2017

# Persistence and Completion of Students Receiving Need-based Financial Aid

Authored by
Gary Benson

ERDC
Education Research & Data Center

## AUTHORS

**Gary Benson**

*Education Research and Data Center*

## ABOUT THE ERDC

The research presented here utilizes data from the Education Research and Data Center (ERDC), located within the Washington Office of Financial Management (OFM). ERDC works with partner agencies to conduct powerful analyses of learning that can help inform the decision-making of Washington legislators, parents, and education providers. ERDC's data system is a statewide longitudinal data system that includes de-identified data about people's preschool, educational, and workforce experiences. The views expressed here are those of the author(s) and do not necessarily represent those of the OFM or other data contributors. Any errors are attributable to the author(s).

This study was completed as part of a larger program funded primarily by federal grant CFD #84.372A NCES 15-01 awarded by the Institute for Education Science in the US Department of Education to the state of Washington's Office of the Superintendent of Public Instruction and carried out by the Office of Financial Management's Education Research and Data Center. The total program cost is $7,300,000. Ninety-five percent point seven percent (95.7%) ($6,992,452) of the total cost of the program is financed with this Federal grant money, and 4.3% ($307,548) by the state of Washington.

### ADDRESS

Education Research and Data Center
210 11th Ave. SW, Room 318
PO Box 43113
Olympia, WA 98504-3113

### PHONE

(360) 902-0599

### FAX

(360) 725-5174

### EMAIL

erdc@ofm.wa.gov

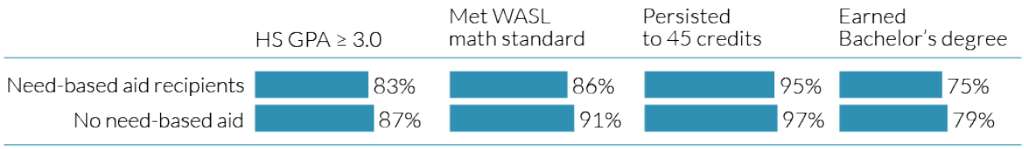
# Table of Contents

# Executive Summary

This study focuses on Washington high school graduates (from 2008 and 2009) who entered Washington public higher education and earned at least 15 credits within six years after graduation, and who never attended a private or out-of-state institution. Students "persisted" if they accumulated 45 credits from any Washington public institution of higher education within six years of graduating high school. Students who started at 4-year institutions "completed" if they earned a bachelor's degree, and those who started at a community or technical college (CTC) "completed" if they earned a bachelor's degree, associate degree, or a long-term certificate.

## 4-Year Public Institutions

Fifty-six percent of students who first entered a Washington public 4-year university received need-based financial aid at some point in their academic career. Students who received need-based aid (at any point), on average, persisted and completed their degrees at rates slightly lower than those who did not receive need-based aid, and had slightly lower high school academic records (as indicated by high school GPA and whether they met the WASL 10th grade assessment standards) (see Figure 1).

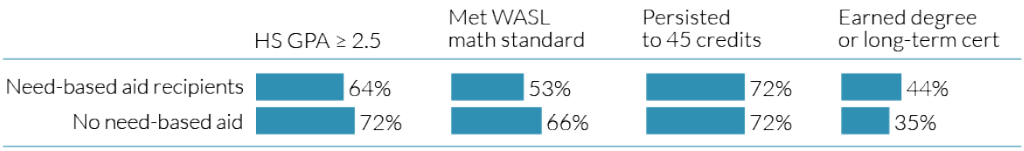



For HS GPA, WASL math standard, and persistence to 45 credits, the need-based aid group includes those who received aid their first year. For completion, it includes those who received aid at any point. The patterns hold for both groups, thought.

Figure 1. Percentage of high school graduates who first entered a public 4-year institution. (See also Table A1 in Appendix A.)

## Community and Technical Colleges (CTC)

Fifty-two percent of students who started at a Washington public CTC (and subsequently earned at least 15 credits) received need-based financial aid at some point in their academic career. Students who received need-based aid their first year, on average, persisted at the same rate and completed at *higher* rates than those who did not receive need-based aid, and had slightly lower high school academic records (see Figure 2).




For HS GPA, WASL math standard, and persistence to 45 credits, the need-based aid group includes those who received aid their first year. For completion, it includes those who received aid at any point. The patterns hold for both groups, thought.

Figure 2. Percentage of high school graduates who first entered a public CTC. (See also Table A2 in the Appendix A.)

# Introduction

This study explores the role of need-based financial aid for high school graduates who continue on to postsecondary education, persist, and eventually earn a degree or credential. Many high school graduates go on to postsecondary education, while some do not, and it is not always a matter of academic capability or student initiative. Sometimes it is a matter of individual or family economic circumstances (for example, whether or not they can afford college). Need-based financial aid is intended to help students from lower income families "get in the door" of higher education and persist to completion.

Did those who received need-based financial aid complete their degree more often than those who did not?

This study is the first of a series of studies exploring the effectiveness of need-based financial aid in the state of Washington. While future studies in the series will use predictive modeling to explore the potential impact of financial aid in students' persistence and completion in college, *this* study focuses primarily on the descriptive characteristics of high school graduates and college attendees who receive financial aid, persist in college, and complete their degree or credential.

## Research questions

This study examined the postsecondary educational experiences of students who graduated from Washington public high schools in 2008 and 2009. The following research questions correspond with the remaining sections of this report:

- What are the high school achievement and college enrollment outcomes of low income and higher income high school graduates?
- What are the characteristics of high school graduates who enroll and receive need-based financial aid in college?
- What are the persistence and completion outcomes of students who receive need-based financial aid (compared with those who do not)?

## Data sources

Data for this report was made available through the Education Research and Data Center's P20W data warehouse, which links data from multiple state agencies in order to help researchers engage in longitudinal research studies on the effectiveness of state educational programs and initiatives. Data for this study came from several different reporting systems:

- The Office of Superintendent of Public Instruction provided data on graduates from Washington public high schools.
- The Washington public universities and college, through the Public Centralized Higher Education Enrollment System (PCHEES), and the State Board for

Community and Technical Colleges provided data on enrollments, credits and awards for students attending public institutions.

- The National Student Clearinghouse provided data on student enrollments and awards at private and out-of-state institutions.
- The Washington Student Achievement Council provided data on students attending Washington public institutions who received need-based financial aid.
- The Employment Security Department provided data on student work histories and earnings.

## Characteristics of high school graduates

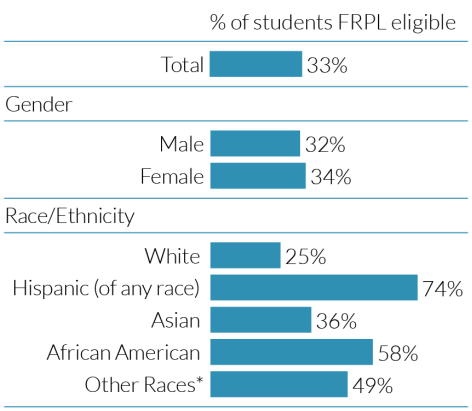
This section examines the 127,753 students who graduated from Washington public high schools in 2008 and 2009, their high school achievements, and their college enrollment outcomes. It attempts to distinguish between students from lower income and higher income families. Those who received regular high school diplomas, GEDs, adult diplomas, and modified high school diplomas allowed by a student's Individualized Education Plan were included as high school graduates.

### Explanation of the Free or Reduced-Price Lunch Program

The National School Lunch Program offers free or reduced-price lunches (FRPL) to children from low-income families. Students from families at or below 130 percent of the federal poverty level are eligible for free meals; students from families between 130 percent to 185 of the federal poverty level are eligible for reduced-price meals. The federal poverty level is based on family size and income.

Being eligible for FRPL indicates that a student comes from a low-income family, and is frequently used as a proxy when direct data on family income is unavailable. However, FRPL is an opt-in program and families must apply to become eligible. Potentially eligible families and students may refuse to apply for any reason.[1] Therefore, FRPL eligibility may undercount students from low-income families. Also, family income by itself is an incomplete measure of socioeconomic status, which commonly includes other factors such as parental education attainment and occupational status.

1 Primary reasons include: (a) the perceived negative stigma associated with receiving free and reduced-price meals (the program is viewed more as a welfare program than as a nutrition program and participating in the program labels the students and their families as being poor and sets them apart from other students) and (b) the perceived poor quality of food and limited choices served in the program. See "School Lunch Eligible Non-Participants, Final Report," U.S. Department of Agriculture, December 1994.




** "Other Races" includes American Indians/Alaskan Natives, Native Hawaiians/Other Pacific Islanders, Two or More Races, and "Race Not Provided."*

Figure 3. What percentage of high school graduates participated in the FRPL program (by demographic characteristic)? (See also Table A3 in Appendix A)

## FRPL eligibility by gender and race

About one-third of the high school graduates (42,210) were FRPL eligible at some point in their last four years of schooling (see Figure 3). Female graduates were slightly more likely to have been FRPL eligible than male graduates (34 percent and 32 percent, respectively). There were significant racial disparities in FRPL eligibility. For example, nearly three quarters of Hispanic graduates were FRPL eligible, but only one quarter of White graduates were FRPL eligible. Over half (58 percent) of the African American graduates were eligible for free or reduced price lunches.

## High school performance

Graduates who were never eligible for FRPL tended to academically outperform those who were, in terms of both high school grade point averages and statewide assessment tests. For example, while the average grade point average (GPA) for the graduating classes was 2.9, graduates who had been eligible for FRPL had an average GPA of 2.7, and non-FRPL graduates had an average GPA of 3.0 (see Figure 4). Twenty-nine percent of non-FRPL graduates had GPAs of 3.5 or higher, but only thirteen percent of FRPL graduates had GPAs of 3.5 or higher. Conversely, 17 percent of FRPL graduates had GPAs under 2.0, compared to only 8 percent of non-FRPL graduates.

| | | % of students in each GPA category | | | | |
|---|---|---|---|---|---|---|
| | Average GPA | <2.0 | 2.0-2.5 | 2.5-3.0 | 3.0-3.5 | ≥3.5 |
| All Students | 2.9 | 11% | 18% | 23% | 25% | 24% |
| FRPL | 2.7 | 17% | 24% | 25% | 21% | 13% |
| Non-FRPL | 3.0 | 8% | 15% | 22% | 26% | 29% |

Figure 4. What were the GPAs of high school graduates (by FRPL status)? (See also Table A4 in Appendix A)

The non-FRPL students also performed better on the High School Washington Assessment of Student Learning (WASL) (see Figure 5). These assessments were given primarily to 10th graders in four subject areas: math, reading, writing, and science. There were differences

in the performance of FRPL graduates and non-FRPL graduates, which were most pronounced for the math and science dimensions of the assessment. For example, 71 percent of the non-FRPL students met the WASL math standard, compared to only 47 percent of the FRPL students, and although less than half (46 percent) of the non-FRPL students met the science standard, less than a quarter (23 percent) of the FRPL students did the same.

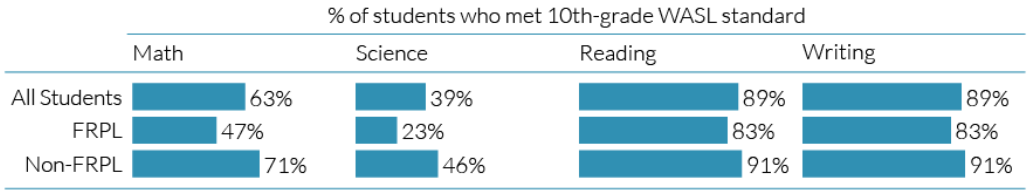



Figure 5. What percentage of high school graduates met each WASL subject standard (by FRPL status)? (See also Table A5 in Appendix A5)

## Postsecondary enrollment

Overall, 75 percent (95,604) of the 2008 and 2009 high school graduates attended a higher education institution sometime within six years of graduating (see Figure 6). This includes not only students who attended Washington public colleges and universities but also students who attended Washington private and out-of-state institutions. The college going rate for FRPL students (64 percent) was lower than the non-FRPL students (80 percent).

> Students enrolled in the free-and-reduced-price lunch (FRPL) program were less likely to enroll in college.

