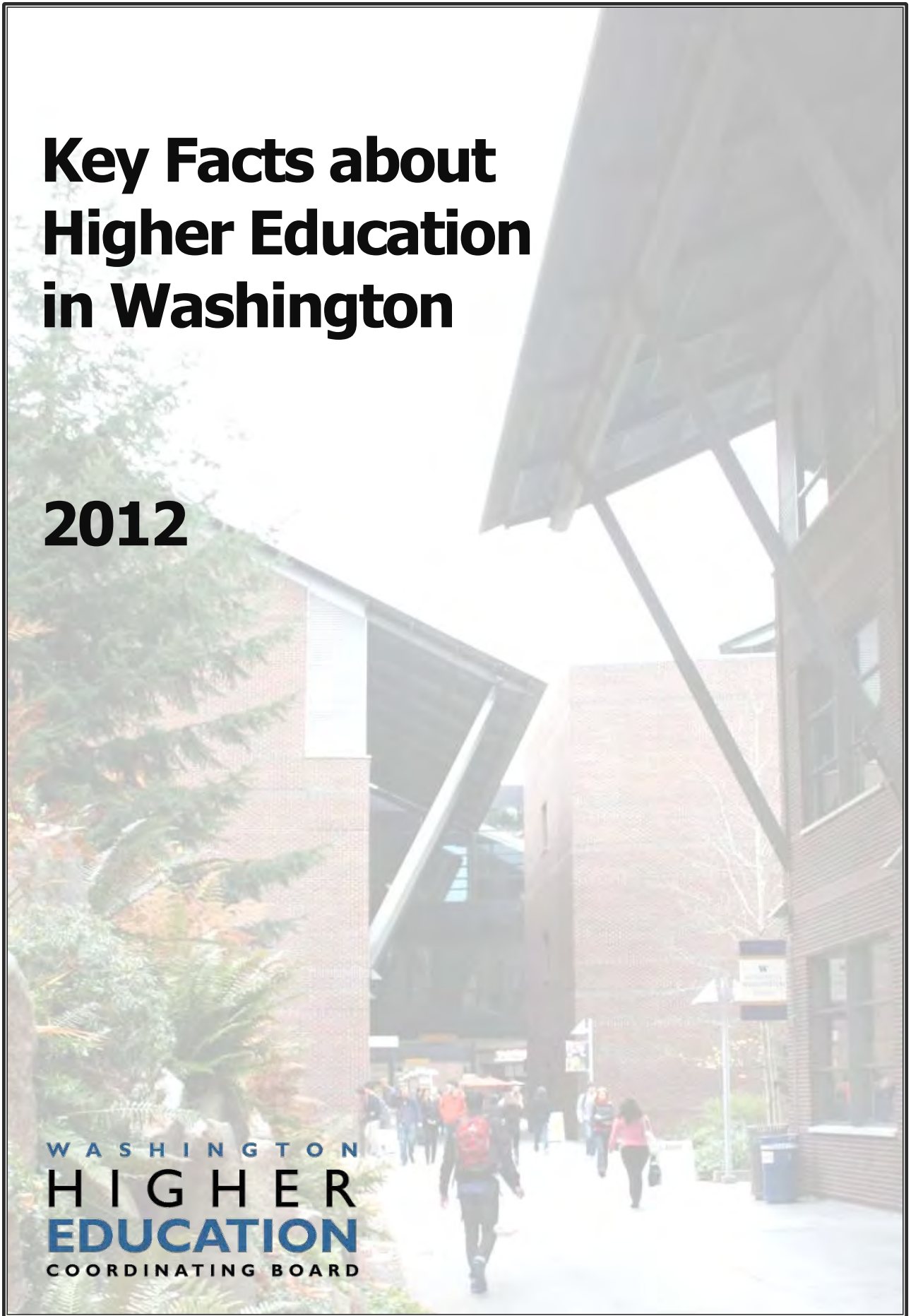


Key Facts about Higher Education in Washington

2012

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Key Facts about Higher Education in Washington

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Introduction

Introduction

The United States was, for many years, the best-educated country on earth. Now it is dangerously close to tipping backward as other nations press ahead to take advantage of opportunities in the new, knowledge-driven global economy.

The evidence for this in Washington is stark. At a time when we should be educating a much greater percentage of our citizens to higher levels we are instead making it increasingly difficult for tens of thousands of potential students, many of them from our state's most economically disadvantaged households, to gain the skills and knowledge necessary to succeed.

We have done this especially over the last three years through deep cuts in student funding – funding desperately needed to meet one of our most important statewide priorities – raising educational attainment. Worse yet, these cuts are almost certain to continue this decade, accompanied by corresponding steep increases in tuition that threaten to place higher education beyond the reach of many middle-class families.

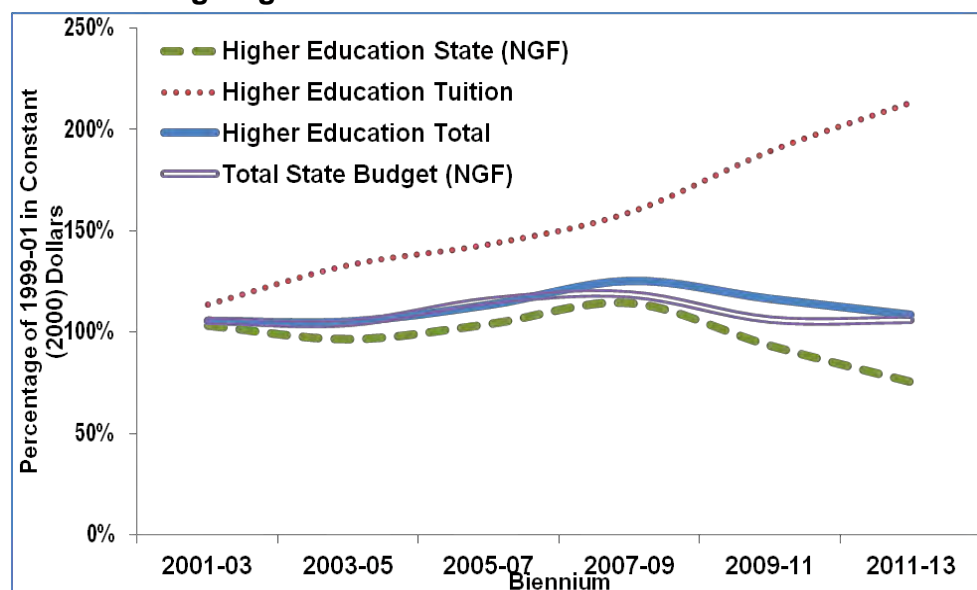
It hasn't always been like this. In the 1960s and 70s, the state paid more than 90 percent of instructional costs. From the 1980s to 2008, we steadily reduced the state's share to an average of about 65 percent. But, with the most recent round of budget cuts, we have reached a nadir: the state now pays an average of 35 percent of instructional costs while students and families pay 65 percent.

