

Title	2015 Roadmap Report	
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Synopsis	<p>Statute directs the Washington Student Achievement Council to provide an update to the 2013 Roadmap report every other year.</p> <p>Staff have incorporated input received during the Council's November 18 meeting. This agenda item includes a review of changes to the Roadmap and transmittal letter to the Governor and Legislature.</p>	
Guiding questions	Does the Council approve the draft final version of the Roadmap update and Transmittal letter?	
Possible council action	<input type="checkbox"/> Information Only <input checked="" type="checkbox"/> Approve/Adopt <input type="checkbox"/> Other	
Documents and attachments	<input checked="" type="checkbox"/> Brief/Report <input type="checkbox"/> PowerPoint <input type="checkbox"/> Third-party materials <input type="checkbox"/> Other	

2015 Roadmap Report: Measuring Our Progress

December 2015

LETTER

Dear Governor Inslee and Honorable Members of the Legislature:

We are pleased to submit the *2015 Roadmap* update that measures Washington's educational attainment. Early results provide the evidence that we have made only modest progress and we must do much more to reach the Roadmap goals.

The report shows the overall attainment gain is inadequate to meet the state's goals by 2023. Due to changes in the economy and population, enrollment levels have dropped. These are serious challenges, and this report makes clear that the attainment goals will be beyond reach without substantially higher levels of postsecondary enrollment and completion. We cannot wait until students' last years of high school to promote postsecondary enrollment, nor can we wait for the next cyclical surge in nontraditional enrollment.

As our population grows in diversity, our success depends on greater attention to underserved populations. High school graduation rates remain unacceptably low for many students of color and for students who are low-income, in special education, English language learners, homeless, or in foster care.

We need many more working adults to obtain a postsecondary credential to reach Roadmap goals. Without a postsecondary credential, workers are more at risk of unemployment and underemployment.

Washington can rise to the challenge. State efforts can change this trajectory if they are substantial, sustained, and coordinated. We have an excellent education and postsecondary system that can, with the necessary support, implement successful policies and innovations, improve efficiencies and expand capacity.

We thank you for your 2015 investments in early learning, K-12 and postsecondary education. Yet the state's investment in postsecondary education is still lower than in the 2007-09 biennium, and pressure to further invest in K-12 is ongoing. We urge you to support our request to invest \$19 million in the State Need Grant program and provide \$531,000 to support the infrastructure of the College Bound Scholarship and continue your commitment to educational success of all Washington students.

Sincerely,



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ABOUT THE COUNCIL

Established as a cabinet-level state agency in 2012, the Washington Student Achievement Council (WSAC) provides strategic planning, administrative oversight, and advocacy to support increased student success and higher levels of educational attainment in Washington.

The nine-member Council includes five citizen members, including a current student, and one representative from each of Washington's four major educational sectors: four-year public baccalaureates, four-year private colleges, public community and technical colleges, and K-12 public schools.

State statute directs the Council to propose ten-year attainment goals and to provide progress reports every two years. The 2015 Roadmap Update is the Council's first progress report. In alternating years, WSAC produces a short-term strategic action plan for meeting those goals.

The Council proposes improvements and innovations to meet the evolving needs of students, employers, and the educational community. In recognition of the economic, social, and civic benefits of public education, the Council advocates for increased financial support and civic commitment to ensure a thriving Washington.

ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY

This 2015 Roadmap Update is the first progress report on Washington State’s educational attainment goals, that by 2023:

- All adults in Washington, ages 25–44, will have a high school diploma or equivalent.
- At least 70 percent of Washington adults, ages 25–44, will have a postsecondary credential.¹

These goals are based on our economic needs, and they catalyze policies, strategies, and investments needed to help our state’s businesses, communities, and families thrive.

Agencies and higher education institutions, along with other education partners, have implemented statewide strategies to increase educational attainment.² This report does not compile these initiatives but rather focuses on data to measure progress toward participation and attainment.³

We have analyzed data on three core measures: (1) high school completion, (2) postsecondary enrollment, and (3) postsecondary completion. In addition, we provide results for *leading indicators* that impact the core measures. The leading indicators included in this report represent key metrics that demonstrate a direct and influential connection to our attainment goals.

Although relatively little time has passed to understand how statewide policies and strategies have affected the attainment goals, this report creates a baseline against which to measure future progress.

Key Findings

Since the development of the 2013 Roadmap, there have been modest increases in attainment: from 89 to 90 percent for high school graduation or equivalent, and from 50 to 51 percent for postsecondary attainment. The results signal the need for targeted strategies to accelerate educational attainment in Washington.

Educational Attainment

- The rate of educational attainment by Washington adults, ages 25–44, has marginally increased.

High School Completion

- High school graduation rates have increased slightly.
- For many students of color, for special education students, for English language learners, and for students who are low income, homeless, or in foster care, graduation rates are low when compared to the rate for all students.

Postsecondary Enrollment

- Enrollment declined, especially among students over 25, suggesting that more students are returning to the workforce as the economy improves.
- Increases in apprenticeships, still small in numbers relative to enrollments, are also related to economic recovery.
- Requests for financial assistance remain high.

Postsecondary Completion

- Postsecondary awards have increased slightly, especially among students ages 18–24.
- Postsecondary awards have increased for some underrepresented groups.

Further Action Is Needed

Early findings show the overall attainment gain is too low to meet the state's goals by 2023. In addition, due to changes in the economy and population, enrollment levels have dropped. These are serious challenges, and this report makes clear that the attainment goals will be beyond reach without substantially higher levels of postsecondary enrollment and completion. We cannot wait until students' last years of high school to promote postsecondary enrollment, nor can we wait for the next cyclical surge in nontraditional enrollment.

These results highlight the magnitude of the challenges; however, strategic state policies and investments can advance these numbers. As we collect more data on our Roadmap progress metrics and leading indicators, we will have an increasingly robust research foundation from which to identify strategic actions for the future.⁴

This Roadmap Update highlights two areas needing particular attention:

1. High school completion and postsecondary access and completion for historically underserved and underrepresented populations.
2. Postsecondary recruitment, retention, and completion for working-age adults.

Our state is becoming more diverse, and our success depends on greater attention to underserved populations within the education system. Reaching the attainment goals will require continued investments in existing successful programs and a heightened focus on emerging areas of need. We have opportunities to seek further engagement from industry partners in supporting educational attainment.

Further action is needed across the spectrum of early learning, K-12, and postsecondary education policies, investments, and innovations. By leveraging the opportunities available, by responding effectively to challenges, and by making the necessary investments, the state can more successfully progress toward its educational attainment goals.

INTRODUCTION: WE NEED MORE THAN BUSINESS AS USUAL

Across the nation, economic, demographic, social, and workplace changes necessitate increased educational attainment. During the Great Recession that began in 2007, the least-educated experienced high rates of unemployment, underemployment, and a reduced standard of living.⁵

After several years of slow growth following the recession, many states are now seeing a surge in openings for high-paying jobs with benefits.⁶ A recent survey of employers finds that “companies are recruiting new college graduates at levels not seen since the dot-com frenzy of 1999-2000.”⁷ Many of the new jobs created in the early years of the recovery were at the low-wage level, and low-wage employment and a shrinking middle class remain concerns.

As the economy improves, adults who might normally enroll and persist in postsecondary education may opt to work full time instead. Yet attainment remains important even in good economic times, and Washington workers increasingly need to acquire new skills and knowledge in order to advance their careers.⁸ Postsecondary credentials of all types will be important to fill current and future knowledge and skill gaps in Washington’s workforce. Technical certificates, apprenticeships, and other industry-recognized credentials—as well as associate, baccalaureate, graduate, and professional degrees—all contribute to educational attainment and will help boost economic prosperity.

Despite the clear need for an educated workforce, employers report increasing difficulty finding employees with the necessary skills to fill critical job openings.⁹ Washington, favored with a dynamic technology sector, is no exception. For these growing companies to thrive, Washington employers will need an increasingly skilled and educated workforce. By 2020, seventy percent of available jobs in Washington will require at least a postsecondary credential.¹⁰ However, only about 51 percent of the current adult population in Washington has completed a postsecondary certificate, apprenticeship, or degree.¹¹

A “business as usual” approach will not meet the needs of this growing and dynamic economy. The fastest-growing segments of the population—students of color, English language learners, returning adult students, students with dependents, and students with jobs—have traditionally been underserved in postsecondary education.¹² Our nation and our state are becoming more diverse, and our success depends on serving populations we have not adequately reached within our education system.

For the first time in U.S. history, the majority (50.2 percent) of individuals ages five and under are people of color.¹³ People of color comprised 28 percent of Washington’s population in 2010, up from 18 percent in 2000. During this period, the Hispanic/Latino population increased by 71 percent, the Asian population increased by 49 percent, and the number of people identifying as multiracial increased by 41 percent.¹⁴ These trends are projected to continue into the future.¹⁵

In addition, Washington's population is aging. The state forecast shows that the percentage of the population who are of *working age* (18–64) will drop from 64 percent in 2010 to under 57 percent by 2040, while the number of *dependents* (children and individuals 65 and older) will steadily grow.¹⁶

Adults are also working until an older age than in the past, with many in need of additional education and training to meet the demands of a changing economy. Knowledge and skill requirements continue to shift as workplaces become more complex, with new technologies, products, and services.¹⁷

These economic and demographic changes underlie the aggressive educational attainment goals recommended by the Council in 2013 and adopted by the 2014 Legislature.

Methodology

This report measures system-wide progress toward participation and attainment goals, based on three core measures:

1. High School Completion
2. Postsecondary Enrollment
3. Postsecondary Completion

Leading indicators, predictors of educational success for each of the core measures, help identify areas where state policymakers and Council partners can make an impact.

A Technical Work Group, composed of staff from the Student Achievement Council and partner agencies, reviewed a broad range of metrics, indicators, and data sources for each core measure.¹⁸ The indicators and progress metrics selected offered the best combination of research-based rigor and relevance to the Council's work (see Table A).