Nearly half of all the graduates enrolled in Washington public community and technical colleges (CTCs) sometime during the six years following high school. FRPL and non-FRPL students enrolled in CTCs at about the same rate. However, FRPL graduates enrolled in Washington public 4-year institutions

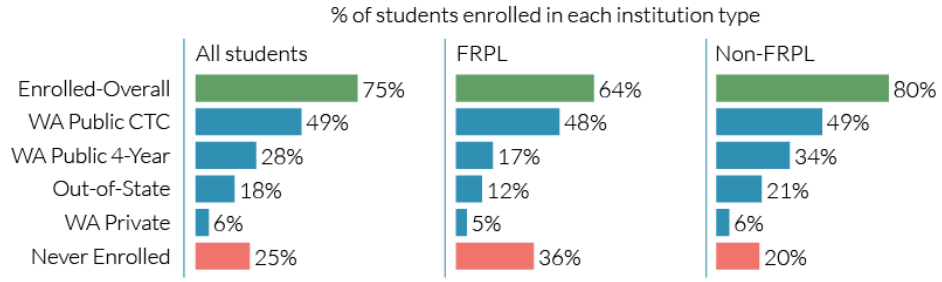



Figure 6. What percentage of high school graduates enrolled in postsecondary education (by sector and FRPL status)? (Note: Students may enroll in more than one sector; See also Table A6 in Appendix A)

at half of the rate (17 percent) as non-FRPL graduates (34 percent). Twenty-one percent of the non-FRPL graduates attended a college out-of-state, compared to only 12 percent of the FRPL graduates. It should be noted that many students enrolled in more than one postsecondary sector during the six years following graduation.

**Enrollment by gender and race/ethnicity.** The college enrollment rate is greater for female graduates (78 percent) than male graduates (72 percent) (see Figure 7). Asian graduates enroll at the highest rate (at 88 percent), followed by African American graduates (77 percent) and White graduates (76 percent). Hispanic graduates were the least likely to enroll in college (63 percent).

As noted, FRPL graduates were much less likely to enroll than non-FRPL graduates (64 percent to 80 percent). This difference was observed across gender and racial demographics, and was greater for some groups than others. For example, 80 percent of non-FRPL White graduates enrolled in a postsecondary institution compared to 62 percent of FRPL White graduates; in contrast, while 80 percent of non-FRPL African American graduates enrolled, 75 percent of FRPL African American graduates enrolled.

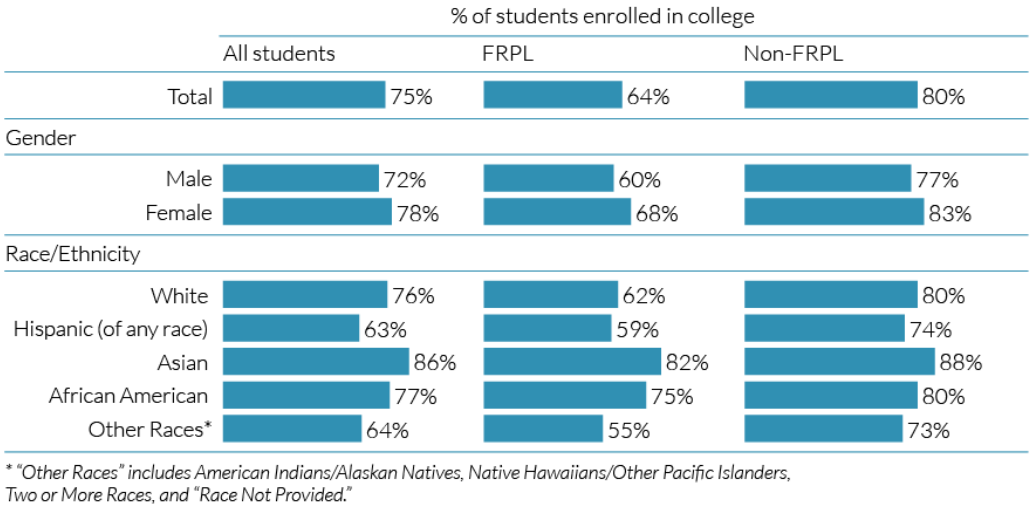



Figure 7. What percentage of high school graduates enrolled in postsecondary education (by demographic characteristics and FRPL status)? (See also Table A7 in Appendix A)

**Enrollment by high school achievement.** High school graduates with higher GPAs enrolled in college at higher rates that graduates with lower GPAs, and non-FRPL graduates attended college at higher rates than FRPL graduates (see Figure 8). Ninety-four percent of non-FRPL graduates with a GPA of 3.5 or higher enrolled in college, and 87 percent of FRPL graduates with a GPA of 3.5 did the same. Conversely, 50 percent of non-FRPL graduates with a GPA below 2.0 enrolled, while 43 percent of FRPL graduates with a GPA below 2.0 enrolled. The end result is that FRPL students entering college had an average high school GPA of 2.8 while the non-FRPL students had an average GPA of 3.1.

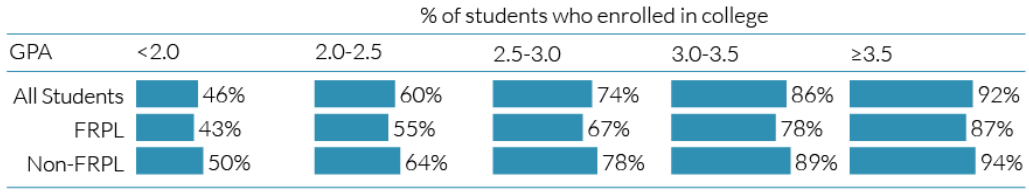



Figure 8. What percentage of high school graduates enrolled in postsecondary education (by GPA and FRPL status)? (See also Table A8 in Appendix A)

The college-going rate of high school graduates who met the WASL standards also varied by whether a student was eligible for FRPL or not (see Figure 9). Among those who met the WASL reading and writing standards, 83 percent of non-FRPL graduates and 68 percent of FRPL graduates went to college. Eighty-seven percent of non-FRPL graduates who met the WASL math standard went on to college, compared to 76 percent of FRPL graduates meeting the math standard who went on to college. Ninety-one percent of the non-FRPL graduates who met the WASL standard in science continued into postsecondary education, compared with 82 percent for FRPL graduates.

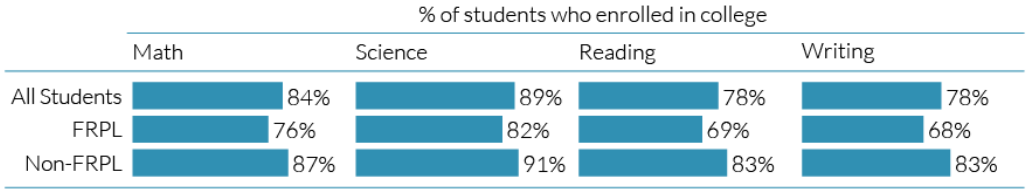



Figure 9. What percentage of high school graduates enrolled in postsecondary education (by FRPL status and whether they met WASL standards)? (See also Table A9 in Appendix A)

**Selection bias.** High school graduates from higher income families and graduates with stronger high school academic records have more opportunities and options to enroll in postsecondary education. High achieving non-FRPL graduates are more likely to enroll out-of-state than high achieving FRPL graduates; high achieving FRPL graduates are more likely to enroll in Washington public CTCs than high achieving non-FRPL graduates (see Figure 10). Thirty-two percent of the non-FRPL graduates who had both GPAs of 3.5 or above and met the WASL math standard enrolled out-of-state whereas as 21 percent of the FRPL graduates enrolled out-of-state. Forty-five percent of the FRPL graduates with a GPA of 3.5 or better and met the WASL math standard enrolled in a CTC while 34 percent of the non-FRPL graduates did. Thirty-one percent of the FRPL graduates who met the WASL math standard and had a GPA between 2.0 and 3.0 never enrolled in postsecondary education compared to 22 percent of non-FRPL graduates with similar records.

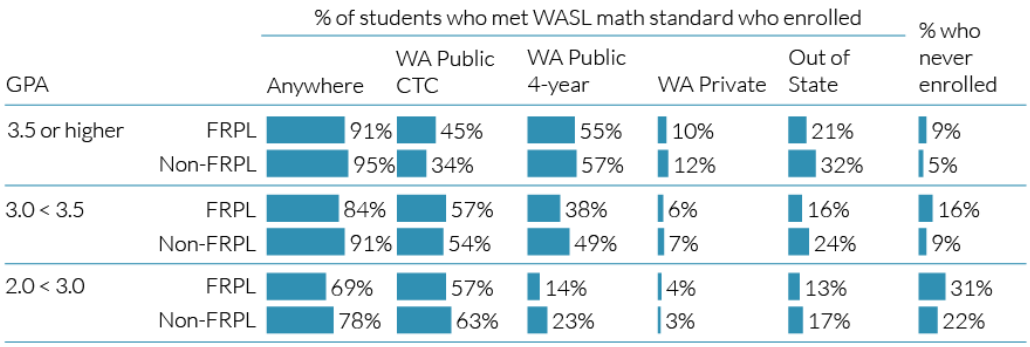



Figure 10. Where do FRPL and non-FRPL high school graduates with similar high school academic records enroll in postsecondary education (by high school GPA)? (Note: students may enroll in more than one sector; See also Table A10 in Appendix A)

## Financial Aid

The remainder of this study concerns high school graduates who entered Washington public universities and colleges and earned at least 15 credits within six years after graduation. These students never attended a private or out-of-state institutions. As noted in the prior section, enrolling in a Washington public institution is not a random occurrence as there is a selection bias among the high school graduates: higher-income and higher achieving graduates are more likely to attend out-of-state institutions than other graduates; lower-income high achieving students are more likely to attend Washington public CTCs.

Comparisons are made between students who receive need-based financial aid and students who do not receive need-based aid. Washington public and private institutions that participate in in the State Need Grant program report to the Washington Student Achievement Council (WSAC) comprehensive information on federal, state, private, and institutional financial aid distributed to need-based financial aid recipients.[2] All aid received by students receiving any need-based financial aid is included in the WASC reports; students who do not receive any need-based aid are not reported, even if they receive non-need-based aid.

Need-based financial aid is awarded based on family income, assets, size, among other factors.

Need-based financial aid is awarded to students who have applied for financial aid and can demonstrate "financial need." "Financial need" is the difference between the "cost of attendance" (COA) at a college or university and a student's "Expected Family Contribution" (EFC). The EFC is based on the family's income and assets, family size, and the number of family members attending college during the year. The EFC is

2 Data-sharing agreements have been developed to permit sharing of this data with the ERDC on behalf of the public institutions. Data from private institutions have not been disclosed to the ERDC.

calculated according to a formula established in federal law. The COA is the amount that it will cost to attend a particular university or college. It includes tuition and fees, room and board, and the cost of books, supplies, transportation and other miscellaneous expenses. There are two basic kinds of financial aid:

**Need-based financial aid.** This is financial aid that a student may receive if he/she has financial need (i.e., the COA is greater than the EFC) and meets other program specific eligibility criteria. A student may receive need-based financial aid up to the amount of financial need. Eligibility criteria for need-based financial aid programs require that the recipient has financial need.

**Non-need-based financial aid.** This is financial aid that is not based on a student's calculated financial need. Some non-need-based financial aid can be based on the COA and any other assistance provided to the student. Some aid may be independent of the COA. Eligibility criteria for non-need-based financial aid do not require that the recipient has financial need.

Students who receive need-based financial aid may also receive non-need-based financial aid. All reported aid received by students receiving any need-based aid is included in this study. Students who receive only non-need-based aid are not reported as receiving need-based aid, even if the aid was provided to meet demonstrated need.

Another important factor is the share of need met by financial aid. The amount of financial aid received by a student may not equal the amount of demonstrated financial need. The difference between financial need and the amount of financial aid received is considered "unmet need." Data on the amount of a student's need and unmet need were not availalble for this study.

