

Washington's Postsecondary Education Pipeline Six-Year Outcomes for Public High School Graduates, 2005-06

The purpose of the work presented here is to use longitudinal data to construct a six-year education pipeline for Washington high school graduates of 2005-06. The cohort analyzed here consists of approximately 60,700 individuals. The Education Research & Data Center (ERDC) data for Washington and out-of-state postsecondary enrollment and completions data from the National Student Clearinghouse (NSC) allow for a true longitudinal follow-up of this group.

For each year in the six-year follow-up, a graduate's educational attainment is described by one of seven attainment categories:

- **No postsecondary:** High school graduates who were not found in any postsecondary enrollment or completions records after high school graduation;
- **Ever enrolled:** High school graduates who enrolled in postsecondary education during one academic year only;
- **Persisted:** High school graduates who enrolled in postsecondary education during two different academic years;
- **Non-DTA award:** High school graduates awarded an associate's degree not classified as a Direct Transfer Agreement (DTA) associate's degree, those awarded a certificate requiring at least one year of study, and those completing apprenticeships;
- **DTA associate's:** Graduates awarded a DTA Associate's degree;
- **Bachelor's degree:** Graduates awarded a bachelor's degree; and
- **Graduate degree:** Graduates awarded a master's or doctor's degree (either research-oriented or professional practice).

Since many high school students enroll in dual-credit programs while in high school, actual credits earned through Running Start, College in the High School, and Tech Prep are included in this

The Washington State Education Research & Data Center (ERDC) in the Washington Office of Financial Management is charged with conducting analyses of early learning, K-12, higher education programs and career and education issues and development of a P-20/Workforce data system to support these studies. ERDC focuses on longitudinal education studies, particularly those that involve transitions across education sectors and those that involve workforce-education connections.

analysis.¹ In Table 1, participation in these three dual credit programs is expressed in the “High School” column. Students who earned dual credits were classified as “Ever enrolled” if fewer than 45 quarter credits were earned and as “Persisted” if 45 or more credits were earned, since those students were enrolled for more than one full-time year of coursework. Some students earn a DTA Associate’s degree while in high school, and those students are classified in the “DTA Associate’s” category.

Table 1: Educational Attainment of 2005-06 High School Graduates, by year through 2011-12

Educational Attainment	High School	Year 1 2006-07	Year 2 2007-08	Year 3 2008-09	Year 4 2009-10	Year 5 2010-11	Year 6 2011-12
No postsecondary	74%	33%	29%	27%	25%	24%	23%
Ever enrolled	20%	45%	14%	12%	11%	11%	10%
Persisted	4%	19%	51%	51%	40%	33%	31%
Non-DTA award	≤1%	≤1%	≤1%	≤1%	2%	3%	3%
DTA associate's	≤1%	2%	4%	7%	7%	6%	6%
Bachelor's degree	--	--	≤1%	2%	15%	24%	26%
Graduate degree	--	--	--	--	≤1%	≤1%	≤1%
Total	100%	100%	100%	100%	100%	100%	100%

Column totals of individual cells may not add to 100% due to rounding.