One argument supporting these shifts is that higher education is primarily a personal, not a societal benefit. And those who receive this benefit should pay a greater share of the cost. An impressive array of facts cited in this report support an alternative view.

Higher levels of education continue to directly correlate with social stability and are important contributors to statewide economic success.

As a societal investment, higher education pays triple the returns of prison construction and high incarceration rates.

Rising Tuition and Declining Public Funding Make Achieving Degree Goals Harder for Thousands of Students



Introduction

Every level of education achieved beyond high school confers significant additional lifetime earnings. But the gain isn't just personal. It takes a broadly well-educated citizenry to build a stable and growing economy, just as it takes educated citizens to forge a stable society to support that growth.

In general, people who fully realize their educational potential require far fewer support services from government. This frees government revenues to enable more incisive action on challenges to our environment, transportation needs, and economic development—among many other priorities.

As education levels rise, people are healthier and happier, and far less likely to commit crimes, become unemployed, or require state-supported medical assistance. They also are more likely to become fully engaged citizens by voting, running for elective office, and participating in volunteer and philanthropic activities.

Particularly problematic for students from middle- and lower-income households, the shift in higher education funding has come at a time when per-capita income has remained flat. Students faced with a much higher price for education and whose families have experienced no real income growth over the last two decades have had few options.

Those who have not qualified for financial aid have had to borrow more to attend college and many now face significant debt burdens when they graduate. Even more troublesome, price spikes in higher education deter many students, especially those at lower income levels, from participating.

Washington is faced with a deep dilemma. How can it make the investment in students it needs to make when revenue desperately needed to provide basic social and health support to our most vulnerable populations is being reduced? To date, there does not appear to be an answer to this question.

However, one thing is certain, if we continue down the current path, our higher education institutions will become far less accessible and affordable, more narrowly focused, and less capable of meeting future economic and societal needs. And this is exactly the opposite direction we should be heading.

The 2012 Strategic Master Plan Update, discussed in the last chapter of this report, shows that our higher education institutions are rapidly reaching the point where they no longer will be able to serve increased numbers of students.

This means we will be unable to meet degree production goals necessary to raise educational attainment. It means thousands of students who could and should earn degrees and certificates will not do so. And it means a less inclusive and more bifurcated society, one far less capable of realizing its potential—now, and in future generations.

Key Facts about Higher Education in Washington provides vital data to chart higher education's progress and challenges. First published in 2002 by the Washington Higher Education Coordinating Board, this annual report highlights *Key Facts* about Washington's postsecondary institutions — including faculty, students, budgets, and financial aid.

The Higher Education Coordinating Board



The Washington Higher Education Coordinating Board (HECB) is a state agency governed by a 10-member citizen board to provide vision and leadership for public higher education in Washington.

Created by the Legislature in 1985, the HECB was formally established in January 1986, as the successor to the Council for Postsecondary Education. Board members are appointed to four-year terms by the Governor and confirmed by the Senate.

A student member, also appointed by the Governor, serves a one year term. The Board annually selects from its membership a chair and a vice-chair who each serve for one-year. The chair and vice-chair may serve more than one year if selected to do so by the membership. The agency's executive director serves at the pleasure of the Board.

The Higher Education Coordinating Board serves as an advocate for students and the overall system of higher education with the Governor, the Legislature, and the public. The Board also collaborates with the public and private two- and four-year institutions, other state governing boards, and the Superintendent of Public Instruction to create a seamless system of public education geared toward student success.

HECB's Key Responsibilities:

- 1) Develops a statewide strategic master plan for higher education.
- 2) Administers state and federal financial aid and other education services programs.
- 3) Reviews, evaluates, prioritizes, and recommends the operating and capital budget requests of the two- and four-year public institutions.
- 4) Establishes an accountability monitoring and reporting system to achieve long-term performance goals in higher education.
- 5) Administers the Guaranteed Education Tuition (GET) college savings program.
- 6) Adopts policies that ensure efficient transfer of credits and courses throughout public higher education.
- 7) Approves all new academic degree programs offered by Washington's public four-year universities and college.
- 8) Establishes minimum admissions standards for the state's public baccalaureate institutions.
- 9) Conducts statewide needs assessment for new degrees and programs, off-campus centers and locations.
- 10) Provides degree authorization for out-of-state colleges and universities, and some in-state private colleges and universities.