Table A

Core Measure	Indicators	Progress Metrics
High School Completion	<ol style="list-style-type: none"> 1. 9th Grade GPA 2. 9th Grade Course Failure Rate 3. Smarter Balanced Test Scores (Math, English) 	High School Graduation: <ol style="list-style-type: none"> 1. Graduation Numbers and Rates, Four-Year & Five-Year 2. Number of Alternate High School Diplomas
Postsecondary Enrollment	<ol style="list-style-type: none"> 1. Smarter Balanced Test Scores (Math, English) 2. FAFSA Completion (Free Application for Federal Student Aid) 3. College Bound Scholarship Applications 	Enrollments: <ol style="list-style-type: none"> 1. Apprenticeship 2. Two-Year Colleges (Public, Private) 3. Four-Year Institutions (Public, Private)
Postsecondary Completion	<ol style="list-style-type: none"> 1. Transition to College <ol style="list-style-type: none"> a. Transfer with a Transfer Degree b. Transfer without a Transfer Degree 2. Persistence <ol style="list-style-type: none"> a. Progress toward a Credential b. Retention Rates, by Level 	Postsecondary Awards: <ol style="list-style-type: none"> 1. Apprenticeship 2. Certificate 3. Two-Year Degree 4. Four-Year Degree 5. Graduate or Professional Degree

The selection of valid progress metrics and indicators depended on data availability, reliability, and comparability. The federal Integrated Postsecondary Education Data System (IPEDS) was the basis for the majority of postsecondary progress metrics because it follows a common data collection protocol and allows for comparisons between public- and private-sector institutions on a broad range of standard variables. Secondary and postsecondary agencies also provided administrative data for some measures, progress metrics, and indicators. Data disaggregation by age, race/ethnicity, income, gender, sector, and other factors are included for select measures.¹⁹ Estimates of statewide education participation and attainment are based on the U.S. Census' American Community Survey (ACS), as are comparisons of income, age, gender, and race/ethnicity variables.²⁰

PARTICIPATION AND ATTAINMENT: WASHINGTON'S POPULATION

The Council is charged with setting educational attainment goals and priorities to meet the state's evolving needs.²¹ In 2013, the Council submitted the first Roadmap report, which identified two educational attainment goals and recommended twelve strategies to reach the goals.²² The Roadmap's shared vision is intended to drive innovation and growth in Washington's education system.

In 2014, the Washington State Legislature adopted the goals, that by 2023:

- All adults in Washington, ages 25–44, will have a high school diploma or equivalent.
- At least 70 percent of Washington adults, ages 25–44, will have a postsecondary credential.

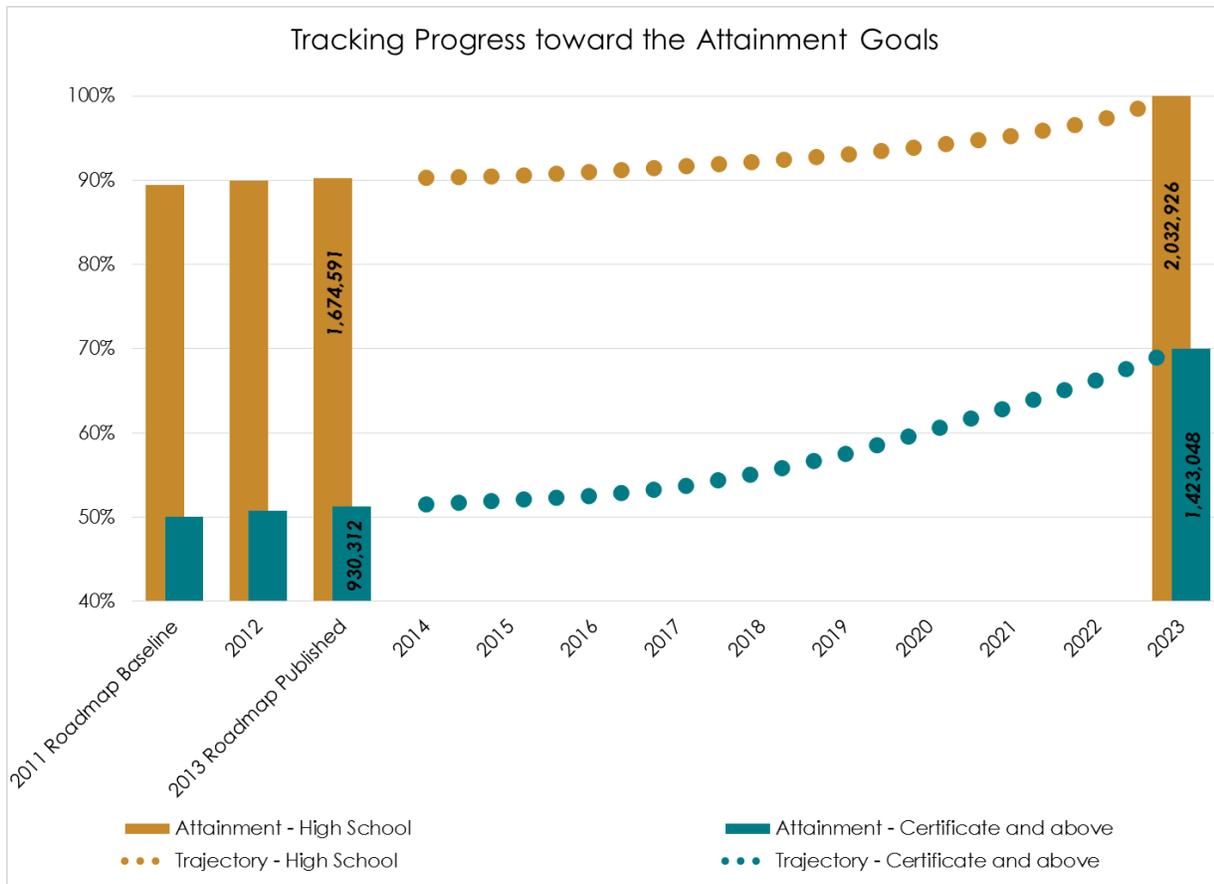
In the short time since the adoption of the goals, there have been modest increases in attainment: from 89 to 90 percent for high school graduation or equivalent, and from 50 to 51 percent for postsecondary attainment (see Figure A).^{23 a}

In order for the current rate of high school attainment to keep pace with population growth, an additional 155,000 Washington adults, ages 25–44, will need to earn a high school diploma or equivalent. To close the gap and meet our state's goal, yet another 205,000 will need to earn a high school diploma or equivalent. In sum, 360,000 more Washington adults will need to earn a high school diploma or equivalent by 2023 to keep pace with both population growth and workforce demand.²⁴

To meet the 70 percent postsecondary educational attainment goal, almost 500,000 more adults will need to complete a postsecondary credential by 2023. Of these, 86,000 would be required to keep pace with population growth. As we look at strategies to reach this goal, it is important to note that a significant portion of adults have some college credits but have not yet earned a credential. Sixty-eight percent of adults, ages 25–44, have at least some college but no credential, and sixty-one percent have a year or more of college.²⁵

^a Attainment of an associate degree or higher has increased from 42.6 percent in 2011 to 43.9 percent in 2013. Certificate estimates are based on a Georgetown University analysis that estimates a range from 4.9 percent - 11.3 percent of the population has a certificate as their highest level of attainment. In establishing the benchmark the Council chose a mid-point estimate of 7.4 percent, which yielded an attainment estimate of 50 percent in 2011. Using that same factor with 2013 data produces an estimate of 51.2 percent.

Figure A^b

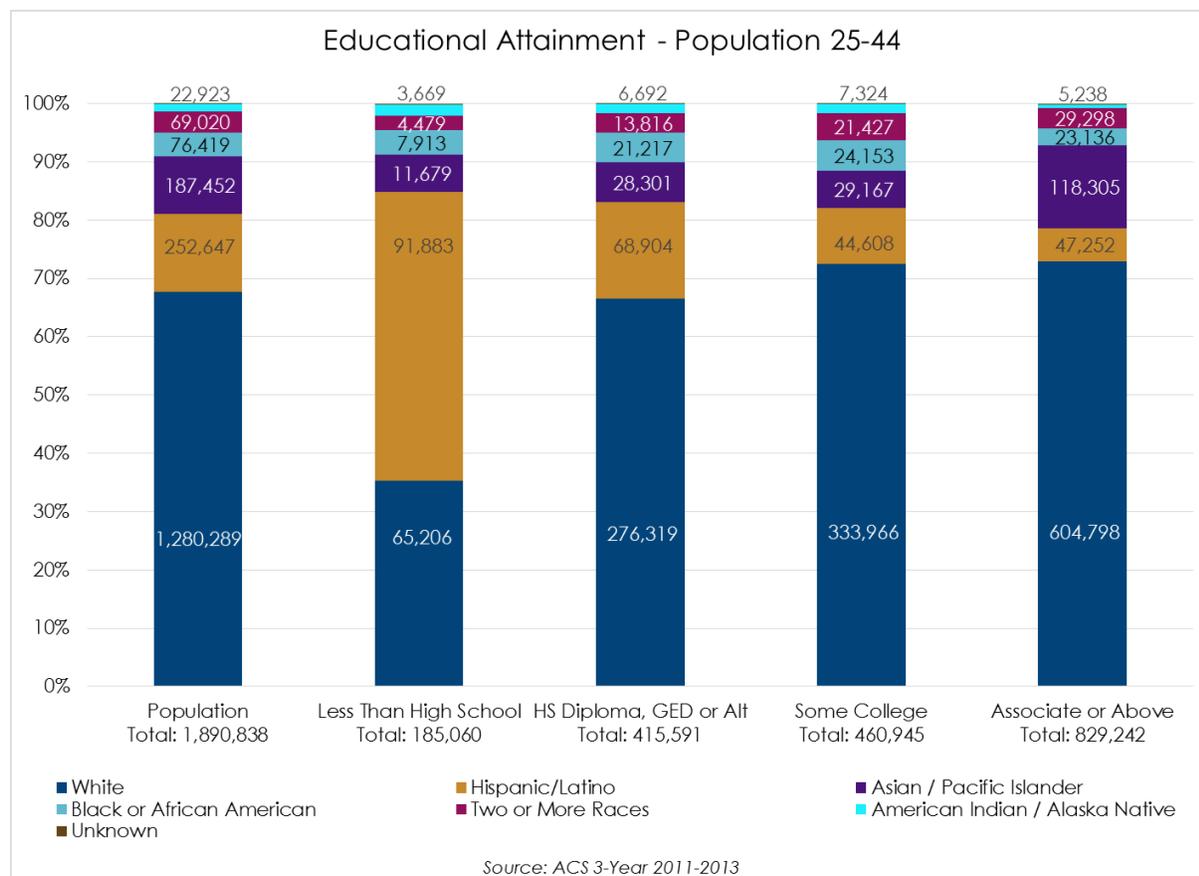


Participation and Attainment—Gaps Present Challenges

Attainment gaps reflect the differences between high school completion rates and the share of students who pursue and complete postsecondary education. The gaps vary by socioeconomic status, race, and ethnicity (see Figure B). For example, although Hispanic/Latino adults make up approximately 13.4 percent of the population ages 25–44, they make up nearly half the portion of this age group that has not completed high school or equivalent.²⁶ This presents a unique challenge and opportunity for improvement in our state, as the Hispanic/Latino population is large and rapidly growing in Washington.²⁷

