



Department of
Education

Graduation Rate and Ready Graduate Indicator Report

Tennessee Department of Education | January 2022



Executive Summary

In the 2021 legislative session, the Tennessee General Assembly enacted [Public Chapter 323](#), which requires the Tennessee Department of Education (department) to submit a report to the House Education Administration and House Education Instruction Committees regarding high school graduation and postsecondary readiness.

The Public Chapter requires a report on the following:

1. An analysis of the adjusted cohort graduation rate and the Ready Graduate indicator, as defined by Tennessee's Every Student Succeeds Act (ESSA), on school and LEA accountability, including whether the use of the metrics appropriately encourages LEAs and schools to graduate students who are prepared for postsecondary coursework and the workforce;
2. The number and percentage of students, disaggregated by each student group, as defined within Tennessee's ESSA plan, that graduate from high school in less than four (4) years, in four (4) years, in four (4) years and one (1) summer, in five (5) years, and in six (6) years with a regular high school diploma and Ready Graduate indicator status; and
3. An analysis of available information, to the extent practicable, related to metrics or practices pertaining to student graduation and postsecondary readiness in schools and LEAs, including student course access; graduation requirements; grades and credit recovery; and college, career, and technical education opportunities.

This report is comprised of three main sections, each addressing requirements of Public Chapter 323. Part I focuses on the Ready Graduate indicator, the cohort graduation rate, and the relationship of both metrics to postsecondary and workforce outcomes. Part II presents disaggregated statistics across graduation rates for each student group, including racial and ethnic subgroups, English learners, students with disabilities, and economically disadvantaged students. Part III identifies key Tennessee initiatives designed to boost postsecondary and workforce readiness.

Key Findings

- Tennessee's cohort graduation rate is high compared to the national average but has remained relatively flat for the past few cohorts (Figures 1 and 3).
- The vast majority of Ready Graduates qualify by meeting threshold ACT or SAT scores or by completing four EPSOs (Figure 2).
- About 40% of Tennessee high school students qualify as Ready Graduates, a rate that has also remained stable for the past few cohorts (Figure 3).
- Early, on-time, and late high school graduation rates have been fairly constant, as the vast majority of students who graduate from high school do so on-time (Figure 4).
- There is considerable variation across schools in the percentage of students who are Ready Graduates (Figure 5).
- The high school graduation rate and the percentage of Ready Graduates are weakly-to-moderately correlated with school and district accountability scores (Figure 6).
- Participation rates across most EPSOs have increased since the launch of the Ready Graduate indicator (Figure 7).
- Ready Graduate and graduation rates are higher among career and technical education (CTE) concentrators and students who seamlessly enroll in college (Figures 8 and 9).
- There is a moderately strong correlation between teachers' school-based perceptions of college readiness and actual college readiness as captured by the Ready Graduate indicator (Figure 10).
- For racial and ethnic groups and accountability subgroups, graduation rates across the four- through six-year trajectories are relatively constant. Among racial and ethnic groups, Asian students have the highest graduation rates while Hispanic students have the lowest graduation rates. Among accountability subgroups, economically-disadvantaged students have the highest rates while students with disabilities have the lowest rates (Figure 11).
- Nearly all students who are Ready Graduates—regardless of subgroup—graduate on time (Figure 12).
- Students who are not Ready Graduates typically have graduation rates that are 15-30 percentage points lower than their Ready Graduate counterparts (Figures 12 and 13).
- The department develops and promotes a range of metrics and initiatives that boost the postsecondary and workforce readiness of Tennessee's high school students (Part III).

Table of Contents

Executive Summary	2
Key Findings	3
Introduction	5
Part I: The Cohort Graduation Rate and Ready Graduate Indicator.....	6
Part II: Disaggregation Analyses	17
Part III: Metrics and School/LEA Practices	21
Conclusion	27
Appendix	28
The Cohort Graduation Rate	28
The Ready Graduate Indicator	28
Supplemental Figures.....	30
References	33

Introduction

High school graduation is a crucial indicator for measuring the success of Tennessee’s high schools, local education agencies (LEAs), and—most importantly—students. The state’s accountability system measures school district performance in part through graduation, as it comprises one of six key metrics. For students, graduation represents a critical step on the path to college and a career. The department highlights this fact in its *Best for All* strategic plan, which identifies key postsecondary goals for its high school graduates, including persisting in college, earning a postsecondary degree or certificate, and leveraging postsecondary education in order to work in a job that provides a high quality of life for graduates and their families. To ensure that Tennessee’s graduates are on track to meet these goals, the department has identified several relevant metrics and practices.

Key among these metrics is the *Ready Graduate* indicator, which launched for students in the Class of 2016-17. This indicator—and the data that underpin it—reflects the belief that participation in college- and career-aligned activities will successfully prepare graduates for life after high school. The indicator accounts for college-ready criteria including enrollment and assessment in early postsecondary opportunities (EPSOs) and for career-ready criteria such as earning an industry certification or the National Career Readiness Certificate (NCRC). The importance of this indicator is reflected in its contribution to accountability: the percentage of students who graduate from high school and are Ready Graduates counts 20% toward high school accountability.

This report presents cohort graduation and Ready Graduate indicator rates and the relationship of these rates with a selection of college- and career-ready metrics. In particular, Parts I and II summarize these relationships for the 2014 through 2016 ninth-grade cohorts, which represent on-time graduates for the Classes of 2017-18 through 2019-20, respectively. Part III of this report highlights a range of additional metrics and initiatives that inform overarching *Best for All* goals.

Data Used in This Report

To compile this report, department staff used administrative data across multiple levels of education. Student-level data included records related to high school graduation, Ready Graduate indicator components, and postsecondary enrollment. Teacher-level data included records drawn from the Teacher Educator Survey (TES). School- and district-level records included accountability grades. All files across these levels of education were merged into a single file and analyzed by department staff.

Part I: The Cohort Graduation Rate and Ready Graduate Indicator

In the most recent year for which federal high school completion data are available, 2018-19, Tennessee had among the highest adjusted cohort graduation rates in the nation.¹ Figure 1 shows that over the better part of the past decade, the state's graduation rate has consistently outpaced the national rate (by anywhere from 4.4 to 7 percentage points). High school graduation represents a critical milestone for students since completion (or its equivalent) is required to attend a Tennessee postsecondary institution. Moreover, high school graduates consistently earn more in the labor market than their non-completing counterparts.² As such, the graduation rate represents a key indicator for school and district accountability.

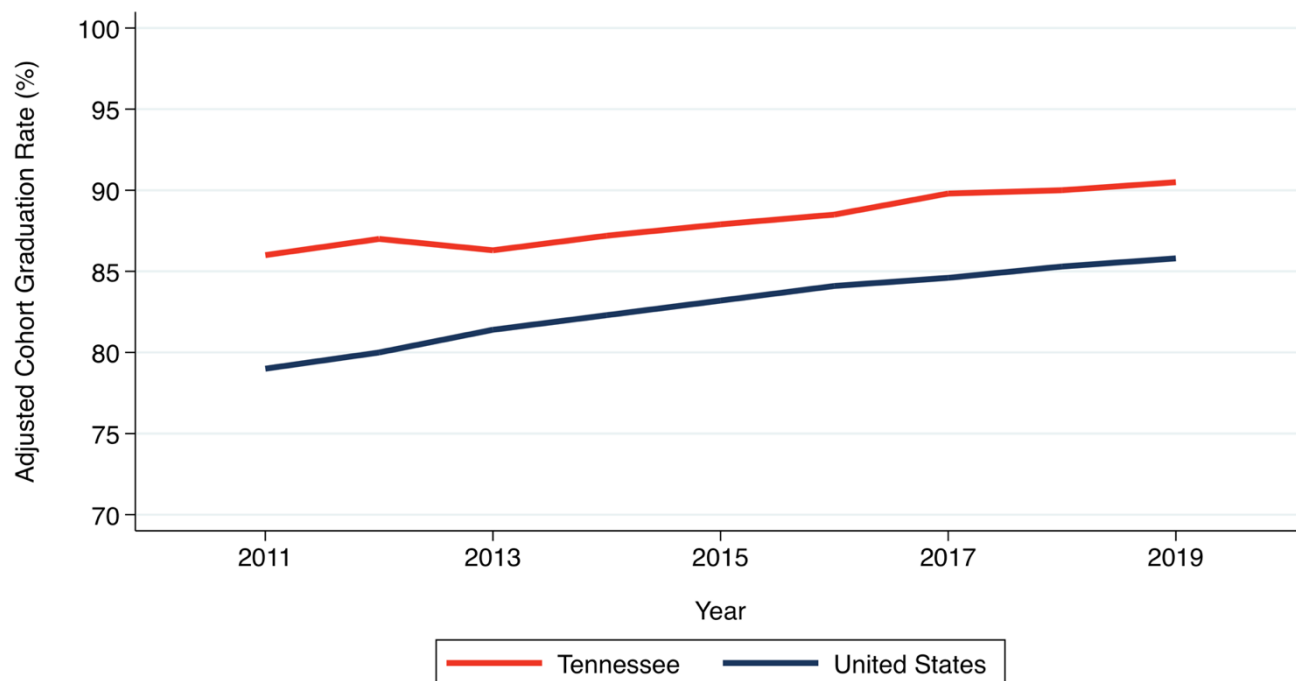
Recognizing that high school graduation alone is an insufficient measure of a student's postsecondary or career readiness, Tennessee introduced the Ready Graduate indicator beginning with the graduating class of 2016-17. Students obtain Ready Graduate status by obtaining a 21 on the ACT or 1060 on the SAT, completing a minimum number of EPSOs, earning an industry credential or WorkKeys National Career Readiness Certificate (NCRC),³ obtaining a qualifying score on the Armed Forces Qualifying Test (AFQT)—or some combination of these criteria. Table 1 summarizes Ready Graduate implementation since its inception.

¹ Adjusted cohort graduation rate refers to the percentage of high school students who graduate within four years and a summer of entering 9th grade for the first time. Additional information on Tennessee's Graduation Cohort Protocol can be found [here](#). Tennessee's rate trailed only Alabama, Iowa, Kentucky, New Jersey, and West Virginia (National Center for Education Statistics, 2021).

² Goldin & Katz (2009) document the high school wage premium in detail in *The Race Between Education and Technology*.

³ Students earn the WorkKeys NCRC by scoring a Level Score of 3 or higher (out of 7) on three individual WorkKeys assessments: Applied Math, Workplace Documents, and Graphic Literacy.

Figure 1: Adjusted Cohort Graduation Rate (ACGR), Tennessee and the United States, 2011-2019



Source: U.S. Department of Education, Office of Elementary and Secondary Education, Consolidated State Performance Report, 2010-11 through 2018-19; and National Center for Education Statistics, ED Facts file 150, Data Group 695, and ED Facts file 151, Data Group 696, 2013-14 through 2018-19. (This table was prepared February 2021.)