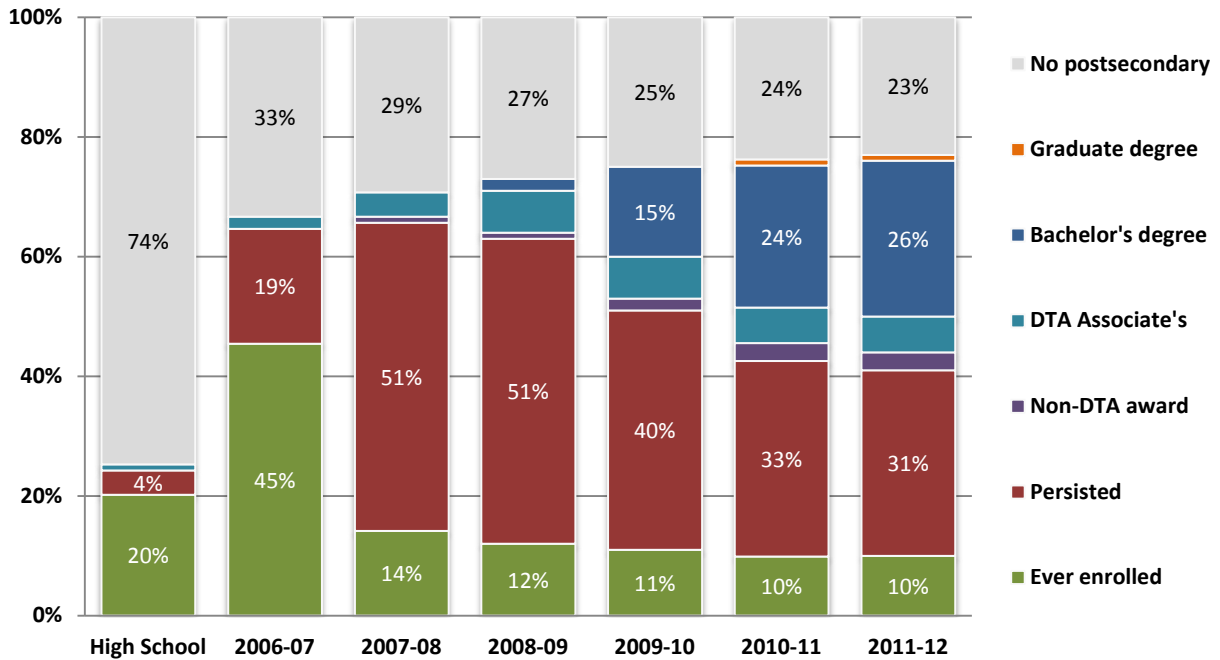
As shown in Table 1,

- Over 25 percent of Washington high school graduates get a head-start on postsecondary education by earning college credit while in high school;
- Including those students who earned college credits in high school, 67 percent of graduates had enrolled in postsecondary courses by the first year after graduation (2006-07);
- By year 4 (2009-10), 24 to 25 percent of the graduates had earned a degree or certificate involving at least a year of study;
- By year 6 (2011-12), 77 percent of the 2005-06 high school graduates had enrolled in postsecondary education at some point. Approximately 27 percent had received a Bachelor’s or higher degree.

¹ Advanced Placement, International Baccalaureate, and Cambridge programs also provide the opportunity for high school students to earn college credits, but these credits are not credited to the student until he/she enrolls in a postsecondary institution. Potential credits earned through participation in these programs are not included in this analysis.

Table 1 information is portrayed graphically in Figure 1.

Figure 1: Educational Attainment of 2005-06 High School Graduates, by year through 2011-12



Educational Attainment for Subgroups

Results of this analysis can be broken out by student characteristics, including high school grade point average (GPA) and student demographics, including gender, race/ethnicity, and income.

High School GPA

Not surprisingly, six-year educational attainment is quite different for subgroups of students when the data are broken out by GPA category. Table 2 summarizes educational attainment over the six years following high school graduation for four bands of high school GPA. The column labelled 'Count' shows the number of graduates in each band. GPA information was available for a total of 59,291 graduates.

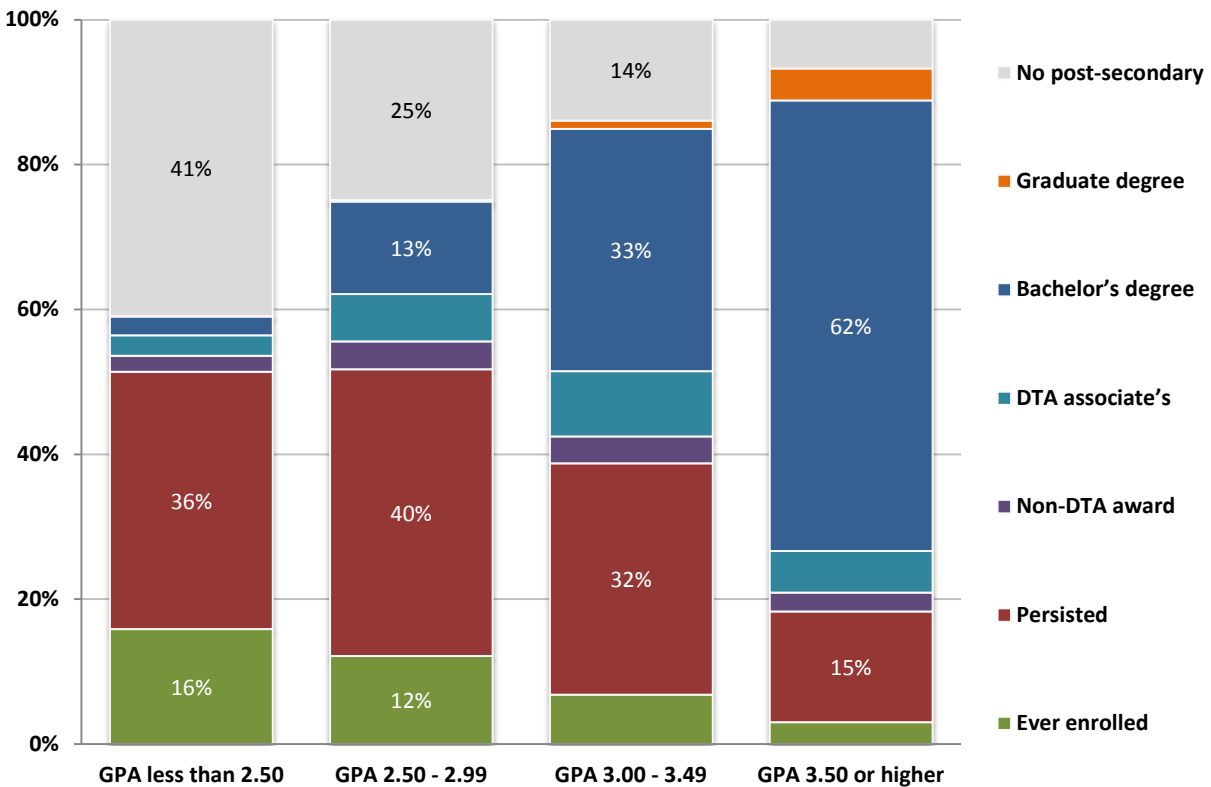
Table 2: Educational Attainment of 2005-06 High School Graduates through 2011-12, by High School GPA