^b Source

Figure B ^c



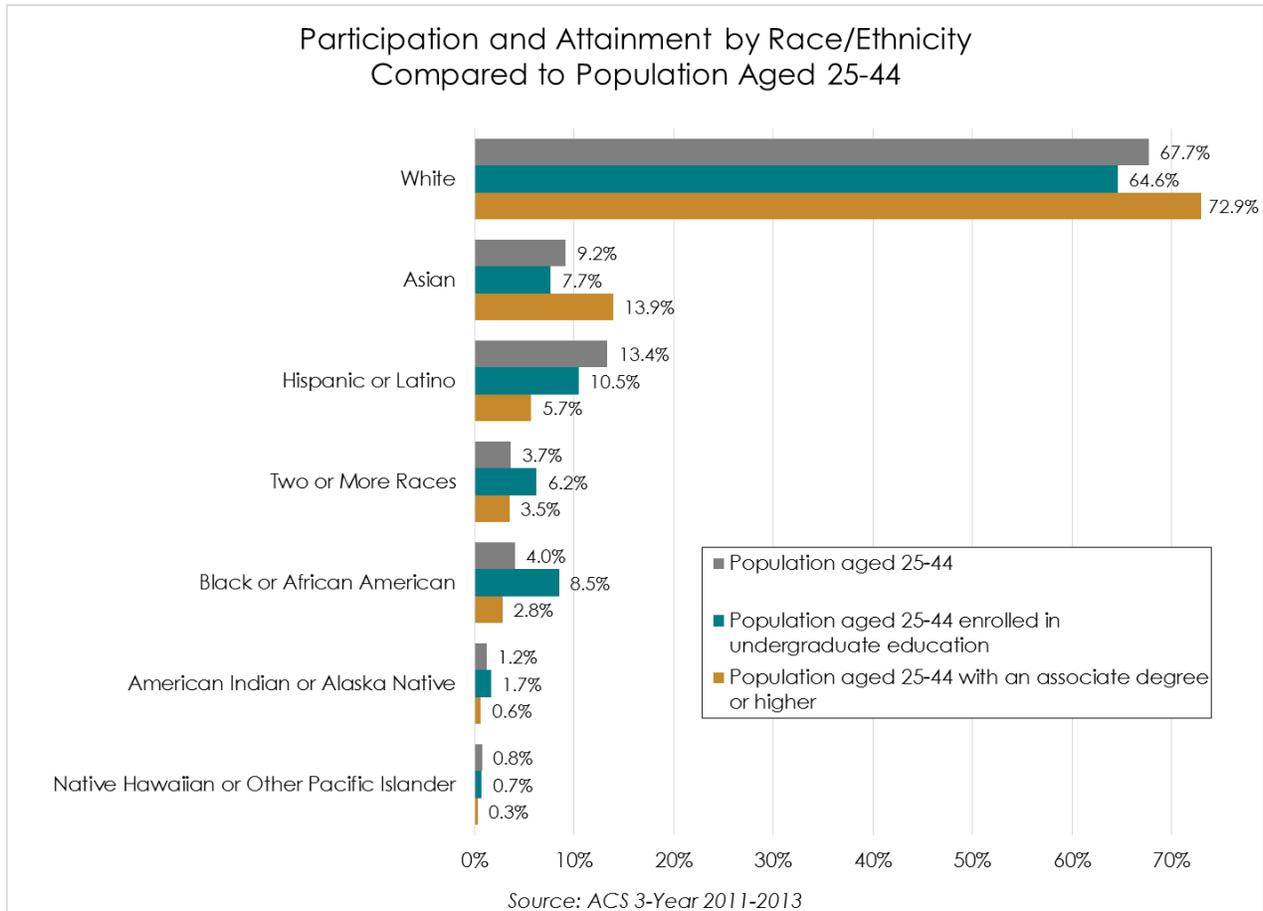
American Indian/Alaska Native students are similarly overrepresented among those without a high school diploma. Hispanic/Latino students and American Indian/Alaska Native students who do complete high school are less likely than all students to go directly from high school to postsecondary education (50 percent and 42 percent respectively). Low-income students are also less likely to make the transition to postsecondary education (49 percent).²⁸ African American graduates, on the other hand, transition from high school to college at the average rate of all students, as 62 percent transition directly to postsecondary institutions.^{29 30}

When comparing participation and attainment by share of the population, there again is considerable variation by race and ethnicity. As shown in Figure C, African American adults make up 4.0 percent of the population ages 25–44 but account for 8.5 percent of the enrollments among that same age group. However, postsecondary attainment remains low; only 2.8 percent of adults with an associate degree or higher are African American. Hispanic/Latino adults are underrepresented in both participation and attainment; they account for 13.4 percent of the population but only 5.7 percent of those with an associate degree or higher. A disproportionately larger share of White and Asian adults have already

^c Source

attained an associate degree or higher; therefore, these groups have lower participation rates.³¹

Figure C ^d



Adults without a postsecondary credential are a large and growing population critical to reaching the postsecondary attainment goal. Participation rates for 25- to 44-year-olds were roughly 6.5 percent in 2013, down from a five-year high of 7.3 percent in 2012.³²

Participation and Attainment—Implications

Achieving the state’s goals will not only require an expansion of postsecondary preparation, recruitment, access, and support efforts, but also a renewed commitment to serving adult students who need additional skills to contribute to and benefit from the state’s dynamic economy.

For traditional college-age students, particular attention needs to be given to those groups with lower rates of attainment. The kind of rapid increase in attainment depicted earlier in Figure A is only possible if we make significant progress in closing the educational

^d Source

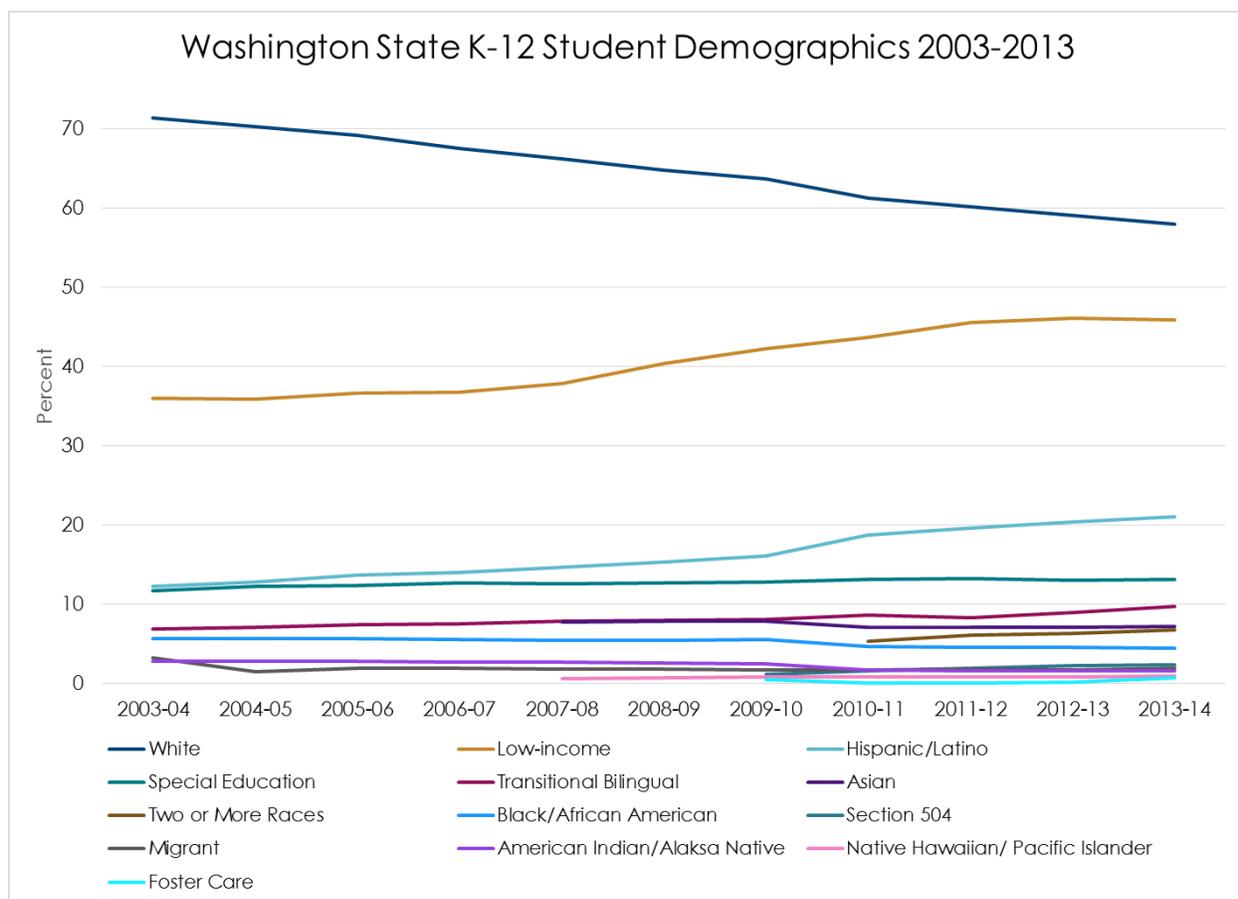
opportunity gaps these students face. That progress requires a combination of resources and focused effort both on adults and recent high school graduates.

HIGH SCHOOL COMPLETION

Achieving higher levels of attainment depends on the participation and advancement of students at each step in our state's education system, from early childhood through high school and postsecondary education. A high school diploma, which is the culmination of four years of academic work, is critical to determining a student's future educational attainment and career progression. In Washington, high school graduation rates increased by over 11 percentage points from 2003 to 2014.³³ The on-time graduation rate for the class of 2014 was 77.2 percent, compared to 65.7 percent in 2003.³⁴ Yet, in the past few years, the overall state graduation rate has remained fairly static and below the national average.³⁵ Although graduation rates for some underrepresented groups increased during the last decade, the rates for most racial/ethnic groups and special populations have remained lower than the average for all students.

At the same time, state demographic shifts are resulting in a more diverse K-12 student body, with considerable growth in some racial/ethnic groups and student categories. In 2013, the three largest minority demographic groups among students were: 1) low-income (46 percent), 2) Hispanic/Latino (21 percent), and 3) special education (13 percent).^{36 37} All three of these student populations have increased over the last ten years (see Figure D); however, graduation rates for these groups remain lower than the state average.³⁸

Figure D^e



Factors Influencing Graduation

Research shows there are three major factors that influence high school graduation:³⁹

1. Economic and demographic factors, such as socioeconomic status, family characteristics, race/ethnicity, and disability status.
2. Student experiences, such as peer influence and teacher expectations.
3. Performance and engagement, particularly in 9th grade, such as attendance or absenteeism, course failure, and grade point average.

