With Distinguished Level of Achievement	17,064	8,532	50.0%

Sources. State of Assessments of Academic Readiness (STAAR) file 2015–2016 and Public Education Information Management System files, 2015.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. Students in the 2014–15 cohort entered Grade 9 for the first time in the fall 2014 semester. Percentages shown in the table represent the students in the 2014–15 Grade 9 cohort who met Level II at the final standard on the STAAR US History end-of-course (EOC) assessment.

Table E34. Percentages of Students in 2015–16 Entering Grade 9 Cohort Who Met Level II at the Final Standard on the Algebra I STAAR EOC

Student Group	Total Test-Takers	Achieved Level II Final Standard on Algebra I EOC	
		Number	Percentage
2015–16 Entering Grade 9 Students	364,540	176,802	48.5%
Racial/Ethnic Groups			
African American	45,500	15,015	33.0%
American Indian	1,414	617	43.6%
Asian	14,616	12,073	82.6%
Hispanic	187,326	79,239	42.3%
Multiracial	6,587	3,781	57.4%
Pacific Islander	515	282	54.8%
White	108,582	65,909	60.7%
Race/Ethnic by Gender Groups			
African American – Female	22,361	8,430	37.7%
African American – Male	23,139	6,571	28.4%
American Indian – Female	693	316	45.6%
American Indian – Male	721	301	41.8%
Asian – Female	7,156	6,054	84.6%
Asian – Male	7,460	6,020	80.7%
Hispanic – Female	91,911	41,360	45.0%
Hispanic – Male	95,415	37,880	39.7%
Multiracial – Female	3,278	1,970	60.1%
Multiracial – Male	3,309	1,810	54.7%
Pacific Islander – Female	247	137	55.5%
Pacific Islander – Male	268	145	54.1%
White – Female	52,908	33,755	63.8%
White – Male	55,674	32,124	57.7%
Gender			
Female	52,908	27,248	51.5%
Male	55,674	25,387	45.6%
Students Identified as			
Economically disadvantaged	168,591	63,222	37.5%
English language learners	34,409	7,088	20.6%
Students Who Participated in			
Special education	27,322	2,514	9.2%
Students Pursuing Each Foundation High School Program			
Foundation High School Program Only	8,533	2,850	33.4%
Foundation High School Program Plus Endorsement	127,130	58,861	46.3%
Foundation High School Program Plus Endorsement With Distinguished Level of Achievement	228,641	115,235	50.4%

Sources. State of Assessments of Academic Readiness (STAAR) file 2016 and Public Education Information Management System files, 2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. Students in the 2015–16 cohort entered Grade 9 for the first time in the fall 2015 semester. Percentages shown in the table represent the students in the 2015–16 Grade 9 cohort who met Level II at the final standard on the STAAR Algebra I end-of-course (EOC) assessment.

Table E35. Percentages of Students in 2015–16 Entering Grade 9 Cohort Who Met Level II at the Final Standard on the English I STAAR EOC

Student Group	Total Test-Takers	Achieved Level II Final Standard on English I EOC	
		Number	Percentage
2015–16 Entering Grade 9 Students	370,056	186,508	50.4%
Racial/Ethnic Groups			
African American	46,074	17,785	38.6%
American Indian	1,438	692	48.1%
Asian	14,945	11,956	80.0%
Hispanic	190,254	79,716	41.9%
Multiracial	6,717	4,238	63.1%
Pacific Islander	522	283	54.2%
White	110,106	72,119	65.5%
Race/Ethnic by Gender Groups			
African American – Female	22,581	10,974	48.6%
African American – Male	23,493	6,813	29.0%
American Indian – Female	696	400	57.5%
American Indian – Male	742	291	39.2%
Asian – Female	7,312	6,208	84.9%
Asian – Male	7,633	5,748	75.3%
Hispanic – Female	93,188	46,687	50.1%
Hispanic – Male	97,066	33,002	34.0%
Multiracial – Female	3,355	2,419	72.1%
Multiracial – Male	3,362	1,822	54.2%
Pacific Islander – Female	249	148	59.4%
Pacific Islander – Male	273	135	49.5%
White – Female	53,630	40,169	74.9%
White – Male	56,476	31,909	56.5%
Gender			
Female	181,011	106,978	59.1%
Male	189,045	79,588	42.1%
Students Identified as			
Economically disadvantaged	171,176	65,389	38.2%
English language learners	35,353	3,005	8.5%
Students Who Participated in			
Special education	28,249	1,921	6.8%
Students Pursuing Each Foundation High School Program			
Foundation High School Program Only	8,860	3,092	34.9%
Foundation High School Program Plus Endorsement	129,211	62,409	48.3%
Foundation High School Program Plus Endorsement With Distinguished Level of Achievement	231,738	121,199	52.3%

Sources. State of Assessments of Academic Readiness (STAAR) file 2016 and Public Education Information Management System files, 2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. Students in the 2015–16 cohort entered Grade 9 for the first time in the fall 2015 semester. Percentages shown in the table represent the students in the 2015–16 Grade 9 cohort who met Level II at the final standard on the STAAR English I end-of-course (EOC) assessment.

Table E36. Percentages of Students in 2015–16 Entering Grade 9 Cohort Who Met Level II at the Final Standard on the Biology STAAR EOC

Student Group	Total Test-Takers	Achieved Level II Final Standard on Biology EOC	
		Number	Percentage
2015–16 Entering Grade 9 Students	326,937	201,393	61.6%
Racial/Ethnic Groups			
African American	41,185	20,181	49.0%
American Indian	1,253	743	59.3%
Asian	14,282	12,511	87.6%
Hispanic	165,701	88,153	53.2%
Multiracial	6,084	4,472	73.5%
Pacific Islander	495	318	64.2%
White	97,937	75,118	76.7%
Race/Ethnic by Gender Groups			
African American – Female	20,426	10,867	53.2%
African American – Male	20,759	9,300	44.8%
American Indian – Female	601	368	61.2%
American Indian – Male	652	375	57.5%
Asian – Female	7,042	6,232	88.5%
Asian – Male	7,240	6,284	86.8%
Hispanic – Female	81,902	44,391	54.2%
Hispanic – Male	83,799	43,743	52.2%
Multiracial – Female	3,053	2,302	75.4%
Multiracial – Male	3,031	2,173	71.7%
Pacific Islander – Female	233	149	64.0%
Pacific Islander – Male	262	169	64.5%
White – Female	48,142	37,840	78.6%
White – Male	49,795	37,296	74.9%
Gender			
Female	161,399	102,166	63.3%
Male	165,538	99,323	60.0%
Students Identified as			
Economically disadvantaged	146,778	74,123	50.5%
English language learners	27,981	5,456	19.5%
Students Who Participated in			
Special education	21,468	2,963	13.8%
Students Pursuing Each Foundation High School Program			
Foundation High School Program Only	7,265	3,059	42.1%
Foundation High School Program Plus Endorsement	113,419	67,598	59.6%
Foundation High School Program Plus Endorsement With Distinguished Level of Achievement	206,049	130,841	63.5%

Sources. State of Assessments of Academic Readiness (STAAR) file 2016 and Public Education Information Management System files, 2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. Students in the 2015–16 cohort entered Grade 9 for the first time in the fall 2015 semester. Percentages shown in the table represent the students in the 2015–16 Grade 9 cohort who met Level II at the final standard on the STAAR Biology end-of-course (EOC) assessment.

E.10 Results for Students in the 2011–12 Cohort Who Opted to Graduate Under the Foundation High School Program

Table E37. Percentages of Students in the 2011–12 Entering Grade 9 Cohort Who Opted to Graduate Under the Foundation High School Program Who Enrolled in a Texas Two-Year or Four-Year College or University Within One Year of Actual or Expected High School Graduation Date, by Student Group

Student Group	Total	Enrolled in a Two-Year College Within One Year of High School Graduation		Total	Enrolled in a Four-Year College Within One Year of High School Graduation	
		Number	Percentage		Number	Percentage
2011–12 Entering Grade 9 Students	13,322	3,917	29.4%	13,322	2,012	15.1%
Race/Ethnicity Groups						
African American	1,432	444	31.0%	1,432	168	11.7%
American Indian	NA	NA	NA	NA	NA	NA
Asian	235	67	28.5%	235	68	28.9%
Hispanic	6,897	1,938	28.1%	6,897	690	10.0%
Multiracial	172	46	26.7%	172	16	9.3%
Pacific Islander	NA	NA	NA	NA	NA	NA
White	4,530	1,404	30.9%	4,530	1,055	23.3%
Students Identified as						
Economically disadvantaged	6,611	1,712	25.9%	6,611	588	8.9%
English language learners	772	121	15.7%	772	21	2.7%
Students Who Participated in						
Special education	753	216	28.7%	753	31	4.1%
Students Who Completed Each Graduation Program						
Foundation High School Program Only	7,674	2,118	27.6%	7,674	545	7.1%
Foundation High School Program Plus Endorsements	458	106	23.1%	458	66	14.4%
Foundation High School Program Plus Endorsement with Distinguished Level of Achievement	5,190	1,692	32.6%	5,190	1396	26.9%

Source. Texas Higher Education Coordinating Board, Two-Year College Enrollment files, 2012– 2015.
Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2011–12 cohort entered Grade 9 for the first time in the fall 2011 semester. Percentages shown in the table represent the students in each entering Grade 9 cohort who enrolled in a Texas two-year college within one year of actual or expected high school graduation date. NA is Not Available as the data have been masked due to small numbers.

