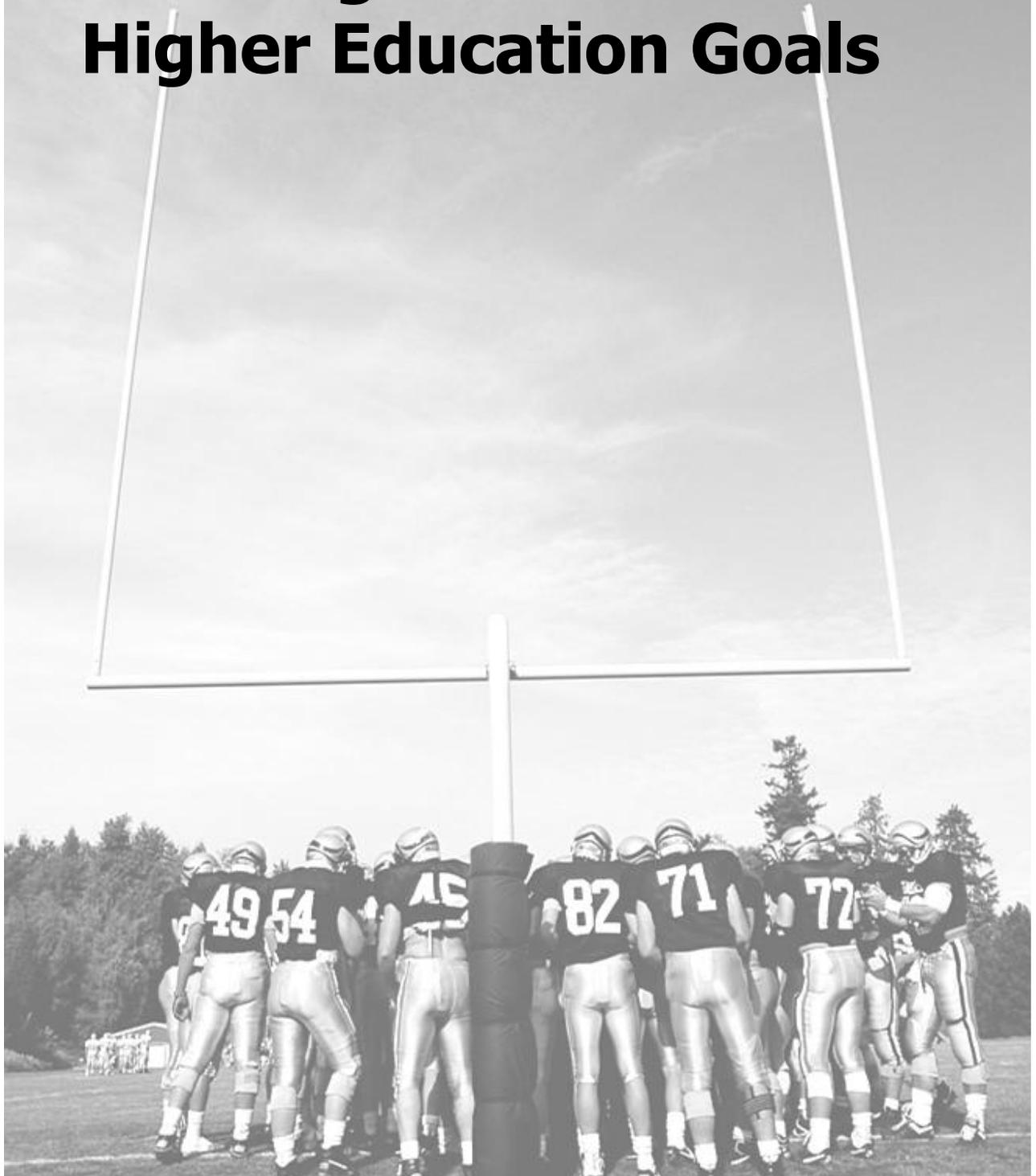


# **Chapter VIII: Progress Toward Washington's Higher Education Goals**





### Progress on aligning high school graduation, college entry requirements

One way to encourage more high school students to enroll in college is to ensure that the courses they must complete to graduate from high school are consistent with eligibility requirements for admission to higher education institutions. In the past, state high school graduation requirements have not always aligned with college entrance requirements.