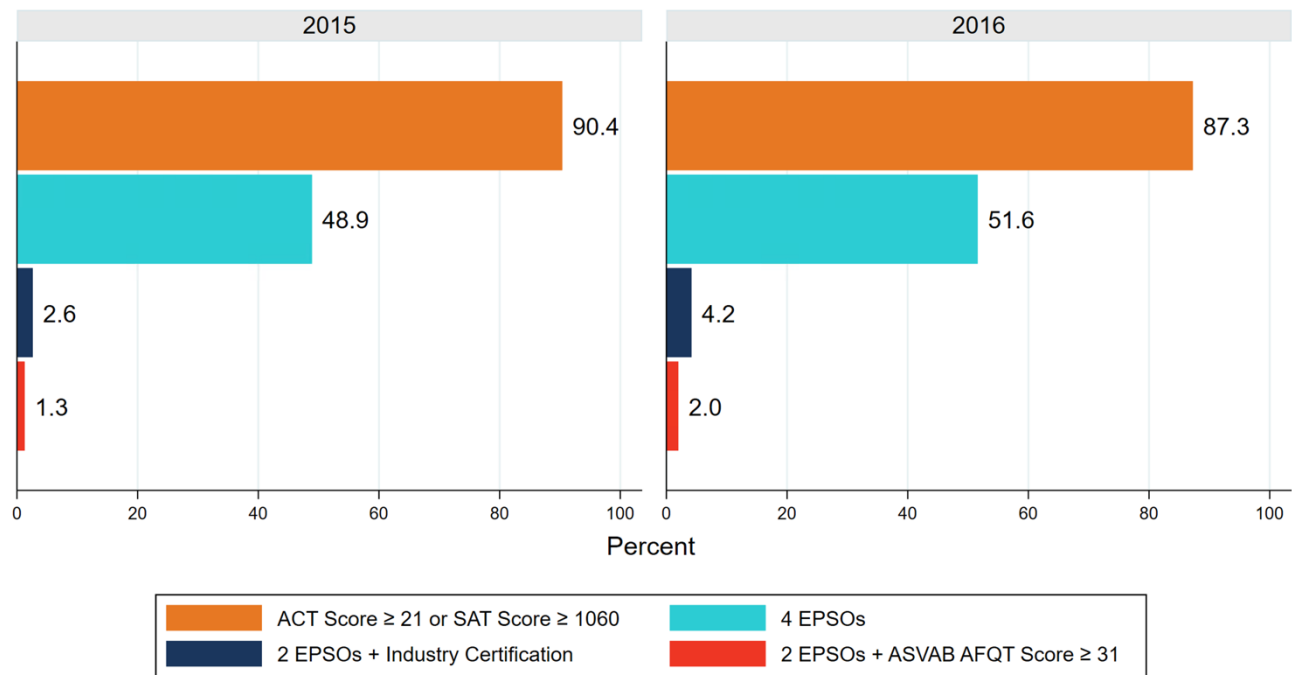
Table 1: Ready Graduate Implementation Timeline and Requirements

Criteria	Class of 2016-17 Graduates	Class of 2017-18 Graduates	Class of 2018-19 Graduates
ACT \geq 21 or SAT \geq 1060	✓	✓	✓
Earn 4 EPSOs		✓	✓
Earn 2 EPSOs and an Industry Certification		✓	✓
Earn 2 EPSOs and an AFQT score \geq 31		✓	✓
Earn 2 EPSOs and the WorkKeys NCRC			✓

Source: Ready Graduate Indicator Overview (Tennessee Department of Education, 2021)

The vast majority of students classified as Ready Graduates have earned the distinction by meeting minimum threshold scores on the ACT or SAT or by completing at least four EPSOs. Figure 2 shows the distribution of students classified as Ready Graduates according to criteria noted in Table 1, above. These categories are not mutually exclusive, as many students become Ready Graduates through both their ACT or SAT scores and EPSOs. Considering Tennessee offers opportunities for high school juniors and seniors to take the ACT at no cost, nearly all students who become Ready Graduates through ACT or SAT test scores do so through the ACT. Nearly 90% of total cohort members took the ACT and nearly 100% of Ready Graduates did so. One notable feature of Ready Graduate classification is that a low single-digit percentage of students earned the distinction based on completing two EPSOs and an industry certification or two EPSOs and a qualifying test score on the AFQT test.

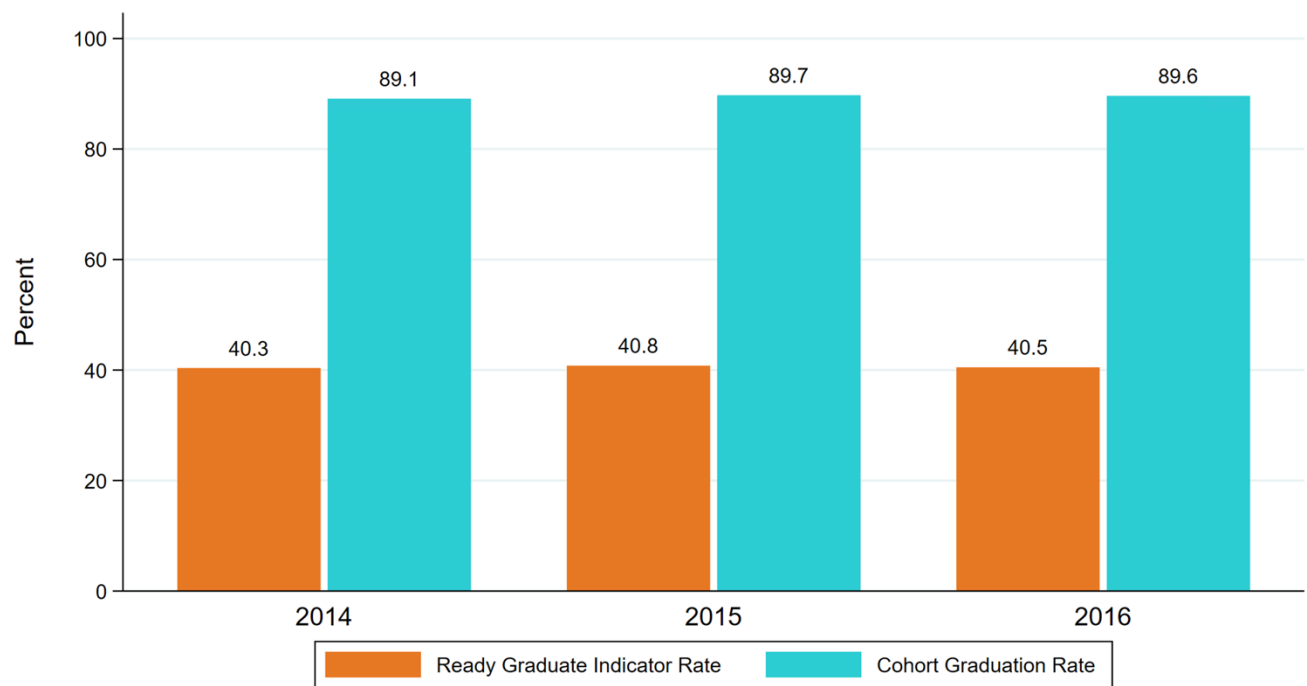
Figure 2: Distribution of Ready Graduates by Qualifying Criteria, 2015 and 2016 Cohorts



Note: The cohort year refers to fall enrollment for first-time ninth graders. For example, cohort year 2015 refers to students who began ninth grade in the 2015-16 school year and graduated on-time in the 2018-19 school year.

Figure 3 reports the percentage of students qualifying for Ready Graduate status and graduating on time for three recent cohorts. A “cohort” includes those students enrolled as first-time ninth graders. Students who graduate “on-time” do so in the spring or summer four years after enrolling as first-time ninth graders. For example, the 2014 cohort enrolled during the 2014-15 school year and graduated on-time in spring or summer 2018. The cohort graduation rate ranged from 89.1 to 89.7 percent for the ninth-grade cohorts of 2014-2016, while the percentage of students obtaining Ready Graduate status ranged from 40.3 to 40.8 percent. The two measures are closely related and Ready Graduate status moderately predicts graduation. Over the three cohorts, the district-level correlation was 0.62 and the school-level correlation was 0.64, while Ready Graduates were 10 percentage points more likely than their counterparts to graduate from high school on time.⁴

Figure 3: Percent of Ready Graduates and On-Time High School Graduates, 2014-2016 Cohorts

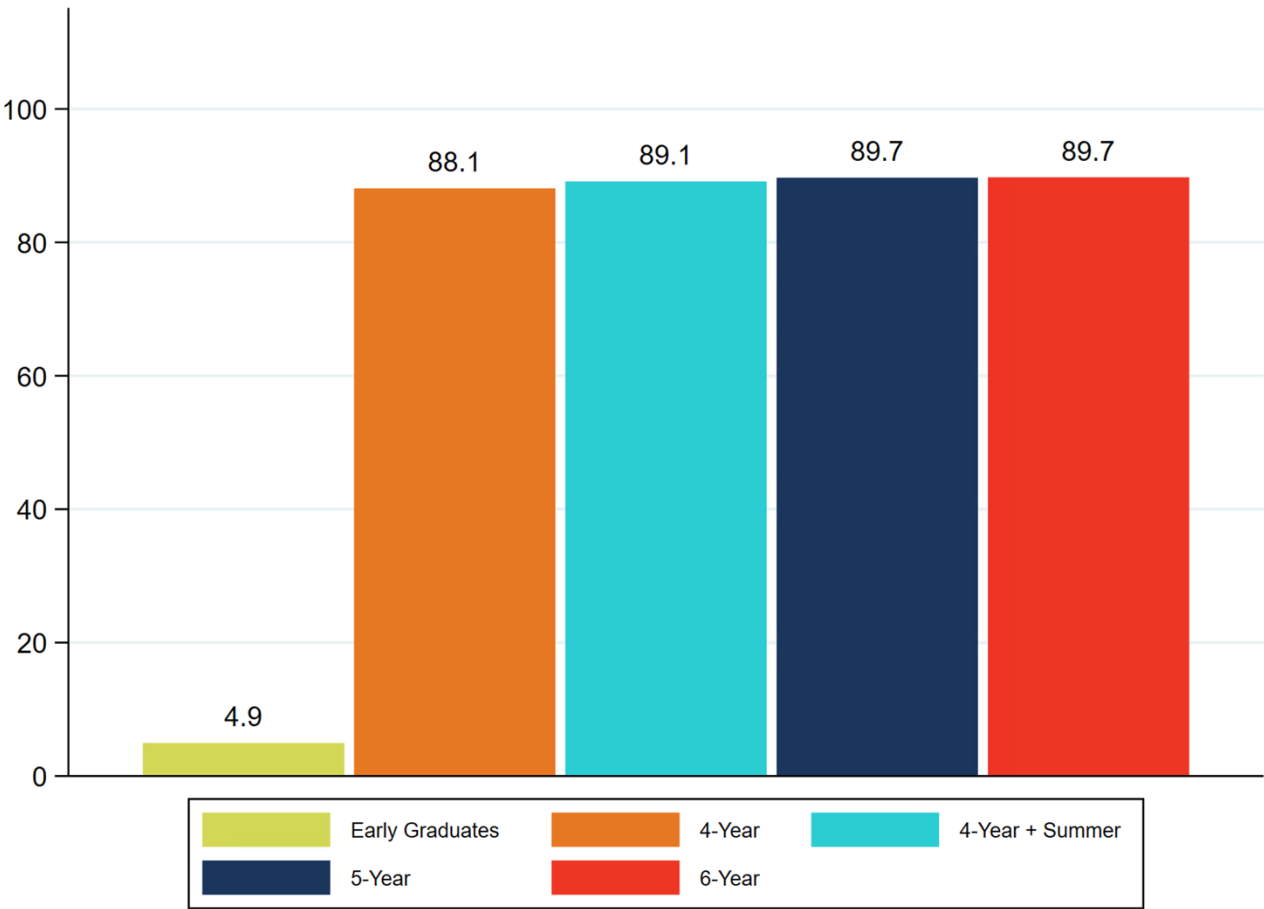


Note: The cohort year refers to fall enrollment for first-time ninth graders. For example, cohort year 2014 refers to students who began ninth grade in the 2014-15 school year and graduate on-time in the 2017-18 school year.