High School GPA	No post-secondary	Ever enrolled	Persisted	Non-DTA award	DTA associate's	Bachelor's degree	Graduate degree	Count*
3.50 +	7%	3%	15%	3%	6%	62%	4%	14,000
3.00 – 3.49	14%	7%	32%	4%	9%	33%	≤1%	14,800
2.50 – 2.99	25%	12%	40%	4%	7%	13%	≤1%	13,800
< 2.50	41%	16%	36%	2%	3%	3%	≤1%	16,700

The count of graduates is rounded to the nearest 100. High school GPA was available for 59,291 graduates.

Table 2 information is portrayed graphically in Figure 2.

Figure 2: Educational Attainment of 2005-06 High School Graduates by 2011-12, by High School GPA



As shown in Table 2,

- As expected, students with lower high school GPAs have much less involvement in postsecondary education. Approximately 41 percent of those with high school GPAs less than 2.50 have no postsecondary experiences as of the sixth year after graduation.

- Also, as expected, the higher the high school GPA, the higher the educational attainment after six years. Over 75 percent of graduates in the highest category (3.50 – 4.00) have received a degree or credential involving at least a year of study by the sixth year after graduation, and 66 percent have received a bachelor’s degree or higher.

Gender and Income

Six-year educational attainment varies by both gender and by income status of the student. Low-income students are those eligible for free or reduced-price lunch while enrolled in K-12 education.

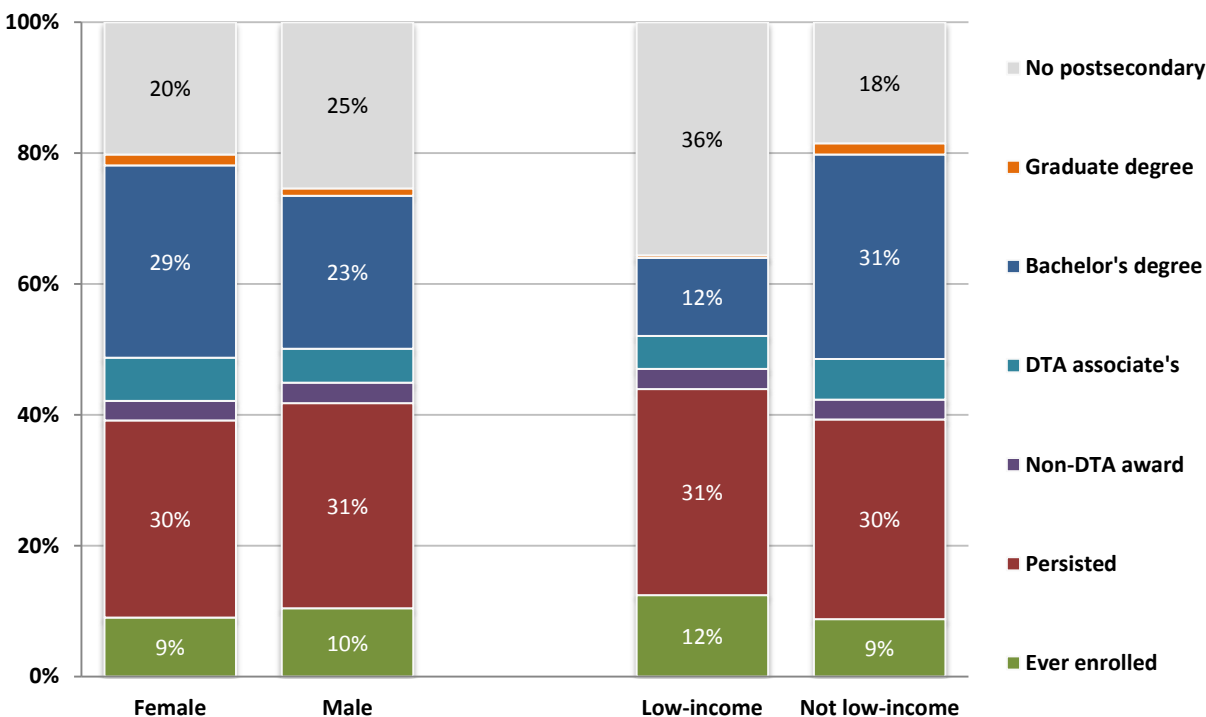
Table 3: Educational Attainment of 2005-06 High School Graduates through 2011-12, by Gender & Income