In 2010, the Higher Education Coordinating Board and the State Board of Education (SBE) worked to update and align high school graduation and college admission requirements. In November 2010, both the HECB and SBE adopted common requirements for high school graduation and college admission that are scheduled to go into effect in 2016. Changes to the SBE high school graduation requirements require legislative approval and funding.

The revised requirements will ensure that students are automatically enrolled in coursework that would meet or exceed the HECB’s current minimum requirements for college admission. Students would have flexibility to opt for a more technically oriented pathway or a more academic pathway based on their plans for high school and beyond.

#### State Board of Education and HECB Common Requirements (2016)

| Subjects   | Credit Requirements   |   |
|--|---|---|
| English  | <b>4</b>  |   |
| Mathematics                                      | <b>3</b>  |   |
| Senior Year Math-Based Quantitative Course       | Math or Algebra-based science course required <sup>1</sup>                            |   |
| Science  | <b>3</b><br>(2 lab science – 1 algebra-based and 1 in biology, chemistry, or physics) |   |
| Social Sciences                                  | <b>3</b> <sup>1</sup>   |   |
| World Languages                                  | <b>2</b>  |   |
| Arts   | <b>1</b><br>(Fine, visual, or performing arts)  |   |
| State Board of Education Additional Requirements |   |   |
| Occupational Education                           | <b>1</b>  | <b>Electives</b><br>May include: remaining HS distribution courses, additional subject area courses, philosophy, or non-doctrinal religion. |
| Career Concentration                             | <b>2</b> <sup>1</sup>   |   |
| Health & Fitness                                 | <b>2</b>  |   |
| Arts   | <b>1</b>  |   |
| Electives  | <b>2</b>  |   |
| <b>Total Credits</b>                             | <b>24</b> <sup>2</sup>  |   |

<sup>1</sup> Considered a dual-purpose course and may count with any math or algebra-based science in the senior year.

<sup>2</sup> Up to 2 credits could be waived by local administrators for students who have failed a class and taken the appropriate credit recovery classes to regain the credit. Students must earn designated credits in mandatory subjects. HECB does not establish a minimum number of credits but recommends students enroll in a rich curriculum that includes the required common courses and a rich selection of electives.

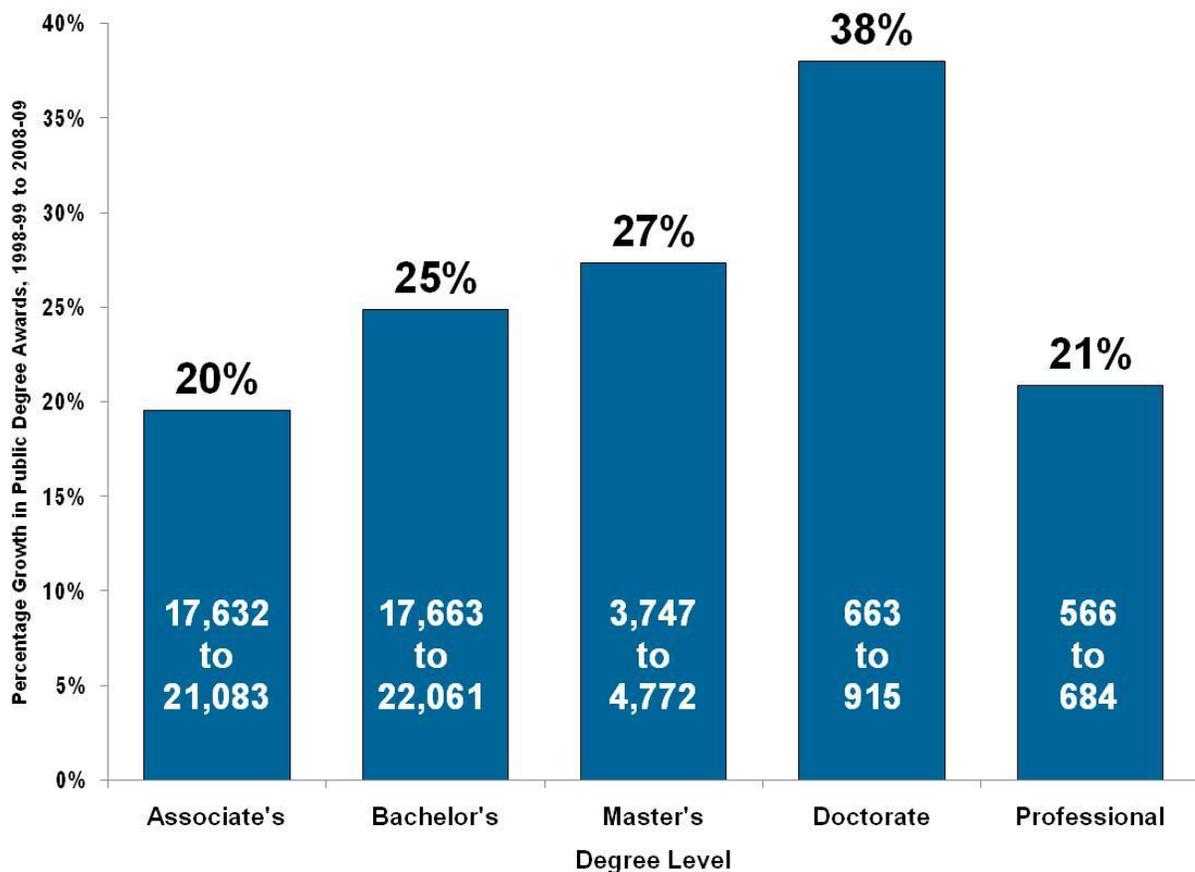
### Degree production has grown over the past decade