⁴ This estimate controls for sex, racial or ethnic group, accountability subgroup, and special status indicators (e.g., CTE concentrator, homelessness), as well as compares students within the same cohort, school, or district.

In addition to reporting on-time graduation, we can also calculate graduation rates for students who graduated early (by fall of the graduation year) or late (in five or six years). Recall from Figure 3 that the on-time graduation rate for the 2014 cohort was 89.1 percent. Figure 4 shows that whether students graduate in the spring alone or late, the high school graduation rate remained fairly constant, suggesting that the vast majority of students who graduate from high school do so on-time (in four years plus the summer). The first bar shows that a very small percentage of students graduated early (4.9%). Part II of this report provides more detail on high school graduation rate trajectories by reporting these rates by racial and ethnic group and accountability subgroup, as well as whether students were classified as Ready Graduates.

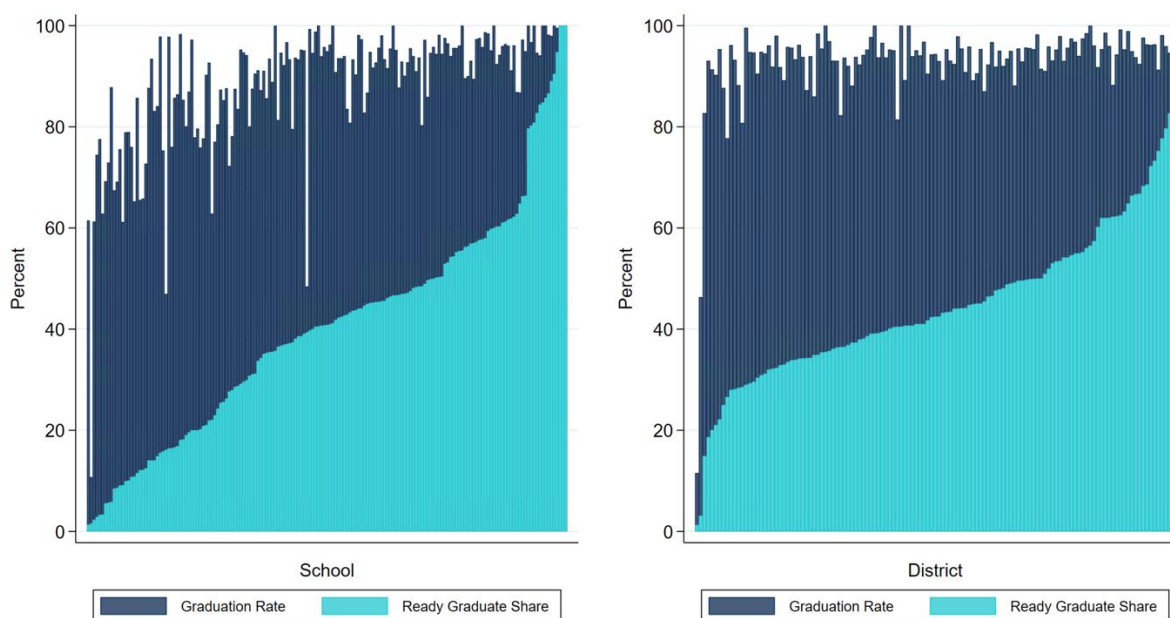
Figure 4: Early-to-Six Year High School Graduation Rates, 2014 Cohort



Note: The cohort year refers to fall enrollment for first-time ninth graders. For example, cohort year 2014 refers to students who began ninth grade in the 2014-15 school year and graduate on-time in the 2017-18 school year. These same students graduated in six years in spring 2020.

Despite the moderately strong relationship between the two metrics and the ability of the Ready Graduate indicator to predict on-time high school graduation, considerable variation in Ready Graduate indicator rates exists across both schools and districts. Figure 5 displays this variation. The left panel shows graduation rates at the school level and the percent of students within each school classified as Ready Graduates. The right panel does the same, but at the district level. The school-level plot highlights a few patterns. First, schools with comparable graduation rates can have much different Ready Graduate indicator rates. For example, scanning across the school-level panel of Figure 5, schools with very high graduation rates—those that approach 100%—have Ready Graduate indicator rates that can fall below 20 percent or rise above 80 percent. The district-level panel on the right shows a similar pattern with a slightly different distribution of Ready Graduate rates among district-level graduation rates clustered tightly between 80% and 100%. These two plots highlight the fact that while schools and districts may maintain relatively high graduation rates, the percentage of students who are college- or career-ready can vary substantially.

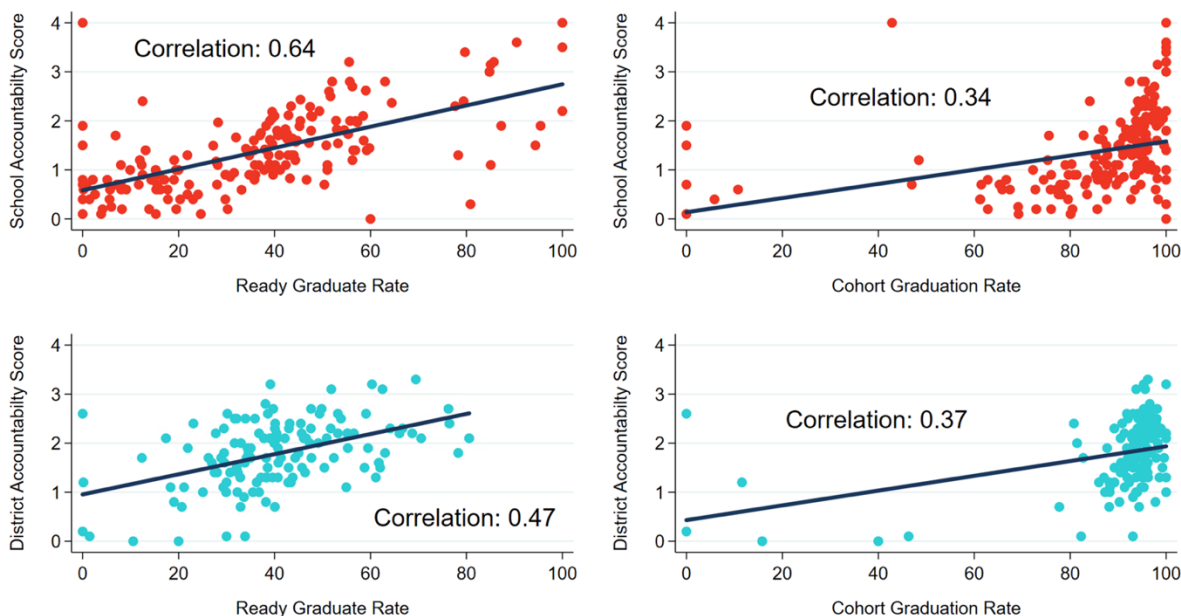
Figure 5: High School Graduation Rates and Ready Graduate Share, by School (left panel) and District (right panel), 2016 Cohort



Note: The cohort year refers to fall enrollment for first-time ninth graders. For example, cohort year 2016 refers to students who began ninth grade in the 2016-17 school year and graduate on-time in the 2019-20 school year.

The graduation rate and the Ready Graduate indicator are two metrics that comprise high school accountability at the school and district levels. The other four metrics are achievement, growth, chronic absenteeism, and the English Language Proficiency Assessment (ELPA).⁵ Figure 6 shows the extent to which Ready Graduate indicator rates and high school graduation rates correspond to different levels of overall school and district accountability. The top panel displays the relationship between school accountability scores, which range from 0 (“F”) to 4 (“A”) on the y-axes and Ready Graduate or Cohort Graduation Rates on the x-axes. Each orange dot represents a Tennessee high school. The bottom panel shows the same relationship at the district level, where each blue dot represents a Tennessee district. The left two figures show that the relationship between the Ready Graduate indicator and accountability score was moderately to strongly positive for the 2016 cohort, while the corresponding relationship between the cohort graduation rate and accountability score was weakly positive. However, since multiple factors are used to assign accountability scores to schools and districts, caution should be used when interpreting the magnitude of these correlations.

Figure 6: Relationship between Ready Graduate/High School Graduation Rates and School/District Accountability, 2016 Cohort



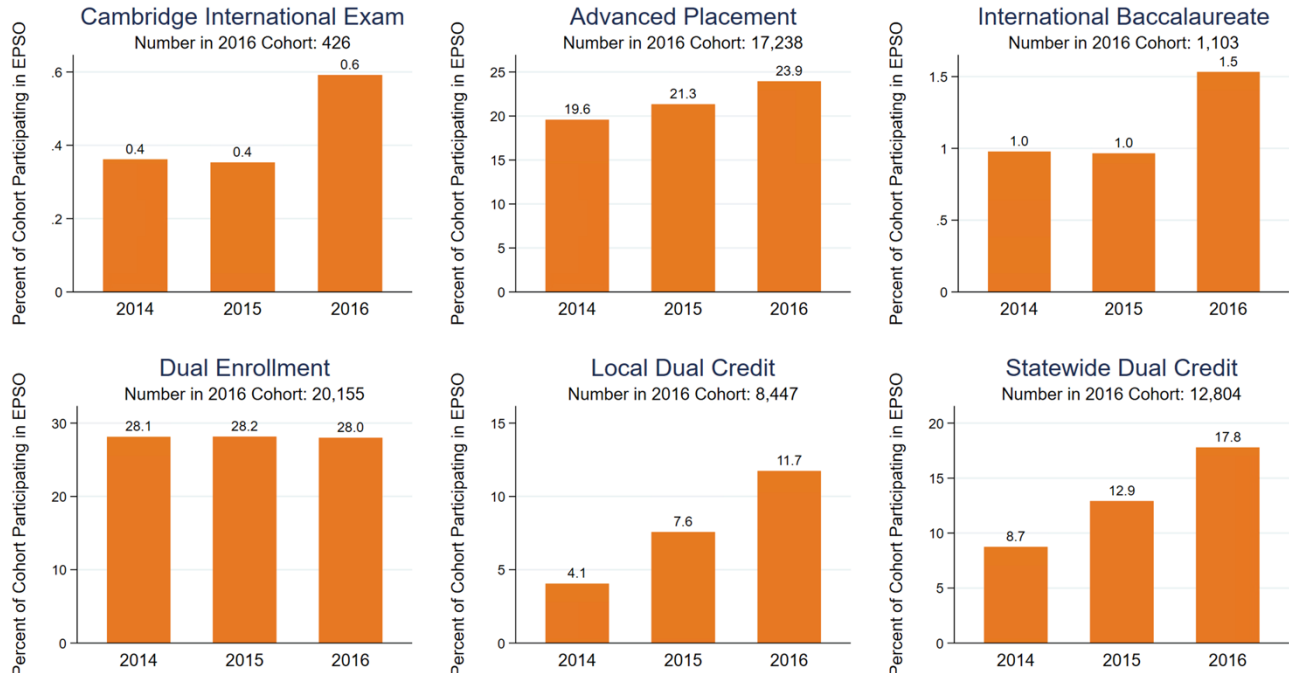
Note: The strength of a correlation broadly corresponds to the following ranges: 0.00-0.19 is very weak, 0.20-0.39 is weak, 0.40-0.59 is moderate, 0.60-0.79 is strong and 0.80-1.00 is very strong.