These factors are important for all students, but their combined effects on graduation and future educational attainment are more pronounced for some demographic groups.

High School Completion—Data Analysis

^e Source

While high school graduation rates in Washington have increased considerably over the last decade, four- and five-year graduation rates have changed only slightly over the past few years, increasing by around one percentage point between 2013 and 2014 (see Table B).⁴⁰ The number of students graduating from high school has also increased slightly.⁴¹

Table B

Progress Metric	High School Completion		
	2012	2013	2014
4-year graduates	60,552	60,475	60,680
4-year graduation rate	77.2%	76%	77.2%
5-year graduates	64,520	63,955	64,083
5-year graduation rate	78.9%	78.8%	79.9%
Alternate credentials (high school equivalent)	14,845	17,681	2,849
High school diplomas from two-year colleges	1,500	1,683	2,008
High school diplomas awarded after associate degree	707	687	758
Total	17,052	20,051	5,615

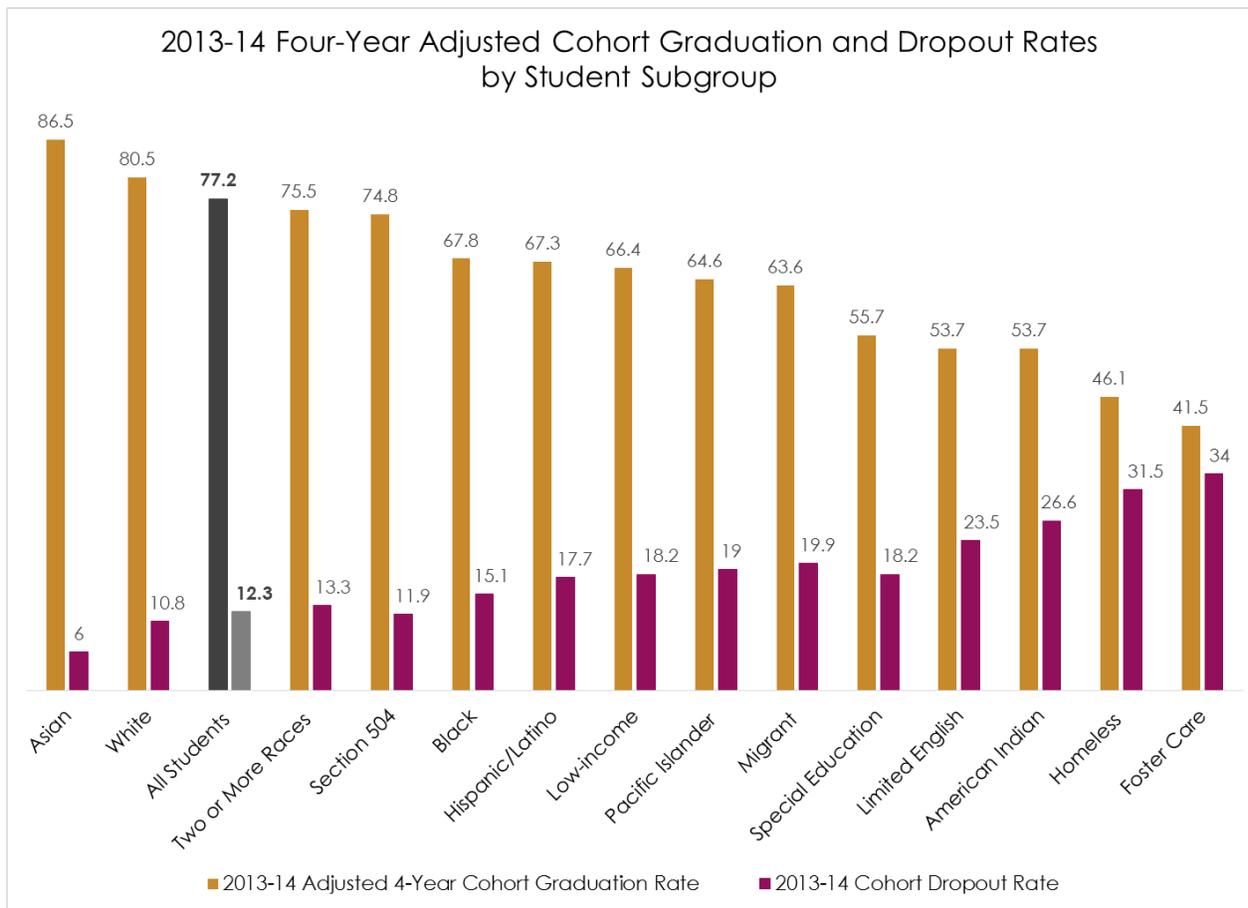
Table B also shows the number of individuals who have completed an alternate high school credential by passing the High School Equivalency Exam at a state testing center, at a public two-year college, or in conjunction with earning an associate of arts degree.⁴² The majority of those who complete alternative high school credentials are adults. The total number of alternate credentials increased between 2012 and 2013, then declined sharply in 2014.^f

Annual high school graduation rates vary considerably across demographic categories (see Figure F).⁴³ These data underscore that for many students of color, for special education students, for English language learners, and for students who are low income, homeless, or in foster care, graduation rates are low when compared to the rate for all students.⁴⁴ Figure

^f Data provided by the State Board for Community and Technical Colleges (SBCTC), 2015 (October). SBCTC maintains and tracks all alternate diploma data for Washington. SBCTC staff analysis suggests that the transition to a new, more rigorous, and more costly test may have contributed to the sharp increase in awards near the end of 2013. These changes, along with an improving economy and job market, may also be associated with the steep drop in awards through state testing centers in 2014, when the new test was implemented. There is some evidence of a national decline in alternate high school credentials in 2014. See: <http://www.npr.org/sections/ed/2015/01/09/375440666/a-sizable-decrease-in-those-passing-the-ge-d>

F also shows that dropout rates for these populations are typically higher than for all students.^g

Figure F ^h



High School Completion—Leading Indicators

Beyond demographics, research shows that there are a wide range of other factors that contribute to success in high school.⁴⁵ These factors, sometimes defined as *leading indicators*, typically include grade point average, course completion rates, and test scores.⁴⁶

Student Success in 9th Grade

The 9th grade has been identified as an especially important period for students, and several 9th grade measures have proven to be useful indicators of high school success and completion.⁴⁷ Research has often described 9th grade as a "make or break" year. More

^g For instance, Hispanic/Latino students comprise one of the state's fastest-growing racial/ethnic groups, yet the graduation rate for this group is nearly 10 percentage points below the rate for all students, and the dropout rate is well above the all-student rate.

^h Source

students fail 9th grade than any other grade in high school, and a disproportionate number of students who are held back in 9th grade subsequently drop out.⁴⁸

Grade Point Average in 9th grade

Grade Point Average (GPA) in 9th grade can be a leading indicator of student performance and high school completion. Research generally shows that students who earn a 2.0 GPA or lower in their freshman year have lower graduation rates and should be considered at risk for dropping out.⁴⁹ Though the average 9th grade student GPA increased slightly from 2.59 in 2012 to 2.68 in 2014, GPAs for 9th graders from underrepresented racial and ethnic groups were lower than the average for all students.⁵⁰ Low-income, bilingual, and special education students also had lower GPAs compared to the average for all students.⁵¹

9th Grade Course Failures

Performance in core academic courses is another useful indicator of high school completion. Course failures and associated lack of credit accumulation can combine to put students off track for graduation.⁵² As might be expected, the GPAs of students who fail at least one core course in math, English language arts, or science are considerably lower than for all students. Further analysis of these data shows that nearly 26 percent of 9th grade students in Washington failed at least one core academic course during the 2014 academic year.⁵³ Because of the link to high school completion, tracking the proportion of students who fail to pass core courses provides a useful early warning indicator.

Smarter Balanced Assessments

Test scores from state assessments provide another useful indicator of student success and high school completion. The Smarter Balanced Assessments (SBA) system measures student performance against new, more difficult academic standards known as *Common Core*.⁵⁴ As the 2015 SBA scores provide the baseline for student assessments and future comparisons, there has been much interest in how students would perform on the new assessments. For the Roadmap, SBA student performance in 8th grade English and math were selected as the preferred indicators for high school graduation.⁵⁵

The 2015 results are promising. Student scores exceeded those generated during field tests in 2014.⁵⁶ With the exception of 11th grade math, Washington students who took the Smarter Balanced tests generally scored higher in mathematics and in English Language Arts than predicted.⁵⁷ Compared to the 2014 field test scores, 8th graders scored 16 percentage points higher in math and 17 points higher in English (see Table C).⁵⁸

Table C

Smarter Balanced Assessment Scores Percent Proficient (level 3 or 4)	2014 Field Test	2015 Operational Test
8th Grade Math	32%	48%
8th Grade English	41%	58%

High School Completion—Implications

Washington’s changing demographics reveal opportunity gaps in K-12 education. Without a concerted effort to improve completion rates for all students, Washington runs the risk of seeing its overall graduation rate decline. The state cannot reach its overall attainment goals if the opportunity gap persists.

Despite these gaps, the past ten years offer some hope. Washington’s graduation rate rose because of greater attention paid to the needs of growing student populations that have not been traditionally well-served in the education system.

Washington can rise to the challenge to support excellent schools and increased high school completion. Knowledge about critical junctures in students’ progression toward graduation helps in tailoring policies that reduce or eliminate barriers. Further, the early success of programs like the College Bound Scholarship shows that the “pull” of college and postsecondary pathways can work together with the “push” of dropout prevention programs to help all students succeed.

POSTSECONDARY ENROLLMENT

Postsecondary enrollment data represent the overall participation of individuals in our state’s postsecondary education system. Enrollment patterns reveal who transitions successfully through the educational pipeline and who does not. As noted earlier, some people of color and low-income students are less likely to make the transition from high school to postsecondary education compared to all students.⁵⁹

Recent high school graduates must learn to successfully navigate a myriad of postsecondary choices, structures, and systems; weigh and manage financial decisions; and gauge their own readiness and commitment to pursuing and completing a postsecondary program. For some, especially those who have been underrepresented in postsecondary education, the combination of social, academic, and economic considerations can seem overwhelming.⁶⁰

Recent high school graduates are a large and important source of enrollments; however, the enrollment of adult students is also critical to reaching the attainment goal. Many adult

students face additional enrollment challenges, including the need to prioritize time and resources related to responsibilities for family, dependents, work, and career transitions.⁶¹

Postsecondary Enrollment—Data Analysis

Changes in student enrollments across Washington institutions provide a useful snapshot of shifts in the postsecondary pipeline. Table E shows comparable data for statewide enrollments by institution type and degree level.⁶² Overall, there was a slight decrease (-2.6 percent) between 2011 and 2013, for a total decline of 10,000 enrollments. A summary by institution type is provided below.