The number of degrees awarded by Washington's public and private four-year colleges and universities has steadily risen over the last decade. This was true for bachelor's, master's, doctorate, and professional degrees.

In the public sector, the largest percentage increase was in doctoral degrees, although the actual number of those degrees was much smaller than other degree categories (except first-professional degrees such as law and medicine).

Growth in degree production reflects increased higher education funding provided to meet increased demand earlier in the decade. Recent reductions in higher education funding as a result of the state's current fiscal challenges could reduce degree-award growth in future years.

**Washington Public Institution Degree Award Growth,  
by Award Level  
1998-99 to 2008-09**



Source: Integrated Postsecondary Education Data System (U.S. Department of Education), fall 2009.

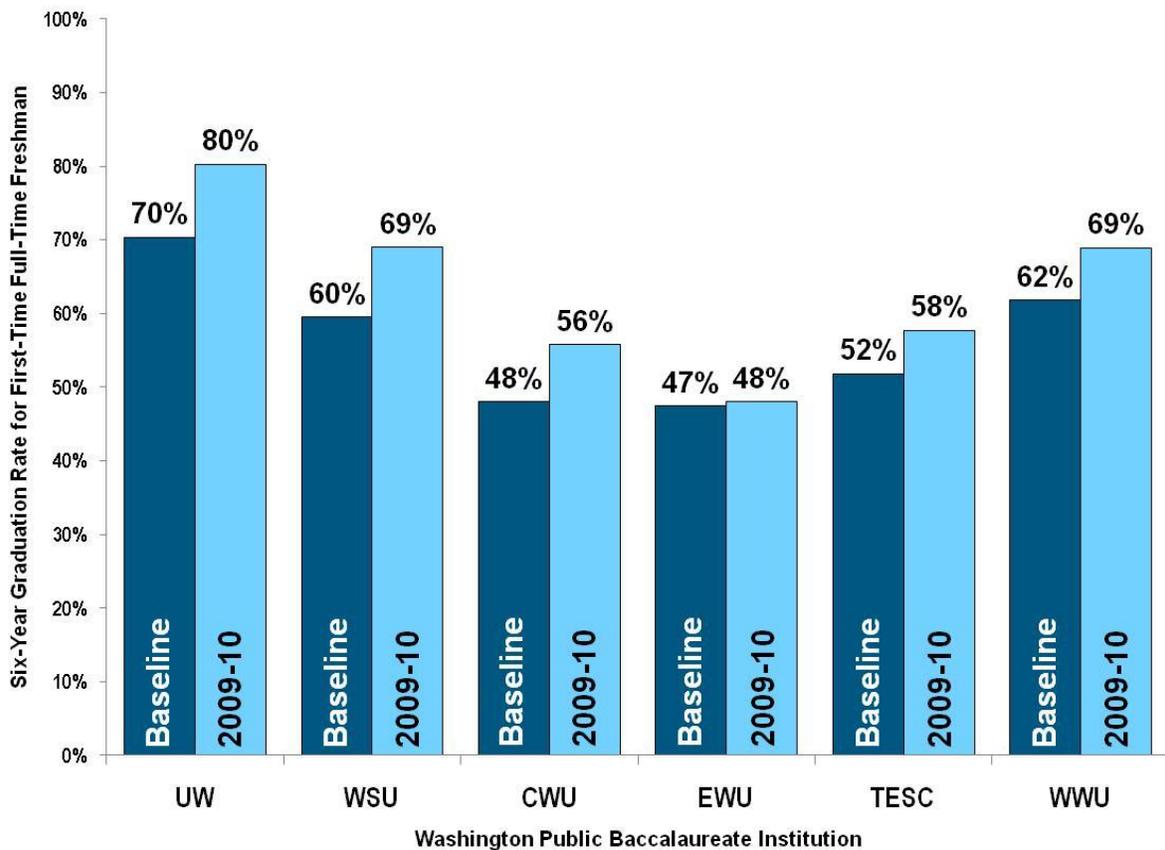
### State baccalaureate institutions producing degrees at faster pace