⁵ See TDOE’s “2019-20 Accountability Protocol” for more information on each component of school and district accountability.

Postsecondary Readiness

There appears to be a clear descriptive relationship between the launch of the Ready Graduate indicator and growth in student participation in nearly all EPSOs. Recall from Table 1 that the 2014 cohort (spring 2018 on-time graduates) was the first to qualify for Ready Graduate status by earning EPSOs. Prior to that cohort, students could only qualify for Ready Graduate status by meeting a minimum score threshold on the ACT or SAT. Figure 7 displays growth in EPSO participation for the 2014 through 2016 cohorts for six separate EPSOs. For each cohort, the percentage of students earning at least one credit in Advanced Placement, Local Dual Credit, or Statewide Dual Credit increased. This growth was most striking for Dual Credit earners. In the first two cohort years, the percentage of students earning Cambridge or International Baccalaureate credit was flat but increased substantially for the 2016 cohort. Finally, the percentage of students earning at least one Dual Enrollment credit has remained flat across the last three cohorts for which we have EPSO data. However, Dual Enrollment does represent the EPSO with the overall highest level of student participation at 28%. Thus, overall, implementation of the Ready Graduate indicator coincides with EPSO participation growth, suggesting that schools and districts are increasing the percentage of students prepared for postsecondary coursework.

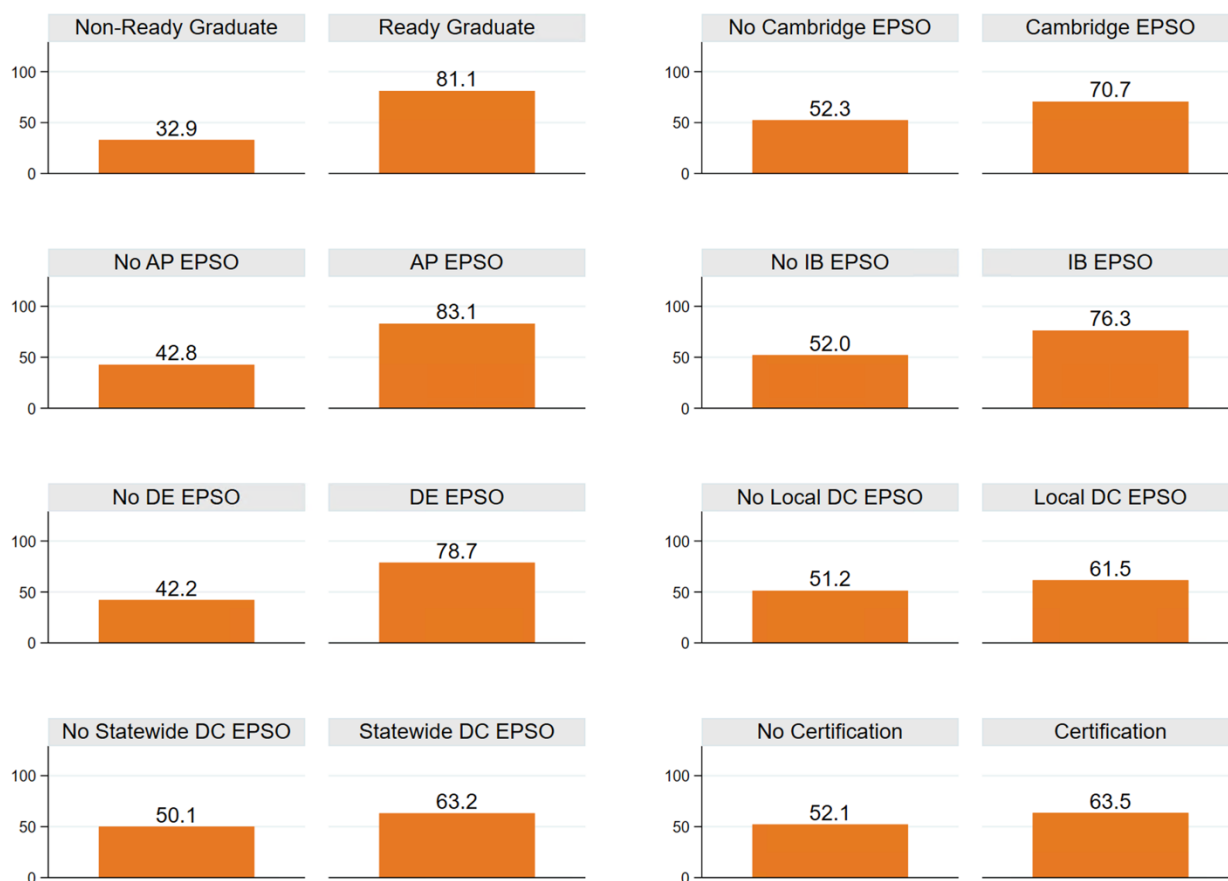
Figure 7: Growth in Early Postsecondary Opportunities (EPSOs), 2014 to 2016 Cohorts



Note: The cohort year refers to fall enrollment for first-time ninth graders. For example, cohort year 2014 refers to students who began ninth grade in the 2014-15 school year and graduate on-time in the 2017-18 school year.

Does Ready Graduate status or the qualifying criteria that contribute to it influence the rate of college-going among graduates? One way to measure this is to calculate the percentage of Ready Graduates enrolling in college in the fall following high school graduation—a metric known as “seamless college enrollment.” Figure 8 displays seamless college enrollment by Ready Graduate status, six EPSO types (the same as those displayed in Figure 7), and industry certification attainment. The figures broadly show that seamless college enrollment was considerably higher among Ready Graduates and those who earned at least one EPSO or industry certification. For the 2016 cohort (spring 2020 on-time graduates), there was a 48.2 percentage point gap in seamless college enrollment between Ready Graduates and their non-Ready Graduate counterparts (81.1 – 32.9 = 48.2). Gaps were smaller, but still meaningful, across EPSO types and industry certification.

Figure 8: Seamless College Enrollment Rate by Ready Graduate Status, EPSO Type, and Industry Certification, 2016 Cohort

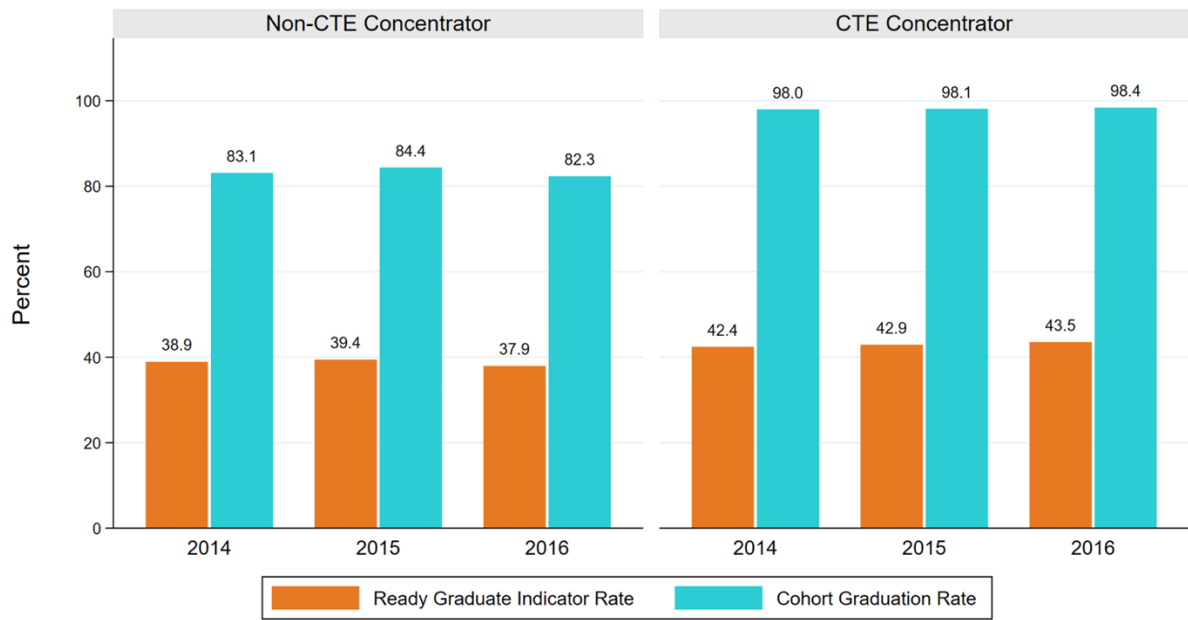


Note: With the exception of Ready Graduate status, categories are mutually exclusive in that they only account for one indicator at a time (e.g., only AP) and not combinations of indicators (e.g., AP + Certification). EPSO = early postsecondary opportunity, AP = Advanced Placement, IB = International Baccalaureate, DE = Dual Enrollment, and DC = Dual Credit.

Workforce Readiness

The Ready Graduate indicator consists of two workforce-relevant paths: (1) earning an industry certification or (2) the WorkKeys National Career Readiness Certificate (NCRC). As such, this metric was in part designed as a career-ready designation. Beyond the Ready Graduate indicator, there are many ways to examine students' workforce readiness, including initiatives for which Tennessee has recently received [recognition](#) from Chiefs for Change. These include the department's Tennessee Pathways initiative, EPSOs and work-based learning opportunities for secondary students; and vertical alignment among K-12, postsecondary programs, and career opportunities. To provide a succinct—but informative—summary of the link among Ready Graduate indicator rates, cohort graduation rates, and workforce readiness, Figure 9 presents these rates by whether students completed a career and technical education (CTE) concentration in high school. "CTE concentrators" are students who complete at least three courses within a qualifying program of study. Among recent cohorts, roughly 40% of students completed a CTE concentration across a diverse range of 16 career clusters, including Advanced Manufacturing, Hospitality and Tourism, and Transportation. Both the Ready Graduate indicator and graduation rates for the 2014-2016 cohorts were higher among CTE concentrators compared with their counterparts who do not complete a CTE concentration.