	No post-secondary	Ever enrolled	Persisted	Non-DTA award	DTA associate's	Bachelor's degree	Graduate degree	Count*
Female	20%	9%	30%	3%	7%	29%	2%	31,000
Male	25%	10%	31%	3%	5%	23%	≤1%	29,700
Low-income	36%	12%	31%	3%	5%	12%	≤1%	15,100
Not low-income	18%	9%	30%	3%	6%	31%	2%	45,600

*The count of graduates is rounded to the nearest 100.

Table 3 information is portrayed graphically in Figure 3.

Figure 3: Educational Attainment of 2005-06 High School Graduates by 2011-12, by Gender & Income



As shown in Table 3,

- Approximately 41 percent of female high school graduates attain a degree or certificate by Year 6 compared to 32 percent of male high school graduates.
- About 20 percent of low-income students are awarded a degree or certificate by six years after graduation compared to approximately 42 percent of the high school graduates not classified as low-income.

High School Graduates Not Enrolled in Postsecondary in 2006-07

Approximately 23,400 high school graduates in 2005-06 – including over 3,000 who had participated in Running Start, College in the High School, or Tech Prep programs in high school – did not enroll in postsecondary education or training in 2006-07. Table 4 shows the educational attainment continuum for this group by year through 2011-12. Of this group, over 1,200 received a postsecondary award by 2011-12.

Table 4: Educational Attainment of 2005-06 High School Graduates not enrolled in 2006-07, by year

Educational Attainment 2011-2012	High School	Year 1 2006-07	Year 2 2007-08	Year 3 2008-09	Year 4 2009-10	Year 5 2010-11	Year 6 2011-12
No postsecondary	87%	87%	76%	70%	65%	61%	59%
Ever enrolled	13%	13%	20%	18%	17%	17%	16%
Persisted	0-1%	0-1%	3%	11%	15%	18%	20%
Non-DTA award	0-1%	0-1%	0-1%	0-1%	0-1%	2%	2%
DTA associate's	0-1%	0-1%	0-1%	0-1%	0-1%	2%	2%
Bachelor's or higher	--	--	0-1%	0-1%	0-1%	0-1%	2%
Total	100%	100%	100%	100%	100%	100%	100%

Column totals of individual cells may not add to 100% due to rounding.

As expected, those with high school GPAs 3.50 or above accounted for most of the postsecondary awards as of 2011-12, but graduates in all GPA categories earned postsecondary awards, as shown in Table 5.

Table 5: Educational Attainment in 2011-12 of 2005-06 High School Graduates not enrolled in 2006-07, by High School GPA

High School GPA	No post- secondary	Ever enrolled	Persisted	Non-DTA award	DTA associate's	Bachelor's or higher	Count*
3.50 +	48%	15%	18%	2%	5%	12%	2,000
3.00 – 3.49	53%	15%	23%	2%	3%	4%	3,900
2.50 – 2.99	57%	17%	21%	2%	2%	0-1%	6,000
< 2.50	63%	16%	19%	0-1%	0-1%	0-1%	10,800

*Counts of graduates by category are rounded to the nearest 100.

Table 6 shows breakouts by gender and by income. Differences between male and female educational attainment were relatively small. Female high school graduates in this group had a greater tendency to enroll in postsecondary education and training even after a year-long gap after high school. Both males and females earned postsecondary awards at similar rates. Males earned more non-DTA awards than females.