Table E38. Percentages of Students in the 2011–12 Entering Grade 9 Cohort Who Opted to Graduate Under the Foundation High School Program Who Met the TSI Readiness Standards in Reading, Mathematics, and Writing, by Student Group

Student Group	TSI Readiness Standard Reading			TSI Readiness Standard Writing			TSI Readiness Standard Mathematics		
		Met Standard			Met Standard			Met Standard	
	Total	Number	Percentage	Total	Number	Percentage	Total	Number	Percentage
2011–12 Entering Grade 9 Students	5,922	2,967	50.1%	5,922	2,991	50.5%	5,922	2,167	36.6%
Race/Ethnicity Groups									
African American	612	203	33.2%	612	205	33.5%	612	123	20.1%
American Indian	25	12	48.0%	25	13	52.0%	25	7	28.0%
Asian	135	94	69.6%	135	102	75.5%	135	85	62.9%
Hispanic	2,268	1,032	45.5%	2,268	1,093	48.2%	2,268	705	31.1%
Multiracial	62	32	51.6%	62	33	53.2%	62	29	46.8%
Pacific Islander	NA	NA	NA	NA	NA	NA	NA	NA	NA
White	248	144	58.2%	248	138	55.8%	248	112	45.0%
Students Identified as									
Economically disadvantaged	2,305	980	42.5%	2,305	1,033	44.8%	2,305	696	30.2%
English language learners	142	26	18.3%	142	41	28.9%	142	30	21.1%
Students Who Participated in 60									
Special education	247	51	20.7%	247	60	24.3%	247	26	10.5%
Students Who Completed Each Graduation Program661									
FHSP Only	2,664	1,071	40.2%	2,664	1,098	41.2%	2,664	661	24.8%
FHSP plus Endorsements	172	69	40.1%	172	69	40.1%	172	50	29.1%
FHSP plus Endorsement with Distinguished Level of Achievement	3,086	1,830	59.3%	3,086	1,824	59.1%	3,086	1,460	47.3%

Source. Texas Higher Education Coordinating Board, Texas Success Initiative (TSI) files, 2013– 2016.

Notes. Cohorts are made up of students who entered Grade 9 in the academic year listed. For example, students in the 2011–12 cohort entered Grade 9 for the first time in the fall 2011 semester. Percentages shown in the table represent the students in each cohort of entering Grade 9 students who enrolled in a Texas two-year college or public or independent university. FHSP = Foundation High School Program. NA is Not Available as the data have been masked due to small numbers.

E.11 Logistic Regression Coefficients for the Impact Analysis

Table E39. Logistic Regression Coefficients for the Impact Analysis Estimating the Effect of House Bill 5 on Two-Year and Four-Year College Enrollment

Predictor Variable	Two-Year College Enrollment		Four-Year College Enrollment	
	Estimate	Standard Error	Estimate	Standard Error
Intercept	-1.130	0.029	-1.995***	0.045
2011–12 Cohort	0.153***	0.029	-0.281***	0.039
Female	0.202***	0.029	0.321***	0.040
African American	0.072	0.057	0.491***	0.078
Hispanic	0.069	0.039	-0.328***	0.053
Other	-0.027	0.087	0.336**	0.104
Economically disadvantaged	-0.287***	0.033	-0.715***	0.047
ELL	-0.843***	0.085	-0.886***	0.184
Special education	-0.124	0.071	-1.400***	0.155
Grade 8 TAKS Math z-score	-0.084***	0.030	0.929***	0.031
Grade 8 TAKS ELA z-score	0.030	0.022	0.486	0.031
Differential Impact of FHSP by:				
Female	-0.086	0.058	-0.033	0.079
African American	0.036	0.094	-0.387**	0.132
Hispanic	0.016	0.058	-0.103	0.081
Other	0.135	0.164	-0.644***	0.193
Economically disadvantaged	0.029	0.059	0.143	0.083
ELL	0.194	0.163	0.622	0.360
Special education	0.370**	0.141	0.263	0.305

Source: Public Education Information Management System, 2010–2015; Texas Higher Education Coordinating Board, Two-Year College Enrollment files, Four-Year Public College Enrollment files, Four-Year Independent College Enrollment files, 2011– 2015.
Notes. Multilevel modeling was used to estimate and compare the probabilities of students meeting the Texas Success Initiative (TSI) requirements in reading, writing, and mathematics, as well as students enrolling in two-year and four-year colleges in Texas within one year of graduation from high school. ELL = English language learners. ELA = English language arts. * Coefficient is statistically significant at $p<0.05$; ** Coefficient is statistically significant at $p<0.01$; *** Coefficient is statistically significant at $p<0.001$.

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Appendix F. Survey Administration: Technical Details

This appendix provides more detail about the development and administration of the survey to districts and the characteristics of the districts responding.

F.1 Summary of Activity

On March 23, 2017, American Institutes for Research administered a 36-item electronic survey to 1,084 public school districts in Texas that served high schools. The survey was designed to gather information on their implementation of changes to graduation requirements in response to the enactment of Texas HB 5 and the establishment of the Foundation High School Program. Instructions and a unique link for completing the survey were distributed to the email addresses of the school district superintendents on file in the most recent AskTED database.[63]

The survey consisted of fixed as well as open-ended response items. Fifteen of the 36 survey items were required, meaning that the respondent had to select an answer to those items in order to advance to subsequent items. No open-ended response items were required. The survey used skip logic, meaning that responses to some items triggered additional items to be delivered to the respondent, contingent on their original response. Survey respondents were able to save their responses and return to complete the survey at a later time. In addition, multiple users could access the unique district link to complete the survey as needed; no credentials (i.e., user name or password) were required for access.

During the first administration on March 23, 2017, a link was sent to districts so they could view all of the survey items in advance in order to determine the best staff in their district to complete the survey.

The survey items request or provide:

1. A brief overview of the purpose of the survey;
2. Consent to complete the survey;
3. One item regarding data or information used to recommend endorsements to students;
4. Two items regarding the Distinguished Level of Achievement and promotion of it to students;
5. Nineteen items concerning which of the five endorsements and course pathways to complete the endorsements are currently being offered, as well as what factors prevented districts from offering other course options, what factors were taken into consideration when making the endorsement offerings, how districts assist transfer students in completing the endorsements, how districts support students who are undecided about the endorsements, and barriers to offering endorsements;
6. Description of any additional local graduation requirements; and
7. An opportunity to describe any other relevant information related to implementation of HB 5 requirements.

[63] AskTED is a database that houses the contact information of Texas public schools, districts, and education service centers. AskTED is available at the website http://mansfield.tea.state.tx.us/TEA.AskTED.Web/Forms/Home.aspx#.

Assistance was provided to survey respondents via telephone and email. Respondents were asked to direct technical questions to AIR staff via telephone or at TXHB5Eval@air.org. The study email inbox was monitored daily during administration.

The original survey invitation asked school districts to complete the survey by April 28, 2017. Reminder emails were sent to nonrespondents on the following dates:

- March 27, 2017
- April 4, 2017
- April 6, 2017
- April 11, 2017
- April 13, 2017
- April 18, 2017
- April 20, 2017
- April 25, 2017
- April 27, 2017
- May 4, 2017
- May 9, 2017
- May 11, 2017

F.2 Demographic Characteristics of District Respondents

The survey was open from March 23 through May 17, 2017. Responses from the districts were monitored in order to target follow-up calls to districts to achieve a pool of responses representative of the state. District response was disaggregated and reported according to the following categories: (1) district type (e.g., charter, major urban, rural, etc.); (2) 2015–16 district accountability rating; (3) district demographics (race/ethnicity, special education, economically disadvantaged, limited English proficiency); and (4) district size. Reminder calls were conducted to nonresponding districts throughout the administration window. No districts were contacted by phone or email on published state testing administration days. Between April 24 and April 28, 68 school districts who had not finished the survey were contacted by phone. Districts that had not yet responded to the survey were scheduled to be called May 1 through May 12. However, no calls were placed during this time as districts were involved in State Assessments of Academic Readiness (STAAR) end-of-course (EOC) testing May 1–5 and elementary grade STAAR testing May 8–12.

The final number of districts completing the survey was 741, and the number of districts beginning but not finishing the survey was 82. Of the 82 that had opened the survey, 46 did not answer any of the survey items and were not included in the analytic sample. The final number of districts within the analytic sample is 777, and the final response rate of districts included in the analytic sample is 72%. Table 1 presents the distribution of district responses relative to the state. As shown in Table 1, the characteristics of districts who responded to the survey were largely representative of all districts in the state.

Table F1. 2016–17 District Responses to House Bill 5 Evaluation Survey

District Characteristics	District Responses	State[a]
Community Type	777[b]	1,084
Percentage charter school districts	9.3	10.2
Percentage independent town	6.7	6.3
Percentage major suburban	7.9	7.3
Percentage major urban	1.0	1.0
Percentage nonmetropolitan fast growing	2.2	2.7
Percentage nonmetropolitan stable	14.9	16.1
Percentage other central city	5.0	3.8
Percentage other central city suburban	15.2	14.8
Percentage rural	38.0	38.0
District Size (Student Enrollment)		
Percentage 50,000 or more	2.1	1.9
Percentage 25,000 to 49,999	3.6	2.6
Percentage 10,000 to 24,999	6.1	5.8
Percentage 5,000 to 9,999	7.0	7.1
Percentage 3,000 to 4,999	8.0	8.2
Percentage 1,600 to 2,999	12.6	12.4
Percentage 1,000 to 1,599	12.6	12.6
Percentage 500 to 999	20.6	20.6
Percentage fewer than 500	27.5	28.9
State Accountability Rating		
Percentage met standard	92.8	92.3
Percentage met alternative standard	2.1	2.7
Percentage improvement required	3.9	3.9
Percentage not rated	1.2	1.2
Student Demographics		
Percentage economically disadvantaged	58.7	58.4
Percentage Limited English Proficient	10.0	9.6
Percentage special education	9.2	9.2
Percentage African American	7.6	7.9
Percentage Hispanic	41.0	40.9
Percentage White	47.6	47.3
Percentage American Indian	0.4	0.4
Percentage Asian/Pacific Islander	1.4	1.4

[a] Statistics compiled from the 2015–16 Texas Academic Performance Reports.
[b] In all, 777 of 1,084 K–12 districts (72%) completed the survey. The districts in this table represent those that have high schools. In 2015–2016, there were 1,207 districts statewide.