Financial aid of both kinds can take three basic forms:

**Grants.** Grants may be called grants, scholarships or tuition waivers. Grants do not need to be repaid. Grants may be provided by governments, institutions or other entities. Examples of need-based grants include the Federal Pell Grant, the State Need Grant, Institutional Aid Fund Grants and Scholarships, and Institutional Need-Based Tuition and Fee Waivers. Examples of non-need-based grants include merit scholarships, athletic scholarships, institutional non-need-based gift aid or tuition waivers, and grants or scholarships from private entities.[3]

**Loans.** Loans need to be repaid. Need-based loans are offered by the Federal government and include the Federal Direct Subsidized Loan and the Federal Perkins Loan. These loans are made at below market rates of interest. Non-need-based loans offered by the Federal government include the Federal Parent PLUS Loan and the Federal

3 Only grants (both need-based and non-need-based) to students with financial need have been included in this study. Information on grants to students without financial need (either because they did not apply or, if they applied, did not demonstrate financial need) or to students who did not receive any need-based aid is not reported to WSAC.

Direct Unsubsidized Loan. Non-need-based loans for college are also offered by commercial lending companies.[4]

**Work-study programs.** Work-study programs provide part-time jobs for students, either on or off-campus, to help pay for college expenses. The Federal Work-Study Program and the State Work-Study Program provide jobs to students with financial need.

For the purposes of this analysis no distinction is made between need-based and non-need-based financial aid received by students receiving need-based aid. It is thought that all aid received by students with demonstrated need can be considered need-based.

## Race and gender

Forty percent (8,831) of the 22,200 high school graduates who first entered a Washington public 4-year higher education institution and earned at least 15 credits within six years after graduating from high school received need-based financial aid in the first year (see Figure 11).[5] Forty-three percent of female enrollees received need-based aid, while only 37 percent of male enrollees received need-based aid. White enrollees were much less likely

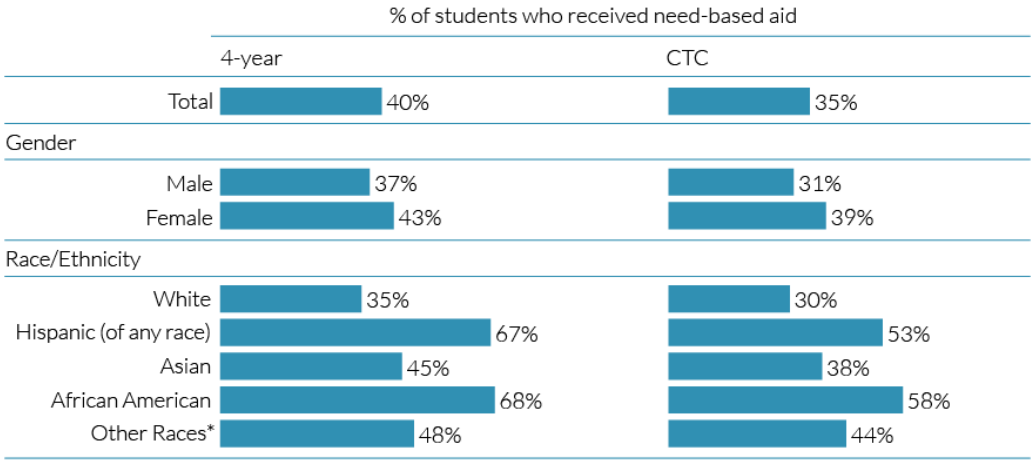



Figure 11. What percentage of enrollees received need-based aid (by demographic characteristics and sector)? (See also Table A11 in Appendix A)

4 Only loans (both need-based and non-need-based) made by the Federal Government and private loans reported to an institution to students with financial need have been included in this study. Information on private loans not reported to an institution and information on loans to students without financial need (either because they did not apply or, if they applied, did not demonstrate financial need) or to students who did not receive any need-based aid is not reported to WSAC.

5 The other 60 percent either received no financial assistance or received only non-need-based aid. These students may or may not have had financial need.

to receive need-based aid than non-white students. For example, 35 percent of White students received need-based aid, while 67 percent of Hispanic students and 68 percent of African American students received need-based aid.

White students were much less likely to receive need-based financial aid than Hispanic or African American students.

Of the 36,363 high school graduates who first entered a Washington public CTC within six years after graduating from high school, 35 percent (12,708) received need-based financial aid in their first year. Thirty-nine percent of female attendees received need-based aid, while only 31 percent of male students did the same. Similar to students at 4-year institutions, White students at CTCs were much less likely to receive need-based aid. For example, 30 percent of White students received need-based aid, compared with 53 percent of Hispanic students, as well as 58 percent of African Americans and 38 percent Asians.

## High school performance

Students who received need-based financial aid tended to have lower high school GPAs than students who did not. The GPAs of students who did not receive need-based aid were weighted towards the higher end. For example, at the 4-year year institutions, 47 percent of the students who received aid in the first year had high school GPAs of 3.5 or higher compared to 53 percent of the students who did not receive need-based aid (see Figure 12). Fourteen percent of the need-based aid recipient had GPAs between 2.5 and 3.0 compared to 11 percent of the non-need-based aid recipients. At the CTCs 35 percent of need-based aid recipients had high school GPAs of 3.0 or higher compared to 40 percent for the students not receiving aid.

| | | % of students in GPA category | | | | |
|---|---|---|---|---|---|---|
| | | < 2.0 | 2.0-2.5 | 2.5-3.0 | 3.0-3.5 | > 3.5 |
| 4-year | Received need-based aid | 0% | 2% | 14% | 36% | 47% |
| | No need-based aid | 0% | 1% | 11% | 34% | 53% |
| CTCs | Received need-based aid | 12% | 24% | 29% | 24% | 11% |
| | No need-based aid | 8% | 21% | 32% | 28% | 12% |

Figure 12. What were the GPAs of enrollees (by need-based aid status and sector)? (See also Table A12 in Appendix A)

In addition, those who received need-based aid seemed to have fared worse on the WASL 10th grade assessment, at least in science and math (see Figure 13). For example, 86 percent of the students who received need-based aid at a 4-year institution met the WASL math

standard, while 91 percent of the non-aided students at a 4-year institution met the standard. Students at community and technical colleges followed a similar pattern (53 percent vs. 66 percent met the math WASL standard, respectively).

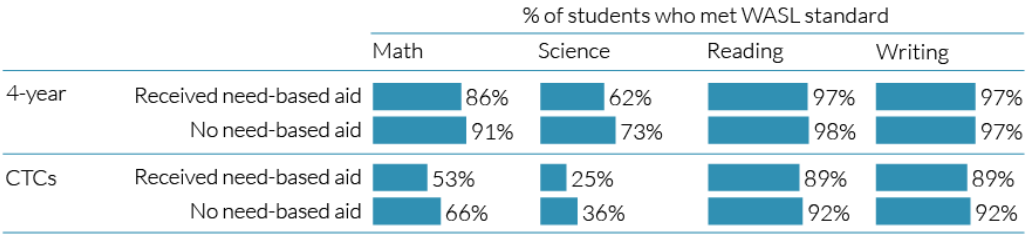



Figure 13. What percentage of enrollees met WASL 10th grade standards (by need-based aid status and sector)? (See also Table A13 in Appendix A)

## Comparison of FRPL students and need-based aid recipients

Three groups are compared below: (1) FRPL graduates who did not receive any need-based financial aid in the first year of college, (2) non-FRPL graduates who did receive need-based aid, and (3) FRPL graduates who also received need-based aid. Not all FRPL students received need-based aid in their first year of postsecondary education. Not all students who received need-based aid were FRPL eligible while in high school. There are a number of reasons why FRPL students may not have received need-based aid or why need-based aid went to students that were not FRPL eligible:

- Eligibility criteria for FRPL and need-based financial aid are different: FRPL eligibility depends on family size and family income, while eligibility for need-based aid depends on both those as well as family assets and the number of children attending college. In addition, need-based aid also accounts for the varying costs of attending a postsecondary institution. Also, specific need-based aid programs may have additional criteria that may not be met by all students with financial need.
- Not all low-income students apply for financial aid. The application process for applying for need-based aid can be challenging for some students, especially if the student's parents are unwilling or reluctant to file the necessary forms. Therefore, some students might be eligible to receive aid, but do not apply.
- Not all low-income high school students apply for FRPL, which is an opt-in program. Some potentially eligible families and students may refuse to apply for the program, thereby never becoming "FRPL eligible." So some low-income students might receive financial aid in college, but did not receive FRPL while in high school.
- Family and individual circumstances can change. A family or student may be low-income while in high school, but not while the student is in college. Or conversely, the family may have had too high of an income to qualify for FRPL while in high school,

but circumstances changed such that the student becomes eligible for need-based financial aid while in college.

There are significant cost differences between attending a 4-year institution and a CTC. The calculation for "financial need" (the cost of attendance less the expected family contribution) results in students having comparatively less need if attending a CTC.

40% of students who enrolled in a 4-year institution, and 35% of those who enrolled in a CTC, received need-based financial aid in their first year

The distribution of these three groups differed between 4-year institutions and community and technical colleges (see Figure 14). Nineteen percent of students (4,114) who entered 4-year institutions had been FRPL eligible while in high school, and 82 percent (3,372) of them received need-based aid. Thirty-eight percent of need-based aid recipients in 4-year institutions had been FRPL eligible while in high school. In contrast, thirty-six percent of the students (12,988) who entered a CTC had been FRPL eligible while in high school, and 65 percent (8,433) of them received need-based aid. Sixty-six percent of need-based aid recipients at CTCs had been FRPL eligible in high school.

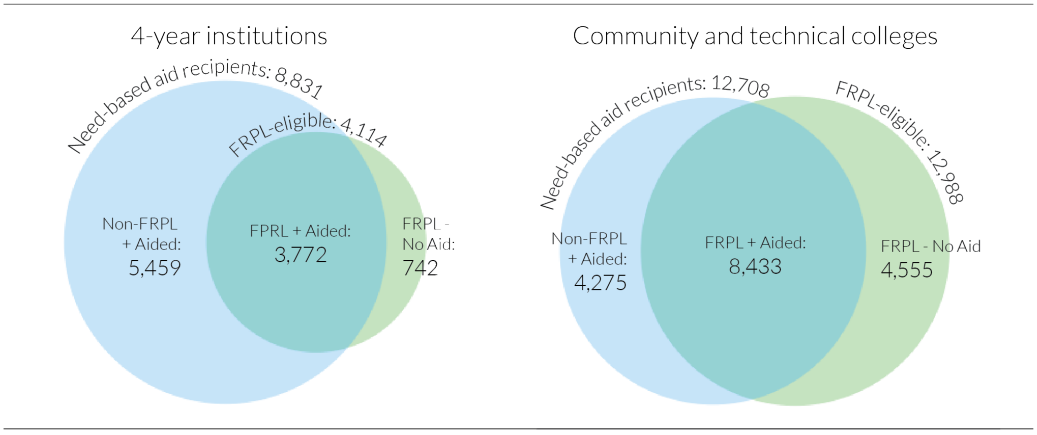



Figure 14. FRPL and need-based aid recipients in 4-year institutions and CTCs. (See also Table A14 in Appendix A)

Female FRPL students appear to be more likely than male FRPL students to enroll in public postsecondary education and receive need-based financial aid. Twenty percent of female enrollees at the 4-year institutions had been FRPL eligible while in high school, compared to 17 percent of the male enrollees (see Figure 15). As noted earlier, female students were more likely than male students to receive need-based financial aid with 43 percent of female enrollees receiving need-based financial aid compared to 37 percent of male enrollees (see Figure 11). Continuing the pattern, 84 percent of the female FRPL enrollees received need-based aid while 80 percent of the male FRPL enrollees receive aid.

Similar female-male differences can be found among graduates who enrolled in community and technical colleges.