Introduction

Quick Facts about Higher Education in Washington

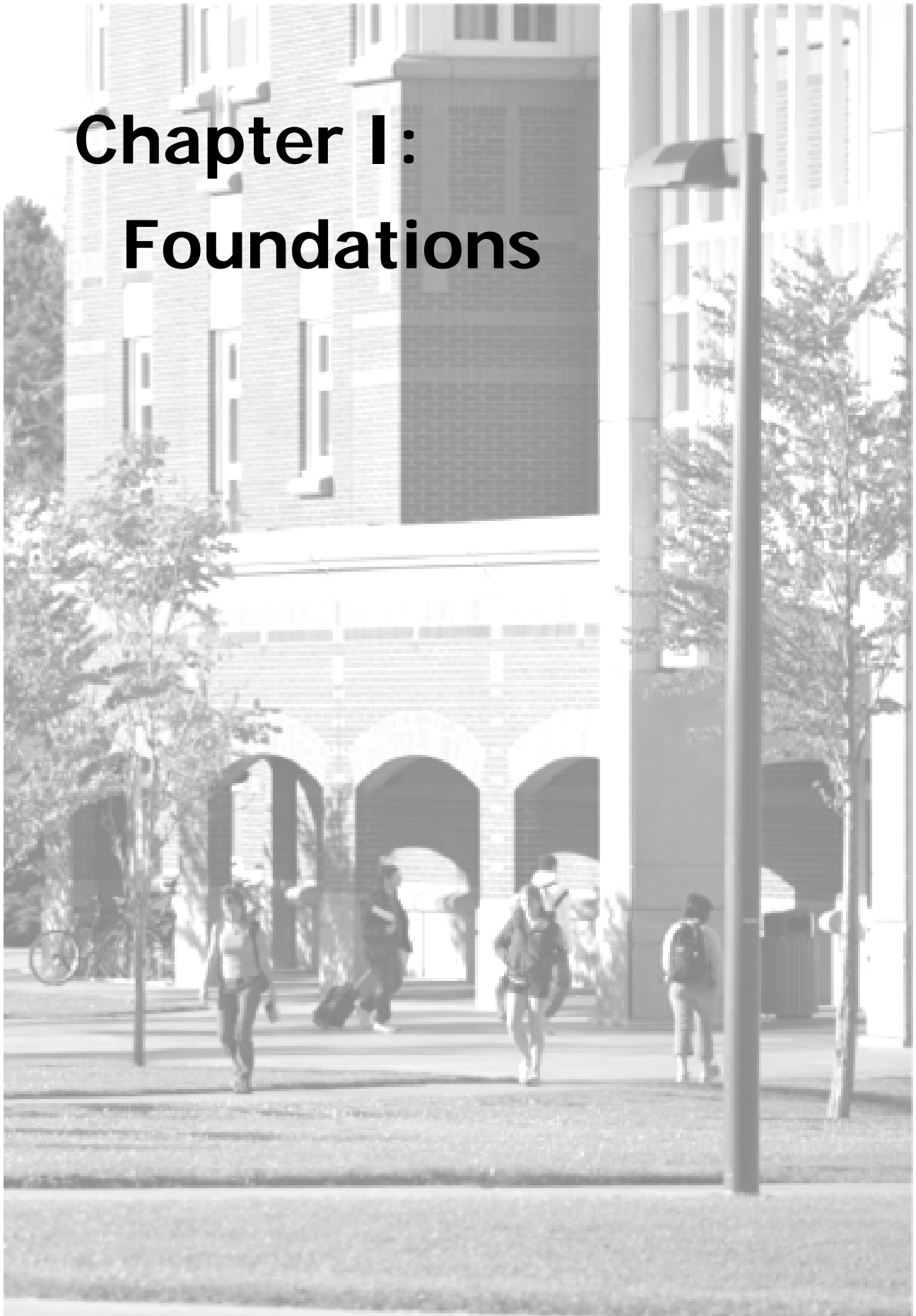
- Higher education operating budget 2011-13: **\$11.1 billion** (18 percent of state total)
- Near general fund-state contribution for higher education 2011-13: **\$2.8 billion** (8.6 percent of state total)
- State appropriations per student FTE by state, Washington ranking in 2010: **32nd**
- College students receiving state, federal, or institutional need-based aid in 2010-11 at institutions participating in the State Need Grant program: **186,800**
- Percentage of high school graduates enrolled in college within one year of graduation (2009): **64 percent**
- Full- and part-time employees, Washington public colleges and universities (Fall 2010): **50,184**
- Jobs generated by academic research (2008-09): **15,400**
- Economic activity (sales) resulting from academic research (2008-09): **\$2.2 billion**
- Tax revenue generated for each \$1 in state funding for UW (FY 2008-09): **\$1.48**

Fall 2010 Student Headcounts	
Public community and technical colleges	270,573
Public baccalaureate undergraduate	94,118
Public baccalaureate graduate/professional	21,975
Private baccalaureates	51,740

Degrees and Certificates Conferred in 2009-10	
Public community and technical colleges	28,812
Public baccalaureates, bachelor's	22,278
Public baccalaureates, master's	5,138
Public baccalaureates, doctoral/professional	1,633
Private baccalaureates, bachelor's	7,700
Private baccalaureates, master's	4,531
Private baccalaureates, doctoral/professional	706

Questions or comments about this report may be addressed to Jan Ignash, HECB Deputy Director for Policy, Planning, and Research. Phone: 360-704-4168 - Email: JanI@hecb.wa.gov.

Chapter I: Foundations



A diverse mix of public and private institutions

Washington has a wide array of educational institutions beyond the high school level. Among two- and four-year degree-granting institutions, public colleges and universities account for the majority of enrollments, but private institutions also make a significant contribution to the diversity of Washington's higher education system.¹

Public four-year colleges and universities

Washington provides six public baccalaureate institutions. Each is governed by a board of regents or trustees who are appointed by the Governor and approved by the Senate.

Four-year institutions are divided into two types: research and comprehensive. The research universities offer baccalaureate and graduate programs, including doctoral and professional degrees. Comprehensive institutions offer baccalaureate and master's level programs.

The research universities operate five branch campuses that produce a growing number of baccalaureate degrees. There also are 10 university centers (operated jointly by two- and four-year institutions or on a stand-alone basis), numerous teaching sites, and a vigorous online learning environment.

Research Institutions

- **University of Washington** (Seattle)
Branch campuses:
 - University of Washington Bothell
 - University of Washington Tacoma
- **Washington State University** (Pullman)
Branch campuses:
 - Washington State University Tri-Cities
 - Washington State University Vancouver*Other campuses:*
 - Washington State University Spokane²

Comprehensive Institutions

- **Central Washington University** (Ellensburg)
- **Eastern Washington University** (Cheney)
- **The Evergreen State College** (Olympia)
- **Western Washington University** (Bellingham)

¹ Links to institutions are available on the Higher Education Coordinating Board website at www.hecb.wa.gov/AboutOurSystem/InstitutionList.