Figure 9: Ready Graduate and High School Graduation Rates by CTE Concentration Status, 2014- 2016 Cohorts

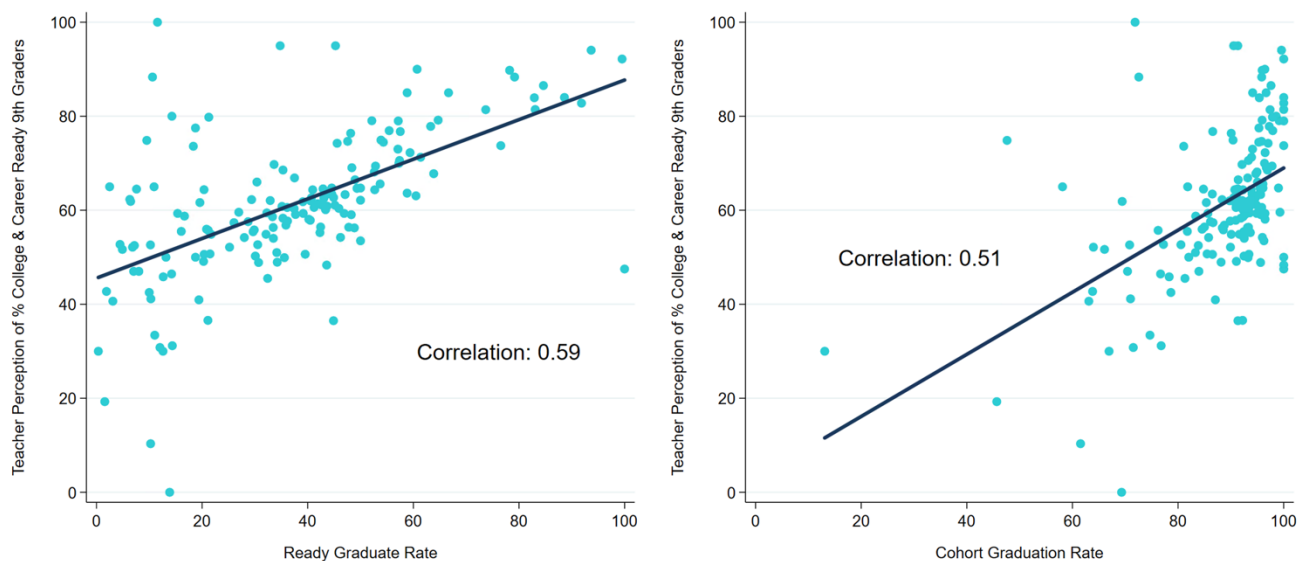


Note: A CTE concentrator completes at least three courses within a qualifying program of study.

Teacher Perceptions of Postsecondary Readiness

The Ready Graduate indicator measures the percent of students who meet success milestones designed to increase the probability for postsecondary success. While the department does not directly survey schools or districts about this indicator or the cohort graduation rate, the department does capture teacher perceptions about college and career readiness through its annual [Teacher Educator Survey](#) (TES). For example, the 2019 TES asked high school teachers what percentage of 9th graders they believed would be on track to graduate from high school prepared for college. Schools with higher average teacher perceptions on this survey question are potentially more likely to graduate students who are prepared for college or the workforce. Figure 10 shows that at the school level, there exists a moderate correlation between these indicators and teacher perceptions of postsecondary readiness. The left panel shows that a 1 percentage point increase in a school's Ready Graduate rate corresponds with a 0.59 percentage point increase in teacher perceptions about student preparation for life after high school. The right panel displays this same relationship for the cohort graduation rate. While the relationship is slightly weaker, it is considered moderate and points to alignment between perceptions of incoming students and their potential for college readiness and on-time graduation.

Figure 10: Relationship between Teacher Perceptions of College Readiness and Ready Graduate indicator (left) or High School Graduation Rate (right), Spring 2019



Note: The teacher perception question was drawn from the 2019 Tennessee Educator Survey (High School & Bridge to Postsecondary Teacher Branch, question TB H05). Roughly 7,700 high school teachers across 170 schools responded to this question. Dots above represent school-level average response and either Graduate Ready indicator rates (left) or cohort graduation rates (right).

Part II: Disaggregation Analyses

Over the past decade, Tennessee has consistently outperformed the nation in graduating a higher percentage of students on time (See Figure 1, above). The most recent federal data show that compared to U.S. averages, Tennessee students in all reported subgroups and special populations outperformed their national counterparts by anywhere from 3-16 percentage points.⁶ Federal data report the four-year adjusted cohort graduation rate, which is comparable to Tennessee's own four-year graduation rate plus summer graduates. To shed light on graduation rates by subgroup over both earlier and longer time horizons, we report here rates for all racial and ethnic groups and accountability subgroups for early graduates, 4-year graduates, 4-year-plus-summer graduates, 5-year graduates, and 6-year graduates. Moreover, we show how these rates vary depending on whether students were classified as Ready Graduates. In order to examine graduation rates in later years for the same cohort, we focus on the 2014 cohort, which graduated on-time in spring 2018, and report five-year rates for the same cohort if they graduated in spring 2019 and six-year rates in spring 2020.

Figure 11 displays cohort graduation rates for the state's six racial ethnic groups (plus the Super Subgroup which includes students identified with one or more of the historically underserved student groups) as well as the three accountability subgroups. Among racial ethnic groups, Asian students had the highest adjusted cohort graduation rates across each of the five rates, while Hispanic/Latino students had the lowest rates. Since the vast majority of students who graduated did so on time, the cumulative graduation rates in successive years (i.e., years five and six) were not considerably higher. Among accountability subgroups, economically disadvantaged students had the highest graduation rates across the five separate time periods, while students with disabilities had the lowest rates.

Figures 12 and 13 display the same figures but are disaggregated by Ready Graduate status. Across all racial and ethnic groups and accountability subgroups, Ready Graduates graduated at rates at or near 100%. Non-Ready Graduates completed high school at considerably lower rates, with gaps compared to Ready Graduates ranging from roughly 15 percentage points for Asian and White students to 30 points for English Learners and Students with Disabilities. The Appendix reports the numbers of high school graduates for these same racial and ethnic groups and accountability subgroups (Figures A1-A3).

⁶ Source: Common Core of Data, Table 1, Public high school 4-year adjusted cohort graduation rate (ACGR), by race/ethnicity and selected demographic characteristics for the United States, the 50 states, the District of Columbia, and Puerto Rico: School year 2018–19.