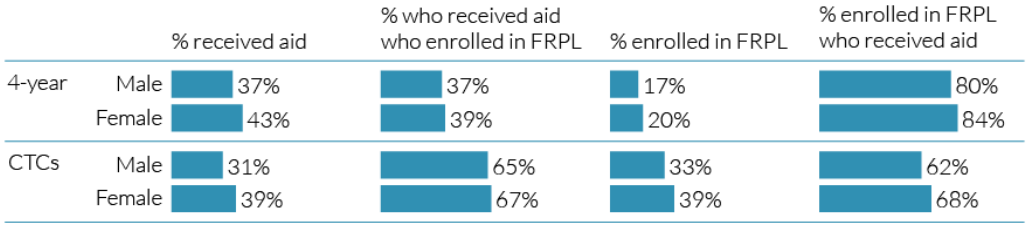
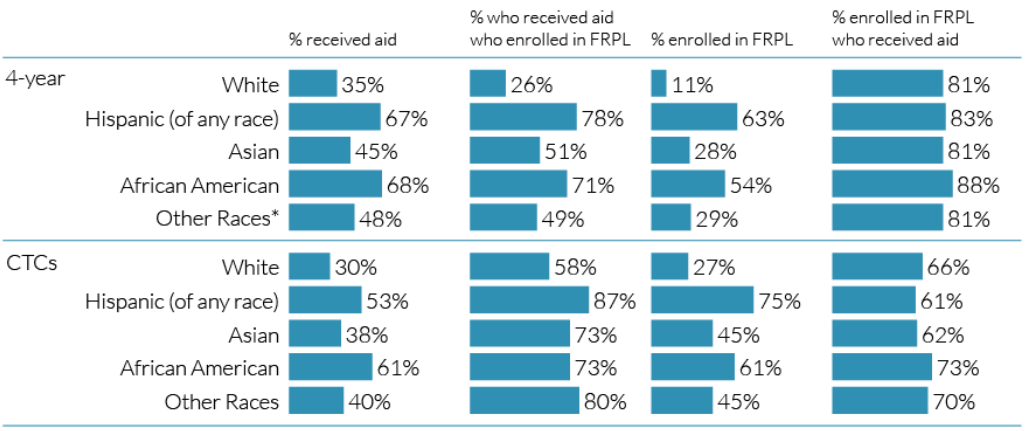



Figure 15. What percentage of need-based aid recipients had been FRPL eligible and what percentage of FRPL enrollees received need-based aid (by gender)? (See also Tables A15-A16 in Appendix A)

White students may not opt into FRPL while in high school to the extent they could, and/or they may be more likely to apply for financial aid when in college. Thirty-five percent of the White enrollees at the public 4-year institutions received need-based aid while only 11 percent of the enrollees had been FRPL eligible while in high school (see Figure 16). Conversely, 67 percent of Hispanics received need-based aid and a similar 63 percent of Hispanics had been FRPL eligible while in high school.

Hispanic students entering a CTC present a different picture in that they may be less likely to apply for financial aid. Fifty-three percent of Hispanic CTC enrollees received need-based aid while 75 percent had been FRPL eligible while in high school.




** "Other Races" includes American Indians/Alaskan Natives, Native Hawaiians/Other Pacific Islanders, Two or More Races, and "Race Not Provided."*

Figure 16. What percentage of need-based recipients had been FRPL eligible and what percentage of FRPL enrollees received need-based aid (by race/ethnicity)? (See also Tables A15-A16 in Appendix A)

# Persistence by financial aid recipients

This section looks at the persistence of students who received need-based financial aid, compared to students who did not receive any need-based financial aid. Persistence is defined as completing 45 postsecondary credits at any public institution within six years after graduating from high school. The cohort consists of high school graduates who (a) entered the Washington public higher education system and earned at least 15 credits, and (b) never enrolled in a private or out-of-state school. The 45 credits may have been earned either at a 4-year institution or a CTC, no matter where the student first enrolled.

## Persistence at public 4-year institutions

Overall, 96 percent of the cohort who first enrolled in a public 4-year university or college earned 45 credits (see Figure 17). That is to say, of the 22,200 students who earned at least 15 credits, 21,330 went on to earn 45 credits. Further, 95 percent of the students receiving need-based financial aid persisted, while 97 percent of the students not receiving any need-based aid persisted.

Among 4-year students, there were almost do differences in persistence rates by race/ethnicity or gender.

**Gender and race.** More than 90 percent of each demographic group that enrolled in 4-year institutions persisted, with only small differences between demographic groups. Males persisted at a slightly lower rate than females (95 percent compared to 97 percent, respectively). Ninety-eight percent of Asians persisted, while 93 percent of both African Americans and Hispanics persisted. Other differences were either comparable or smaller.

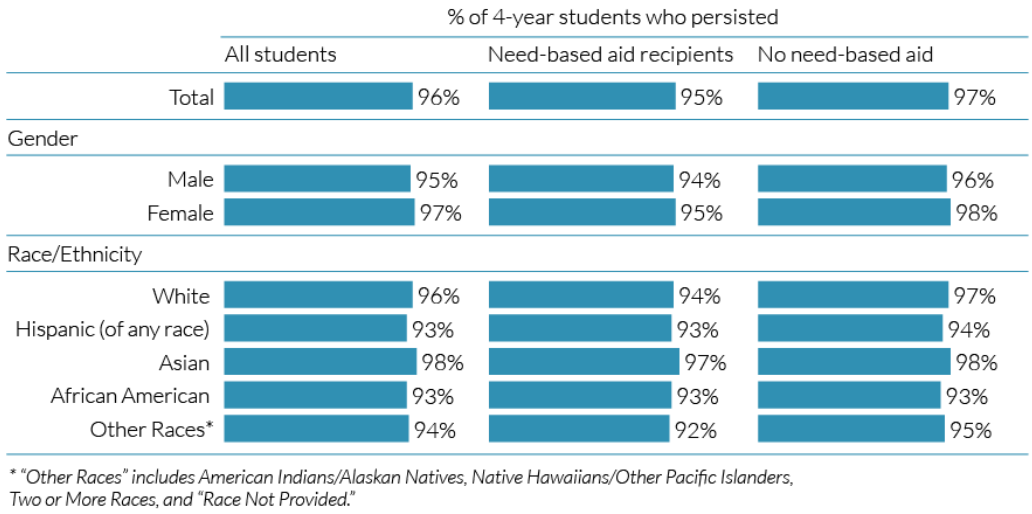



Figure 17. How many 4-year students persisted to 45 credits (by demographic characteristics and need-based aid status)? (See also Tables A17-A20 in Appendix A)

There were almost no differences in the persistence rates of the demographic groups based on whether they received need-based financial aid. Differences that did exist were small, and for most groups, those that received need-based aid persisted less often. For example, 94 percent of White students who received need-based aid persisted, while 97 percent of those who did not receive need-based aid persisted. Other demographics groups followed a similar pattern, but the differences were smaller.

**High school performance.** Graduates who enrolled in a 4-year institution with a high school GPA between 2.5 and 3.0 were the least likely to persist (at 91 percent), and those with a high school GPA greater than 3.5 were the most likely to persist (at 99 percent) (see Figure 18). Those with a GPA between 2.5 and 3.0 were less likely to persist to 45 credits when they received need-based aid (88 percent), and more likely to persist when they did not (93 percent).

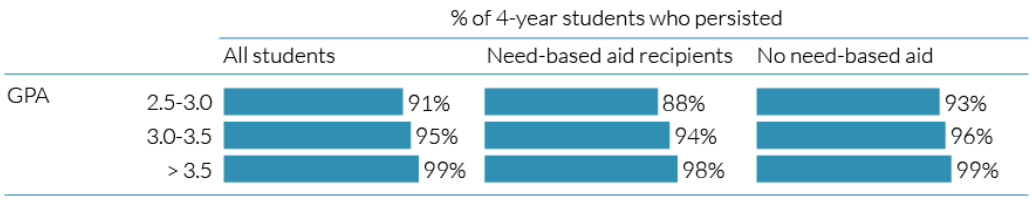



Figure 18. How many 4-year students persisted to 45 credits (by high school GPA and need-based aid status)? (See also Tables A17-A20 in Appendix A)

There were almost no differences among the persistence rates of students who met the standards in each subject of the WASL 10th grade assessment. Those who met the standard were a little bit less likely to persist if they received need-based financial aid, but the differences were small (never more than 2 percent) (see Figure 19).

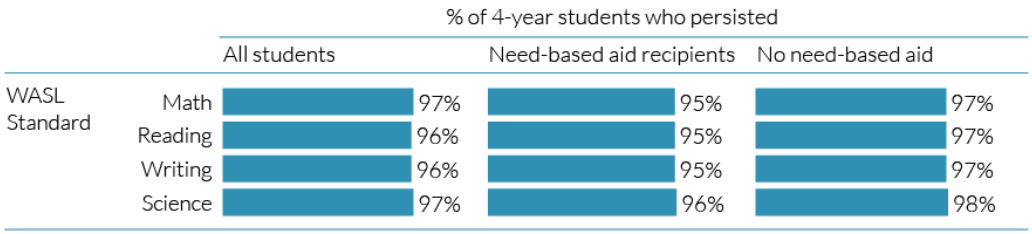



Figure 19. How many 4-year students persisted to 45 credits (by WASL standard and need-based aid status)? (See also Tables A17-A20 in Appendix A)

**FRPL eligibility.** Those who were not FRPL eligible in high school persisted at slightly higher rates than those who were: Ninety-three percent of the FRPL students persisted, while 97 percent of non-FRPL students persisted. There were no meaningful differences

in persistence between FRPL and non-FPRL students who received need-based aid (see Figure 20).

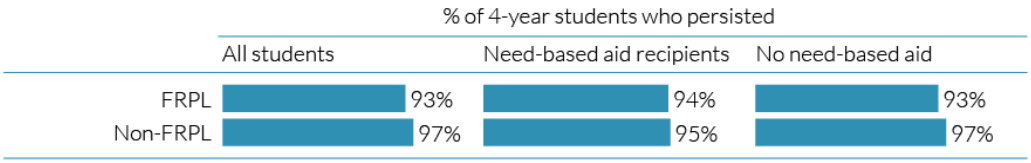



Figure 20. How many 4-year students persisted to 45 credits (by FRPL eligibility and need-based aid status)? (See also Table A17-A20 in Appendix A)

## Persistence at community and technical colleges

Among CTC students, African American students who recieved need-based aid persisted more than those who did not.

Of the 36,363 students who first enrolled in a CTC and earned at least 15 credit hours, 72 percent (26,204) persisted to earn 45 credits. This persistence rate was the same for students receiving need-based financial aid and students not receiving need-based financial aid (see Figure 21).

**Gender and Race.** As was the case with students at 4-year institutions, female graduates who enrolled in CTCs persisted at a slightly higher rate than male graduates (73 percent and 71 percent, respectively). There were virtually no gender differences based on need-based aid. However, there *were* some differences based on race. For example, Hispanic, Asian, and African American students who received need-based aid persisted at higher rates than students who did not receive need-based aid.

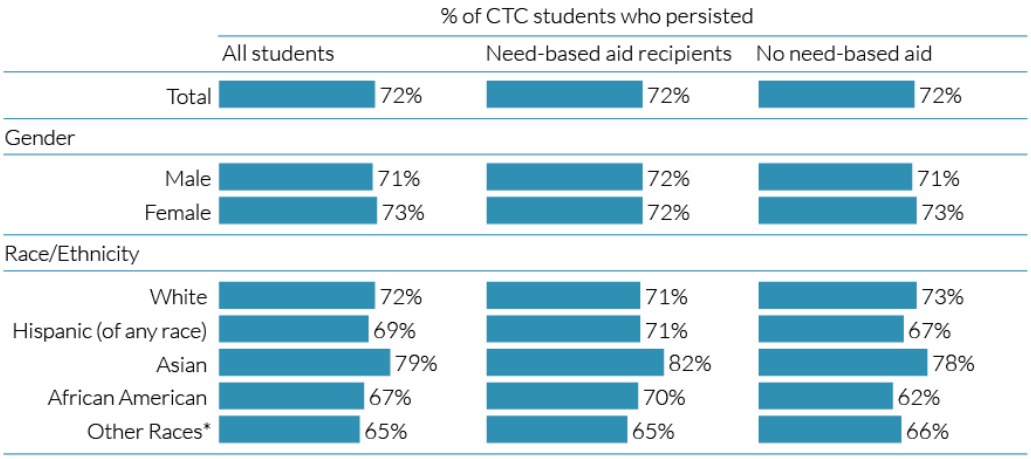



Figure 21. How many CTC students persisted to 45 credits (by demographic characteristics and need-based aid status)? (See also Tables A21-A24 in Appendix A)

The largest difference was observed among African American students: Seventy percent who received need-based aid persisted, while only 62 percent of those who did not receive aid persisted. These differences did not hold true for all racial demographics, however. White students receiving need-based aid were slightly less likely to persist than White students not receiving aid.