² In 2004, the Legislature removed the "branch" designation for Washington State University Spokane. Today it is classified as an urban, research campus rather than a branch campus.

Public Four-Year College and University Enrollments

Institutions	Primary Location	Fall 2010 Enrollment (headcounts)		
		Under-graduates	Graduate/ Professional	Total
University of Washington	Seattle	29,307	13,144	42,451
University of Washington Bothell	Bothell	2,747	526	3,273
University of Washington Tacoma	Tacoma	2,756	575	3,331
Washington State University Pullman	Pullman	15,380	2,852	18,232
Washington State University Spokane	Spokane	603	608	1,211
Washington State University Tri-Cities	Tri-Cities	1,193	343	1,536
Washington State University Vancouver	Vancouver	2,564	535	3,099
Central Washington University	Ellensburg	11,052	562	11,614
Eastern Washington University	Cheney	10,218	1,316	11,534
The Evergreen State College	Olympia	4,489	344	4,833
Western Washington University	Bellingham	13,809	1,170	14,979
Total: Public Four-Year		94,118	21,975	116,093

Notes: Enrollments include both state-supported and non-state-supported students. In 2004, the Legislature removed the "branch" designation for Washington State University Spokane.

Source: Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2010, for all institutions except WSU Spokane, Tri-Cities, and Vancouver. Data for those institutions are from Washington State University, Facts and Figures 2010-11. Retrieved from <http://facts-figures.wsu.edu/pdfs/101factsfigures.pdf>.

Community and Technical Colleges

Washington has 34 public community and technical colleges that grant certificates and associate degrees. These two-year schools are governed by the State Board for Community and Technical Colleges in addition to institutional boards of trustees appointed by the Governor and approved by the Senate.

Associate degrees usually require two years of full-time coursework. In addition, since mid-2006, the HECB has approved eight applied baccalaureate programs at seven community colleges. Applied baccalaureate programs provide pathways for students holding technical associate degrees to earn bachelor's degrees in fields where industry, community, and student demand exists. Students enroll in community and technical colleges for various purposes, including academic programs, workforce training, basic skills, and home and family life enrichment.

Washington also is home to a federally funded public institution — Northwest Indian College near Bellingham, which offers two- and four-year degrees and certificates.

Chapter I: Foundations of Higher Education

Public Two-Year Community and Technical Colleges

(29 community colleges, 5 technical colleges, 1 vocational institute)

Public Institution	Primary Location	Fall 2010 enrollment (headcount)
Bates Technical College	Tacoma	5,571
Bellevue College	Bellevue	19,865
Bellingham Technical College	Bellingham	3,991
Big Bend Community College	Moses Lake	2,728
Cascadia Community College	Bothell	3,379
Centralia College	Centralia	4,599
Clark College	Vancouver	16,054
Clover Park Technical College	Tacoma	7,356
Columbia Basin College	Pasco	7,765
Edmonds Community College	Lynnwood	13,225
Everett Community College	Everett	12,000
Grays Harbor College	Aberdeen	3,456
Green River Community College	Auburn	11,136
Highline Community College	Des Moines	10,473
Lake Washington Technical College	Kirkland	5,660
Lower Columbia College	Longview	5,192
Olympic College	Bremerton	8,733
Peninsula College	Port Angeles	4,545
Pierce College Fort Steilacoom	Fort Steilacoom	10,194
Pierce College Puyallup	Puyallup	4,067
Renton Technical College	Renton	6,046
Seattle Central Community College	Seattle	10,364
North Seattle Community College	Seattle	9,035
South Seattle Community College	Seattle	8,238
Seattle Vocational Institute*	Seattle	539
Shoreline Community College	Shoreline	7,174
Skagit Valley Community College	Mount Vernon	6,606
South Puget Sound Community College	Olympia	6,803
Spokane Community College	Spokane	7,684
Spokane Falls Community College	Spokane	13,489
Tacoma Community College	Tacoma	9,897
Walla Walla Community College	Walla Walla	6,795
Wenatchee Valley College	Wenatchee	4,503
Whatcom Community College	Bellingham	7,209
Yakima Valley Community College	Yakima	6,202
Total: Community and Technical Colleges		270,573

*Seattle Vocational Institute is a member of the Seattle Community Colleges District.

Notes: Enrollments include all funding sources – both state-supported and non-state-supported students. Spokane Institute of Extended Learning student headcounts are reported in Spokane Falls' totals.

Source: State Board of Community and Technical Colleges, "Enrollment and Staffing Report," fall 2010. Retrieved from http://www.sbctc.edu/college/studentsvcs/2enrol_10.pdf.

Exempt institutions

Washington law requires the HECB to review and authorize degree-granting institutions operating in the state to protect citizens from fraudulent and deceptive higher education practices. About 130 institutions do not require extensive review and authorization. These are known as ‘exempt’ institutions.

The exempt institutions include:

- **Public institutions.**
- **Long-standing private institutions.** These include the 10 institutions that belong to the Independent Colleges of Washington (ICW)³.
- **Schools that exclusively offer religious training.** Institutions are required to submit a report every two years.
- **Conditionally exempt institutions** that offer degree programs or courses exclusively to federal employees at a military base or other federal site. The HECB may review the exemption every two years.
- **Conditional waiver institutions** with very limited educational offerings. They also may be reviewed by the HECB every two years.

Authorized institutions

There are 68 degree-granting institutions authorized by the HECB to operate in Washington:

- **31 not-for-profit**
- **29 for-profit**
- **8 out-of-state public**

These institutions offer limited programs and degrees at various locations around the state. Many are chartered in other states and some in other countries. They must renew their authorization every two years.

For a complete list of all authorized and exempt institutions operating in Washington, go to www.hecb.wa.gov/AboutOurSystem/InstitutionList.