- All public and private two-year institutions combined experienced a decline of more than 12,000 enrollments (-5.9 percent), which led the decline among all institutions. Institutions that offered less than two-year degrees, which served a relatively small number of students, also saw moderate enrollment declines (-5.4 percent).⁶³
- As a group, all public and private four-year institutions saw a gain of 2,700 undergraduate enrollments (2.1 percent), while graduate enrollments fell slightly (-0.6 percent).
- Enrollment at two- and four-year private, for-profit institutions dropped more steeply (-16 percent to -21 percent) than at all other types of institutions.

Annual apprenticeship enrollments grew by 2,032 (83 percent) between 2011 and 2014.⁶⁴

Table E

Institution Type and Level	Fall 2011		Fall 2012		Fall 2013		Percent Change
	Number	Percent*	Number	Percent*	Number	Percent*	
Total	379,184	100.0%	371,986	100.0%	369,182	100.0%	-2.6%
Under Two-Year Institutions (all)	4,369	1.2%	5,011	1.3%	4,134	1.1%	-5.4%
Two-Year Institutions (all)	207,200	54.6%	197,700	53.1%	194,941	52.8%	-5.9%
Four-Year Institutions— Undergraduate (all)	131,669	34.7%	133,384	35.9%	134,385	36.4%	2.1%
Four-Year Institutions— Graduate (all)	35,946	9.5%	35,891	9.6%	35,722	9.7%	-0.6%

*Of annual total

Below are selected highlights based on several demographic variables.⁶⁵

Age

Students ages 18–24 accounted for 62 percent of total enrollments in 2013. For this age group, enrollments increased by more than 4,500 (2 percent) between 2011 and 2013. In fact, enrollments for this age group increased for all sectors except private for-profits, where there was a decrease of nearly 950 (-12 percent). For students ages 25–39, overall enrollments decreased by 8,300 (-7.8 percent) across all sectors, while enrollments for those ages 40 or older decreased by over 5,400 (-12.3 percent). Taken together, enrollments for students ages 25 years and older—which account for nearly 38 percent of all enrollments—declined by almost 14,000 during the reporting period.

Race/Ethnicity

All institution types demonstrated increases in enrollments for some student groups. Those classified as Hispanic/Latino grew by nearly 4,600 (15 percent), while international student enrollments grew by 3,750 (23 percent).⁶⁶ These trends generally held across institution type and program level.⁶⁷ Apprenticeship enrollments increased for several racial/ethnic groups between 2011 and 2014, especially African American and Hispanic/Latino students. White students comprised the largest racial/ethnic group for apprenticeship, at 73 percent of total enrollments in 2014.⁶⁸

Gender

There were slight enrollment decreases for women (-3.2 percent) and men (-2 percent) for the reporting period. Women continue to enroll in colleges and universities in greater numbers than men, typically by over 10 percentage points; however, men accounted for 90 percent of apprenticeship enrollments in 2014.⁶⁹

Postsecondary Enrollment—Leading Indicators

Indicators of postsecondary enrollment include Smarter Balanced Assessment scores, FAFSA completion, and College Bound Scholarship sign-ups.⁷⁰

Smarter Balanced Assessments (SBA)

As with high school completion, test scores from grade-level assessments provide a useful indicator for postsecondary enrollment. As noted earlier, the 2015 SBA scores will now provide the baseline for student assessments and future comparison.⁷¹

FAFSA Completion

The availability of financial aid is an important indicator for college enrollment, especially for low-income students who might not otherwise be able to afford a postsecondary education. One useful indicator of student interest and need is the number of individuals

completing the Free Application for Federal Student Aid (FAFSA), which is required in order to receive federal financial aid.

Data from the U.S. Department of Education show that FAFSA completions in Washington climbed steadily between 2008 and 2013 to more than 510,000, a 63 percent increase.⁷² The rate of growth in completed applications has tapered off since 2013, but overall FAFSA completions have remained at a high level.

College Bound Scholars (Sign-Ups)

A second financial indicator for enrollment is the number of 7th and 8th grade students who sign up for Washington's College Bound Scholarship program (CBS). CBS provides an early promise of financial aid to low-income students who want to pursue postsecondary education but face financial barriers.

Nearly 220,000 students have signed up for CBS since the program was launched in 2007, and four cohorts of students are now enrolled in college. The rate of eligible students signing up has increased 34 percentage points since the program began, from 57 percent to 91 percent this year. Sign-ups are expected to remain at a high level, and nearly 16,000 students are expected to receive the scholarship in 2016-17. With expanded CBS participation and support, it is anticipated that many more students will enroll in college.⁷³

Postsecondary Enrollment—Implications

The slight decline in overall enrollment obscures the substantial drop in enrollment of students ages 25 and older. This is not surprising, as enrollment for older students is highly correlated to the economy. When unemployment increases, so too does enrollment, particularly in the two-year sector. When the economy improves, as it did between 2011 and 2013, enrollment typically recedes.⁷⁴ The one exception is apprenticeships, where an improving economy enables employers to create new training slots for apprentices.

The recovering state economy also meant new employment opportunities, and many individuals who returned to work were more employable due to their participation in postsecondary programs, even if they did not complete a credential. But relatively few of those unemployed were able to secure jobs with wages or benefits that were equivalent to those they had lost.⁷⁵

Our state's shifting economic cycles will continue to affect future enrollment patterns. However, in order to meet our state goals and maximize the benefits of postsecondary education to individuals and the state, the challenge is to change this all-or-nothing enrollment pattern and to make it easier for working adults to accumulate credit and complete a credential *while* they're employed.

Enrollment of traditional college-aged students, directly from high school, actually increased. This is a positive sign given that the number of on-time graduates

decreased slightly, and also because these recent graduates were increasingly from groups underrepresented in postsecondary education. For example, while postsecondary enrollment is still less likely for Hispanic/Latino students, the growth in Hispanic/Latino enrollment is encouraging.⁷⁶

POSTSECONDARY COMPLETION

Completion of a postsecondary credential is both an individual accomplishment and a contribution to the state's educational attainment goals. For students, completion marks not only an end, but also a new beginning, whether it be employment, career advancement, or personal growth. Those who do complete a postsecondary credential are more likely to be employed and typically earn higher wages.⁷⁷

But completing a postsecondary credential can be difficult, and some groups of students complete at lower rates than others and take longer to do so. In many instances students begin their postsecondary education without the knowledge and skills needed for success. These students start at a disadvantage and may require remedial coursework, which can leave them at greater risk of non-completion.⁷⁸

Precollege coursework is nonetheless a critical pathway for many students. In 2013, fifty-four percent of those who enrolled at Washington's public community and technical colleges, and seven percent who enrolled at the state's public baccalaureate institutions, took remedial math, English, or both.⁷⁹ Many students who take precollege courses do persist and complete postsecondary credentials. Fifty-five percent of bachelor's degree completers who began their postsecondary education in a community or technical college (CTC) started in a precollege English or math course. Among graduates who began at a CTC, 43 percent of STEM graduates and 53 percent of business graduates took precollege math.⁸⁰

Working adults, students of color, and other underrepresented populations often face additional challenges, leading to lower completion rates. Shifting economic conditions can also influence student persistence and time to completion. In Washington, 700,000 individuals ages 17–54 have attended college and earned credits but left with no degree. Around two-thirds of these individuals have earned the equivalent of one year or more of college credits.⁸¹

Postsecondary Completion—Data Analysis

Table F shows comparable data for statewide postsecondary awards by all institutions and credential award types. Overall, there was an increase of more than 2,200 credential awards between 2011 and 2013 (2.7 percent).⁸² However, a closer inspection of the data shows that the distribution across award type varied considerably:

- Associate degrees had the largest increase in percentage of degrees awarded, with a gain of over 2,200 (8.3 percent). Bachelor's degrees accounted for the second-largest volume increase at nearly 1,400 awards.
- Certificate awards declined by more than 1,200, though almost all of this decrease can be attributed to private, for-profit institutions.⁸³
- The number of master's degrees decreased slightly, while doctoral degree awards marginally increased.

Statewide apprenticeship completions (not shown) decreased by more than 42 percent between 2011 and 2014, from 1,852 to 1,068 awards.⁸⁴

Table F

All Institutions and Award Types	2010-11		2011-12		2012-13		Percent Change 2011-2013
	Number	Percent	Number	Percent	Number	Percent	
Total	83,279	100.0%	85,608	100.0%	85,527	100.0%	2.7%
Certificates⁸⁵	12,705	15.3%	12,099	14.1%	11,437	13.4%	-10.0%
Associate Degrees	27,045	32.5%	28,977	33.8%	29,281	34.2%	8.3%
Bachelor's Degrees	31,294	37.6%	32,376	37.8%	32,689	38.2%	4.5%
Master's Degrees	9,830	11.8%	9,595	11.2%	9,519	11.1%	-3.2%
Doctoral Degrees	2,405	2.9%	2,561	3.0%	2,601	3.0%	8.1%

Below are selected highlights based on several demographic variables.

Age

The 18-24 age group (which represents 50 percent of all recipients) had the greatest overall increase in awards between 2011-12 and 2012-13, with a gain of over 3,000 (7.9 percent). Bachelor's degree recipients accounted for around two-thirds of this increase. The two other age groups combined (25-39, and 40 or over) saw a slight increase in the number of award recipients (750).

Race/Ethnicity

Completions increased for Hispanic/Latino recipients (11 percent) and international student recipients (14 percent). There was an increase of approximately 600 award recipients in each of these groups. Changes in other racial/ethnic groups were slight.⁸⁶ The demographic trend for awards was generally consistent across degree and institution type. For apprenticeships, students of color comprised 21 percent of all completions in 2014.⁸⁷

The overall decline in apprenticeship completions was generally proportional across racial/ethnic categories.