**High school performance.** Students with higher high school GPAs persisted more often than students with lower high school GPAs (see Figure 22). There were no differences observed in the persistence rates of those who had the lowest high school GPAs based on whether they received need-based aid. However, small differences were observed among students with higher GPAs. For example, 89 percent of students with high school GPAs of 3.5 or higher and who received need-based aid persisted, compared to 87 percent for similar students who did not receive need-based aid.

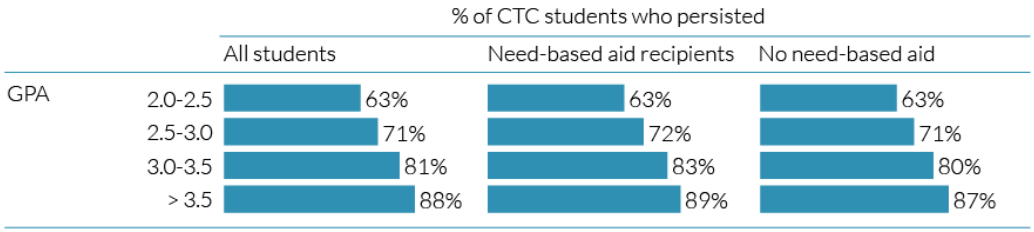



Figure 22. How many CTC students persisted to 45 credits (by high school GPA and need-based aid status)? (See also Tables A21-A24 in Appendix A)

There was no meaningful difference in persistence rates of CTC students based on whether they met WASL standards and whether they received need-based aid (see Figure 23). It is notable, however, that CTC students who met math and science standards were more likely to persist regardless of whether they received need-based aid than those who met reading or writing standards.

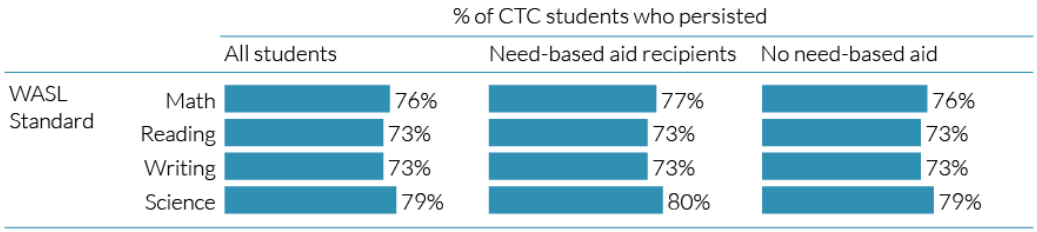



Figure 23. How many CTC students persisted to 45 credits (by WASL standard and need-based aid status)? (See also Tables A21-A24 in Appendix A)

**FRPL eligibility.** Those CTC students who were not FRPL eligible in high school persisted at higher rates than those who were: Sixty-nine percent of the FRPL students per-

sisted, while 74 percent of non-FRPL students persisted (see Figure 24). The difference is even more pronounced for CTC students who did not receive need-based financial aid (64 percent vs. 74 percent). However, there were no meaningful differences in persistence between FRPL and non-FPRL students who received need-based aid (72 percent vs. 72 percent).

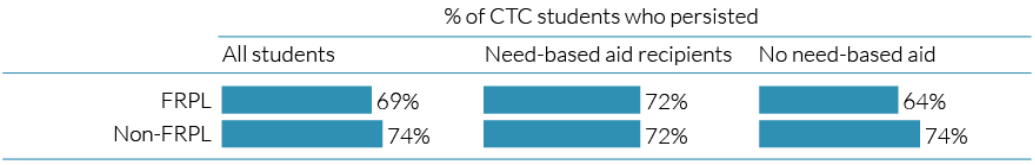



Figure 24. How many CTC students persisted to 45 credits (by FRPL eligibility and need-based aid status)? (See also Tables A21-A24 in Appendix A)

## Completion by financial aid recipients

This section looks at the completion outcomes of students who received need-based financial aid, compared to those students who did not. The receipt of need-based financial aid can be at any time during the student's postsecondary career. The meaning of "completion" in higher education can be student-specific. In this study, for students who first enter a public 4-year institution, completion refers to obtaining a bachelor's degree. For CTC students, completion refers to obtaining (a) a bachelor's degree, (b) an associate degree, or (c) a long-term certificate (requiring 45 or more credits). No distinction is made between CTC students enrolled in academic or workforce programs.

### Completion at public 4-Year institutions

Some 22,200 students first entered a public 4-year university or college (and earned at least 15 credits) and 77 percent (17,054) of them earned a bachelor's degree (see Figure 25). At some time during their academic career, 56 percent of the students received need-based financial aid. Of the students who obtained a bachelor's degree, 55 percent received need-based financial aid at some point. Students who never received any need-based financial aid completed at a higher rate than students who did. Seventy-five percent of the students who received financial aid obtained a bachelor's degree, while 79 percent of the students who never received any need-based aid went on to obtain a bachelor's degree.

> Among 4-year students, those who received need-based aid completed their degree slightly less often than those who did not.

**Gender and race.** Students who received need-based aid at a four-year institution completed their degree at slightly lower rates than those who did not receive aid, regardless of race or gender. Generally, women completed at a higher rate than men (80 percent for female students and 73 percent for male students). Asians completed at a higher rate (83 percent) than Whites (77 percent), Hispanics (67 percent) and African Americans (62 percent).

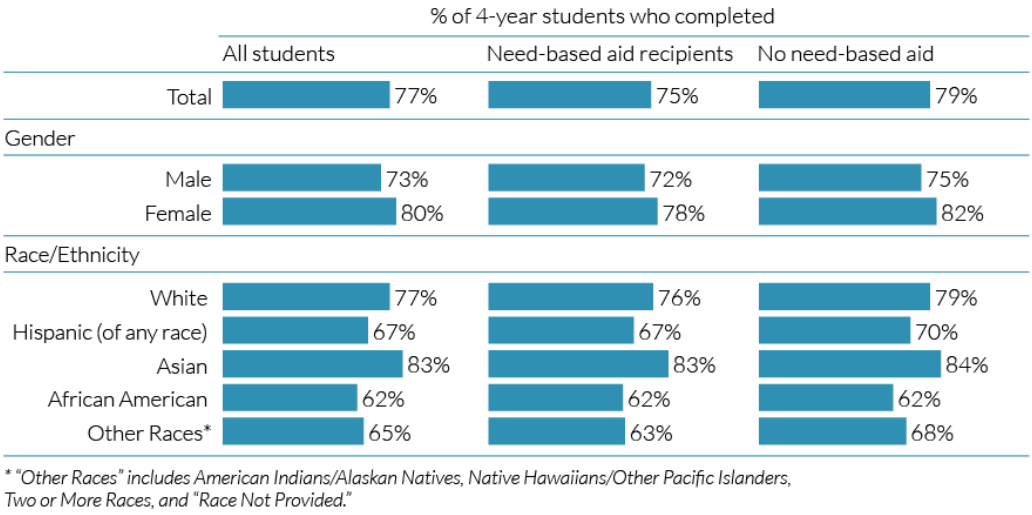



Figure 25. How many 4-year students completed their bachelor's degree (by demographic characteristics and need-based aid status)? (See also Tables A25-A28 in Appendix A)

**High school performance.** Eighty-eight percent of students who enrolled in 4-year institutions with a high school GPA of 3.5 or higher earned a bachelor's degree, while only 52 percent of students who enrolled with a high school GPA between 2.5 and 3.0 completed their degree. There was little difference in completion rates based on GPA and need-based aid (see Figure 26).

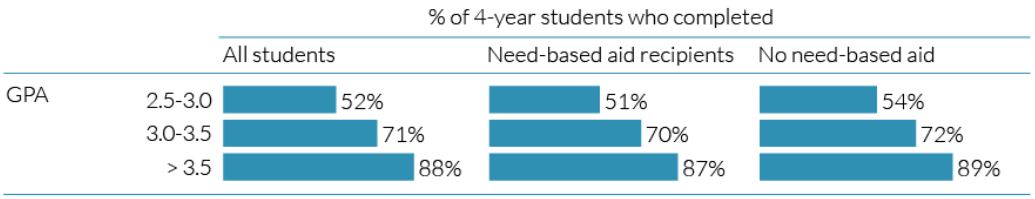



Figure 26. How many 4-year students completed their bachelor's degree (by high school GPA and need-based aid status)? (See also Tables A25-A28 in Appendix A)

Students who met the 10th grade math and science assessment standards slightly outperformed the average completion rate (see Figure 27). Again, non-aided students fared slightly better than aided students, amongst those who met WASL standards in the 10th grade. For example, 77 percent of the aided students who met the math standard completed their degree, compared with 80 percent of the non-aided students.

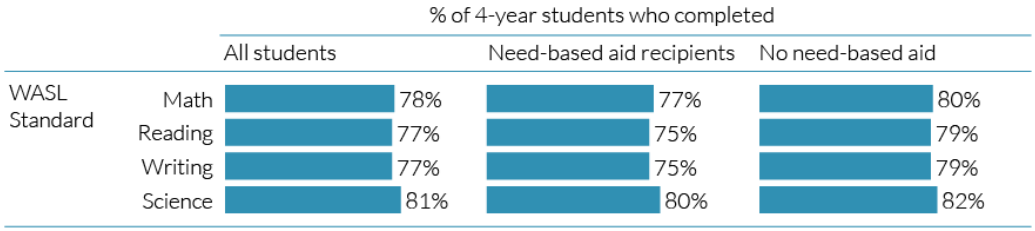



Figure 27. How many 4-year students completed their bachelor's degree (by WASL standard and need-based aid status)? (See also Tables A25-A28 in Appendix A)

**FRPL eligibility.** Students who had been eligible for FRPL while in high school completed at lower rates than the overall average, whether or not they received need-based aid (see Figure 28). The difference was slightly greater for those who did not receive need-based aid.

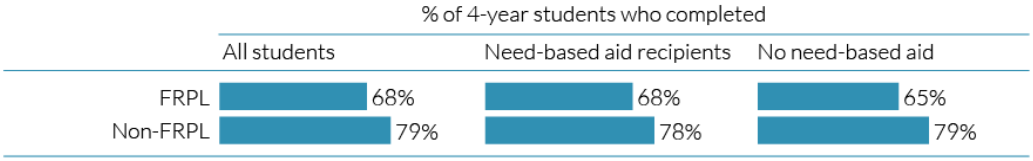



Figure 28. How many 4-year students completed a bachelor's degree (by FRPL eligibility and need-based financial aid status)? (See also Tables A25-A28 in Appendix A)

## Completion at community and technical colleges

Forty percent (14,484) of the 36,363 students who first enrolled in a CTC (and earned at least 15 credits) earned a degree or long-term certificate (see Figure 29). Fourteen per-

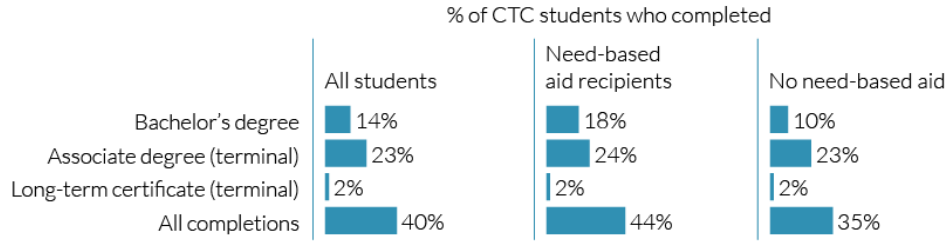



Figure 29. What percentage of CTC students completed a degree or long-term certificate (by need-based aid status)? (See also Table A29 in Appendix A)

Among CTC students, those who received need-based aid completed their degree ***more*** often than those who did not.

cent earned a bachelor's degree, 23 percent earned an associate degree as their highest award, and two percent earned a long-term certificate as their highest award. Students receiving need-based financial aid tended to outperform students who never received any aid. For example, 44 percent of those who received need-based aid completed a degree or certificate, while 35 percent of non-aided students completed. Fifty-two percent (18,946) of the 36,363 CTC students received need-based financial aid at some point, while 58 percent (8,364) of the 14,484 students who completed received aid at some point.

**Gender and race.** Female students receiving aid completed at the same rate as male students receiving aid (44 percent), while female students who did not receive aid outperformed male students who did not receive aid (38 percent to 33 percent) (see Figure 30). Need-based aid recipients in all race/ethnic categories completed at higher rates than non-aided students; for example, 53 percent of Asian students who received need-based aid completed their degree or credential, while 38 percent of non-aided Asian students completed their degree.