Private Career Schools

A number of private career institutions—many focused on workforce development and job training—offer coursework and programs within Washington. Massage therapy and nursing are two examples, but there are many others. Private career schools that offer programs below the associate degree level are licensed by the Workforce Training and Education Coordinating Board (WTECB). Data and information on these independent schools are not included in this report but can be found on the WTECB website at www.wtb.wa.gov.

³ Gonzaga University, Heritage University, Pacific Lutheran University, Saint Martin’s University, Seattle Pacific University, Seattle University, University of Puget Sound, Walla Walla University, Whitman College, Whitworth University.

Chapter I: Foundations of Higher Education

Private Degree-Granting Institutions

Institution	Primary Location	Fall 2010 enrollment (headcount)
Antioch University	Seattle	994
Argosy University	Seattle	543
Art Institute of Seattle	Seattle	2,245
Bainbridge Graduate Institute	Bainbridge	197
Bastyr University	Kenmore	970
City University of Seattle	Seattle	2,644
Cornish College of the Arts	Seattle	836
DeVry University-Washington	Federal Way	1,278
DigiPen Institute of Technology	Redmond	966
Faith Evangelical College and Seminary	Tacoma	235
Gonzaga University	Spokane	7,738
Heritage University	Toppenish	1,254
International Academy of Design and Technology	Seattle	519
ITT Technical Institute-Everett	Everett	549
ITT Technical Institute-Seattle	Seattle	755
ITT Technical Institute-Spokane Valley	Spokane	494
Mars Hill Graduate School	Bothell	265
Northwest College of Art	Poulsbo	100
Northwest University	Kirkland	1,422
Pacific Lutheran University	Tacoma	3,543
Pacific Northwest University of Health Sciences	Yakima	224
Saint Martin's University	Lacey	1,811
Seattle Institute of Oriental Medicine	Seattle	39
Seattle Pacific University	Seattle	4,117
Seattle University	Seattle	7,817
Trinity Lutheran College	Issaquah	159
University of Phoenix-Western Washington Campus	Seattle	868
University of Puget Sound	Tacoma	2,823
Walla Walla University	College Place	1,791
Whitman College	Walla Walla	1,555
Whitworth University	Spokane	2,989
Total: Private Four-Year Institutions		51,740

Source: Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2010. Institutions for which state enrollment data was unavailable are not included in this table.

Chapter I: Foundations of Higher Education

Actual Average Annual FTEs: State-Supported Public Four-Year Institutions and Community and Technical Colleges

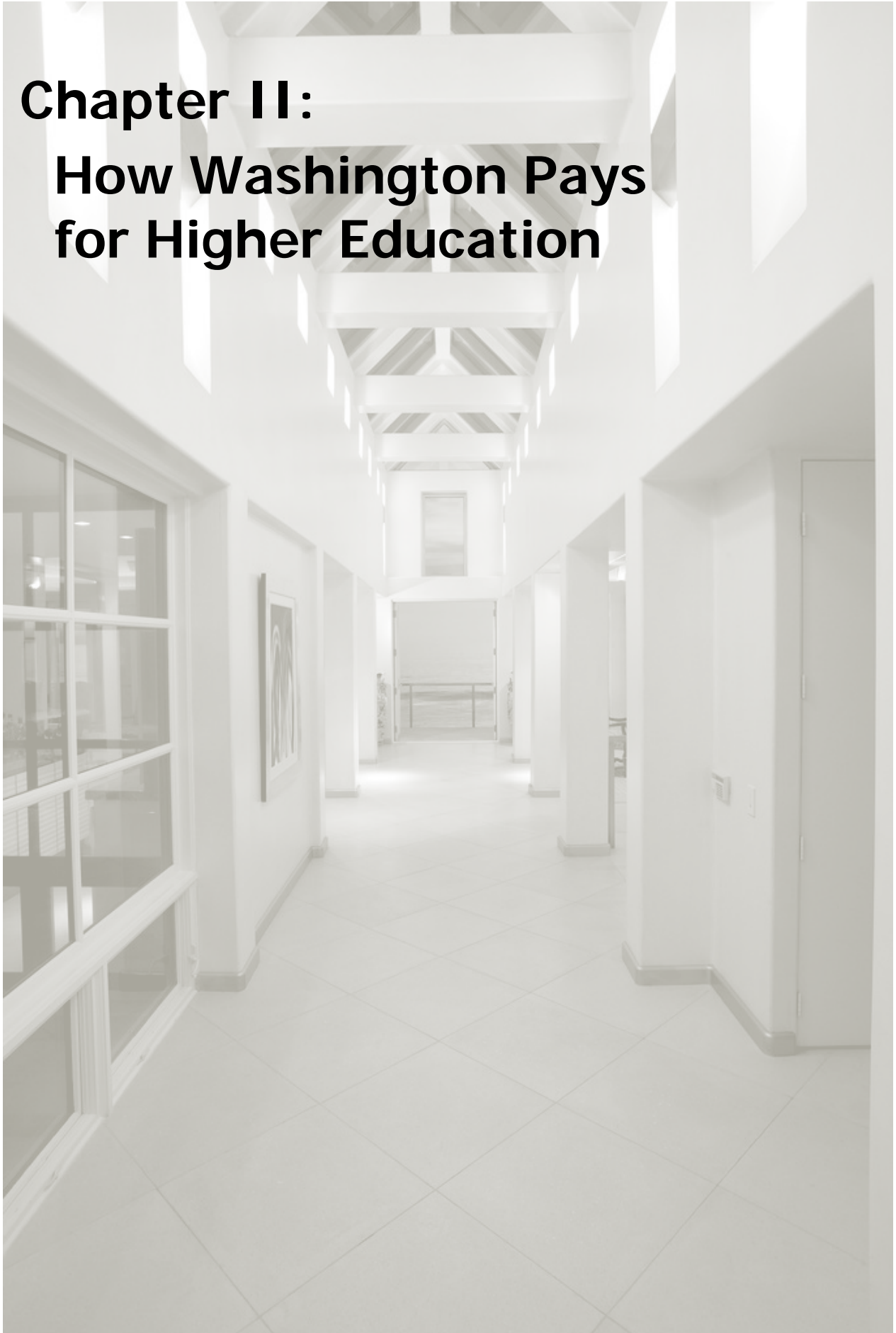
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Research institutions									
UW Main campus	34,065	33,487	33,383	33,155	33,497	33,858	35,326	35,974	36,712
UW Bothell	1,236	1,250	1,344	1,200	1,368	1,565	1,922	2,340	2,707
UW Tacoma	1,662	1,579	1,630	1,667	1,782	2,103	2,481	2,629	2,884
UW total	36,963	36,316	36,357	36,022	36,647	37,526	39,729	40,943	42,303
WSU Main Campus	17,830	17,975	17,954	19,267	18,898	19,586	20,198	20,615	20,691
WSU Spokane	628	627	1,192						
WSU Tri-Cities	627	677	672	667	662	849	957	1,081	1,128
WSU Vancouver	1,226	1,263	1,339	1,367	1,684	1,899	2,161	2,296	2,414
WSU total	20,311	20,542	21,157	21,301	21,244	22,334	23,316	23,992	24,233
Comprehensive Institutions									
CWU	8,106	8,657	8,885	9,057	9,204	8,931	9,082	9,673	9,832
EWU	8,700	8,956	9,126	9,281	9,189	9,111	9,287	9,486	9,640
TESC	4,054	4,099	4,120	4,131	4,114	4,269	4,470	4,596	4,559
WWU	11,377	11,505	11,713	11,755	11,784	12,140	12,408	12,475	12,647
Four-year total	89,511	90,075	91,358	91,547	92,182	94,311	98,292	101,165	103,214
Community and Technical Colleges									
2-year or Less Programs	139,753	138,242	131,365	130,933	132,316	136,422	147,560	160,179	161,529
Baccalaureate Programs	n/a	n/a	n/a	n/a	n/a	90	143	246	323
CTC total	139,753	138,242	131,365	130,933	132,316	136,512	147,703	160,425	161,852
2- & 4-year Partnerships Contracted Programs	n/a	n/a	489	n/a	30	211	295	353	476
Public total	229,264	228,317	222,847	222,480	224,528	231,034	246,290	261,943	265,542