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Appendix G. Survey Responses by District Characteristics

G.1 Districts Offering STEM Endorsement

Table G1. Percentages of Responding Districts Offering the STEM Endorsement in 2016–17, by District Size

	Total	No	Yes	No Response
District Size (Student Enrollment)				
Fewer than 500	214	29.0%	67.3%	3.7%
500 to 999	154	13.0%	85.1%	1.9%
1,000 to 1,599	105	10.5%	86.7%	2.9%
1,600 to 2,999	96	5.2%	90.6%	4.2%
3,000 to 4,999	64	0.0%	100.0%	0.0%
5,000 to 9,999	51	0.0%	100.0%	0.0%
10,000 to 24,999	48	2.1%	97.9%	0.0%
25,000 to 49,999	29	3.4%	96.6%	0.0%
50,000 or more	16	0.0%	100.0%	0.0%

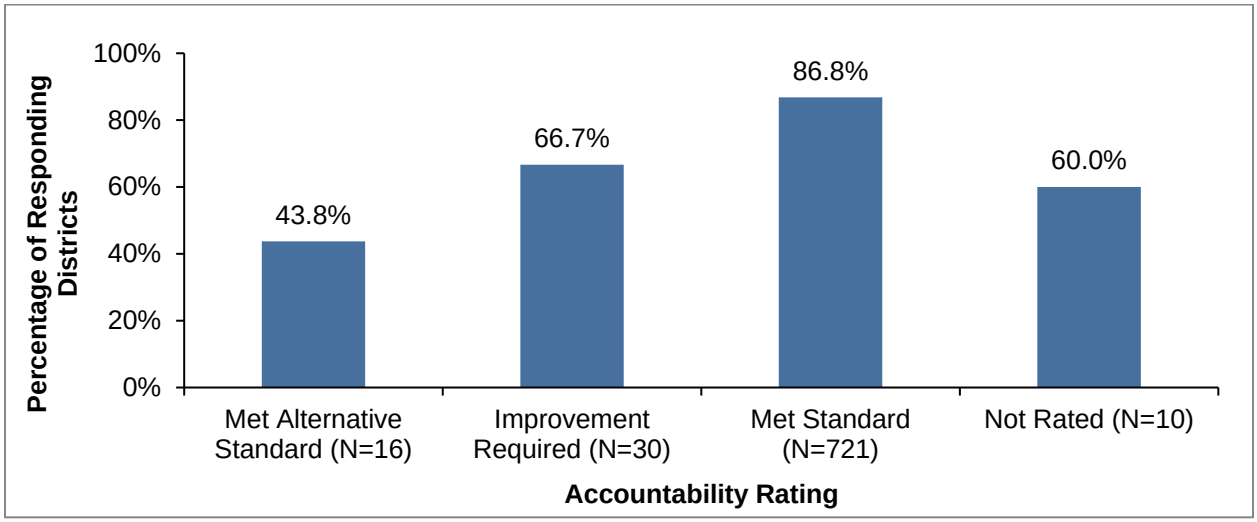
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. STEM = science, technology, engineering, and mathematics. Respondents were required to complete this item in order to progress in the electronic survey. 18 districts did not progress to this question.

Table G2. Percentages of Responding Districts Offering the STEM Endorsement in 2016–17, by District Type

	Total	No	Yes	No Response
District Type				
Charter school districts	72	27.8%	68.1%	4.2%
Independent town	52	1.9%	96.2%	1.9%
Major suburban	61	0.0%	100.0%	0.0%
Major urban	8	0.0%	100.0%	0.0%
Nonmetropolitan fast growing	17	17.6%	76.5%	5.9%
Nonmetropolitan stable	116	5.2%	93.1%	1.7%
Other central city	38	2.6%	97.4%	0.0%
Other central city suburban	118	5.1%	92.4%	2.5%
Rural	295	21.4%	75.9%	2.7%

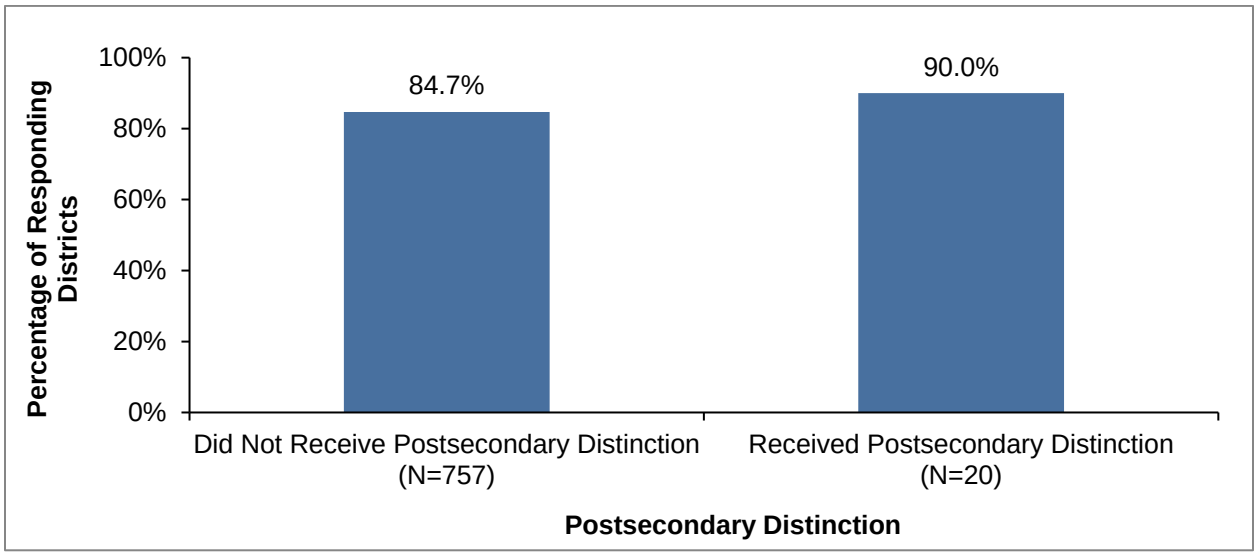
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. STEM = science, technology, engineering, and mathematics. Respondents were required to complete this item in order to progress in the electronic survey. 18 districts did not progress to this question.

Figure G1. Percentages of Responding Districts Offering the STEM Endorsement in 2016–17, by Accountability Rating



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. STEM = science, technology, engineering, and mathematics. Respondents were required to complete this item in order to progress in the electronic survey. 18 districts did not progress to this question.

Figure G2. Percentages of Responding Districts Offering the STEM Endorsement in 2016–17 by Those Districts That Received the Postsecondary Distinction in the 2016 Accountability Ratings



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. STEM = science, technology, engineering, and mathematics. Respondents were required to complete this item in order to progress in the electronic survey. 18 districts did not progress to this question. 20 responding districts received the postsecondary distinction in the 2016 Accountability Ratings. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.2 Districts Offering Business and Industry Endorsement

Table G3. Percentages of Responding Districts Offering the Business and Industry Endorsement in 2016–17, by District Size

	Total	No	Yes	No Response
District Size (Student Enrollment)				
Fewer than 500	214	21.5%	73.8%	4.7%
500 to 999	154	14.3%	83.1%	2.6%
1,000 to 1,599	105	4.8%	91.4%	3.8%
1,600 to 2,999	96	5.2%	90.6%	4.2%
3,000 to 4,999	64	0.0%	100.0%	0.0%
5,000 to 9,999	51	2.0%	98.0%	0.0%
10,000 to 24,999	48	2.1%	95.8%	2.1%
25,000 to 49,999	29	0.0%	100.0%	0.0%
50,000 or more	16	0.0%	100.0%	0.0%

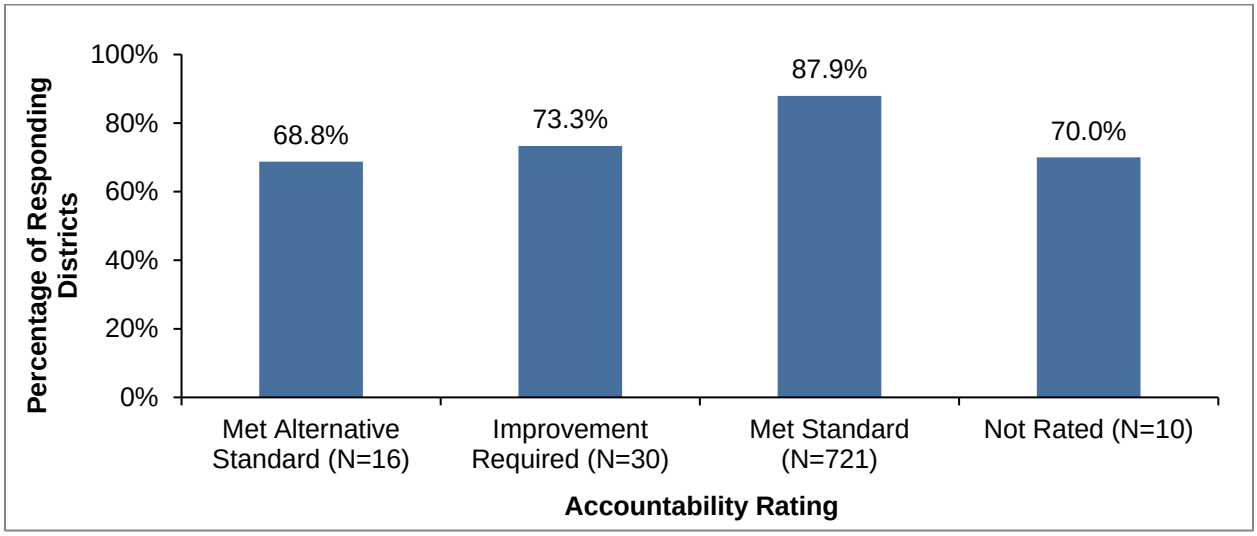
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 23 districts did not progress to this question.