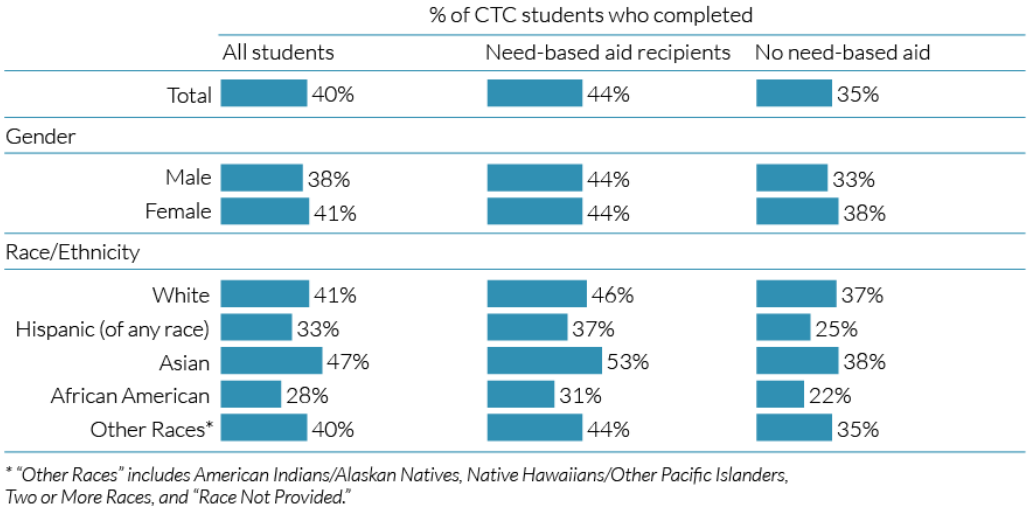



Figure 30. How many CTC students completed a degree or long-term certificate (by demographic characteristics and need-based aid status)? (See also Tables A30-A33 in Appendix A)

**High school performance.** Sixty-nine percent of students with high school GPAs of 3.5 or higher earned a degree or certificate – 74 percent for those receiving need-based aid and 64 percent for those who did not. Completion rates for students with high school GPAs between 2.5 and 3.0 were lower: 41 percent of the aided students completed and 32 percent of the non-aided students completed (see Figure 31).

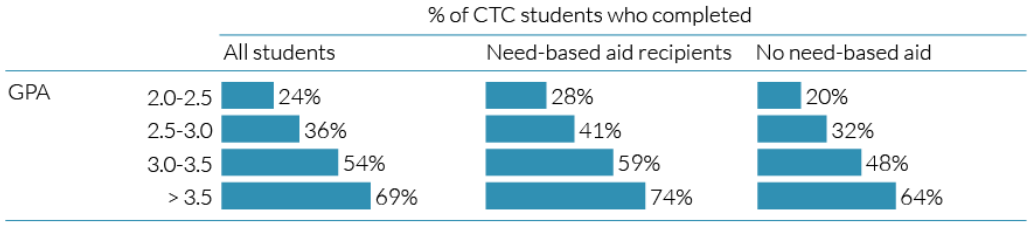



Figure 31. How many CTC students completed a degree or long-term certificate (by high school GPA and need-based aid status)? (See also Tables A30-A33 in Appendix A)

Students who met the 10th grade assessment standards in math and science did better than average: For those who met the math assessment standard, 53 percent of the aided students completed and 40 percent of the non-aided students completed, and for those who met the science assessment standard, 60 percent of the aided students completed and 45 percent of the unaided students completed (see Figure 32).

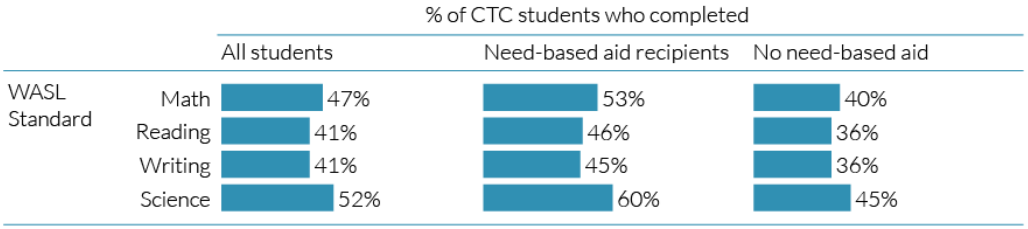



Figure 32. How many CTC students completed a degree or long-term certificate (by WASL standard and need-based aid status)? (See also Tables A30-A33 in Appendix A)

**FRPL eligibility.** Consistent with other findings, non-FRPL students completed at higher rates than FRPL students (43 percent of non-FRPL students compared with 34 percent of FRPL students) (see Figure 33). The aided FRPL students did better than the unaided FRPL students (37 percent to 25 percent).

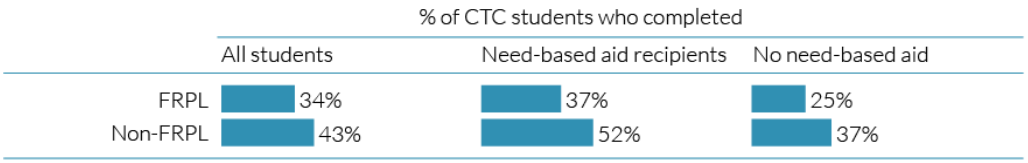



Figure 33. How many CTC students completed a degree or long-term certificate (by FRPL eligibility and need-based financial aid status)? (See also Tables A30-A33 in Appendix A)

# Appendix A

Table A1. Percentage of high school graduates who first entered a public 4-year institution. (See also Figure 1)

| | HS GPA ≥ 3.0 | Met WASL math standard | Persisted to 45 credits | Earned Bachelor's degree |
|---|---|---|---|---|
| Need-based aid recipients | 83% | 86% | 95% | 75% |
| No need-based aid | 87% | 91% | 97% | 79% |

Table A2. Percentage of high school graduates who first entered a public CTC. (See also Figure 2)

| | HS GPA ≥ 3.0 | Met WASL math standard | Persisted to 45 credits | Earned degree or long-term cert |
|---|---|---|---|---|
| Need-based aid recipients | 64% | 53% | 72% | 44% |
| No need-based aid | 72% | 66% | 72% | 35% |

Table A3. Which high school graduates were FRPL eligible? (See also Figure 3)

| | Total | | FRPL | Non-FRPL | |
|---|---|---|---|---|---|
| Total | 127,753 | 42,210 | 33% | 85,543 | 67% |
| Gender | | | | | |
| Male | 62,286 | 19,866 | 32% | 42,420 | 68% |
| Female | 65,467 | 22,344 | 34% | 43,123 | 66% |
| Race/Ethnicity | | | | | |
| White | 93,827 | 23,366 | 25% | 70,461 | 75% |
| Hispanic (of any race) | 12,426 | 9,189 | 74% | 3,237 | 26% |
| Asian | 10,965 | 3,986 | 36% | 6,979 | 64% |
| African American | 5,835 | 3,384 | 58% | 2,451 | 42% |
| Other Races* | 4,700 | 2,285 | 49% | 2,415 | 51% |
| High School GPA | | | | | |
| Under 2.0 | 12,996 | 6,571 | 51% | 6,425 | 49% |
| 2.0<2.5 | 21,530 | 9,276 | 43% | 12,254 | 57% |
| 2.5<3.0 | 27,289 | 9,765 | 36% | 17,524 | 64% |
| 3.0<3.5 | 29,281 | 7,904 | 27% | 21,377 | 73% |
| 3.5 or higher | 28,023 | 4,929 | 18% | 23,094 | 82% |
| Met 10th Grade Assessment Standard | | | | | |
| Math | 80,709 | 19,765 | 24% | 60,944 | 76% |
| Reading | 113,083 | 34,954 | 31% | 78,129 | 69% |
| Writing | 113,093 | 35,001 | 31% | 78,092 | 69% |
| Science | 49,369 | 9,682 | 20% | 39,687 | 80% |

| | Total | | FRPL | Non-FRPL | |
|---|---|---|---|---|---|
| Did Not Meet 10th Grade Assessment Standard | | | | | |
| Math | 38,708 | 18,727 | 48% | 19,981 | 52% |
| Reading | 6,087 | 3,488 | 57% | 2,599 | 43% |
| Writing | 5,861 | 3,317 | 57% | 2,544 | 43% |
| Science | 60,541 | 24,567 | 41% | 35,974 | 59% |
| Did Not Take 10th Assessment Test | | | | | |
| Math | 8,336 | 3,718 | 45% | 4,618 | 55% |
| Reading | 8,583 | 3,768 | 44% | 4,815 | 56% |
| Writing | 8,799 | 3,892 | 44% | 4,907 | 56% |
| Science | 17,843 | 7,961 | 45% | 9,882 | 55% |

*Includes American Indians / Alaska Natives, Native Hawaiians / Other Pacific Islanders, Two or More Races, or Race Not Provided

Table A4. What were the GPAs of graduates (by FRPL status)? (See also Figure 4)

| | Average GPA | Under 2.0 | 2.0<2.5 | 2.5<3.0 | 3.0<3.5 | 3.5 or higher |
|---|---|---|---|---|---|---|
| All Students | 2.9 | 11% | 18% | 23% | 25% | 24% |
| FRPL | 2.7 | 17% | 24% | 25% | 21% | 13% |
| Non-FRPL | 3.0 | 8% | 15% | 22% | 26% | 29% |

Table A5. What percentage of students met each WASL subject standard (by FRPL status)? (See also Figure 5)

| | Math | Science | Reading | Writing |
|---|---|---|---|---|
| All Students | 63% | 39% | 89% | 89% |
| FRPL | 47% | 23% | 83% | 83% |
| Non-FRPL | 71% | 46% | 91% | 91% |

Table A6. What percentage of students enrolled in each institution type (by FRPL status)? (See also Figure 6)

| | % Enrolled | | | | | |
|---|---|---|---|---|---|---|
| | Anywhere | WA Public CTC | WA Public 4-Year | WA Private | Out-of-State | % never enrolled |
| All Students | 75% | 49% | 28% | 6% | 18% | 25% |
| FRPL | 64% | 48% | 17% | 5% | 12% | 36% |
| Non-FRPL | 80% | 49% | 34% | 6% | 21% | 20% |

Note: Students may enroll in more than one sector

Table A7. How many students enrolled in postsecondary education (by demographic characteristics and FRPL status)? (See also Figure 7)

| | % Enrolled | | |
|---|---|---|---|
| | All Students | FRPL | Non-FRPL |
| Total | 75% | 64% | 80% |
| Gender | | | |
| Male | 72% | 60% | 77% |
| Female | 78% | 68% | 83% |
| Race/Ethnicity | | | |
| White | 76% | 62% | 80% |
| Hispanic (of any race) | 63% | 59% | 74% |
| Asian | 86% | 82% | 88% |
| African American | 77% | 75% | 80% |
| Other Races | 64% | 55% | 73% |

Table A8. What percent of students enrolled in postsecondary education (by GPA and FRPL status)? (See also Figure 8)

| | % Enrolled | | | | |
|---|---|---|---|---|---|
| | Under 2.0 | 2.0<2.5 | 2.5<3.0 | 3.0<3.5 | 3.5 or higher |
| All Students | 46% | 60% | 74% | 86% | 92% |
| FRPL | 43% | 55% | 67% | 78% | 87% |
| Non-FRPL | 50% | 64% | 78% | 89% | 94% |

Table A9. What percent of students enrolled in postsecondary education (by FRPL status and whether they met WASL standards)? (See also Figure 9)

| | % Enrolled | | | |
|---|---|---|---|---|
| | Math | Science | Reading | Writing |
| All Students | 84% | 89% | 78% | 78% |
| FRPL | 76% | 82% | 69% | 68% |
| Non-FRPL | 87% | 91% | 83% | 83% |