Notes: Center and off-campus enrollments are included in institutional figures, with the exception of two-year and four-year partnership contracted programs beginning in 2006-07.

- Office of Financial Management combines WSU-Spokane with WSU Main campus for 2005-06 forward.
- Numbers may not always sum to totals due to rounding.

Source: Office of Financial Management, Budget Driver Reports retrieved from ofm.wa.gov/hied/bd/historical/historical_bd_reports.pdf.

Chapter II: How Washington Pays for Higher Education



Continued revenue shortfall further reduces budget for public higher education

Declines in state tax revenue, the result of ongoing consumer uncertainty over the national economy and various global concerns, continue to cause serious financial repercussions for Washington’s public colleges and universities.

To help balance the budget, lawmakers in 2011 further reduced funding for higher education — the state’s largest source of discretionary spending. To partially offset the impact, they gave baccalaureate institutions significantly expanded authority to raise tuition, putting more of the cost of a college education on students and their families.

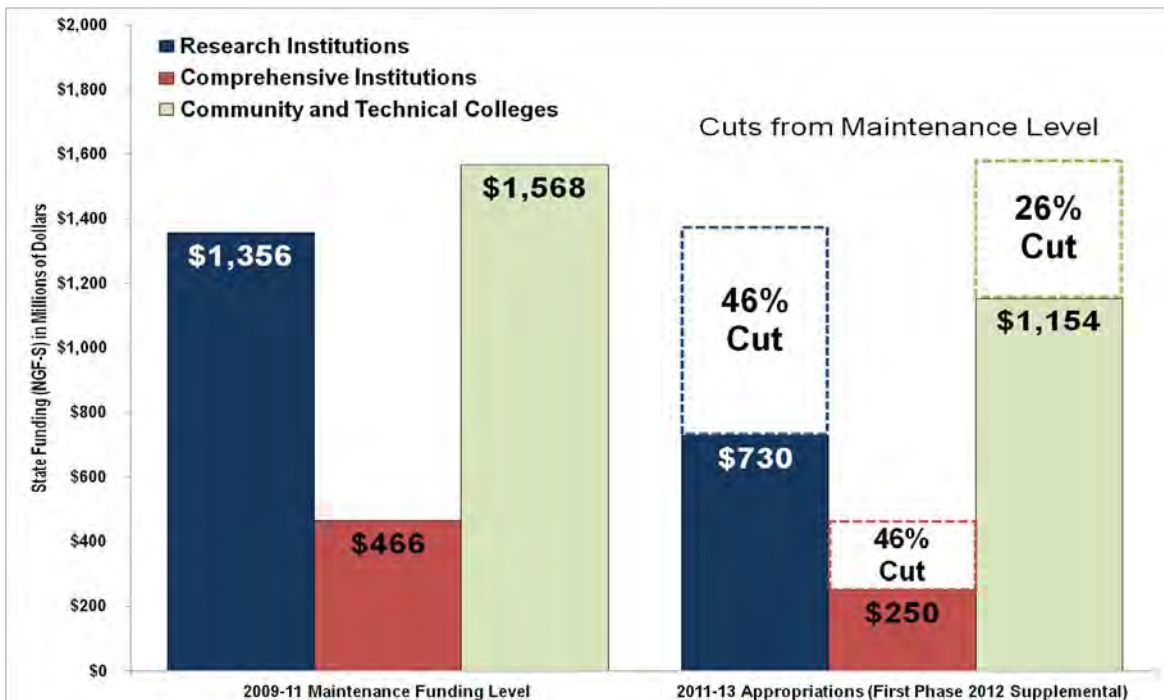
After a new projected revenue drop in fall 2011, the Governor proposed additional budget cuts for institutions ranging from 13 to 17 percent. The Governor also proposed a temporary increase in the state sales tax to “buy back” those reductions and cuts in other high priority state services. These issues will be addressed during the 2012 Legislative Session.