There is more disparity when income-based subgroups are analyzed. Low-income students were less likely to enroll in postsecondary education and training. Approximately 3.5 percent of the low-income graduates earned postsecondary awards by 2011-12, compared to 6.5 percent of those not classified as low-income.

Table 6: Educational Attainment in 2011-12 of 2005-06 High School Graduates not enrolled in 2006-07, by Gender & Income

	No post-secondary	Ever enrolled	Persisted	Non-DTA award	DTA associate's	Bachelor's or higher	Count*
Female	57%	17%	21%	0-1%	2%	2%	11,000
Male	61%	15%	19%	2%	2%	2%	12,500
Low-income	64%	15%	18%	0-1%	0-1%	0-1%	8,400
Not low-income	56%	16%	21%	2%	2%	3%	15,100

*Counts of graduates by category are rounded to the nearest 100.

Summary

Approximately 77 percent of 2005-06 Washington public high school graduates enrolled in some postsecondary education or training within six years of high school graduation. Approximately 75 percent of the graduates with a high school GPA of 3.50 or above had been awarded a degree or certificate involving at least a year of study, or had completed an apprenticeship by 2011-12.

As expected, those with the highest GPAs participated in postsecondary education at the highest levels, but almost 60 percent of those in the lowest GPA category had enrolled in postsecondary education, and 8 to 9 percent had been awarded a degree or certificate or had completed an apprenticeship by 2011-12.

Approximately 64 percent of low income high school graduates participated in postsecondary education or training compared with 82 percent of those not classified as low-income.

Future Work

This first look at a longer-term follow-up sets the stage for additional studies incorporating additional data elements. Addition of professional licensing information would indicate which high school graduates received professional licenses in career areas where postsecondary award information is not currently available. The study of employment trajectories starting during high school would also provide insight into the career paths of students in this cohort.

Appendix: Data Sources

High School Graduate

The Office of Superintendent of Public Instruction (OSPI) annual summary data files for high school enrollment and completion (P-210) were used to identify high school graduates. The graduate cohort is defined by the academic year data file in which they are reported as graduated. The cohort for this study equals those graduating from high school during the 2005-2006 school year.

A student is included as a high school graduate if he/she was reported in OSPI's 2005-06 academic year enrollment summary file with student enrollment status indicating:

- “graduated with regular high school diploma” or Enrollment_Status_Type = ‘G0’,
- “confirmed completion of Individualized Education Program” or Enrollment_Status_Type = ‘C2’,
- “confirmed receipt of adult high school diploma” or Enrollment_Status_Type = ‘C1’

If a student has more than one graduation record in the school year in the P210 file, the record associated with the school primarily responsible for the student is used (IsPrimary = ‘1’). If a student has 2 graduation records both indicated as the primary school responsible for the student, the record with the most recent entrance date is used.

This cohort corresponds to the state-level cohort used in the ERDC P-20 Reports for High Schools (“High School Feedback Reports”) available at www.erdcddata.wa.gov.

Washington Community and Technical College Enrollment and Awards

Enrollment data, as well as degree and certificate completion data, for the state’s 34 public two-year institutions came from the State Board for Community & Technical Colleges (SBCTC). Students enrolled in basic skills courses only (Adult Basic Education, English as a Second Language, GED preparation classes) are not treated as postsecondary enrollment for this study. Community and technical college enrollment includes students preparing for both certificates and degrees leading to careers as well as students preparing for transfer to academic programs in four-year institutions.

Washington Public 4-Year Higher Education Enrollment and Awards

Enrollment and degree data for the state's six public baccalaureate higher education institutions come from the Public Centralized Higher Education Enrollment System (PCHEES) maintained by the Office of Financial Management (OFM).

Enrollment data for private and out-of-state higher education institutions

Enrollment and degree data for institutions other than the Washington public institutions were obtained from the National Student Clearinghouse (NSC). The National Student Clearinghouse

currently captures over 98 percent of postsecondary enrollment nationally. At this time it is the best source of information about postsecondary enrollment and degrees awarded in private higher education institutions within Washington and for all out-of-state institutions. More information about NSC is available at the website www.studentclearinghouse.org/.

Funding for NSC data acquisition was provided by U.S. Department of Education, American Recovery and Reinvestment Act (ARRA) Statewide Longitudinal Data Systems (SLDS) Grant Program.

Apprenticeship Completions

The Washington Department of Labor & Industries provided data for apprenticeship completions for the six-year study period.