Table A10. Where do FRPL and non-FRPL high school graduates with similar high school academic records enroll in postsecondary education (by met WASL math standard and high school GPA)? (See also Figure 10)

| | % Enrolled | | | | | |
|---|---|---|---|---|---|---|
| | Anywhere | WA Public CTC | WA Public 4-year | WA Private | Out-of-State | % never enrolled |
| FRPL / met math standard | | | | | | |
| 3.5 or higher | 91% | 45% | 55% | 10% | 21% | 9% |
| 3.0<3.5 | 84% | 57% | 38% | 6% | 16% | 16% |
| 2.0<3.0 | 69% | 57% | 14% | 4% | 13% | 31% |
| Non-FRPL / met math standard | | | | | | |
| 3.5 or higher | 95% | 34% | 57% | 12% | 32% | 5% |
| 3.0<3.5 | 91% | 54% | 49% | 7% | 24% | 9% |
| 2.0<3.0 | 78% | 63% | 23% | 3% | 17% | 22% |

Note: Students may enroll in more than one sector

Table A11. What percentage of enrollees received need-based aid (by demographic characteristics and institution type)? (See also Figure 11)

| | % of students who received need-based financial aid in first year | |
|---|---|---|
| | 4-Year | CTC |
| All graduates | 40% | 35% |
| Gender | | |
| Male | 37% | 31% |
| Female | 43% | 39% |
| Race/ethnicity | | |
| White | 35% | 30% |
| Hispanic (of any race) | 67% | 53% |
| Asian | 45% | 38% |
| African American | 68% | 58% |
| Other Races | 48% | 44% |

Table A12. What were the GPAs of enrollees (by need-based aid status and sector)? (See also Figure 12)

| | % of students in GPA category | | | | |
|---|---|---|---|---|---|
| | Under 2.0 | 2.0<2.5 | 2.5<3.0 | 3.0<3.5 | 3.5 or higher |
| 4-Year | | | | | |
| Received Need-Based Financial Aid | 0% | 2% | 14% | 36% | 47% |
| No Need-Based Financial Aid | 0% | 1% | 11% | 34% | 53% |
| CTCs | | | | | |
| Received Need-Based Financial Aid | 12% | 24% | 29% | 24% | 11% |
| No Need-Based Financial Aid | 8% | 21% | 32% | 28% | 12% |

Table A13. What percentage of enrollees met WASL 10th grade standards (by need-based aid status and institution type)? (See also Figure 13)

| | Math | Science | Reading | Writing |
|---|---|---|---|---|
| 4-Year | | | | |
| Received Need-Based Financial Aid | 86% | 62% | 97% | 97% |
| No Need-Based Financial Aid | 91% | 73% | 98% | 97% |
| CTCs | | | | |
| Received Need-Based Financial Aid | 53% | 25% | 89% | 89% |
| No Need-Based Financial Aid | 66% | 36% | 92% | 92% |

Table A14. FRPL and need-based aid recipients in 4-year universities and CTCs. (See also Figure 14)

| | Total need-based aid recipients | Non-FRPL eligible & received need-based aid | FRPL eligible & received need-based aid | FRPL eligible & did not receive need-based aid | Total FRPL eligible |
|---|---|---|---|---|---|
| 4-year | 8,831 | 5,459 | 3,372 | 742 | 4,114 |
| % of Enrollees | 40% | | | | 19% |
| CTC | 12,708 | 4,275 | 8,433 | 4,555 | 12,988 |
| % of Enrollees | 35% | | | | 36% |

Tables A15-A16. What percentage of need-based aid recipients had been FRPL eligible in high school and what percentage of FRPL enrollees received need-based aid (by demographic characteristics? (See also Figures 15-16)

| | Need-based aid recipients | | FRPL enrollees | |
|---|---|---|---|---|
| | All Aid Recipients | Aid recipients who were FRPL | All FRPL enrollees | FRPL enrollees who received aid |
| **CTC Enrollees** | | | | |
| All enrolled students | 35% | 66% | 36% | 65% |
| Gender | | | | |
| Male | 31% | 65% | 33% | 62% |
| Female | 39% | 67% | 39% | 68% |
| Race/Ethnicity | | | | |
| White | 30% | 58% | 27% | 66% |
| Hispanic (of any race) | 53% | 87% | 75% | 61% |
| Asian | 38% | 73% | 45% | 62% |
| African American | 61% | 73% | 61% | 73% |
| Other Races | 40% | 80% | 45% | 70% |
| **4-Year Enrollees** | | | | |

| | Need-based aid recipients | | FRPL enrollees | |
|---|---|---|---|---|
| | All Aid Recipients | Aid recipients who were FRPL | All FRPL enrollees | FRPL enrollees who received aid |
| All Enrollees | 40% | 38% | 19% | 82% |
| Gender | | | | |
| Male | 37% | 37% | 17% | 80% |
| Female | 43% | 39% | 20% | 84% |
| Race/Ethnicity | | | | |
| White | 35% | 26% | 11% | 81% |
| Hispanic (of any race) | 67% | 78% | 63% | 83% |
| Asian | 45% | 51% | 28% | 81% |
| African American | 68% | 71% | 54% | 88% |
| Other Races | 48% | 49% | 29% | 81% |

Tables A17-A20. How many 4-year students persisted to 45 credits (by demographic characteristics, high school achievement and need-based aid status)? (See also Figures 17-20)

| | % of group that persisted to 45 credits | | |
|---|---|---|---|
| | All students | Need-based aid recipients | No need-based aid |
| All graduates | 96% | 95% | 97% |
| Gender | | | |
| Male | 95% | 94% | 96% |
| Female | 97% | 95% | 98% |
| Race/ethnicity | | | |
| White | 96% | 94% | 97% |
| Hispanic (of any race) | 93% | 93% | 94% |
| Asian | 98% | 97% | 98% |
| African American | 93% | 93% | 93% |
| Other Races | 94% | 92% | 95% |
| High School GPA | | | |
| HS GPA-2.5<3.0 | 91% | 88% | 93% |
| HS GPA-3.0<3.5 | 95% | 94% | 96% |
| HS GPA-3.5 or higher | 99% | 98% | 99% |
| WASL Standard | | | |
| Met standard in Math | 97% | 95% | 97% |
| Met standard in Reading | 96% | 95% | 97% |
| Met standard in Writing | 96% | 95% | 97% |
| Met standard in Science | 97% | 96% | 98% |
| FRPL Status | | | |
| FRPL | 93% | 94% | 93% |
| Non-FRPL | 97% | 95% | 97% |

Tables A21-A24. How many CTC students persisted to 45 credits (by demographic characteristics, high school achievement, and need-based aid status)? (See also Figures 21-24)

| | % of group that persisted to 45 credits | | |
|---|---|---|---|
| | All students | Need-based aid recipients | No need-based aid |
| All graduates | 72% | 72% | 72% |
| Gender | | | |
| Male | 71% | 72% | 71% |
| Female | 73% | 72% | 73% |
| Race/ethnicity | | | |
| White | 72% | 71% | 73% |
| Hispanic (of any race) | 69% | 71% | 67% |
| Asian | 79% | 82% | 78% |
| African American | 67% | 70% | 62% |
| Other Races | 65% | 65% | 66% |
| High School GPA | | | |
| HS GPA-2.0<2.5 | 63% | 63% | 63% |
| HS GPA-2.5<3.0 | 71% | 72% | 71% |
| HS GPA-3.0<3.5 | 81% | 83% | 80% |
| HS GPA-3.5 or higher | 88% | 89% | 87% |
| WASL 10th Grade Standards | | | |
| Met standard in Math | 76% | 77% | 76% |
| Met standard in Reading | 73% | 73% | 73% |
| Met standard in Writing | 73% | 73% | 73% |
| Met standard in Science | 79% | 80% | 79% |
| FRPL Status | | | |
| FRPL | 69% | 72% | 64% |
| Non-FRPL | 74% | 72% | 74% |

Tables A25-28. How many 4-year students completed their bachelor's degree (by WASL standard and need-based aid status)? (See also Figures 25-28)

| | % of group that completed their degree | | |
|---|---|---|---|
| | All students | Need-based aid recipients (ever) | No need-based aid |
| All graduates | 77% | 75% | 79% |
| Gender | | | |
| Male | 73% | 72% | 75% |
| Female | 80% | 78% | 82% |

| | % of group that completed their degree | | |
|---|---|---|---|
| | All students | Need-based aid recipients (ever) | No need-based aid |
| Race/ethnicity | | | |
| White | 77% | 76% | 79% |
| Hispanic (of any race) | 67% | 67% | 70% |
| Asian | 83% | 83% | 84% |
| African American | 62% | 62% | 62% |
| Other Races | 65% | 63% | 68% |
| High School GPA | | | |
| HS GPA-2.5<3.0 | 52% | 51% | 54% |
| HS GPA-3.0<3.5 | 71% | 70% | 72% |
| HS GPA-3.5 or higher | 88% | 87% | 89% |
| WASL 10th Grade Standards | | | |
| Met standard in Math | 78% | 77% | 80% |
| Met standard in Reading | 77% | 75% | 79% |
| Met standard in Writing | 77% | 75% | 79% |
| Met standard in Science | 81% | 80% | 82% |
| FRPL Status | | | |
| FRPL | 68% | 68% | 65% |
| Non-FRPL | 79% | 78% | 79% |

Table A29. What percentage of CTC students completed a degree or certificate (by need-based aid status)? (See also Figure 29)

| | Bachelor's degree | Associate degree (terminal degree) | Long-term certificate (terminal award) | All completions |
|---|---|---|---|---|
| All students | 14% | 23% | 2% | 40% |
| Need-based aid recipients (ever) | 18% | 24% | 2% | 44% |
| No need-based aid | 10% | 23% | 2% | 35% |

Tables A30-A33. How many CTC students completed a degree or certificate (by demographic characteristics and need-based aid status)? (See also Figures 30-33)

| | % of group that completed their degree or certificate | | |
|---|---|---|---|
| | All students | Need-based aid recipients (ever) | No need-based aid |
| All graduates | 40% | 44% | 35% |
| Gender | | | |
| Male | 38% | 44% | 33% |
| Female | 41% | 44% | 38% |

| | % of group that completed their degree or certificate | | |
|---|---|---|---|
| | All students | Need-based aid recipients (ever) | No need-based aid |
| Race/ethnicity | | | |
| White | 41% | 46% | 37% |
| Hispanic (of any race) | 33% | 37% | 25% |
| Asian | 47% | 53% | 38% |
| African American | 28% | 31% | 22% |
| Other Races | 40% | 44% | 35% |
| High School GPA | | | |
| HS GPA-2.0<2.5 | 24% | 28% | 20% |
| HS GPA-2.5<3.0 | 36% | 41% | 32% |
| HS GPA-3.0<3.5 | 54% | 59% | 48% |
| HS GPA-3.5 or higher | 69% | 74% | 64% |
| WASL 10th Grade Standards | | | |
| Met standard in Math | 47% | 53% | 40% |
| Met standard in Reading | 41% | 46% | 36% |
| Met standard in Writing | 41% | 45% | 36% |
| Met standard in Science | 52% | 60% | 45% |
| FRPL Status | | | |
| FRPL | 34% | 37% | 25% |
| Non-FRPL | 43% | 52% | 37% |

# Appendix B: Other Factors that May Influence a Graduate's Decision to Enter College

Data on students receiving need-based financial aid were only made available for students who attend Washington public institutions of higher education. Therefore, graduates who attended private or out-of-state colleges and universities were excluded. Further, this study focuses on graduates who have demonstrated some intent to pursue a post-secondary education. Many students enroll but never register for or complete courses. Therefore, only students who earned at least 15 credits (one quarter's worth) over six years were included in this study.

Fifty-two percent (65,841) of the high school graduates exclusively attended Washington public higher education institutions (CTCs, 4-year institutions, or both). Eighty-nine percent of these students (58,563) accumulated at least 15 postsecondary credits (college level or remedial) within six years after graduating from high school. Within this group, 22,200 graduates enrolled at a public 4-year college or university within their first year of post-secondary education, and 36,363 graduates enrolled at a public community or technical college within their first year. The remainder of this appendix focuses primarily on these latter two groups, and compares them with the 32,149 graduates who never enrolled in a post-secondary institution.

## Gender/Race

The majority of high school graduates who enrolled in a public postsecondary institution were female, and the majority of those who never enrolled in any postsecondary institution were male. Fifty-two percent of those who enrolled in a CTC were female, and 53 percent of those who enrolled in public 4-year institution were female (see Table B1). For FRPL graduates who enrolled in college, the differences were even more pronounced: Fifty-seven percent of the FRPL graduates going to a public 4-year institution were female, as were 56 percent of the FRPL graduates going to a CTC.