The chart below shows how much money is needed to keep institutions operating at their 2009-11 levels, and how much below those maintenance levels the current 2011-13 operating budget is. It shows that the budgets at research and comprehensive institutions are now 46 percent below maintenance level; community and technical colleges are 26 percent below.

Institutions have offset some of the revenue losses by raising tuition. Other steps have included implementing various efficiencies, eliminating academic programs, increasing class sizes, reducing staff and cutting student support services.

2011-13 State Funding Reductions for Public Higher Education Institutions from Maintenance Level, by Sector

Near General Fund-State, Dollars in Millions, First Phase 2012 Supplemental Operating Budget



Source: HECB staff analysis of data from Office of Financial Management Budget Allocation and Support System.

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Current operating budget below level needed to maintain services in last biennium

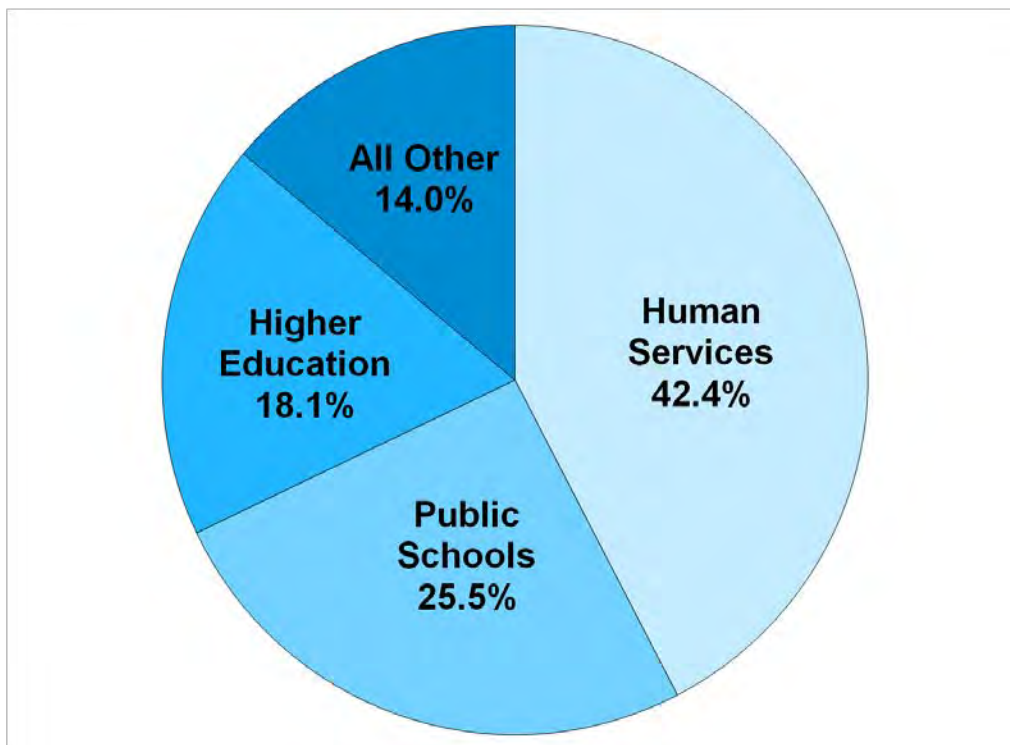
The State General Fund and student tuition provide the bulk of the money in the state operating budget for public higher education. The General Fund includes revenues from the state sales tax, business and occupation tax, property tax, and other excise taxes. Other revenue sources for higher education include grants and contracts, dedicated local revenues, and the University of Washington hospital.

The state's total 2011-13 operating budget of \$61.4 billion, which includes adjustments made during the December 2011 special legislative session, provides \$11.1 billion for public colleges and universities, or about 18.1 percent of the total budget. That left Washington's public higher education institutions \$1.26 billion below "maintenance level."

Maintenance level is the amount of funding needed by public institutions to deliver the same level of services they did in the previous biennium. A maintenance-level budget includes cost increases over which the institutions have no control, such as negotiated wage and benefit agreements, inflation in the cost of goods and services, and increased energy costs.

Washington State 2011-13 Operating Budget, All Fund Sources, First Phase 2012 Supplemental

Total: \$61.4 billion



Note: Spokane Intercollegiate Research and Technical Institute is included in "All Other," and not "Higher Education."

Source: HECB staff analysis of data from Washington State Fiscal Information. Retrieved from fiscal.wa.gov, 12/15/11.

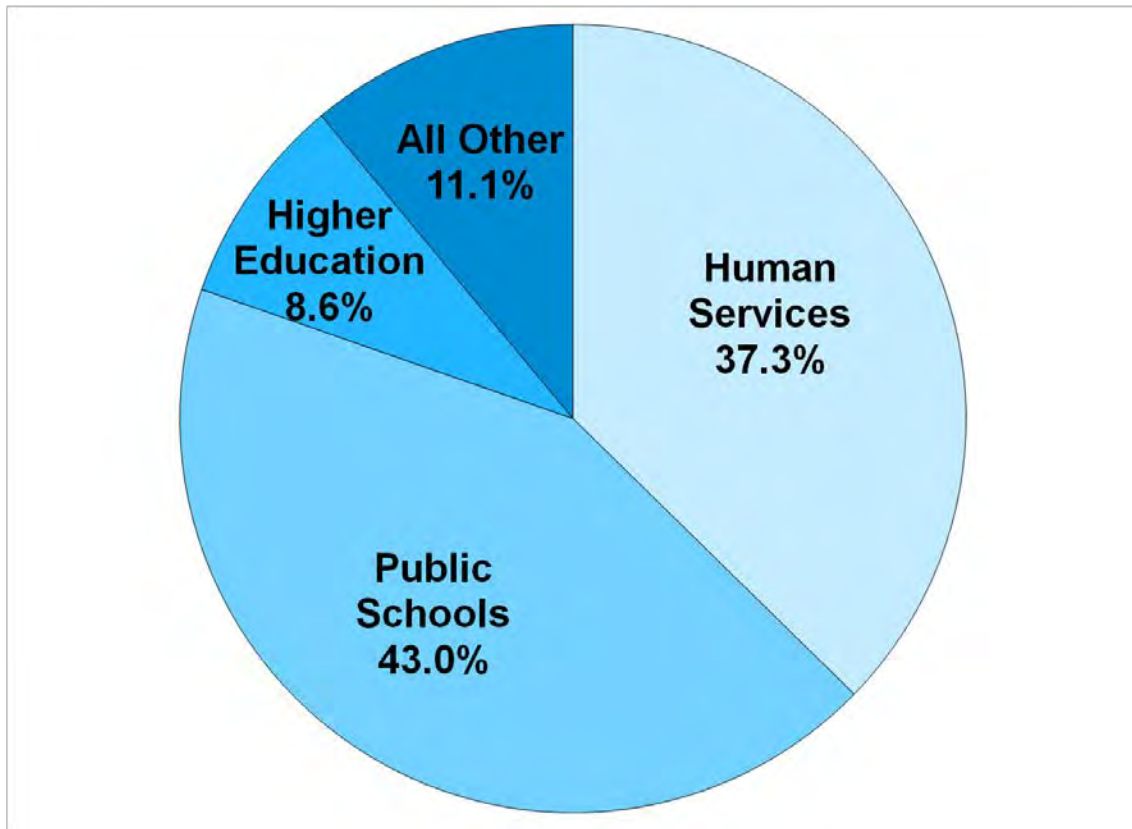
The state's contribution: A look at the near general fund