Many students today take more than four years to finish college, often because of work and family commitments.

The U.S. Department of Education reports that students earning bachelor's degrees take, on average, about 55 months to complete degrees. This sample includes only those who didn't stop for more than six months during this time. Those who attended multiple institutions took longer to complete degrees—59 months on average for those attending two institutions and 67 for those attending three.<sup>3</sup>

In Washington, the percentage of students who enter public four-year colleges and universities as freshmen and earn baccalaureate degrees within six years has increased. This is a measure of increasing efficiency on the part of institutions in the production of baccalaureate degrees.

**Six-Year Graduation Rates,  
First-Time, Full-Time Freshmen  
Washington Public Institutions**



Note: Baseline is the annual average of 1997-98 to 2001-02.

Source: Higher Education Coordinating Board, *Higher Education Accountability Report*, 2009-10.

<sup>3</sup> Retrieved December 10, 2009, from <http://nces.ed.gov/fastfacts/display.asp?id=40>.

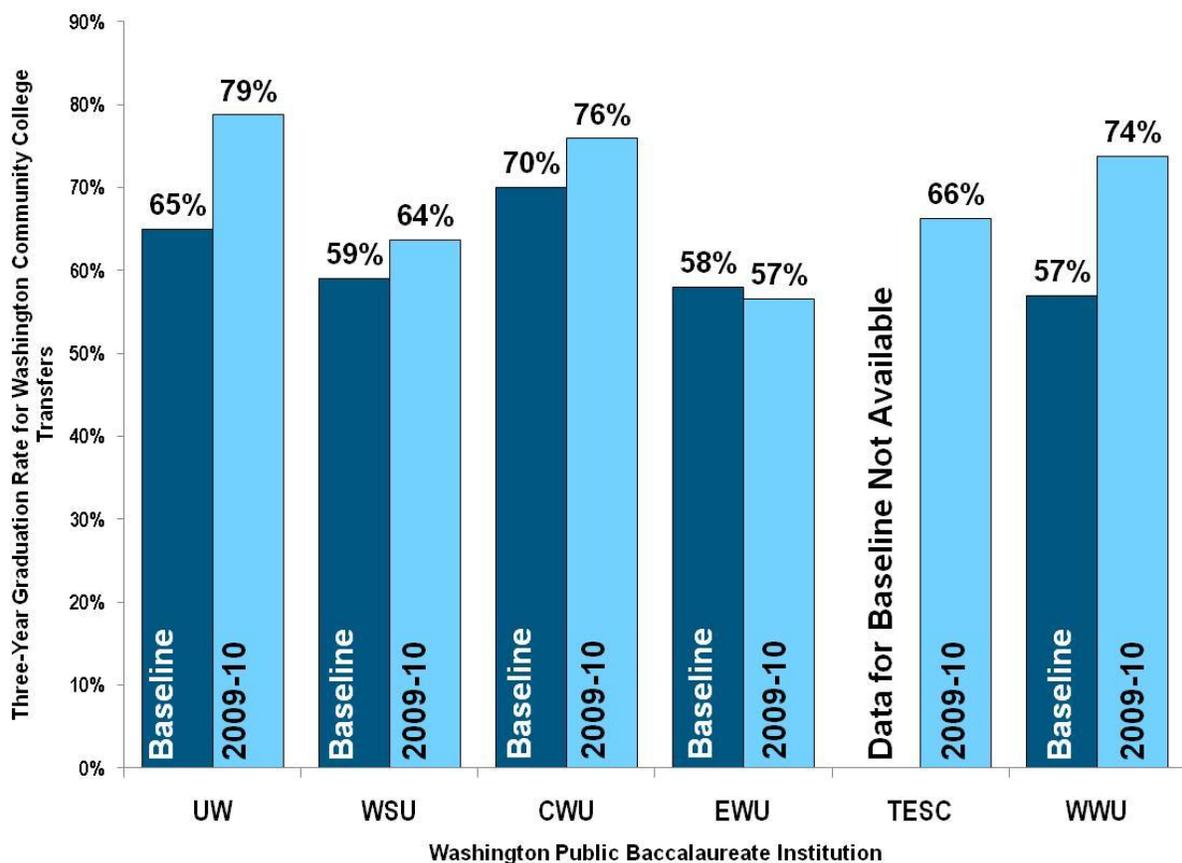
### Graduation rate for transfer students has improved