Gender

There was a slight increase in the numbers of both men and women who received credentials. Changes in the proportionality of awards by gender were negligible. For apprenticeships, less than eight percent of total awards went to women.⁸⁸

Postsecondary Completion—Leading Indicators

Indicators of postsecondary completion include student retention and postsecondary transition and transfer.⁸⁹

Student Retention

Retention rates compare the fall-to-fall continuation of student cohorts from one year to the next.⁹⁰ Overall, retention rates changed only slightly or remained flat between 2011 and 2013:

- For private two-year institutions (nonprofit and for-profit combined), retention rates increased by two percentage points, to 73.4 percent.⁹¹ The rate for private nonprofits was 77.3 percent, and among for-profit institutions the rate was 72.9 percent.
- For all four-year institutions, retention rates remained nearly flat at 84.1 percent. Rates for public four-year institutions declined 1.3 percentage points, to 83.7 percent. Rates for private nonprofits increased 1.9 percentage points, to 85.9 percent.
- Retention rates at institution types with fewer enrollments varied considerably.

Student Persistence at Public Two-Year Institutions

Because a standard measure of retention is not currently available through IPEDS, an alternate measure of retention is used for students at public two-year institutions. This persistence measure shows the progression of new students toward a credential.

The measure compares full-time, award-seeking students who enrolled in the fall of a given year to the number of students who earned a credential or who were retained and passed one or more college-level milestones by their second year of enrollment. By that measure, between 2012 and 2014, student persistence rates at public two-year institutions increased slightly to 62 percent.⁹²

Postsecondary Transfer

This measure tracks the transition of students from public two-year colleges to four-year institutions. Some students enroll in two-year colleges with the intention of transferring to

a four-year institution after completing an associate degree. Under a Direct Transfer Agreement (DTA) or similar agreement, the four-year college agrees to accept a student's earned credits and apply them toward completion of a four-year program. Non-DTA students are those who may not have originally intended to transfer to a four-year institution but later decide to do so.

Students who completed a public two-year transfer degree transferred to four-year institutions at a much higher rate than students who did not complete a transfer degree. Public two-year college data show that the number of students who completed a transfer degree and successfully transferred to a four-year institution within a year increased slightly (3.2 percent) between 2012 and 2014, to over 6,850 students. The overall rate of successful transfers from this group remained flat at 51 percent.⁹³

Students successfully transferring to a four-year institution without completing a transfer degree declined by 4.7 percent during the same period, to 8,400 students. The transfer rate for these students grew one percentage point to 19 percent.⁹⁴

Postsecondary Completion—Implications

The gradual increase in awards is a good sign, particularly given the lack of growth in high school graduates. These gains have extended to traditionally underrepresented groups, indicating the attainment gap is not widening. But gaps persist, and the decline in postsecondary enrollment is of concern. As with enrollments, awards to older students dropped off as the economy improved.

Washington cannot passively meet its attainment goals through demographic changes alone. Similarly, there are not enough 18- to 24-year-olds to reach the goals from increased graduation and enrollment rates among this group of younger adults. To meet our state's educational attainment goals, more adults must enroll in postsecondary education or training and persist to complete a credential.

CHALLENGES

Washington faces two primary challenges to meeting its ambitious attainment goals. The first is demographic, with an increasing share of the school-age population and high school graduates coming from populations who face educational opportunity gaps. The number of Hispanic/Latino high school graduates increased by 27 percent from 2009 to 2014. That figure is projected to rise over the next decade, increasing an additional 35 percent by 2025 to over 13,000, accounting for the majority of growth in total graduates.⁹⁵

The second challenge is how economic cycles affect postsecondary enrollment. As the economy improves, it is difficult to retain returning adults. Individuals who complete some

college but not a credential do benefit, and many find gainful employment. But those who enroll and complete a credential—especially at the associate degree level or above—earn considerably higher wages and experience much lower rates of unemployment.⁹⁶

Washington’s enrollment growth during the recession outpaced the national average, but other states have since caught up.⁹⁷ The community and technical college system has a concentration of workforce programs, tying its enrollment more closely to the business cycle than in many other states. While the decline in community college enrollment reflects economic improvement, it is a problematic sign for the attainment goal.

Reaching the state’s attainment goals will require a renewed commitment to serving adult students. Identifying gaps and targeting additional support should improve enrollment and attainment for older students.⁹⁸ Reaching the last ten percent of the population without a high school diploma or equivalent poses a serious challenge. Although working adults without a postsecondary credential—many of whom have some college—should be encouraged to finish their education, full-time enrollment on campus may not be an option for many of these individuals. Identifying affordable, high-quality programs can be difficult for returning adults who are balancing the needs of work and family. The state must advance policies and programs that increase support for this population.

The 2013 Roadmap outlined strategies necessary to make progress toward reaching the educational attainment goals. Despite key investments and targeted initiatives, progress so far indicates a need for additional action to meet the goals by 2023.

OPPORTUNITIES

These are daunting challenges, but they can be overcome. Increased state commitments to early childhood education will enhance the pipeline of new learners, while substantial and strategic investments in K-12 and postsecondary education can help reduce the opportunity gap and expand capacity to serve more students. Helping students bridge the gap between secondary and postsecondary education will raise high school graduation rates and postsecondary participation rates—two areas where Washington lags behind national averages. Moreover, new initiatives aimed at older, nontraditional students will accelerate progress toward the state’s attainment goals.

Multiple strategies can fundamentally change the high school graduation rates for all students and close the opportunity gap.⁹⁹ Timely student support can be pivotal in ensuring students graduate from high school and are college ready. Efforts to increase high school completion, college readiness, and access to postsecondary education must expand. Many existing state-level strategies have proven results:

- The OSPI GATE (Graduation: A Team Effort) initiative to increase student engagement has the goal of increasing high school graduation rates.¹⁰⁰

- Dual enrollment can help students get college credit while still in high school and can demystify college in the process.
- The College Bound Scholarship program alleviates higher education costs for low-income students and is associated with increased high school graduation rates.¹⁰¹
- The nationally recognized I-BEST program integrates adult basic education and workforce programs to support adult basic education students transitioning to college-level work and successful employment.¹⁰²
- The State Need Grant—Washington’s flagship college access program—serves both traditional students and returning adults. The State Need Grant improves access and success for students of all ages.¹⁰³
- Our higher education institutions have implemented many strategies to meet adult workers’ needs, such as expanding local higher education centers, branch campuses, and e-learning options, and providing credit through competency-based education.¹⁰⁴

Implementation of new student support initiatives and expansion of proven strategies (such as those listed above) are critical to making measurable progress on state attainment goals.

There are many examples of successful partnerships with industry that advance educational attainment. Workforce programs at community and technical colleges receive guidance from industry committees to ensure their programs are up to date with the latest skill and technology requirements. The Opportunity Scholarship is a public-private partnership that provides scholarships for students pursuing STEM and high-demand fields. K-12 schools and districts engage with local businesses to support career exploration. Still, many opportunities exist to expand active industry engagement.

Further Action Is Needed

The results in this Roadmap Update highlight the magnitude of the challenges. Early findings show our overall attainment gain is too low to meet the state’s goals by 2023. In addition, due to changes in the economy and population, enrollment levels have dropped. These are serious challenges, and this report makes clear that the attainment goals will be beyond reach without substantially higher levels of postsecondary enrollment and completion. We cannot wait until the last years of high school to promote postsecondary enrollment, nor can we wait for the next cyclical surge in nontraditional enrollment.

Two areas need particular attention:

1. High school completion and postsecondary access and completion for historically underserved and underrepresented populations.
2. Postsecondary recruitment, retention, and completion for working-age adults.

One striking implication of this report is that the state made progress in high school graduation despite a dramatic change in the K-12 population. This is an example of how a sustained effort can make a real impact.

Further action is needed across the spectrum of K-12 transition and postsecondary education policies, investments, and innovations. As we collect more data on our Roadmap measures, we will have an increasingly robust research foundation to inform strategies and actions for the future.¹⁰⁵ By leveraging the opportunities available, by responding effectively to challenges, and by making the necessary investments, the state can more successfully progress toward its educational attainment goals.

DRAFT

SOURCES

- ¹ State statute directs the Washington Student Achievement Council (WSAC) to propose ten-year educational attainment goals and to provide progress reports every two years. In alternating years, WSAC produces a short-term strategic action plan for meeting those goals. WSAC first proposed the ten-year goals in the 2013 Roadmap Report. The 2014 Legislature approved the state's Roadmap Goals for 2023 (RCW 28B.77.020).
- ² The 2013 Roadmap recommended 12 strategies to improve postsecondary access, focus on student learning, and adapt to the changing needs of the future. See: <http://www.wsac.wa.gov/the-roadmap>.
- ³ WSAC is working with sector members on the Council and other partners to develop an asset map that includes a sampling of initiatives that aim to increase educational attainment. Link pending.
- ⁴ WSAC's 2016 Legislative agenda. See: <http://www.wsac.wa.gov/legislative-work>. Pending.
- ⁵ Carnevale, A., Smith, N., & Strohl, J. (2013). *Recovery: Job growth and education requirements through 2020*. Washington, D.C.: Georgetown Public Policy Institute, Center on Education and the Workforce.
- ⁶ Ibid.
- ⁷ Gardner, Phillip D. (2015). *Rapid Growth in Job Opportunities for College Graduates in 2014-15*. College Employment Research Institute, Michigan State University, Lansing, MI. Retrieved from http://msutoday.msu.edu/_/pdf/assets/2014/recruiting-trends-2014-15.pdf.
- ⁸ Workforce Training and Education Coordinating Board. (2012). *High Skills High Wages: Washington's 10-Year Strategic Plan for Workforce Development*. Retrieved from: <http://www.wtb.wa.gov/Documents/HSHW2012StrategicPlan.pdf>.
- ⁹ The Boston Consulting Group and the Washington Roundtable (2013). *Great Jobs Within our Reach: Solving the Problem of Washington State's Growing Job Skills Gap*. Retrieved from: <https://www.google.com/url?q=http://www.warountable.com/waskillsgap>. Also: Workforce Training and Education Coordinating Board. (2013). *Washington Employer Survey: A Survey of Employer Needs and Practices*. Retrieved from: <http://www.wtb.wa.gov/Documents/Employersurvey2012-Summary.pdf>.
- ¹⁰ Carnevale, A.P., Smith, N., and J. Strohl. (2013) *Recovery: Job Growth and Education Requirements through 2020*. Georgetown University Center on Education and the Workforce, Washington, DC.
- ¹¹ Washington Student Achievement Council Analysis of 2011-13 American Community Survey Washington data set.
- ¹² Complete College America (2011). *Time is the Enemy: The Completion Shortfall, 2011 National Report*. (September).
- ¹³ U.S. Census (2015). Millennials Outnumber Baby Boomers and Are Far More Diverse, Census Bureau Reports. June 25. <https://www.census.gov/newsroom/press-releases/2015/cb15-113.html>.
- ¹⁴ State Board for Community and Technical Colleges (2014). *Community and Technical College Student access and Success by Race/Ethnicity and Socioeconomic Status 2014 Progress Report*. Retrieved from http://www.sbctc.ctc.edu/college/education/resh_rpt_14_1_student_access_and_success_000.pdf.
- ¹⁵ EMSI (2015). *Forecast of Total Washington Population by Race/Ethnicity*.
- ¹⁶ Washington State Office of Financial Management, Forecasting and Research Division (2015). *Preliminary State Population Forecast 2010-2040*. Supplemental presentation, November 4. Retrieved from <http://www.ofm.wa.gov/pop/stfc/>.
- ¹⁷ Van Horn, C. E., Krepcio, K., and Maria Heidkamp. (2015) *Improving Education and Training for Older Workers*. John J. Heldrich Center for Workforce Development, Rutgers, The State University of New Jersey, AARP Public Policy Institute, Washington DC.
- ¹⁸ For a summary of the research on progress metrics and indicators associated with high school completion and postsecondary success considered for this report, see: Ritter, B. (2015). *Factors Influencing High School Graduation*. Retrieved from <http://www.wsac.wa.gov/reports-and-publications>. See also: Washington

Student Achievement Council (2015). *Postsecondary success: Issue brief*. August. Retrieved from <http://www.wsac.wa.gov/reports-and-publications>.