Table G4. Percentages of Responding Districts Offering the Business and Industry Endorsement in 2016–17, by District Type

	Total	No	Yes	No Response
District Type				
Charter school districts	72	29.2%	65.3%	5.6%
Independent town	52	0.0%	98.1%	1.9%
Major suburban	61	1.6%	98.4%	0.0%
Major urban	8	0.0%	100.0%	0.0%
Nonmetropolitan fast growing	17	17.6%	76.5%	5.9%
Nonmetropolitan stable	116	3.4%	94.0%	2.6%
Other central city	38	0.0%	100.0%	0.0%
Other central city suburban	118	0.8%	95.8%	3.4%
Rural	295	16.9%	79.7%	3.4%

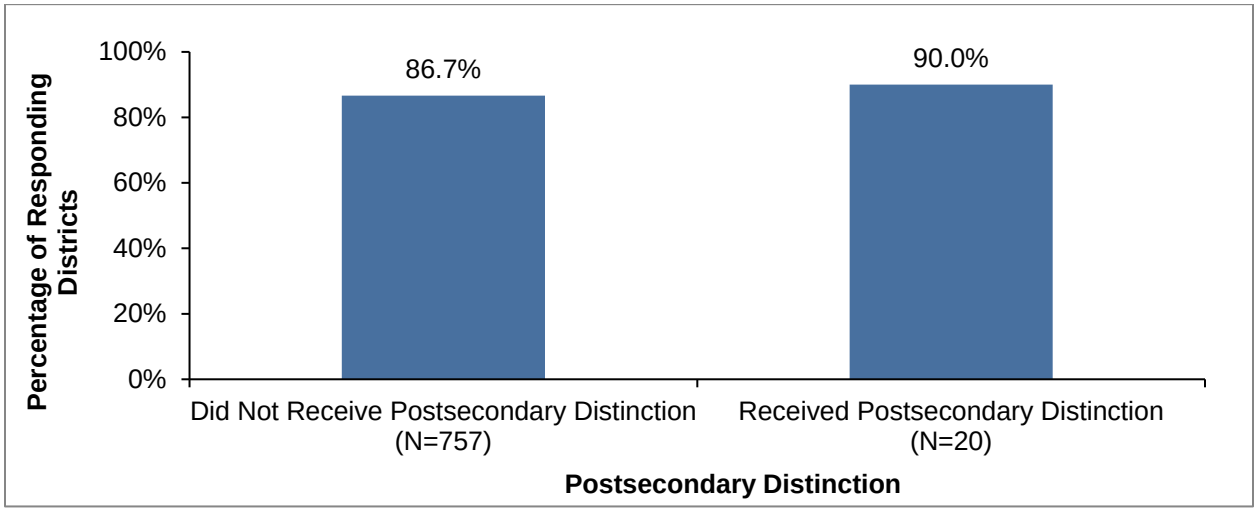
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 23 districts did not progress to this question.

Figure G3. Percentages of Responding Districts Offering the Business and Industry Endorsement in 2016–17, by Accountability Rating



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 23 districts did not progress to this question.

Figure G4. Percentages of Responding Districts Offering the Business and Industry Endorsement in 2016–17, by Those Districts That Received the Postsecondary Distinction in the 2016 Accountability Ratings



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 23 districts did not progress to this question. 20 responding districts received the postsecondary distinction in the 2016 Accountability Ratings. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.3 Districts Offering Public Services Endorsement

Table G5. Percentages of Responding Districts Offering the Public Services Endorsement in 2016–17, by District Size

	Total	No	Yes	No Response
District Size (Student Enrollment)				
Fewer than 500	214	61.2%	33.6%	5.1%
500 to 999	154	46.8%	50.0%	3.2%
1,000 to 1,599	105	28.6%	67.6%	3.8%
1,600 to 2,999	96	22.9%	70.8%	6.3%
3,000 to 4,999	64	1.6%	98.4%	0.0%
5,000 to 9,999	51	5.9%	92.2%	2.0%
10,000 to 24,999	48	4.2%	93.8%	2.1%
25,000 to 49,999	29	6.9%	93.1%	0.0%
50,000 or more	16	0.0%	100.0%	0.0%

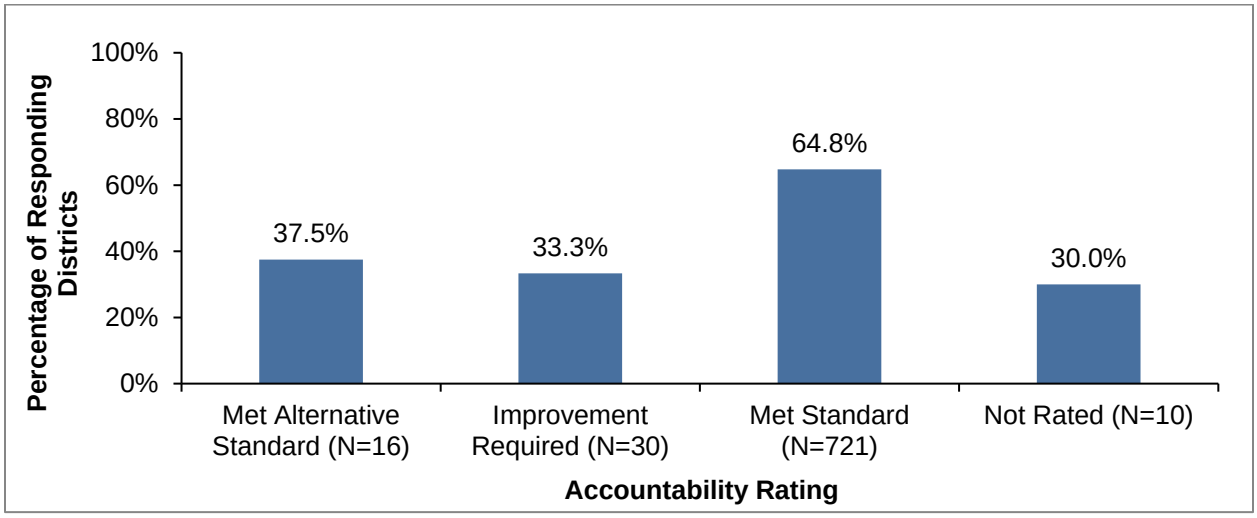
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 33 districts did not progress to this question.

Table G6. Percentages of Responding Districts Offering the Public Services Endorsement in 2016–17, by District Type

	Total	No	Yes	No Response
District Type				
Charter school districts	72	45.9%	48.6%	5.6%
Independent town	52	9.6%	88.5%	1.9%
Major suburban	61	3.3%	96.7%	0.0%
Major urban	8	0.0%	100.0%	0.0%
Nonmetropolitan fast growing	17	41.2%	52.9%	5.9%
Nonmetropolitan stable	116	26.2%	69.0%	2.6%
Other central city	38	5.2%	92.1%	2.6%
Other central city suburban	118	13.6%	81.4%	5.1%
Rural	295	55.9%	40.0%	4.1%

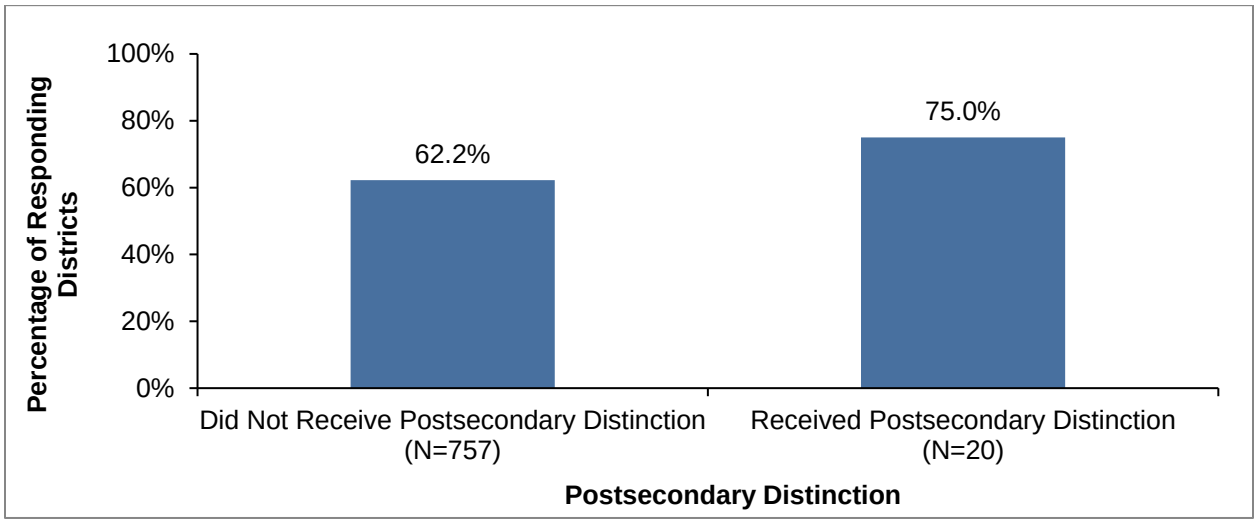
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 33 districts did not progress to this question.

Figure G5. Percentages of Responding Districts Offering the Public Services Endorsement in 2016–17, by Accountability Rating



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 33 districts did not progress to this question.