Figure 11: Cohort Graduation Rates by Subgroups, All Graduates, 2014 Cohort

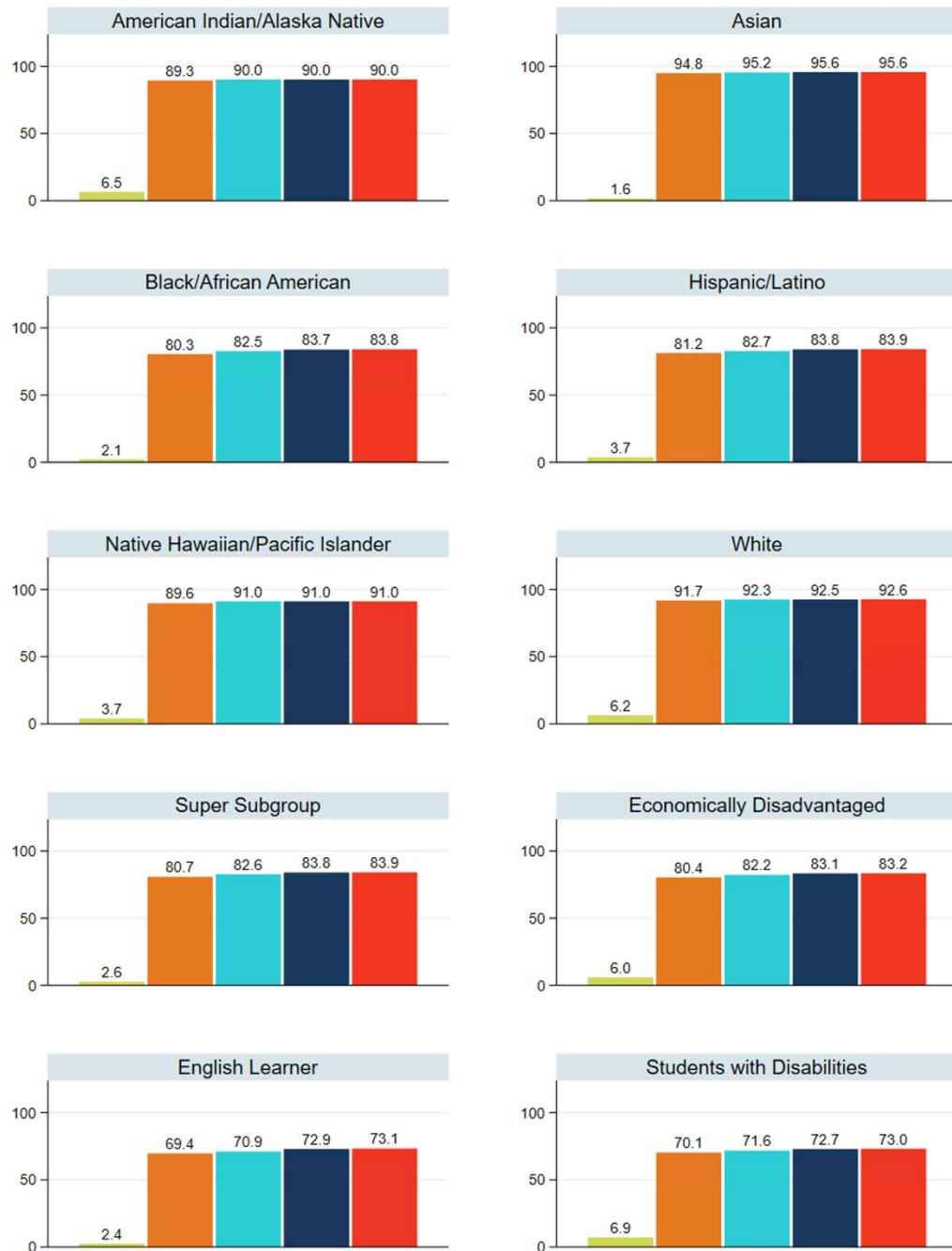


Figure 12: Cohort Graduation Rates by Subgroups, Ready Graduates, 2014 Cohort

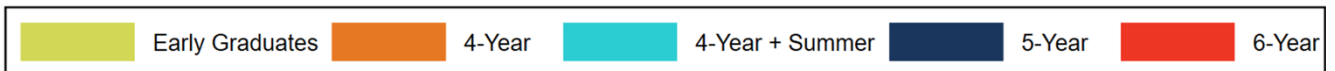
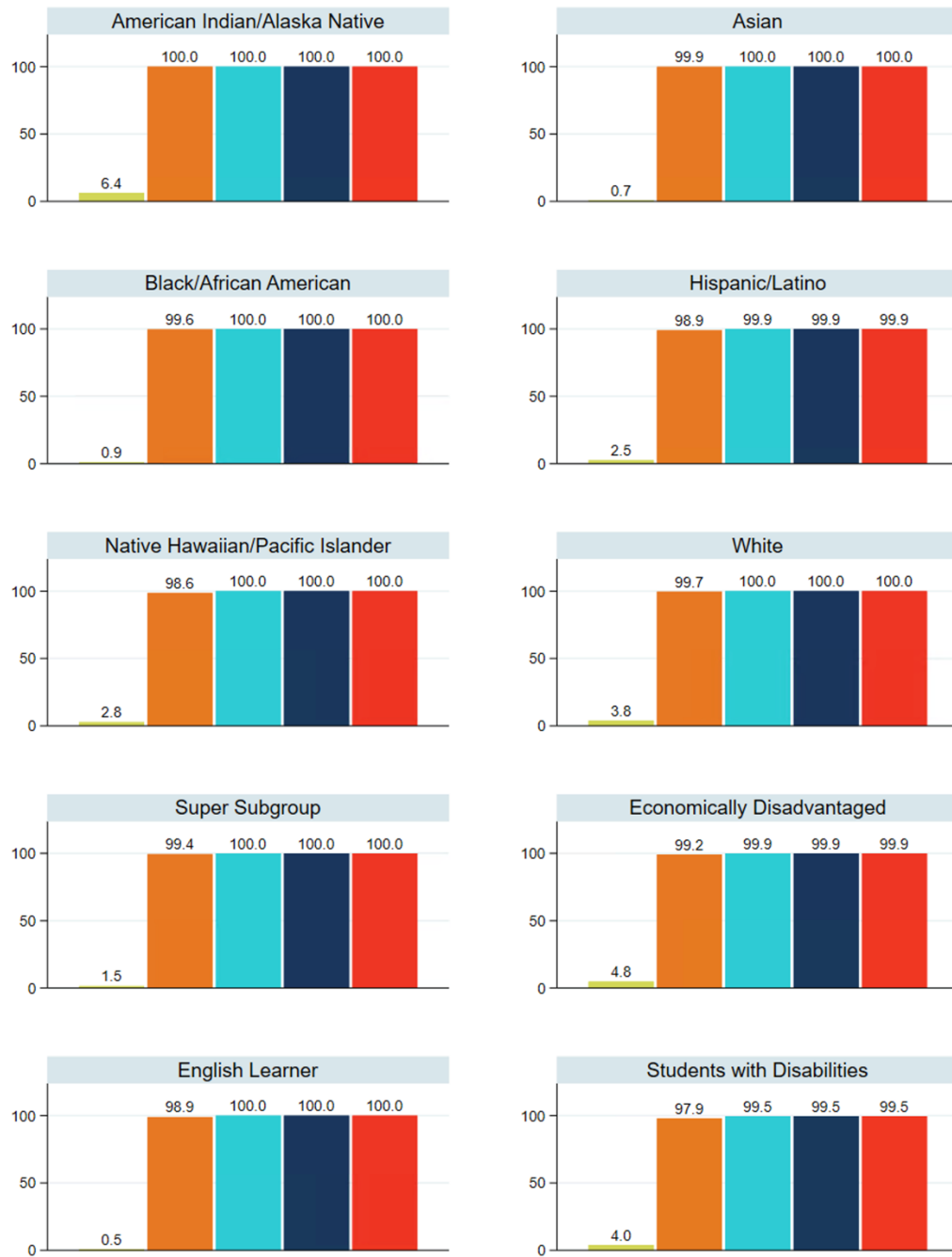
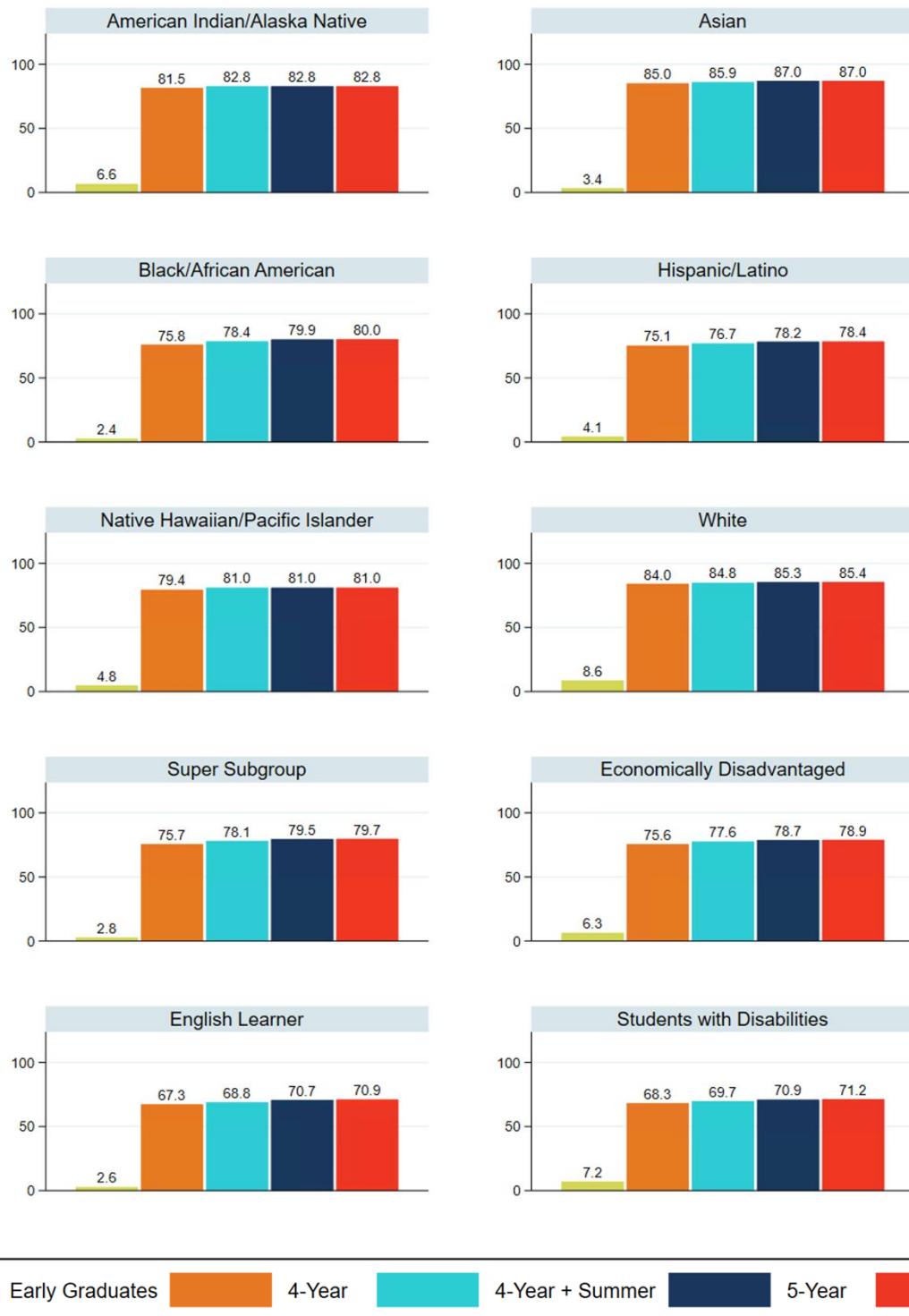


Figure 13: Cohort Graduation Rates by Subgroups, Non-Ready Graduates, 2014 Cohort



Part III: Metrics and School/LEA Practices

Tennessee places a strong emphasis on high school graduation and postsecondary success. The department's *Best for All* strategic plan identifies key postsecondary goals for its graduates. To ensure that Tennessee's graduates are on track to meet these goals, the department has identified several relevant metrics and practices. Key among these metrics are the Ready Graduate indicator and the graduation rate, which comprise two of six accountability metrics. Parts I and II of this report summarize the extent to which the graduation rate and the Ready Graduate indicator relate to postsecondary success (e.g., See Figure 8). The current section, Part III, highlights a range of additional practices and initiatives that inform overarching *Best for All* goals.

Course Access

One of the most important ways for Tennessee students to access rigorous courses is through **early postsecondary opportunities (EPSOs)**. EPSOs are courses and exams that students can take in order to earn postsecondary credit while in high school. The motivation behind EPSOs is that they can reduce the costs associated with college enrollment as well as time to earn a degree. Tennessee offers eight different EPSOs which are summarized in Table 2.

How impactful are EPSOs? In summer 2019, in partnership with the Tennessee Education Research Alliance (TERA), TDOE hosted a mini-conference entitled "[EPSOs in Action](#)" to help answer this question. Conference participants, which included department staff and affiliated researchers, identified three core takeaways:

1. EPSOs can have positive effects on student achievement, high school graduation, and college going rates, but these effects vary across student groups and the type of EPSO.
2. The goal of EPSOs is to foster postsecondary success; yet evidence suggests that students in statewide dual credit and AP programs often struggle to pass the exams, losing confidence in their academic strengths.
3. Partnerships among K-12, postsecondary, businesses, and community organizations are critical to the development and management of EPSOs.⁷

⁷ TERA authored a research brief that includes these three conclusions as well as detailed summaries of key conference research presentations.

These findings suggest that EPSOs have meaningful impacts on achievement, graduation and persistence, while earning credit in some EPSOs is not necessarily straightforward for many students.

To boost Advanced Placement (AP) participation, the department launched the **AP Access for ALL** program in partnership with the Niswonger Foundation. This initiative provides access to 15 online AP courses for more than one thousand high school students across roughly 100 Tennessee school districts. The program eliminates financial barriers and ensures that AP courses unavailable to roughly half of high school students are accessible virtually. Among 110 participating districts, 29 are in at-risk or distressed counties and 38 are in rural counties. The program has expanded AP access to 86% of all Tennessee high schools. The partnership is in part designed to overcome some of the mixed evidence on AP credit attainment that the EPSO mini-conference identified.

Table 2: Early Postsecondary Opportunities (EPSOs)

EPSO Type	First School Year of Available Data
Advanced Placement	2007-08
Cambridge International Examinations	2014-15
College Level Examination Program	2015-16
Dual Enrollment	2007-08 (P20) and 2014-15 (EIS)
Industry Certifications	2015-16 (varies by certification)
International Baccalaureate	2014-15
Local Dual Credit	2014-15
Statewide Dual Credit	2013-14

Source: Tennessee Department of Education’s 2019-20 Accountability Protocol.

High School Graduation Requirements

Tennessee offers four diploma options for prospective high school graduates. These are the (1) traditional, (2) special education, (3) occupational, and (4) alternative academic high school diplomas. Table 3 summarizes the requirements for each. Tennessee’s traditional high school diploma requirements are in line with recommendations from a range of organizations that promote rigorous course requirements on the path to college and career readiness. ACT, Inc. and Achieve both recommend four years of English and at least three years of rigorous mathematics. The Southern Regional Education Board reports that Tennessee is one of nine states in its 16-state

compact requiring four English, four math, and three science credits.⁸ Evidence at the national level suggests that the addition of rigorous math courses to the curriculum contributed to earnings boosts for Black graduates (Goodman, 2019), while increased math exposure in more local contexts led to increases in graduation rates and college enrollment (Clotfelter et al., 2019, Cortes et al., 2015).

Table 3: High School Graduation Requirements

	Traditional	Special Education	Occupational	Alternative Academic
Credits	At least 22	< 22	< 22	At least 22
Postsecondary readiness assessment	ACT or SAT	—	—	—
Attendance and discipline	Satisfactory record	Satisfactory record	Satisfactory record	Satisfactory record
Individualized Education Plan (IEP)	—	Satisfactory completion	Satisfactory completion	Satisfactory completion or simply received special education services
SKEMA	—	—	Completion	—
Non-paid work experience	—	—	Two (2) years	—
High school alternate assessments	—	—	—	Participation
Transition assessments	—	—	—	Participation

Note: “—” denotes not a required criterion for this diploma type. “SKEMA” stands for Skills, Knowledge, and Experience Mastery Assessment. *Source:* Rules of the State Board of Education, Chapter 0520-01-03: Academic and Instructional Requirements (0520-02-03-.06: Graduation Requirements).

⁸ For more on graduation requirement benchmarks see Act, Inc. (2007), <https://www.achieve.org/graduation-requirements>, and <https://www.sreb.org/diploma-requirements-high-school>.

Grades

Tennessee requires districts to use uniform grading for students in grades 9-12 for the purposes of application for state postsecondary financial assistance. The State Board of Education Uniform Grading System Rule 0520-01-03-.02 serves two main purposes. First, uniform grading prohibits the addition of quality points above 4.0 for EPSOs, which ensures that equity is maintained for lottery scholarship eligibility. Second, uniform grading ensures the equitable distribution of financial assistance administered through the Tennessee Student Assistance Corporation (TSAC).