The number of students who graduate within three years after transferring to Washington's public baccalaureate institutions has increased by nearly 9 percent from a baseline period of 1997-98 to 2009-10. This measure represents the performance of the higher education system as a whole, not just the two-year college system.

Completing degrees in a timely manner helps students launch their careers earlier and become productive members of society sooner. Timely completion also frees up space at colleges to serve more students. It is difficult to improve outcome measures like graduation rates, but Washington institutions are doing just that.

### Washington Public Baccalaureate Three-Year Graduation Rate for Transfer Students with an Associate Degree from a Washington Community College

Baseline (Annual Average of 1997-98 to 2001-02) to 2009-10



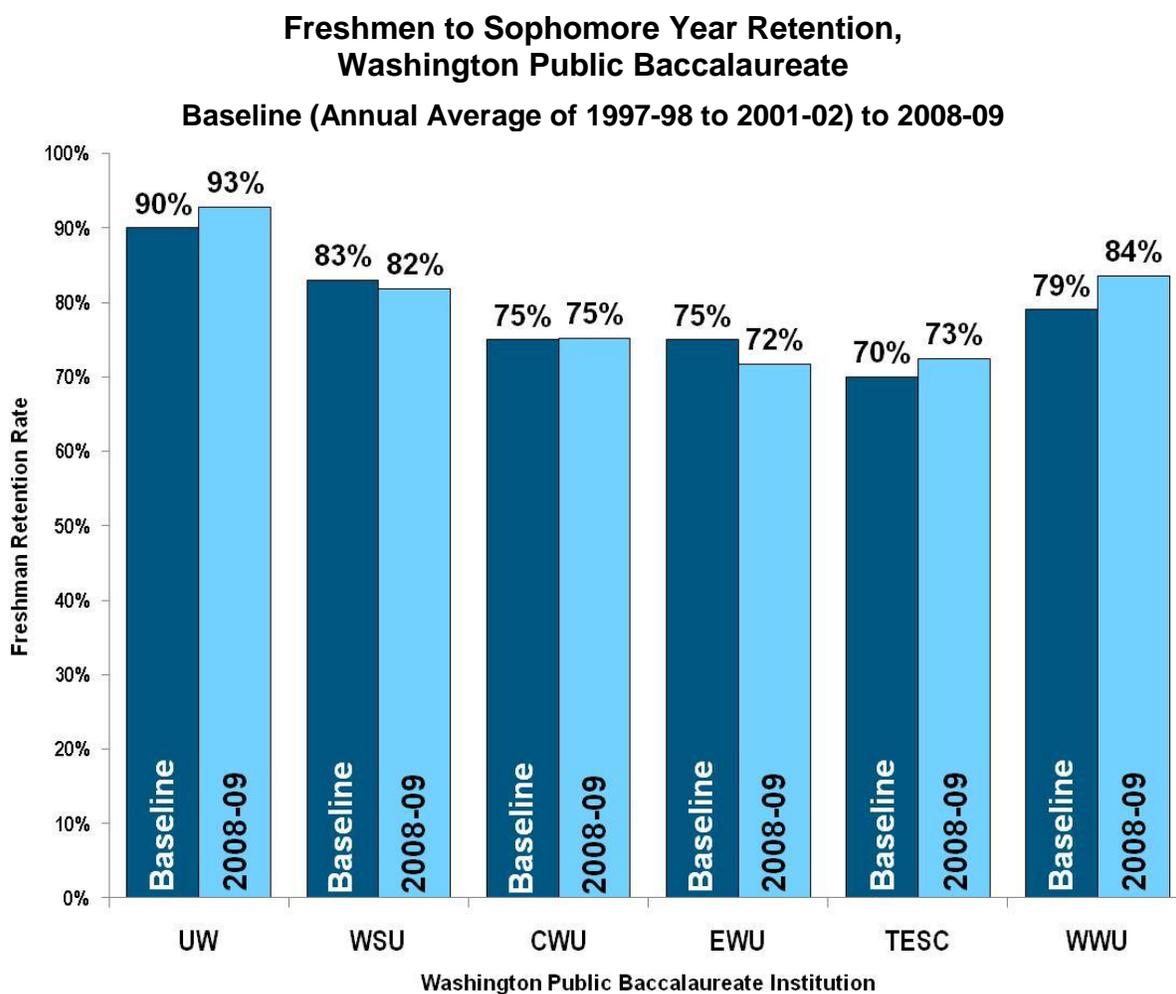
Source: Higher Education Coordinating Board, *Higher Education Accountability Report*, 2009-10.