¹⁹ To access the disaggregated tables produced for this report, see the online Data Workbook; Pending.

²⁰ There are inherent limitations to any data source, and these limitations can constrain the research design, range of variables, and analysis; some of those limitations are noted in the report. Interested readers may wish to contact the data source providers or review available technical documentation for more information.

²¹ State statute: RCW 28B.77.020.

²² The 2013 Roadmap recommended twelve strategies to would improve postsecondary access, focus on student learning, and adapt to the changing needs of the future. See: Washington Student Achievement Council (2013). *The Roadmap: A Plan to Increase Educational Attainment in Washington*. Retrieved from <http://www.wsac.wa.gov/the-roadmap>

²³ Sources: Washington Student Achievement Council Analysis of 2009-11 and 2011-13 American Community Survey Washington data set. Certificate data from: Carnevale, A. et al. (June 2012). *Certificates: Gateway to Gainful Employment and College Degrees*. Georgetown University Center on Education and the Workforce. Retrieved from: <https://cew.georgetown.edu/report/certificates/>.

²⁴ Washington Student Achievement Council Analysis of Washington Population Forecast November 2012.

²⁵ Washington Student Achievement Council Analysis of 2011-13 American Community Survey Washington data set.

²⁶ Ibid.

²⁷ Office of Financial Management (2014). *Population by Race and Hispanic Origin: 2010 and 2014*. Executive Summary. Retrieved from http://www.ofm.wa.gov/pop/asr/sade/ofm_pop_race_2000_and_2014_summary.pdf.

²⁸ Education Research and Data Center. High School Feedback Report. Retrieved from <http://www.erdcddata.wa.gov/hsfb.aspx>.

²⁹ Ibid.

³⁰ A discussion of the barriers these students face and strategies being employed to address these barriers is provided in Ritter, B. (2015). *Factors Influencing High School Graduation*. Retrieved from <http://www.wsac.wa.gov/reports-and-publications>. See also: Washington Student Achievement Council (2015). *Postsecondary success: Issue brief*. August. Retrieved from <http://www.wsac.wa.gov/reports-and-publications>.

³¹ Ibid.

³² Washington Student Achievement Council Analysis of 2011-13 American Community Survey Washington data set.

³³ The method used to calculate graduation rates changed in 2012 due to federal reporting requirements. The new method generated a slightly lower graduation rate than the prior method. See: <http://www.k12.wa.us/DataAdmin/pubdocs/GradDropout/GradRateCalculationsinWASchYrsMarch2012.pdf>.

³⁴ WSAC staff analysis of state K-12 graduation data. Office of Superintendent of Public Instruction. (2003-14). Washington State Report Card. Retrieved from <http://www.k12.wa.us/DataAdmin/default.aspx>. An important supplement to traditional graduation are adults, who are also working to complete high school diplomas through public two-year colleges and state testing centers, discussed later in this report. In 2013 more than ten percent of all adults ages 25–44 had not attained a high school diploma or equivalent. See: U.S. Census. (2011-13). Retrieved from <https://www.census.gov/programs-surveys/acs/>.

³⁵ The comparable national rate in 2012-13 was 81 percent, a record high that exceeded Washington's rate of 77.2 percent that year. See: U.S. Department of Education. *U.S. High School Graduation Rate Hits New Record High*. February 12, 2015. Retrieved from <http://www.ed.gov/news/press-releases/us-high-school-graduation-rate-hits-new-record-high>. For 2011-12, Washington ranked in the bottom 40 percent nationwide for graduation rates. See: U.S. Department of Education. (2011-12). *ED Data Express: Data About Elementary and Secondary Schools in the U.S.* Retrieved from <http://eddataexpress.ed.gov/>.

³⁶ WSAC staff analysis of state K-12 data. Office of Superintendent of Public Instruction. (2002-14). Retrieved from <http://reportcard.ospi.k12.wa.us/summary.aspx?groupLevel=District&schoolId=1&reportLevel=State&year=2013-14>.

³⁷ These groups are not mutually exclusive. Students may be represented in one or more of these groups. Several changes in the methodology used to compute graduation rates make it difficult to reliably compare racial/ethnic categories and groups.

³⁸ Source: WSAC staff analysis of state K-12 data. Office of Superintendent of Public Instruction. (2002-14). Retrieved from <http://www.k12.wa.us/DataAdmin/default.aspx>.

³⁹ Ritter, B. (2015). *Factors Influencing High School Graduation*. Issue brief prepared for the Washington Student Achievement Council. Retrieved from <http://www.wsac.wa.gov/reports-and-publications>.

⁴⁰ Rates shown are Adjusted Cohort Graduation Rates. An adjusted cohort is a group of students identified as beginning ninth grade in a specified year. Students are included in the cohort based on when they first enter ninth grade, regardless of their expected graduation year. The cohort of entering ninth graders is "adjusted" for transfers in and out of high school through the next four and five years. For more information see: <http://www.k12.wa.us/LegisGov/2015documents/GradandDropoutStats2015.pdf>.

⁴¹ Source: Office of Superintendent of Public Instruction. (2012-14). Washington State Report Card. Retrieved from <http://reportcard.ospi.k12.wa.us/>.

⁴² Data provided by the State Board for Community and Technical Colleges (SBCTC), 2015 (October). For alternate high school credentials, the term "high school equivalency certificate" means a certificate issued jointly by the state board for community and technical colleges and the superintendent of public instruction, which indicates that the holder thereof has attained standard scores at or above the minimum proficiency level prescribed by the state board for community and technical colleges on the high school equivalency test. See: <http://apps.leg.wa.gov/wac/default.aspx?cite=131-48&full=true#131-48-030>.

⁴³ Source: WSAC Staff Analysis of State K-12 Data. Office of the Superintendent of Public Instruction. Retrieved from <http://www.k12.wa.us/DataAdmin/default.aspx>.

⁴⁴ These categories not mutually exclusive. Some students may be represented in multiple categories. Totals for graduation and dropout rates do not add to 100 percent because some students take longer than four years to complete high school and were still enrolled. Section 504 refers to students who have a physical or mental impairment that substantially limits one or more major life activities, or have a record of such an impairment, or are regarded as having such an impairment. See: U.S. Department of Labor, *Section 504, Rehabilitation Act of 1973*. Retrieved from <http://www.dol.gov/oasam/regs/statutes/sec504.htm>.

⁴⁵ There exist many different definitions and uses of indicators in education and research. In this report they are intended to help describe an individual or composite statistic that is related to a basic construct in education (such as high school graduation) and is useful in a policy context. see: Shavelson, Richard J., McDonnell, L. & J. Oakes (1991). What are educational indicators and indicator systems? *Practical Assessment, Research & Evaluation*, 2(11). Retrieved from <http://PAREonline.net/getvn.asp?v=2&n=11>.

⁴⁶ Ritter, B. (2015). *Factors Influencing High School Graduation*. Issue brief prepared for the Washington Student Achievement Council. Retrieved from <http://www.wsac.wa.gov/reports-and-publications>. Also: Rumberger, R. & Lim, S. (2008). *Why Students Drop Out of School: A Review of 25 Years of Research*. University of California, Santa Barbara: California Dropout Research Project. Policy Brief 15. October.

⁴⁷ Roderick, M., Kelley-Kemple, T., Johnson, D., & Beechum, N. (2014, April). *Preventable Failure: Improvements in Long-Term Outcomes When High Schools Focused on the Ninth Grade Year*. Research Summary. Retrieved from <https://ccsr.uchicago.edu/publications/preventable-failure-improvements-long-term-outcomes-when-high-schools-focused-ninth>

⁴⁸ Ritter, B. (2015). *Factors Influencing High School Graduation*. Retrieved from <http://www.wsac.wa.gov/reports-and-publications>. See also: Herlihy, C. (2007). *State and District-Level Supports for Successful Transition into High School*. National High School Center. Retrieved from <http://files.eric.ed.gov/fulltext/ED501074.pdf>.

⁴⁹ Heppen, J. & Therriault, S. (2008, July). *Developing Early Warning Systems to Identify Potential High School Dropouts*. Retrieved from http://www.betterhighschools.org/pubs/ews_guide.asp. See also: Balfanz, R., Wang, A., & Byrnes, V. (2010). *Early Warning Indicator Analysis: Tennessee*. Retrieved from http://www.tn.gov/education/safe_schls/dropout/doc/EarlyWarningIndicatorAnalysisTN.pdf. Also: Allensworth, E., & Easton, J. (2005, June). *The On-Track Indicator as a Predictor of High School Graduation*. Retrieved from <https://ccsr.uchicago.edu/publications/track-indicator-predictor-high-school-graduation>.

⁵⁰ WSAC Staff Analysis of State K-12 Data. Office of the Superintendent of Public Instruction. Retrieved from <http://www.k12.wa.us/DataAdmin/default.aspx>. About 2.5 percent of all 9th grade students do not have a reported GPA (missing values). Also, district and school GPA computations can vary because some schools require students to complete courses with a 2.0 or higher before advancing to the next grade level, while others allow underperforming students to advance so long as they meet performance requirements by 12th grade.

⁵¹Source: Source: S. Dunster (*Personal Communications*, September/October, 2015). Office of Superintendent of Public Instruction. Office of Student Information. October.

⁵² Herlihy, C. (2007). *State and District-Level Supports for Successful Transition Into High School*. Washington, DC: National High School Center.