Credit Recovery

Credit recovery refers to course-specific opportunities to earn credit for students who were unable to do so due to lack of standards mastery. The primary goal of credit recovery is to help students remain enrolled and graduate on time. Since local boards of education are responsible for designing credit recovery policies that are aligned to the State Board of Education's High School Policy 3.103, little is known about credit recovery at the state level. Yet districts must follow strict criteria when articulating admission and removal rules, designing instruction, and assigning grades.

In an attempt to describe the state of credit recovery in Tennessee, the state comptroller's Office of Research and Education Accountability (OREA) in 2015 [concluded](#) that most credit recovery typically consisted of remediating academic deficiencies rather than requiring students to re-take entire courses, and districts varied in grading practices. Moreover, some districts issued letter grades for credit recovery while others gave the pass/fail option. Finally, districts varied in how recovered credit was reported: some reported the original course grade on transcripts while others reported a weighted average of the recovered and original grades (Potts, 2015).

Recent evidence suggests that online credit recovery implemented in an anonymous district helped boost credits earned and high school graduation but had negligible or even negative associations with college-going outcomes (Heinrich & Darling-Aduana, 2021). Additional evidence from three states suggests that male students are more likely to enroll in online credit recovery, English credit recovery is more popular than math credit recovery (Stevens et al., 2016), racial and ethnic groups tended to perform better through online credit recovery compared to the in-person variety (Hughes et al., 2015), and results for students attempting credit recovery through dedicated virtual schools compared to separate credit recovery programs were mixed (Stallings et al., 2016).

College, Career, and Technical Education (CCTE)

Career, college and technical education (CCTE) is designed to increase postsecondary opportunities for high school students and align K-12 education and workforce demands. According to Chiefs for Change, Tennessee uses “strong state governance structures [to] support the development and success of high-quality pathways for all learners from K-12 to postsecondary education and career.” Moreover, the group found, Tennessee “prioritizes CTE as a key component for promoting higher postsecondary credential attainment.”⁹ The department’s [2020-21 College, Career, and Technical Education Overview](#) report highlighted connections between CCTE and economic, district, and student success, as well as the future direction of statewide CCTE programming amid the ongoing pandemic.

Tennessee’s five registered apprenticeships provide students with access to career pathways and hands-on work experiences. These STEM-based apprenticeship programs, funded through a U.S. Department of Education grant, include programs in welding, information technology, and maintenance technology. The apprenticeships make up **ApprenticeshipTN**, an inter-agency collaborative partnership designed to boost access to apprenticeships for Tennessee students.

The **Certified Tennessee Pathways**, in partnership with the Tennessee Board of Regents, form the basis of strong links between high school programs of study, postsecondary pathways, and workforce opportunities in local regions. The effort is part of the department’s broader goal to strengthen career and technical education statewide. In 2018, the year Tennessee Pathways launched, 81 districts submitted 400 applications to certify such aligned pathways. In all, 74 high schools were recognized for earning this certification. Chiefs for Change has also acknowledged this program.¹⁰ The initiative includes three main components: high-quality advising, early college and career experiences, and cross-sector partnerships. To date, the program includes 281 certified pathways, 62 postsecondary partners, 1,283 employee partners, 695 industry certifications and 4,000 early postsecondary opportunities.

To align K-12 academic experiences with the needs of Tennessee’s business community, the department continues to review and promote **industry credentials** that students earn in high school. The Lumina Foundation defines high-quality industry credentials as those that lead to meaningful employment, facilitate career advancement, higher pay, and future opportunities; and offer a path to continuing education and lifelong learning (Lumina Foundation, 2021). Drawing

⁹ Source: Chiefs for Change, “The Role of State Governance in Supporting Learner Pathways,” October 2021.

¹⁰ Source: Chiefs for Change, “Education-to- Workforce Learner Pathways: How Intermediary Organizations Can Support and Help Sustain Effective Partnerships,” October 2021.

from this definition and applying criteria that reflect the alignment of credentials with approved CTE programs of study, the availability of credential attainment data, and local labor market conditions, the department assigns industry credentials to tiers, denoted as “Recognized,” “Valued,” or “Preferred.”¹¹ The review team is comprised of an inter-agency collaboration among secondary and postsecondary educators, the department, Tennessee Board of Regents (TBR), Tennessee Department of Labor & Workforce Development, Tennessee Higher Education Commission (THEC), Tennessee Department of Agriculture (TDOA), and Tennessee Department of Economic and Community Development (TECD). During the summer 2021 review window, the department reviewed 157 submitted credentials and identified 50% as Preferred. During the most recent cycle, the number of submitted credentials increased by 10% and a similar proportion received the Preferred designation.

Innovative School Models encourages strategic partnerships among Tennessee’s school districts, postsecondary institutions, and local employers. Following a competitive grantmaking process, the state awarded \$30 million for a wide range of partnerships, including Agri-STEM initiatives in rural areas to employer-led “boot camps” that teach students about local business demand. To date, 21 districts have received grants ranging from \$750,000 to \$2.5 million to participate in the initiative.

The Governor’s **Future Ready Workforce Initiative (FWI)** is designed to increase STEM access, educator capacity, and engagement in K-12 schools. To date, FWI has trained more than 300 teachers in six STEM programs, nearly 500 teachers in K8 Digital Readiness Standards, and more than 150 teachers in Advanced Placement (AP) Computer Science (CS) Principles. In all, nearly 400,000 Tennessee students have participated in FWI programming, and more than 2,200 educators have been trained.

Lastly, the department has partnered with University of Tennessee, Martin (UT Martin) to provide free **online ACT prep workshops** in order to increase the percentage of students scoring at or above 21 on the test—a Ready Graduate qualifying criterion. Through Zoom, all Tennessee juniors and seniors, as well as their teachers, can participate in UT Martin’s ACT Success Tactics Workshops and Mastery Classes. This effort reflects the importance of the ACT as an access point for Tennessee students’ college and career options.

Taken together, from high school graduation requirements to CCTE, the department is continuously designing and implementing metrics and practices designed to boost high school and postsecondary success for its students.

¹¹ For more on how credentials are sorted into tiers, see “Tennessee Promoted Student Industry Credentials” (2020).

Conclusion

Over the past decade, Tennessee's high school graduation rate has steadily increased, outpacing the national rate by a healthy margin. Despite this relative success, the state's rate has plateaued near 90% for the past few graduating cohorts. In an effort to boost the numbers of graduating seniors and to ensure that they are college- and career-ready, the department implemented the Ready Graduate indicator as a component of school and district accountability. This indicator measures the percent of students who earn a regular high school diploma and meet success milestones that are aligned to increase the probability for postsecondary and workforce success. Roughly 40% of Tennessee graduates are classified as Ready Graduates—a rate that has also remained steady for recent graduating cohorts. Since the launch of the Ready Graduate indicator, the department has expanded the definition of a Ready Graduate to include those students who, in addition to earning EPSOs, earn an industry certification or National Career Readiness Certificate. The expanded criteria represent a clear reflection of the department's belief, as articulated in its *Best for All* strategic plan, that "to continue to accelerate Tennessee's success as a state, all students must be prepared to successfully and seamlessly transition into postsecondary training or the workforce after high school graduation."

The results from this report broadly demonstrate that Ready Graduates have higher graduation rates, are more likely to be CTE concentrators, and have higher seamless college enrollment rates than their non-Ready Graduate counterparts. Among racial and ethnic groups and accountability subgroups, Ready Graduates have consistently higher graduation rates across all time periods—regardless of whether they are early, on-time, or late graduates. Since *Best for All* strives to "set all students on a path to success," it is imperative to provide increasing access to EPSOs and career-ready opportunities to non-Ready Graduates who trail their counterparts on the critical milestone of high school graduation.

Finally, the department has launched a wide range of initiatives designed to boost postsecondary and workforce readiness. These include AP Access for All and free ACT test preparation, each of which has the potential to increase the percentage of Ready Graduates since qualifying criteria include scoring at or above 21 on the ACT or completing EPSOs through AP courses. Additional initiatives include collaborative efforts such as ApprenticeshipTN, the Governor's Future Ready Workforce Initiative (FWI), and the review and rating of industry certifications—which are rapidly increasing in number, relevance, and alignment with CTE programming.

Appendix

The Cohort Graduation Rate

Final graduation rate data come from the state's graduation cohort application. Students count in the cohort based on the first year in which they enrolled in grade 9. Students count as graduates if they are included in the cohort and earn an on-time regular diploma.¹² The data from the cohort application reflect Education Information System (EIS) data with school and district edits that the department approves. Please consult the [2020 Graduation Cohort Protocol](#) for more information.

Graduation data lag by one year (i.e., 2020 accountability will reflect data for the cohort of students who were expected to graduate in 2019).

The graduation rate is equal to the number of graduates with an on-time regular diploma, divided by the graduation cohort, rounded to one decimal place. This is calculated at the school, district, and state levels using the graduation files from the Cohort application. Some districts and certain schools may not have a graduation rate; for example, they may not meet the minimum required count of 30 students in the graduation cohort therefore placing them in the K-8 pool. Students count in the district and school in which they were most recently enrolled.

The Ready Graduate Indicator

The Ready Graduate indicator measures the percent of students who earn a regular high school diploma and meet success milestones that are aligned to increase the probability for postsecondary success. Students are considered Ready Graduates if they meet at least one of the four criteria (a student can only count once):

- Earn a composite score of 21 or higher on the ACT (or 1060 or higher on the SAT), or
- Complete four EPSOs (see Table 2), or
- Complete two EPSOs and earn an industry certification, or
- Complete two EPSOs and earn a score of 31 or higher on the ASVAB AFQT.

The Ready Graduate indicator is calculated by dividing the number of on-time graduates from the

¹² The department considers graduates "on-time" if they earn regular diplomas within four years plus a summer after first entering grade 9.

cohort who meet one of the above criteria by the number of students in that cohort. Students count in the same school and district as they do for graduation cohort purposes. The percent of Ready Graduates in a school or district is rounded to one decimal place. Please consult the guidance documents on the Cohort application for more information. The department counts EPSOs (see Table 2, above) that students earn in districts other than the one in which the student counts for accountability purposes. Unless otherwise noted, the department considers all available years of data when counting the number of early postsecondary opportunities students earn.

$$\frac{\text{\# of graduates meeting } \textit{Ready Graduate} \text{ criteria}}{\text{\# in the graduation cohort}}$$

For guidance regarding the *Ready Graduate* indicator, please access the [Ready Graduate Indicator Overview](#), [User Guide and FAQ](#), and [Appeals Guidance](#).