Figure G6. Percentages of Responding Districts Offering the Public Services Endorsement in 2016–17, by Those Districts That Received the Postsecondary Distinction in the 2016 Accountability Ratings



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 33 districts did not progress to this question. 20 responding districts received the postsecondary distinction in the 2016 Accountability Ratings. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.4 Districts Offering Arts and Humanities Endorsement

Table G7. Percentages of Responding Districts Offering the Arts and Humanities Endorsement in 2016–17, by District Size

	Total	No	Yes	No Response
District Size (Student Enrollment)				
Fewer than 500	214	35.0%	59.8%	5.1%
500 to 999	154	23.4%	72.7%	3.9%
1,000 to 1,599	105	7.6%	88.6%	3.8%
1,600 to 2,999	96	6.9%	85.4%	7.3%
3,000 to 4,999	64	0.0%	100.0%	0.0%
5,000 to 9,999	51	2.0%	96.1%	2.0%
10,000 to 24,999	48	0.0%	97.9%	2.1%
25,000 to 49,999	29	3.4%	96.6%	0.0%
50,000 or more	16	0.0%	100.0%	0.0%

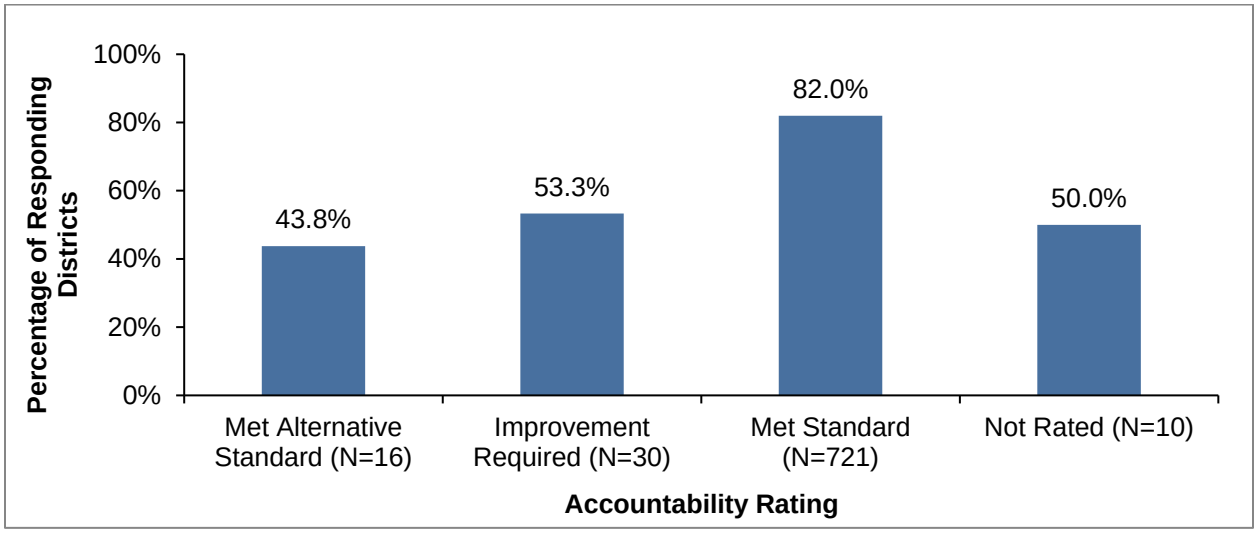
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 30 districts did not progress to this question.

Table G8. Percentages of Responding Districts Offering the Arts and Humanities Endorsement in 2016–17, by District Type

	Total	No	Yes	No Response
District Type				
Charter school districts	72	27.8%	66.7%	55.6%
Independent town	52	9.6%	94.2%	1.9%
Major suburban	61	1.6%	96.7%	1.6%
Major urban	8	0.0%	100.0%	0.0%
Nonmetropolitan fast growing	17	29.4%	64.7%	5.9%
Nonmetropolitan stable	116	7.8%	89.7%	2.6%
Other central city	38	2.6%	94.7%	2.6%
Other central city suburban	118	2.5%	92.4%	5.1%
Rural	295	29.5%	66.1%	4.4%

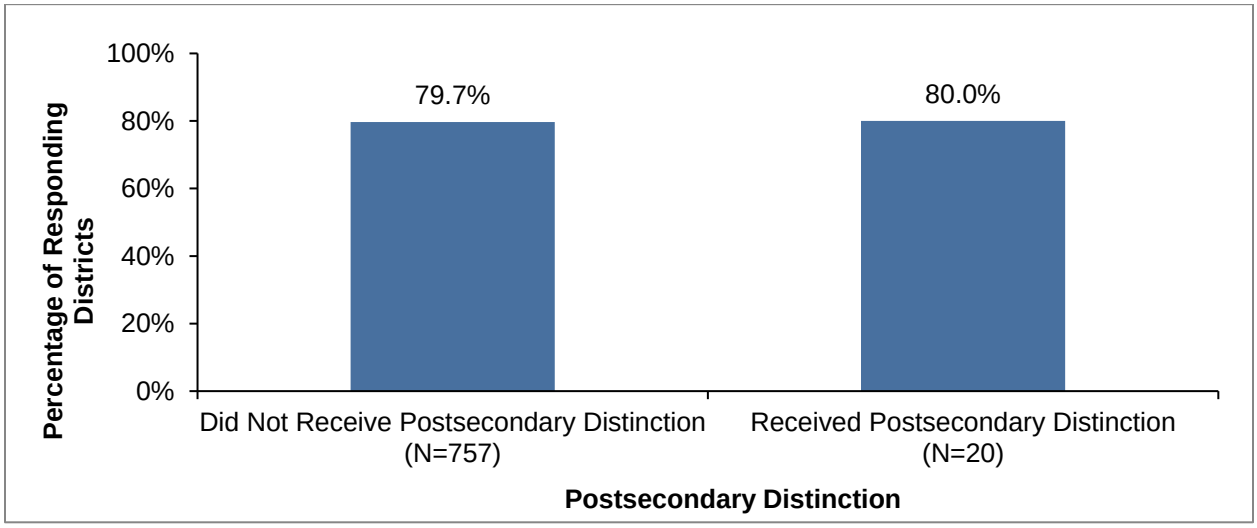
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 30 districts did not progress to this question.

Figure G7. Percentages of Responding Districts Offering the Arts and Humanities Endorsement in 2016–17, by Accountability Rating



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 30 districts did not progress to this question.

Figure G8. Percentages of Responding Districts Offering the Arts and Humanities Endorsement in 2016–17, by Those Districts That Received the Postsecondary Distinction in the 2016 Accountability Ratings



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 30 districts did not progress to this question. 20 responding districts received the postsecondary distinction in the 2016 Accountability Ratings. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.5 Districts Offering Multidisciplinary Studies Endorsement

Table G9. Percentages of Responding Districts Offering the Multidisciplinary Studies Endorsement in 2016–17, by District Size

	Total	No	Yes	No Response
District Size (Student Enrollment)				
Fewer than 500	214	6.5%	88.3%	5.1%
500 to 999	154	5.2%	90.3%	4.5%
1,000 to 1,599	105	3.8%	92.4%	3.8%
1,600 to 2,999	96	4.2%	88.5%	7.3%
3,000 to 4,999	64	0.0%	100.0%	0.0%
5,000 to 9,999	51	2.0%	96.1%	2.0%
10,000 to 24,999	48	0.0%	97.9%	2.1%
25,000 to 49,999	29	3.4%	96.6%	0.0%
50,000 or more	16	0.0%	100.0%	0.0%

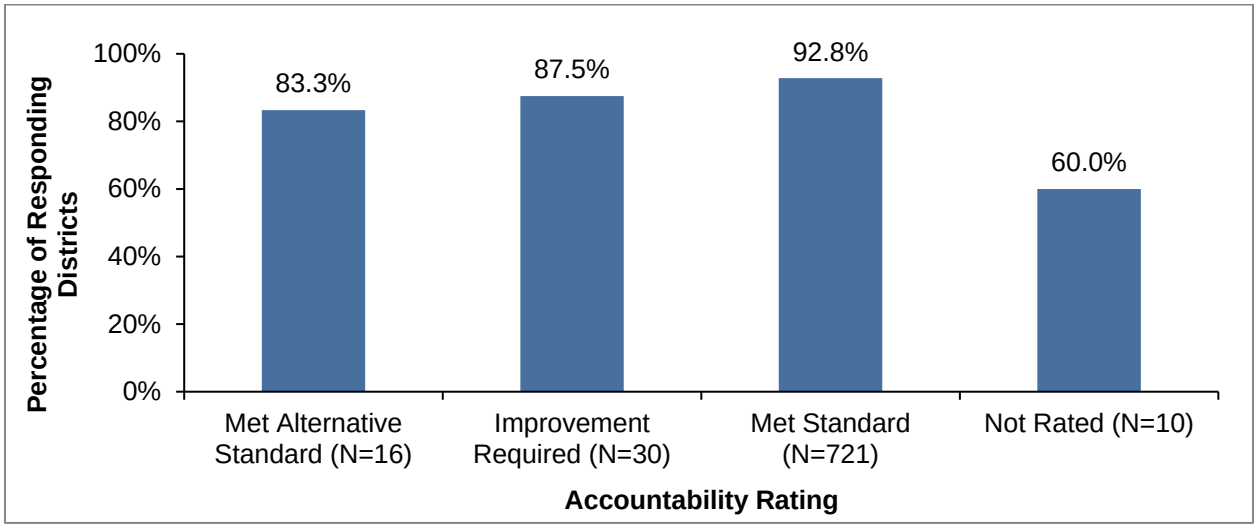
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 31 districts did not progress to this question.