Table B1. What were the gender distribution of enrollees at each institution type (by FRPL status)?

| | | Male | Female |
|---|---|---|---|
| Entered Public 4-year | All students | 47% | 53% |
| | FRPL | 43% | 57% |
| | Non-FRPL | 48% | 52% |
| Entered Public CTC | All students | 48% | 52% |
| | FRPL | 44% | 56% |
| | Non-FRPL | 51% | 49% |
| No Postsecondary | All students | 55% | 45% |
| | FRPL | 53% | 47% |
| | Non-FRPL | 57% | 43% |

Racial demographics varied among the three groups. Those who enrolled in a public 4-year institution were less likely to be Hispanic than those that did not enroll in college at all (see Table B2). Asians made up a greater share of the graduates entering a public 4-year institution than those graduates entering a CTC or no postsecondary institution. Graduates who enrolled in CTCs had a racial distribution similar to that of all graduates. Conversely, of FRPL graduates who enrolled in 4-year institutions, fewer were White or Hispanic, and more were Asian or African American than FRPL graduates going to a CTC or not entering a postsecondary institution.

Table B2. What were the racial characteristics of enrollees at each institution type (by FRPL status)?

| | | White | Hispanic | Asian | African American | Other Races* |
|---|---|---|---|---|---|---|
| Entered Public 4-Year | All students | 74% | 6% | 15% | 3% | 2% |
| | FRPL students | 46% | 19% | 22% | 10% | 4% |
| | Non-FRPL | 81% | 3% | 13% | 2% | 2% |
| Entered Public CTC | All students | 72% | 11% | 9% | 5% | 3% |
| | FRPL students | 54% | 22% | 12% | 8% | 4% |
| | Non-FRPL | 82% | 4% | 8% | 3% | 3% |
| No Postsecondary | All students | 71% | 14% | 5% | 4% | 5% |
| | FRPL students | 58% | 25% | 5% | 6% | 7% |
| | Non-FRPL | 83% | 5% | 5% | 3% | 4% |

*Includes American Indians/Alaskan Natives, Native Hawaiians/Other Pacific Islanders, Two or More Races, or Race Not Provided

## GPA/WASL

The GPAs of more than half of the graduates who enrolled in public 4-year universities was 3.5 or higher (51 percent), or between 3.0 and 3.5 (35 percent), while most CTC students (79 percent) had high school GPAs between 2.0 and 3.5 (see Table B3). Most graduates who never enrolled in a postsecondary institution had GPAs below 2.5 (54 percent). FRPL enrollees at each institution type performed slightly worse in high school than non-FRPL enrollees.

Table B3. What was the GPA of enrollees at each institution type (by FRPL status)?

| | | Under 2.0 | 2.0<2.5 | 2.5<3.0 | 3.0<3.5 | 3.5 or higher |
|---|---|---|---|---|---|---|
| Entered Public 4-Year | All students | 0% | 2% | 13% | 35% | 51% |
| | FRPL students | 0% | 3% | 17% | 37% | 44% |
| | Non-FRPL | 0% | 1% | 12% | 34% | 53% |
| Entered Public CTC | All students | 9% | 22% | 31% | 26% | 11% |
| | FRPL students | 12% | 24% | 30% | 24% | 10% |
| | Non-FRPL | 8% | 21% | 31% | 28% | 12% |

| | | | | | | |
|---|---|---|---|---|---|---|
| | All students | 24% | 30% | 24% | 14% | 7% |
| No Postsecondary | FRPL students | 28% | 31% | 24% | 13% | 5% |
| | Non-FRPL | 21% | 29% | 25% | 16% | 10% |

FRPL graduates, on average, did poorer than the average student on the WASL assessments (math, reading, writing and science), regardless of whether they later enrolled in 4-year institutions, enrolled in CTCs, or did not pursue a postsecondary education (see Table B4). The differences were greatest for the math and science assessments. For example, while 91 percent of non-FRPL graduates who enrolled in a 4-year institution met the math standard, only 81 percent of the FRPL enrollees met the math standard. Similarly, 72 percent of non-FRPL graduates who enrolled in a 4-year institution met the science standard, compared with 54 percent of FRPL enrollees.

Graduates who entered a CTC performed slightly worse on the reading and writing standards, but substantially worse on the math and science standards. For example, while 69 percent of graduates who went to a 4-year institution met the science standard, only 32 percent of those who went to a CTC did the same. Differences between FRPL and non-FRPL graduates who enrolled in CTCs were comparable to those of graduates who enrolled in 4-year institutions. Students who enrolled in either a 4-year institution or a CTC met the standard at a higher rate than those who did not enroll in college at all.

Table B4. How did enrollees at each institution type fare on the WASL 10th grade assessment (by FRPL status)?

| | | Math | Reading | Writing | Science |
|---|---|---|---|---|---|
| | All students | 89% | 98% | 97% | 69% |
| Entered Public 4-Year | FRPL students | 81% | 97% | 96% | 54% |
| | Non-FRPL | 91% | 98% | 97% | 72% |
| | All students | 62% | 91% | 91% | 32% |
| Entered Public CTC | FRPL students | 51% | 88% | 88% | 23% |
| | Non-FRPL | 67% | 93% | 92% | 37% |
| | All students | 39% | 76% | 76% | 17% |
| No Postsecondary | FRPL students | 31% | 72% | 73% | 12% |
| | Non-FRPL | 47% | 79% | 80% | 21% |

## Other Characteristics

**College credits in high school.** Many high school students take college level courses (and earn college credits) while in high school. Within the group of students under review, 20 percent earned college credits from a Washington public postsecondary institution during their senior year of high school (e.g., Running Start or summer school) (see Table B5). This does not include any college credits that may have been earned through other programs

such as Advanced Placement. One-third of the graduates entering a public 4-year institution earned college credits in their senior year of high school, while twenty-three percent of the graduates entering a CTC did the same.

Table B5. How many graduates at each institution type earned college credits during their last year of high school?

| | Earned college credits senior year |
|---|---|
| All Students | 20% |
| Entered Public 4-Year | 33% |
| Entered Public CTC | 23% |
| No Postsecondary | 8% |

**High school income.** Graduates from high schools with higher income students are more likely to continue their education. The percent of a high school's 10th graders that are eligible for free or reduced price lunches is used as a proxy for the overall income status of a high school. A higher percentage of students eligible for FRPL indicates a larger population of low income students.[6] Over one-half of the FRPL graduates came from the low-income schools while 31 percent came from the middle-income schools and 18 percent from the high-income schools.

Around 40 percent of all graduates, including FRPL graduates, from all high school groups, including low-income high schools, enrolled at a CTC (see Table B6). Thirty-four percent of the graduates from high-income schools enrolled in public 4-year institutions while 16 percent of the graduates from low-income schools did. Forty-five percent of the graduates from low-income schools did not enroll in a post-secondary institution at all.

Table B6. What percentage of graduates enrolled (by high school income and FRPL status)?

| | | Enrolled in Public 4-Year | Enrolled in Public CTC | No Post-secondary |
|---|---|---|---|---|
| All students | High-income high school | 34% | 39% | 27% |
| | Middle-income high school | 23% | 42% | 35% |
| | Low-income high school | 16% | 39% | 45% |
| FRPL | High-income high school | 16% | 41% | 43% |
| | Middle-income high school | 12% | 42% | 45% |
| | Low-income high school | 12% | 39% | 49% |

**School size.** The size of the high school from which a student graduates appears to have

6 The state's public high schools are grouped into three categories, each with about one-third of all 10th graders. Low-income schools (264 schools) had a FRPL rate of 40.4% and above. Middle-income schools (156 schools) had a FRPL rate of 24.6 percent to 40.3 percent. High-income schools (175 schools) are those with a FRPL rate under 24.6 percent.

some bearing on the student's postsecondary enrollment. High schools have been grouped into three categories: small, medium and large, based on the school's tenth grade enrollment.[7] Each group graduated around 30,000 students or one-third of the 90,712 students who either enrolled in a public 4-year university or college, a CTC or did not enter postsecondary education.[8] However, 43 percent of the FRPL graduates were from small schools; medium schools produced 27 percent of the FRPL graduates; and large schools 30 percent.

Seventeen percent of graduates from small schools entered a public 4-year institution, compared to 30 percent from medium-sized schools and 26 percent from the large schools (see Table B7). Size seemed to have less bearing on CTC enrollment. Around 40 percent of the graduates from all the schools, small, medium and large, entered a CTC. However, 36 percent of FRPL graduates from the small schools, while 44 percent of FRPL graduates from the medium and large schools enrolled at a CTC.

Table B7. What percentage of graduates enrolled (by high school size and FRPL status)?

| | | Enrolled in Public 4-Year | Enrolled in Public CTC | No Post-secondary |
|---|---|---|---|---|
| All students | Small high school | 17% | 38% | 45% |
| | Medium sized high school | 30% | 41% | 29% |
| | Large high school | 26% | 42% | 32% |
| FRPL | Small high school | 11% | 36% | 53% |
| | Medium sized high school | 14% | 44% | 42% |
| | Large high school | 17% | 38% | 45% |

**School locale.** The locale of a high school from which the students graduate may also provide insight on the postsecondary education experiences of high school graduates. High schools were grouped into five geographic settings on a continuum (from "Large metro" to "Distant"), based on population densities and proximity to population clusters.[9]

7 The state's public high schools are grouped into three categories, each with about one-third of all 10th graders. Small schools had enrollments under 332 (461 schools). Medium size schools had enrollments from 332 to 507 students (79 schools). Large schools had enrollments over 507 (55 schools).

8 High school graduates who attended private or out-of-state colleges have been excluded from this section.

9 (1) Large metro: Inside a city with a population greater than 100,000 located within an urbanized area (a densely settled area with a census population of at least 50,000). (2) Metro suburb: Inside an urbanized area but outside of a city with a population greater than 250,000. (3) Mid-size: Inside a city with a population under 100,000 located in an urbanized area; or outside a city and inside an urban area with a population under 250,000. (4) Urban fringe: Inside a Metropolitan Statistical Area (an urban cluster that is 10 miles or less from an urbanized area or a rural area that is less than 5 miles from an urbanized area) or outside a Metropolitan Statistical Area (inside an urban cluster that is less than 10 miles from an urbanized area). (5) Distant: Inside a Metropolitan Statistical Area (inside an urban cluster more than 10 miles from an urbanized area or a rural territory more than 10 miles from an urbanized

While graduates from large metro areas comprised the smallest percentage of graduates in the cohort, 31 percent of the graduates from high schools in large metro areas went on to attend a public 4-year institution (see Table B8). At the other end of the spectrum, 18 percent of the graduates from distant areas went on to a public 4-year institution. Students from distant schools were less likely to pursue a postsecondary education. For example, 29 percent of the graduates from high schools located in large metro areas did not pursue higher education, while 44 percent of the graduates from distant areas did not enroll.

Among the FRPL graduates, 19 percent from the large metro areas went to a 4-year institution while 11 percent from distant areas did. As was the case when looking at high school income, around 40 percent of graduates went on to attend a CTC, *regardless of school setting/locale*. Among FRPL graduates, however, 45 percent of graduates from large metro schools went on to a CTC, while 36 percent of graduates from distant schools went on to a CTC.

Table B8. What percentage of graduates enrolled (by high school locale and FRPL status)?

| | | Enrolled in Public 4-Year | Enrolled in Public CTC | No Post-secondary |
|---|---|---|---|---|
| All students | Large Metro | 31% | 41% | 29% |
| | Metro Suburb | 28% | 40% | 32% |
| | Mid-Size | 21% | 42% | 37% |
| | Urban Fringe | 22% | 40% | 38% |
| | Distant | 18% | 37% | 44% |
| FRPL | Large Metro | 19% | 45% | 37% |
| | Metro Suburb | 14% | 42% | 44% |
| | Mid-Size | 10% | 41% | 49% |
| | Urban Fringe | 10% | 39% | 51% |
| | Distant | 11% | 36% | 53% |

area) or outside a Metropolitan Statistical Area (also included a rural territory more than 5 miles from an urbanized area).


Trusted. Accurate. Objective.