### A large majority of Washington freshmen who attend four-year public institutions return for the sophomore year

Washington's baccalaureate institutions are highly efficient in moving students through years of college to graduation. One reason is relatively high freshman retention rates that average about 80 percent.

Still, striving for even higher freshman retention rates offers great benefits for students, institutions and the state. By helping more freshmen make the transition to their sophomore year, institutions will produce more degrees and, ultimately, increase access to higher education for Washingtonians.

Institutional freshman retention rates vary, in part because of the students served. Rates also can change over time. For example, Western Washington University's retention rate has risen from about 79 percent at the start of the decade to about 84 percent in 2008-09.



Source: Higher Education Coordinating Board, *Higher Education Accountability Report*, 2009-10.

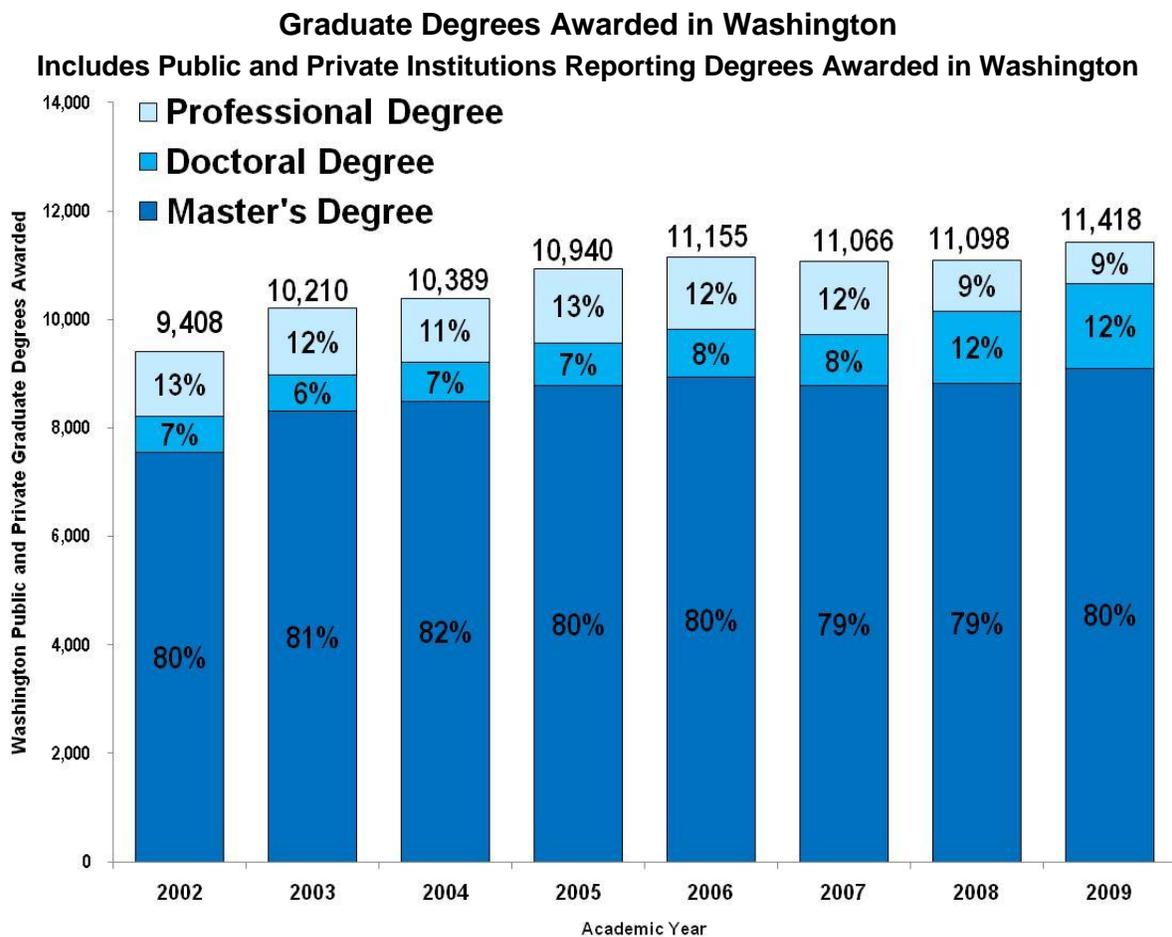
### Universities experience moderate growth in production of graduate degrees

The annual production of graduate degrees at Washington’s public and private colleges and universities showed a moderate increase of a little less than 17 percent between 2002 and 2009.

Since the early part of the decade, graduate degree growth has been driven primarily by the University of Washington. A notable increase occurred at Eastern Washington University prior to 2004-05, but production has declined since then.

Not surprisingly, master’s degrees are by far the most common graduate degree awarded. Business, Education, Health, and Social Sciences are the most common major areas of study. In 2009, nearly 50 percent of the state’s master’s and first-professional degrees were awarded by private institutions.