Table G10. Percentages of Responding Districts Offering the Multidisciplinary Studies Endorsement in 2016–17, by District Type

	Total	No	Yes	No Response
District Type				
Charter school districts	72	12.5%	81.9%	5.6%
Independent town	52	3.8%	94.2%	1.9%
Major suburban	61	0.0%	98.4%	1.6%
Major urban	8	0.0%	100.0%	0.0%
Nonmetropolitan fast growing	17	0.0%	94.1%	5.9%
Nonmetropolitan stable	116	3.4%	93.1%	3.4%
Other central city	38	5.3%	92.1%	2.6%
Other central city suburban	118	0.0%	94.9%	5.1%
Rural	295	5.1%	90.5%	4.4%

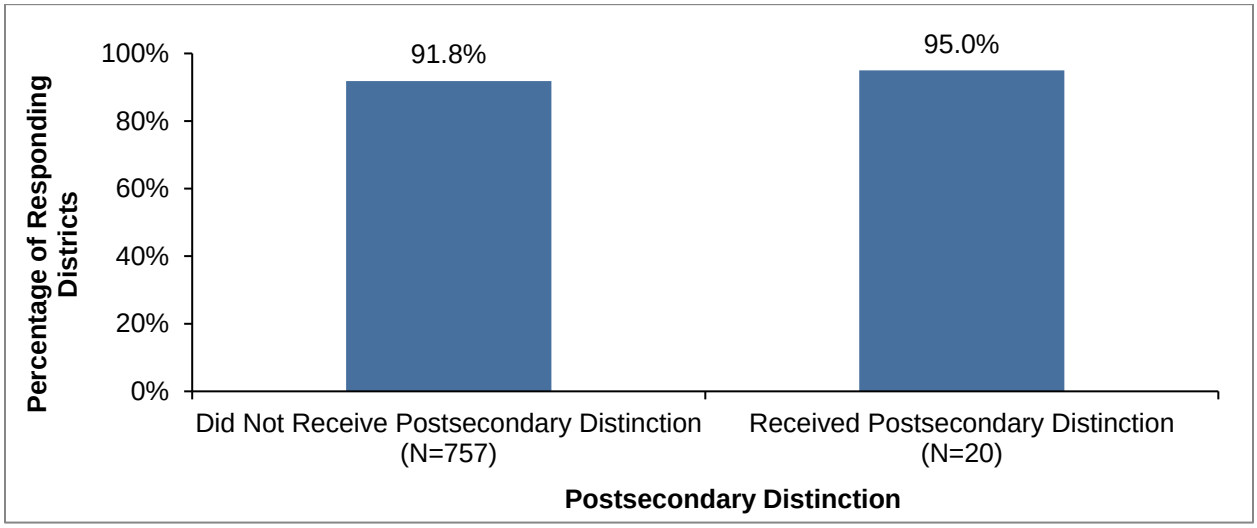
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 31 districts did not progress to this question.

Figure G9. Percentages of Responding Districts Offering the Multidisciplinary Studies Endorsement in 2016–17, by Accountability Rating



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 31 districts did not progress to this question.

Figure G10. Percentages of Responding Districts Offering the Multidisciplinary Studies Endorsement in 2016–17, by Those Districts That Received the Postsecondary Distinction in the 2016 Accountability Ratings



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. Respondents were required to complete this item in order to progress in the electronic survey. 31 districts did not progress to this question. 20 responding districts received the postsecondary distinction in the 2016 Accountability Ratings. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.6 Endorsement Offerings Across All High Schools for Districts With More Than One High School

Table G11. Percentages of Responding Districts With More Than One High School Offering the Same Endorsements at All High Schools in 2016–17, by District Size

	Total	No	Yes	No Response
District Size (Student Enrollment)				
Fewer than 500	13	23.1%	76.9%	0.0%
500 to 999	14	7.1%	85.7%	7.1%
1,000 to 1,599	17	5.9%	88.2%	5.9%
1,600 to 2,999	22	9.1%	90.9%	0.0%
3,000 to 4,999	37	0.0%	100.0%	0.0%
5,000 to 9,999	37	0.0%	100.0%	0.0%
10,000 to 24,999	47	2.1%	97.9%	0.0%
25,000 to 49,999	28	3.6%	96.4%	0.0%
50,000 or more	16	0.0%	100.0%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 231. Respondents were required to complete this item in order to progress in the electronic survey. Two districts did not progress to this question.

Table G12. Percentages of Responding Districts With More Than One High School Offering the Same Endorsements at All High Schools in 2016–17, by District Type

	Total	No	Yes	No Response
District Type				
Charter School Districts	12	41.7%	58.3%	0.0%
Independent Town	21	0.0%	100.0%	0.0%
Major Suburban	51	0.0%	100.0%	0.0%
Major Urban	8	0.0%	100.0%	0.0%
Nonmetropolitan Fast Growing	5	0.0%	80.0%	20.0%
Nonmetropolitan Stable	30	3.3%	96.7%	0.0%
Other Central City	35	2.9%	97.1%	0.0%
Other Central City Suburban	51	3.9%	96.1%	0.0%
Rural	18	0.0%	94.4%	5.6%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 231. Respondents were required to complete this item in order to progress in the electronic survey. Two districts did not progress to this question.

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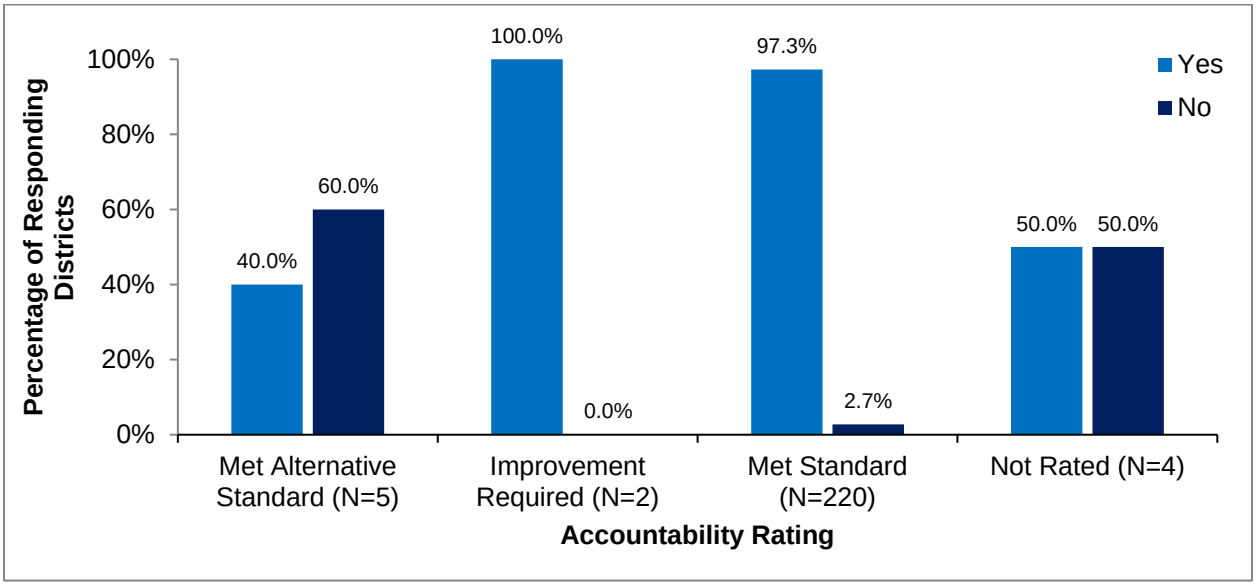
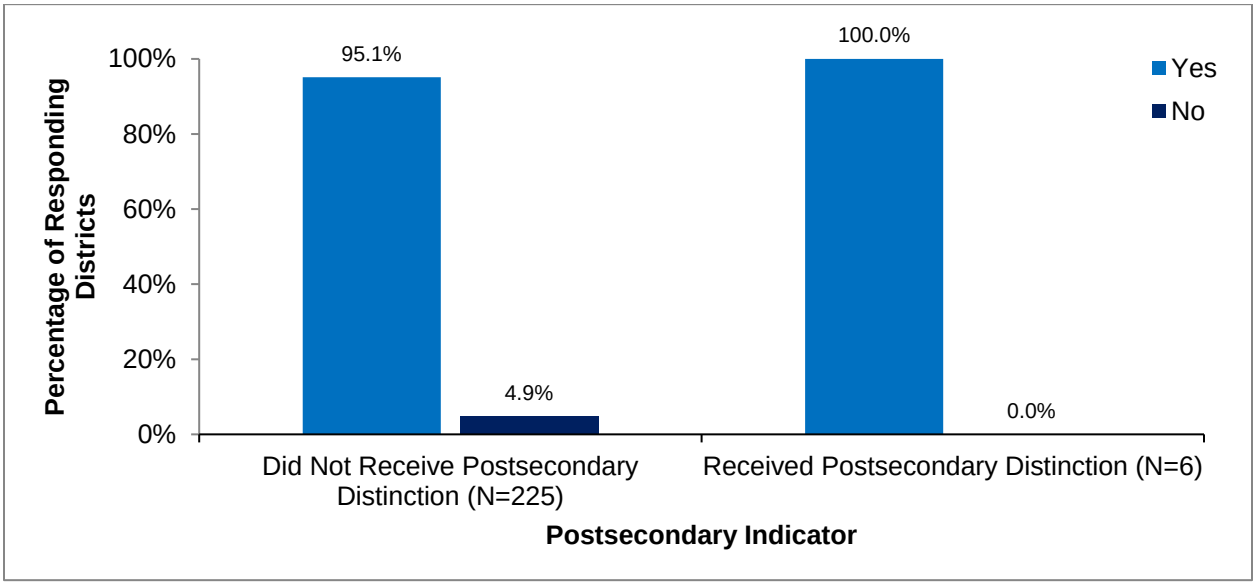
Figure G11. Percentages of Responding Districts With More Than One High School Offering the Same Endorsements at All High Schools in 2016–17, by Accountability Rating



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey. (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.

Note: N = 231 for districts offering the same endorsements across high schools (Yes); *N* = 9 for districts offering different endorsements across high schools. Two districts did not progress to this question. Respondents were required to complete this item.

Figure G12. Percentages of Responding Districts With More Than One High School Offering the Same Endorsements at All High Schools in 2016–17, by Those Districts That Received the Postsecondary Distinction in the 2016 Accountability Ratings



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey. (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.