Supplemental Figures

Figure A1: Cohort Graduation Counts by Subgroups, 2014 Cohort

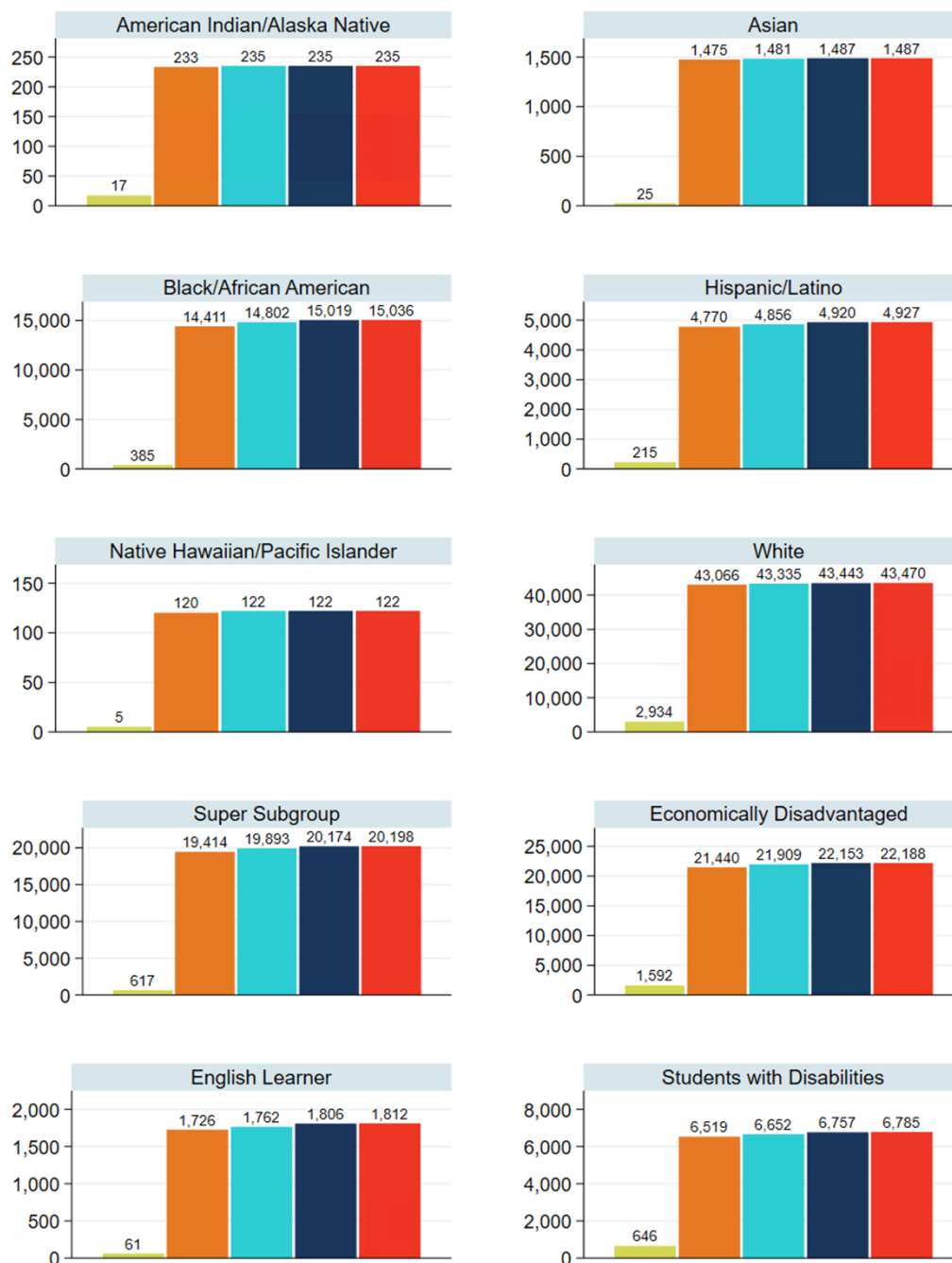


Figure A2: Cohort Graduation Counts by Subgroups, Ready Graduates, 2014 Cohort

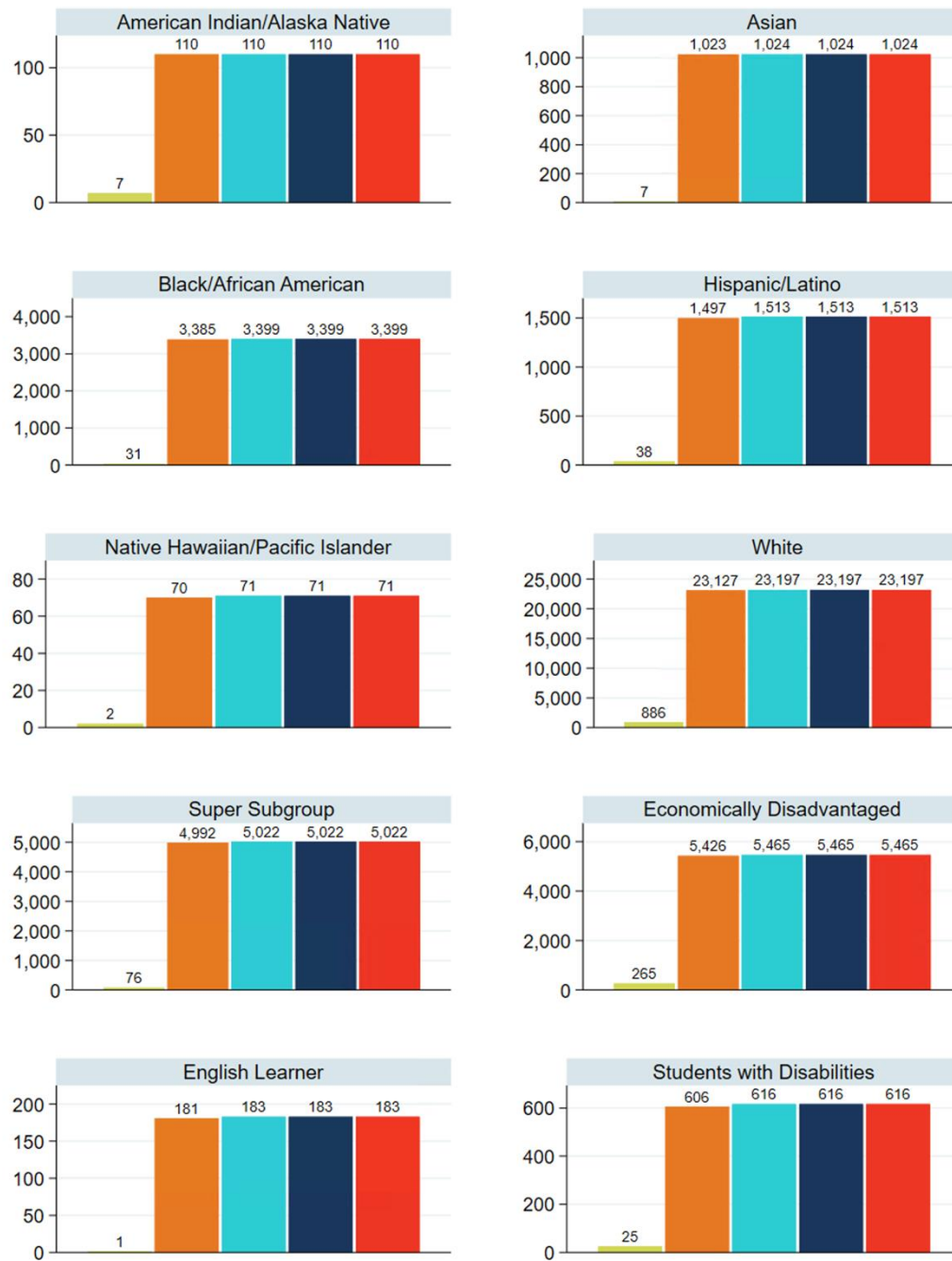
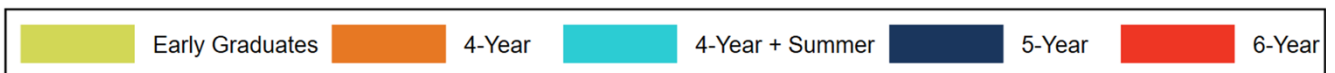
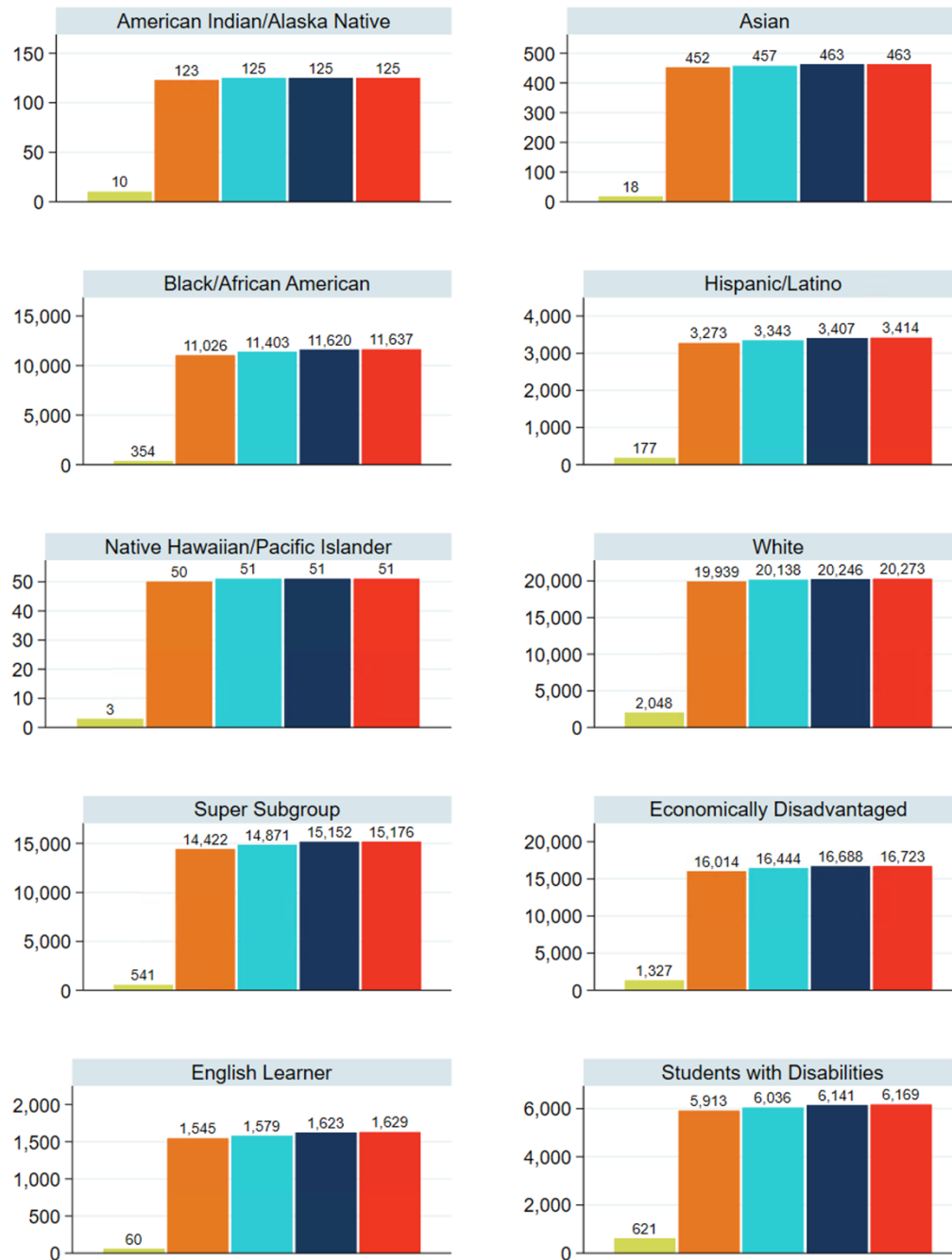


Figure A3: Cohort Graduation Counts by Subgroups, Non-Ready Graduates, 2014 Cohort



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