About 93 percent of the state’s doctoral degrees are produced in the state’s public institutions, while private institutions play a more significant role in the production of master’s and “first-professional” degrees (almost exclusively degrees in law and medicine).



Note: Totals may not add due to rounding.

Source: Integrated Postsecondary Education Data System (U.S. Department of Education), fall 2009.

**Public institutions produce biggest share of degrees in high demand fields**

Although the current economic downturn has temporarily reduced overall demand for workers, demand appears to remain strong for certain occupations such as engineers and computer/software specialists. The long-term outlook, particularly in high-demand fields, remains bright. Fields that are expected to continue to be in high demand include engineering, software engineering, computer science, architecture, and health care.

Washington relies heavily on public colleges and universities to produce baccalaureate and graduate degree holders in the high-demand health and STEM fields (science, technology, engineering, and mathematics). In 2007-08, public institutions produced 77 percent of the baccalaureate and graduate degrees in the STEM fields, and 74 percent in the health fields.

Public institutions have greatly increased high-demand degree production since 2001. The total number of high-demand degrees and certificates awarded by public institutions has grown by 36 percent since 2001-02. Allied Health and Health Sciences and Construction Management have shown consistent and steady increases in degrees conferred since 2001-02. Allied Health and Health Sciences have grown a staggering 63 percent since 2001-02. The number of graduates in math, biological, and physical sciences has increased by 27 percent since 2001-02. Although the number of graduates in engineering leveled off last year, they remain 7 percent higher than the total for 2003-04.