Note. N = 231 for districts offering the same endorsements across high schools (Yes); *N* = 9 for districts offering different endorsements across high schools. Two districts did not progress to this question. Respondents were required to complete this item. 20 responding districts received the postsecondary distinction in the 2016 Accountability Ratings. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.7 Endorsements Offered by Districts That Provide Only One Endorsement

Table G13. Types of Endorsements Offered by Responding Districts Providing Only One Endorsement to Students in 2016-17, by District Size

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
District Size						
Fewer than 500	18	11.1%	16.7%	0.0%	72.2%	0.0%
500 to 999	6	16.7%	0.0%	16.7%	66.7%	0.0%
1,000 to 1,599	2	50.0%	50.0%	0.0%	0.0%	0.0%
1,600 to 2,999	3	33.3%	67.7%	0.0%	0.0%	0.0%
3,000 to 4,999	0	0.0%	0.0%	0.0%	0.0%	0.0%
5,000 to 9,999	0	0.0%	0.0%	0.0%	0.0%	0.0%
10,000 to 24,999	1	100.0%	0.0%	0.0%	0.0%	0.0%
25,000 to 49,999	1	0.0%	100.0%	0.0%	0.0%	0.0%
50,000 or more	0	0.0%	0.0%	0.0%	0.0%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 31. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G14. Types of Endorsements Offered by Responding Districts Providing Only One Endorsement to Students in 2016–17, by District Type

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
District Type						
Charter school districts	3	0.0%	33.3%	0.0%	67.7%	0.0%
Independent town	0	0.0%	0.0%	0.0%	0.0%	0.0%
Major suburban	1	100.0%	0.0%	0.0%	0.0%	0.0%
Major urban	0	0.0%	0.0%	0.0%	0.0%	0.0%
Nonmetropolitan fast growing	2	0.0%	0.0%	0.0%	100.0%	0.0%
Nonmetropolitan stable	3	33.3%	67.7%	0.0%	0.0%	0.0%
Other central city	1	0.0%	100.0%	0.0%	0.0%	0.0%
Other central city suburban	2	50.0%	50.0%	0.0%	0.0%	0.0%
Rural	19	15.8%	10.5%	5.3%	68.4%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 31. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G15. Types of Endorsements Offered by Responding Districts Providing Only One Endorsement to Students in 2016–17, by Accountability Rating

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
Accountability Rating						
Met alternative standard	1	0.0%	0.0%	0.0%	100.0%	0.0%
Improvement required	3	0.0%	0.0%	0.0%	100.0%	0.0%
Met standard	26	23.1%	23.1%	3.8%	50.0%	0.0%
Not rated	1	0.0%	33.3%	0.0%	0.0%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 31. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G16. Types of Endorsements Offered by Responding Districts Providing Only One Endorsement to Students in 2016–17, by Postsecondary Distinction

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
Postsecondary Distinction						
Did not receive postsecondary distinction	31	19.4%	22.6%	3.2%	54.8%	0.0%
Received postsecondary distinction	0	0.0%	0.0%	0.0%	0.0%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 31. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.8 Endorsements Offered by Districts That Provide Two Endorsements

Table G17. Types of Endorsements Offered by Responding Districts Providing Two Endorsements to Students in 2016–17, by District Size

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
District Size						
Fewer than 500	24	33.3%	45.8%	29.2%	87.5%	4.2%
500 to 999	11	45.5%	45.5%	27.2%	81.8%	0.0%
1,000 to 1,599	3	33.3%	67.7%	0.0%	100.0%	0.0%
1,600 to 2,999	3	67.7%	33.3%	66.7%	0.0%	33.3%
3,000 to 4,999	0	0.0%	0.0%	0.0%	0.0%	0.0%
5,000 to 9,999	1	100.0%	100.0%	0.0%	0.0%	0.0%
10,000 to 24,999	0	0.0%	0.0%	0.0%	0.0%	0.0%
25,000 to 49,999	0	0.0%	0.0%	0.0%	0.0%	0.0%
50,000 or more	0	0.0%	0.0%	0.0%	0.0%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 42. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G18. Types of Endorsements Offered by Responding Districts Providing Two Endorsements to Students in 2016–17, by District Type

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
District Type						
Charter school districts	9	44.4%	11.1%	66.7%	66.7%	11.1%
Independent town	0	0.0%	0.0%	0.0%	0.0%	0.0%
Major suburban	0	0.0%	0.0%	0.0%	0.0%	0.0%
Major urban	0	0.0%	0.0%	0.0%	0.0%	0.0%
Nonmetropolitan fast growing	1	0.0%	100.0%	0.0%	100.0%	0.0%
Nonmetropolitan stable	4	25.0%	50.0%	25.0%	75.0%	25.0%
Other central city	1	100.0%	100.0%	0.0%	0.0%	0.0%
Other central city suburban	1	100.0%	100.0%	0.0%	0.0%	0.0%
Rural	26	38.5%	53.8%	19.2%	88.5%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 42. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G19. Types of Endorsements Offered by Responding Districts Providing Two Endorsements to Students in 2016–17, by Accountability Rating

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
Accountability Rating						
Met alternative standard	1	0.0%	0.0%	100.0%	100.0%	0.0%
Improvement required	3	33.3%	33.3%	33.3%	67.7%	0.0%
Met standard	38	42.1%	47.4%	26.3%	78.9%	5.3%
Not rated	0	0.0%	0.0%	0.0%	0.0%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 42. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G20. Types of Endorsements Offered by Responding Districts Providing Two Endorsements to Students in 2016–17, by Postsecondary Distinction

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
Postsecondary Distinction						
Did not receive postsecondary distinction	39	41.0%	46.2%	28.2%	79.5%	5.1%
Received postsecondary distinction	3	33.3%	67.7%	33.3%	67.7%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 42. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.9 Endorsements Offered by Districts That Provide Three Endorsements

Table G21. Types of Endorsements Offered by Responding Districts Providing Three Endorsements to Students in 2016–17, by District Size

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
District Size						
Fewer than 500	54	64.8%	75.9%	50.0%	94.4%	14.8%
500 to 999	27	81.5%	70.4%	37.0%	85.2%	25.9%
1,000 to 1,599	12	66.7%	66.7%	75.0%	75.0%	1.7%
1,600 to 2,999	7	71.4%	71.4%	42.9%	85.7%	28.6%
3,000 to 4,999	0	0.0%	0.0%	0.0%	0.0%	0.0%
5,000 to 9,999	1	100.0%	0.0%	100.0%	100.0%	0.0%
10,000 to 24,999	1	100.0%	0.0%	100.0%	100.0%	0.0%
25,000 to 49,999	0	0.0%	0.0%	0.0%	0.0%	0.0%
50,000 or more	0	0.0%	0.0%	0.0%	0.0%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 102. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G22. Types of Endorsements Offered by Responding Districts Providing Three Endorsements to Students in 2016–17, by District Type

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
District Type						
Charter school districts	17	70.6%	52.9%	58.8%	88.2%	29.4%
Independent town	4	75.0%	100.0%	50.0%	50.0%	25.0%
Major suburban	0	0.0%	0.0%	0.0%	0.0%	0.0%
Major urban	0	0.0%	0.0%	0.0%	0.0%	0.0%
Nonmetropolitan fast growing	2	100.0%	50.0%	0.0%	100.0%	50.0%
Nonmetropolitan stable	4	100.0%	50.0%	75.0%	75.0%	0.0%
Other central city	0	0.0%	0.0%	0.0%	0.0%	0.0%
Other central city suburban	7	57.1%	85.7%	57.1%	100.0%	0.0%
Rural	68	69.1%	75.0%	47.1%	91.2%	17.6%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 102. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G23. Types of Endorsements Offered by Responding Districts Providing Three Endorsements to Students in 2016–17, by Accountability Rating

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
Accountability Rating						
Met alternative standard	7	42.9%	85.7%	42.9%	100.0%	28.6%
Improvement required	7	85.7%	85.7%	28.6%	85.7%	14.3%
Met standard	88	71.6%	69.3%	52.3%	88.6%	18.2%
Not rated	0	0.0%	0.0%	0.0%	0.0%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 102. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G24. Types of Endorsements Offered by Responding Districts Providing Three Endorsements to Students in 2016–17, by Postsecondary Distinction

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
Postsecondary Distinction						
Did not receive postsecondary distinction	100	70.0%	72.0%	51.0%	89.0%	18.0%
Received postsecondary distinction	2	100.0%	50.0%	0.0%	100.0%	50.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 102. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.10 Endorsements Offered by Districts that Provide Four Endorsements

Table G25. Types of Endorsements Offered by Responding Districts Providing Four Endorsements to Students in 2016–17, by District Size

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
District Size						
Fewer than 500	57	91.2%	98.2%	82.5%	100.0%	28.1%
500 to 999	42	97.6%	100.0%	85.7%	97.6%	19.0%
1,000 to 1,599	21	81.0%	100.0%	95.2%	100.0%	23.8%
1,600 to 2,999	16	100.0%	100.0%	87.5%	100.0%	12.5%
3,000 to 4,999	1	100.0%	100.0%	100.0%	100.0%	0.0%
5,000 to 9,999	4	100.0%	100.0%	75.0%	75.0%	50.0%
10,000 to 24,999	2	50.0%	100.0%	100.0%	100.0%	50.0%
25,000 to 49,999	1	100.0%	100.0%	100.0%	100.0%	0.0%
50,000 or more	0	0.0%	0.0%	0.0%	0.0%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 144. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G26. Types of Endorsements Offered by Responding Districts Providing Four Endorsements to Students in 2016–17, by District Type

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
District Type						
Charter school districts	14	78.6%	100.0%	71.4%	100.0%	50.0%
Independent town	2	100.0%	100.0%	100.0%	100.0%	0.0%
Major suburban	2	100.0%	100.0%	50.0%	100.0%	50.0%
Major urban	0	0.0%	0.0%	0.0%	0.0%	0.0%
Nonmetropolitan fast growing	3	100.0%	100.0%	100.0%	100.0%	0.0%
Nonmetropolitan stable	29	96.6%	100.0%	89.7%	96.6%	17.2%
Other central city	2	100.0%	100.0%	100.0%	50.0%	50.0%
Other central city suburban	11	81.8%	100.0%	100.0%	100.0%	18.2%
Rural	81	93.8%	98.8%	85.2%	100.0%	22.2%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 144. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G27. Types of Endorsements Offered by Responding Districts Providing Four Endorsements to Students in 2016–17, by Accountability Rating