⁵³ Source: S. Dunster (*Personal Communications*, September/October, 2015). Office of Superintendent of Public Instruction. Office of Student Information.

⁵⁴ Changes in the state learning standards and assessments in Washington preclude reliable comparisons among test scores for prior years.

⁵⁵ Over 95 percent of all 8th graders completed both assessments in 2015. Low participation rates among 11th grade students in English and math preclude establishing a reliable baseline indicator of student test performance. The inclusion of the 11th grade assessment scores will be re-examined in 2016.

⁵⁶ Field test scores are based on results from across consortium states and are not disaggregated by state. See: <http://www.smarterbalanced.org/wordpress/wp-content/uploads/2014/12/Disaggregated-FieldTestDataFINAL.pdf>.

⁵⁷ Office of Superintendent of Public Instruction. (2015, July 2). Sneak Peek at Washington's Smarter Balanced Results. Retrieved from <http://www.k12.wa.us/Communications/pressreleases2015/PrelimSmarterBalancedResults.aspx>.

⁵⁸ Represents test scores as of July 1, 2015, based on 90 percent of returned scores.

⁵⁹ Education Research and Data Center. High School Feedback Report. <http://www.erdcddata.wa.gov/hsfb.aspx>.

⁶⁰ A discussion of the barriers these students face and strategies being employed to address these barriers is provided in Ritter, B. (2015). *Factors Influencing High School Graduation*. Retrieved from <http://www.wsac.wa.gov/reports-and-publications>. See also: Washington Student Achievement Council (2015). *Postsecondary success: Issue brief*. August. Retrieved from <http://www.wsac.wa.gov/reports-and-publications>.

⁶¹ Ibid.

⁶²Source: WSAC staff analysis of Integrated Postsecondary Education Data System (IPEDS) data, 2011-2013. The full disaggregated tables produced for this report are available through the online Data Workbook; IN PROGRESS.

⁶³ IPEDS data may not include all sub-two-year institutions because some colleges and proprietary schools have branches in Washington but retain their headquarters in another state; data on these colleges is not disaggregated for branch institutions in each state.

⁶⁴ WSAC staff analysis of apprenticeship data, Washington State department of Labor and Industries, Apprenticeship section, 2015. For a detailed analysis of apprenticeship composition and outcomes in Washington, see: Workforce Training and Education Coordinating Board (2015). *2015 Workforce Training Results: Apprenticeship*. Retrieved from <http://wtb.wa.gov/Documents/Apprenticeship2015.pdf>.

⁶⁵ The full disaggregated tables produced for this report are available through the online Data Workbook; IN PROGRESS.

⁶⁶ Changes in federal reporting by classification in 2011 enabled students to indicate “Two or More Races” in addition to a primary racial or ethnic category. Students who self-reported more than one race were classified under the Two or More Races category only. This reporting change likely accounts for some of the increase in the Two or More Races category during the reporting period (41 percent) and for changes in all racial/ethnic categories. This reporting change, and limited IPEDS data, precludes a reliable analysis of enrollments; additional data will be needed to reliably interpret racial/ethnic enrollment trends.

⁶⁷ WSAC staff analyses of U.S. Census data (ACS) showed relative stability in population estimates during this period, suggesting that the enrollment increases for Hispanic/Latino students was likely not due to unusual growth patterns for this demographic group; however, the federal reporting changes noted above may also affect the results.

⁶⁸ WSAC staff analysis of apprenticeship data, Washington State department of Labor and Industries, Apprenticeship section, 2015. The proportion of Whites in apprenticeship declined slightly (-3 percent) during the reporting period.

⁶⁹ WSAC staff analysis of apprenticeship data, Washington State department of Labor and Industries, Apprenticeship section, 2015. The proportions for men and women remained fairly static over the reporting period.

⁷⁰ The disaggregated tables produced for this section of the report are available through the online Data Workbook; IN PROGRESS.

⁷¹ The data table for student SBA scores shown earlier is not repeated here. The Smarter Balanced Assessments, developed for Common Core, were field tested in 2014, and subsequently implemented as the official state assessment system in the spring of 2015. Low participation rates among 11th grade students in English and math precluded establishing a reliable baseline indicator of student test performance. The inclusion of the 11th grade assessments as an indicator for postsecondary enrollment will be re-examined in 2016.

⁷² WSAC staff analysis of FAFSA completion data, as of October 30, 2015. Available through the online Data Workbook; IN PROGRESS.

⁷³ WSAC staff analysis of College Bound Scholars data, October 2015. For more information: <http://www.wsac.wa.gov/college-bound>.

⁷⁴ Local Area Unemployment Statistics. (n.d.). <http://data.bls.gov/timeseries/LASST530000000000003> Retrieved October 4, 2015.

⁷⁵ Employment Security Department (2014). *Washington's Wage Recovery, 2007-2013*. Retrieved from <https://washingtonted.wordpress.com/2014/11/19/washingtons-wage-recovery/> Employment Security economists concluded that the number of jobs in Washington reached pre-recession levels in late 2013; however wage increases from 2007 to 2013 were concentrated among the highest wage jobs, while lower wage jobs remained largely unchanged over that time period.

⁷⁶ Additional data and analysis will be needed to confirm enrollment trends in racial/ethnic categories, due to limited data and the federal reporting changes noted earlier.

⁷⁷ *A Skilled and Educated Workforce* (2013), A Joint Report of the Washington Student Achievement Council, State Board for Community and Technical Colleges, and the Workforce Training and Education Coordinating Board.

⁷⁸ Community College Research Center (2014). *What We Know About Developmental Education Outcomes*. Research Overview. January. Retrieved from <http://ccrc.tc.columbia.edu/media/k2/attachments/what-we-know-about-developmental-education-outcomes.pdf>. Also: Calcagno, J. & Long, B. (2008). *The Impact of Postsecondary Remediation Using a Regression Discontinuity Approach: Addressing Endogenous Sorting and Noncompliance*. National Center for Postsecondary Research, Working Paper (April). Retrieved from <http://ccrc.tc.columbia.edu/media/k2/attachments/impact-remediation-regression-discontinuity.pdf>.

⁷⁹ Source: *High School Feedback Report* (2013), Table 4. Education Research and Data Center. Retrieved from <http://www.erdccdata.wa.gov/hsfb.aspx>.

⁸⁰ State Board for Community and Technical Colleges (2013). *The Role of Transfer in the Attainment of Baccalaureate Degrees at Washington Public Bachelor's Degree Institutions Class of 2011*. August.

⁸¹ Washington Student Achievement Council (2015). *Some College, No Degree: A Look at Those Who Left College Early*. (October).

⁸² Source: WSAC staff analysis of Integrated Postsecondary Education Data System (IPEDS) data, 2011-2013. The disaggregated tables produced for this section are available through the online Data Workbook; IN PROGRESS.

⁸³ Certificate awards are one or more years in duration only. IPEDS award data are for institutions that have headquarters in the state of Washington. Awards from program operators with headquarters in other states are attributed only to the state of business registry; awards are not disaggregated or reported by state.

⁸⁴ WSAC staff analysis of state apprenticeship data, Washington State Department of Labor and Industries, Apprenticeship section, 2015. For a detailed analysis of apprenticeship outcomes in Washington, see: Workforce Training and Education Coordinating Board (2015). *2015 Workforce Training Results: Apprenticeship*. Retrieved from <http://wtb.wa.gov/Documents/Apprenticeship2015.pdf>.

⁸⁵ Certificate awards include only those that are one or more years in duration.

⁸⁶ As noted earlier, changes in federal reporting for racial/ethnic categories, including Two or More Races, and limited data preclude reliable reporting of trends for racial/ethnic groups. Additional data is needed to confirm these trends. Analyses of U.S. Census data (ACS) showed relative stability in population estimates during this period, suggesting that the increases in completion for Hispanic/Latino students was not inconsistent with population growth trends in this demographic group.

⁸⁷ WSAC staff analysis of apprenticeship data, Washington State Department of Labor and Industries, Apprenticeship section, 2015. Includes all non-White and Two or More Races categories. There was a slight increase in the percentage of students of color who completed apprenticeships between 2011 and 2014.

⁸⁸ For more information on the demographic composition and results for state apprenticeship, see: Workforce Training and Education Coordinating Board (2015). *2015 Workforce Training Results: Apprenticeship*. Retrieved from <http://wtb.wa.gov/Documents/Apprenticeship2015.pdf>.

⁸⁹ The disaggregated tables produced for this section of the report are available through the online Data Workbook; IN PROGRESS.

⁹⁰ Source: WSAC staff analysis of Integrated Postsecondary Education Data System (IPEDS) data, 2011-2013. Rates represent only students entering full-time.

⁹¹ IPEDS data on retention rates for public two-year institutions is not currently available. An alternate measure of retention for public two-year institutions (student persistence) is described in the next section.

⁹² WSAC staff analysis of data provided by the State Board for Community and Technical Colleges, September 2015.

⁹³ Transfer degrees include those under a statewide Direct Transfer Agreement (DTA) that ensures the transfer of credits between two-year and four-year colleges. Statewide agreements for specific degree programs such as the Associate in of Science-Transfer degree (AS-T) are available for engineering and science students.

⁹⁴ WSAC staff analysis of data provided by the State Board for Community and Technical Colleges, September, 2015.

⁹⁵ Western Interstate Commission for Higher Education (2012). *Knocking at the College Door: Projections of High School Graduates*. Retrieved from <http://www.wiche.edu/info/publications/knocking-8th/knocking-8th.pdf>.

⁹⁶ Washington Student Achievement Council (2015). *Some College, No Degree: A Look at Those Who Left College Early*. (October).

⁹⁷ Carlson, A. (n.d.). SHEF - State Higher Education Finance. Retrieved October 4, 2015.

⁹⁸ WSAC is working with education and higher education partners to compile initiatives already under way that aim to improve progress on the state's attainment goals. This "asset mapping" includes identification of programs and delivery models that support attainment for working adults.

⁹⁹ WSAC is working with sector members on the Council and other partners to develop an asset map of initiatives that aim to increase educational attainment. [Link to asset map].

¹⁰⁰ GATE: "Graduation a Team Effort" <http://www.k12.wa.us/gate/>.

¹⁰¹ OSPI analysis of graduate cohort data including CBS applicants.

¹⁰² Jenkins et al. http://www.sbctc.ctc.edu/college/abepds/ccrc_working_paperNo16_may2009.pdf.

¹⁰³ Burley and Bania, 2014 (WSIPP study).

¹⁰⁴ WSAC, in collaboration with sector partners, has developed an asset map of initiatives that aim to increase educational attainment. [Link pending].

¹⁰⁵ See WSAC's 2016 Legislative agenda.