**Annual High-Demand Degree Awards, 2001-2009**

| High-Demand Instructional Program Areas              | Academic Year |               |               |               |               |               |               |               |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|  | 2001-02       | 2002-03       | 2003-04       | 2004-05       | 2005-06       | 2006-07       | 2007-08       | 2008-09       |
| Allied Health & Health Sciences                      | 4,443         | 5,018         | 5,946         | 6,395         | 6,995         | 7,019         | 7,226         | 8,393         |
| Computer and Information Sciences                    | 1,435         | 1,877         | 1,899         | 1,516         | 1,222         | 1,191         | 1,183         | 1,212         |
| Engineering Technologies and Technicians             | 1,456         | 1,936         | 2,176         | 1,823         | 1,821         | 1,840         | 1,915         | 2,429         |
| Engineering, Four-Year Only                          | 1,293         | 1,264         | 1,255         | 1,262         | 1,293         | 1,347         | 1,343         | 1,375         |
| Math, Biological & Physical Sciences, Four-Year Only | 1,862         | 1,974         | 1,949         | 2,133         | 2,215         | 2,396         | 2,374         | 2,537         |
| Transfer High-Demand (STEM), Two-Year Only           | 860           | 1,056         | 1,281         | 1,111         | 1,059         | 1,013         | 1,129         | 1,051         |
| Construction Management, Two-Year Only               | 29            | 44            | 84            | 94            | 125           | 253           | 304           | 270           |
| <b>Public Higher Education Total</b>                 | <b>11,378</b> | <b>13,169</b> | <b>14,590</b> | <b>14,334</b> | <b>14,730</b> | <b>15,059</b> | <b>15,474</b> | <b>17,267</b> |

Source: GMAP - Economic Vitality Measures.  
<http://performance.wa.gov/EconomicVitality/EV101509/WorkforceSkills/HighDemanddegreesand/Pages/default.aspx>

**Diversity increasing among new faculty members**

Across all sectors of Washington’s public higher education system, today’s students are ethnically more diverse than the faculty who teach them. However, new faculty hires at the public colleges and universities are helping increase diversity to levels that more closely reflect the student population in the future.

Statistics show that public four-year institutions rely more heavily on the international pool of faculty candidates to fill positions than do private four-year institutions or community and technical colleges. About 15 percent of new faculty hires at public institutions between fall 2007 and fall 2009 were nonresident aliens, compared to about two percent at private baccalaureate institutions and less than one percent at community and technical colleges.

**Faculty and Student Population by Race/Ethnicity  
Washington Public Higher Education Institutions**

| Race/Ethnicity                          | Washington Public Undergraduate Student Population | Washington Public Graduate Student Population | All Public Faculty, Fall 2007 | Public Newly Hired Faculty, Fall 2007-09 |
|---|--|---|-------------------------------|--|
| <b>White Non-Hispanic</b>               | <b>62.2%</b>                                       | <b>62.1%</b>                                  | <b>80.5%</b>                  | <b>44.4%</b>                             |
| <b>Black Non-Hispanic</b>               | <b>4.1%</b>  | <b>2.4%</b>                                   | <b>2.0%</b>                   | <b>1.3%</b>                              |
| <b>Hispanic</b>                         | <b>7.1%</b>  | <b>4.0%</b>                                   | <b>3.0%</b>                   | <b>5.0%</b>                              |
| <b>Asian or Pacific Islander</b>        | <b>8.7%</b>  | <b>9.2%</b>                                   | <b>6.5%</b>                   | <b>5.3%</b>                              |
| <b>American Indian or Alaska Native</b> | <b>1.4%</b>  | <b>1.2%</b>                                   | <b>1.1%</b>                   | <b>0.9%</b>                              |
| <b>Multiple / Other</b>                 | <b>2.8%</b>  | <b>0.2%</b>                                   | <b>0.6%</b>                   | <b>0.7%</b>                              |
| <b>Unknown</b>                          | <b>10.7%</b>                                       | <b>9.7%</b>                                   | <b>4.3%</b>                   | <b>27.1%</b>                             |
| <b>Non-resident Alien</b>               | <b>3.0%</b>  | <b>11.2%</b>                                  | <b>2.1%</b>                   | <b>15.1%</b>                             |
| <b>TOTAL *</b>                          | <b>100%</b>  | <b>100%</b>                                   | <b>100%</b>                   | <b>100%</b>                              |

\*Totals may not equal 100 percent due to rounding.

Sources: Integrated Postsecondary Education Data System (U.S. Department of Education), 2010.