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
Accountability Rating						
Met alternative standard	4	75.0%	100.0%	50.0%	100.0%	75.0%
Improvement required	7	85.7%	100.0%	85.7%	100.0%	28.5%
Met standard	129	93.0%	99.2%	87.6%	98.4%	21.7%
Not Rated	4	100.0%	100.0%	75.0%	100.0%	25.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. *N* = 144. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G28. Types of Endorsements Offered by Responding Districts Providing Four Endorsements to Students in 2016–17, by Postsecondary Distinction

	N	STEM*	Business & Industry	Arts & Humanities	Multidisciplinary Studies	Public Services
Postsecondary Distinction						
Did not receive postsecondary distinction	143	92.3%	99.3%	86.0%	98.6%	23.8%
Received postsecondary distinction	1	100.0%	100.0%	100.0%	100.0%	0.0%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. *N* = 144. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.11 Endorsements Offered by Districts That Provide All Endorsements

Table G29. Responding Districts Providing All Endorsements to Students in 2016–17, by District Size

	N	Percentage
District Size		
Fewer than 500	47	10.9%
500 to 999	62	14.4%
1,000 to 1,599	64	14.8%
1,600 to 2,999	63	14.6%
3,000 to 4,999	63	14.6%
5,000 to 9,999	45	10.4%
10,000 to 24,999	44	10.2%
25,000 to 49,999	27	6.3%
50,000 or more	16	3.7%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 431. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G30. Responding Districts Providing All Endorsements to Students in 2016–17, by District Type

	N	Percentage
District Type		
Charter school districts	22	5.1%
Independent town	45	10.4%
Major suburban	58	13.5%
Major urban	8	1.9%
Nonmetropolitan fast growing	8	1.9%
Nonmetropolitan stable	74	17.2%
Other central city	34	7.9%
Other central city suburban	94	21.8%
Rural	88	20.4%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 431. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G31. Responding Districts Providing All Endorsements to Students in 2016–17, by Accountability Rating

	N	Percentage
Accountability Rating		
Met alternative standard	1	0.2%
Improvement required	7	1.6%
Met standard	421	97.7%
Not rated	2	0.5%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 431. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions.

Table G32. Responding Districts Providing All Endorsements to Students in 2016–17, by Postsecondary Distinction

	N	Percentage
Postsecondary Distinction		
Did not receive postsecondary distinction	417	96.8%
Received postsecondary distinction	14	3.2%

Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 431. STEM = science, technology, engineering and mathematics. Respondents were required to complete these questions. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness.

G.12 Districts Encouraging Students to Graduate at the Distinguished Level of Achievement

Table G33. Percentages of Districts Encouraging Students to Earn the Distinguished Level of Achievement in 2016–17, by District Size

	Total	No	Yes	No Response
District Size (Student Enrollment)				
Fewer than 500	214	7.5%	90.2%	2.3%
500 to 999	154	1.9%	96.8%	1.3%
1,000 to 1,599	105	1.9%	96.2%	1.9%
1,600 to 2,999	96	1.0%	96.9%	3.1%
3,000 to 4,999	64	1.6%	98.4%	0.0%
5,000 to 9,999	51	0.0%	100.0%	0.0%
10,000 to 24,999	48	0.0%	100.0%	0.0%
25,000 to 49,999	29	0.0%	100.0%	0.0%
50,000 or more	16	0.0%	100.0%	0.0%

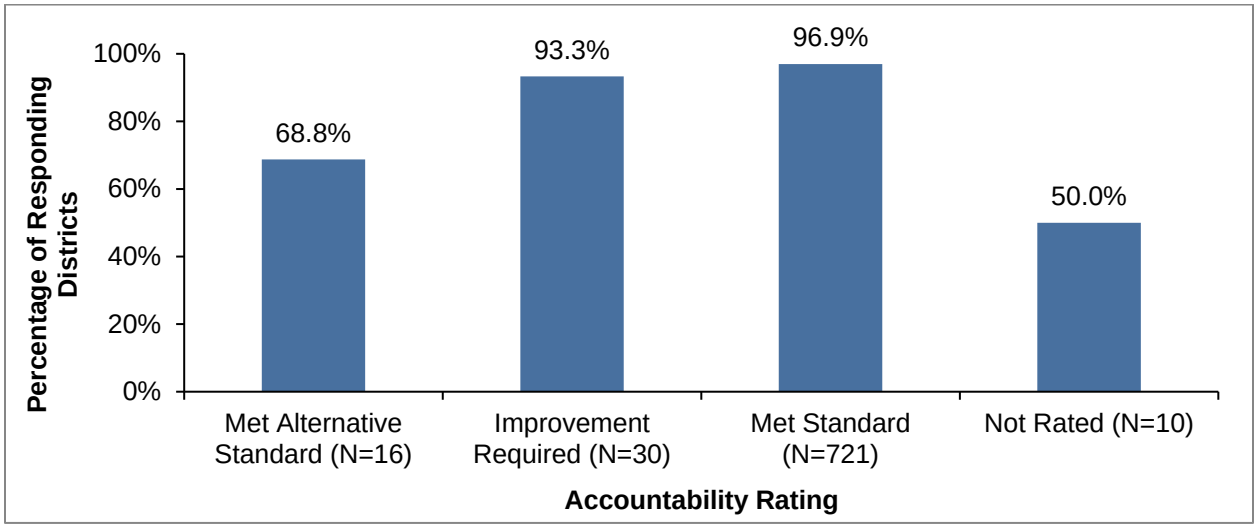
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. STEM = science, technology, engineering, and mathematics. Respondents were not required to complete this item in order to progress in the electronic survey. 12 districts did not answer this question.

Table G34. Percentages of Districts Encouraging Students to Earn the Distinguished Level of Achievement in 2016–17, by District Type

	Total	No	Yes	No Response
District Type				
Charter school districts	72	11.1%	84.7%	4.2%
Independent town	52	1.9%	96.2%	1.9%
Major suburban	61	0.0%	100.0%	0.0%
Major urban	8	0.0%	100.0%	0.0%
Nonmetropolitan fast growing	17	5.9%	88.2%	5.9%
Nonmetropolitan stable	116	1.7%	97.4%	0.9%
Other central city	38	0.0%	100.0%	0.0%
Other central city suburban	118	0.8%	97.5%	1.7%
Rural	295	3.1%	95.6%	1.4%

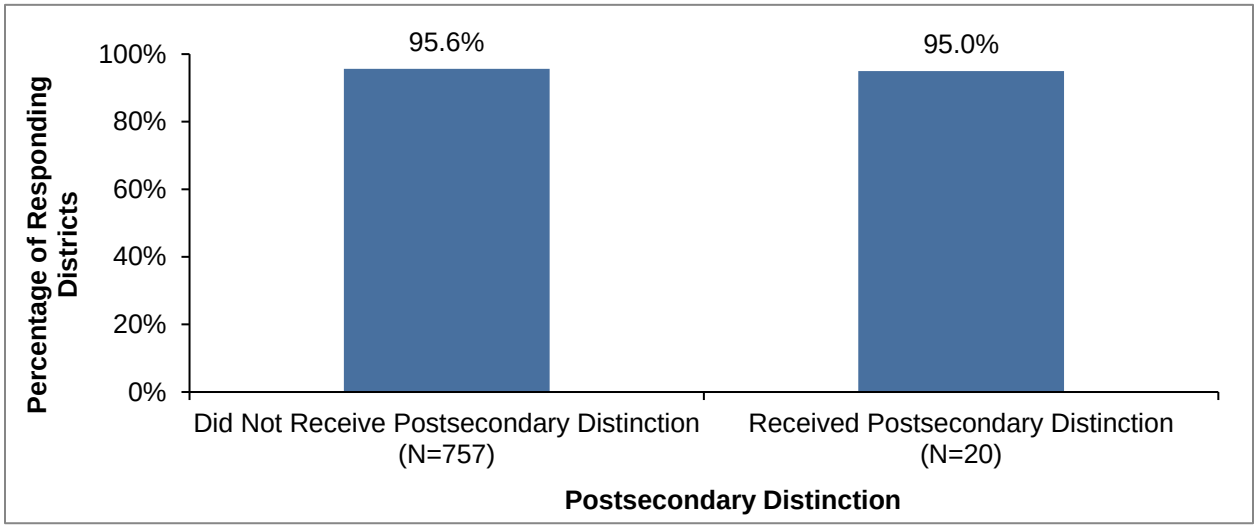
Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. STEM = science, technology, engineering, and mathematics. Respondents were not required to complete this item in order to progress in the electronic survey. 12 districts did not answer this question.

Figure G13. Percentages of Districts Encouraging Students to Earn the Distinguished Level of Achievement in 2016–17, by Accountability Rating



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. STEM = science, technology, engineering, and mathematics. Respondents were not required to complete this item in order to progress in the electronic survey. 12 districts did not answer this question.

Figure G14. Percentages of Districts Encouraging Students to Earn the Distinguished Level of Achievement in 2016–17, by Those Districts That Received the Postsecondary Distinction in the 2016 Accountability Ratings



Source. Texas House Bill 5 Evaluation—Spring 2017 District Survey (2017); Texas Education Agency 2015–16 Texas Academic Performance Reports.
Notes. N = 777. STEM = science, technology, engineering, and mathematics. Respondents were not required to complete this item in order to progress in the electronic survey. 12 districts did not answer this question. 20 responding districts received the postsecondary distinction in the 2016 Accountability Ratings. Postsecondary distinction is awarded to districts in recognition of outstanding academic performance in attainment of postsecondary readiness

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