Higher education budget discussions often refer to the Near General Fund, which includes money from the General Fund, Education Legacy Trust Account (cigarette and estate taxes earmarked for education) and other sources.

The \$31.9 billion Near General Fund provides approximately \$2.8 billion for higher education in the 2011-13 biennium. This constitutes about 8.6 percent of Near General Fund revenues. The K-12 public school system accounts for the largest percentage of Near General Fund spending.

Washington State 2011-13 Near General Fund-State and Opportunity Pathways Account, First Phase 2012 Supplemental

Total: \$31.9 billion



Source: HECB staff analysis of data from Washington State Fiscal Information. Retrieved from fiscal.wa.gov, 12/15/11.

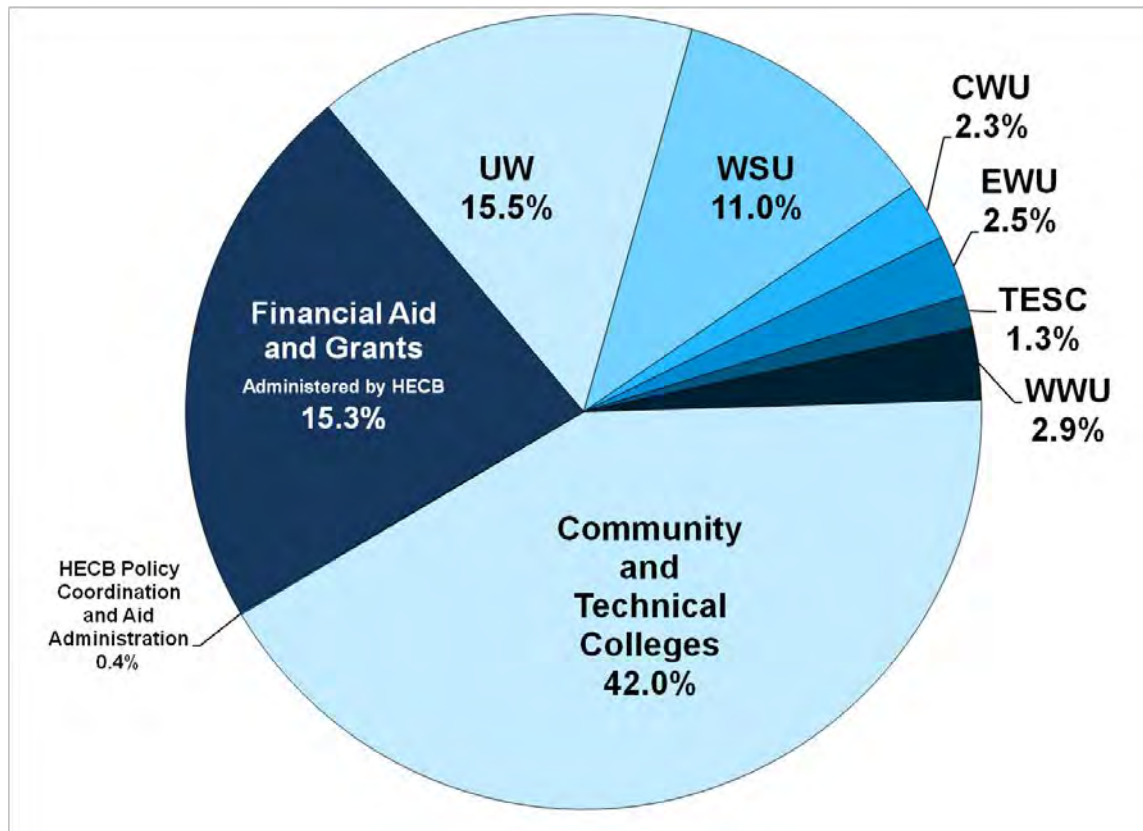
Chapter II: How Washington Pays for Higher Education

How near general fund money for higher education is distributed

The \$2.8 billion in Near General Fund revenues for higher education in the 2009-11 biennium were distributed as follows:

- \$ 1.2 billion for Community and Technical Colleges
- \$ 426 million for the University of Washington
- \$ 614 million for student financial aid
- \$ 304 million for Washington State University
- \$ 81 million for Western Washington University
- \$ 69 million for Eastern Washington University
- \$ 64 million for Central Washington University
- \$ 36 million for The Evergreen State College
- \$ 2 million for the Higher Education Coordinating Board

Washington State 2011-13 Higher Education Operating Budget
Near General Fund-State and Opportunity Pathways, First Phase 2012 Supplemental
Total: \$2.8 billion



Source: HECB staff analysis of data from Washington State Fiscal Information. Retrieved from fiscal.wa.gov, 12/15/11.

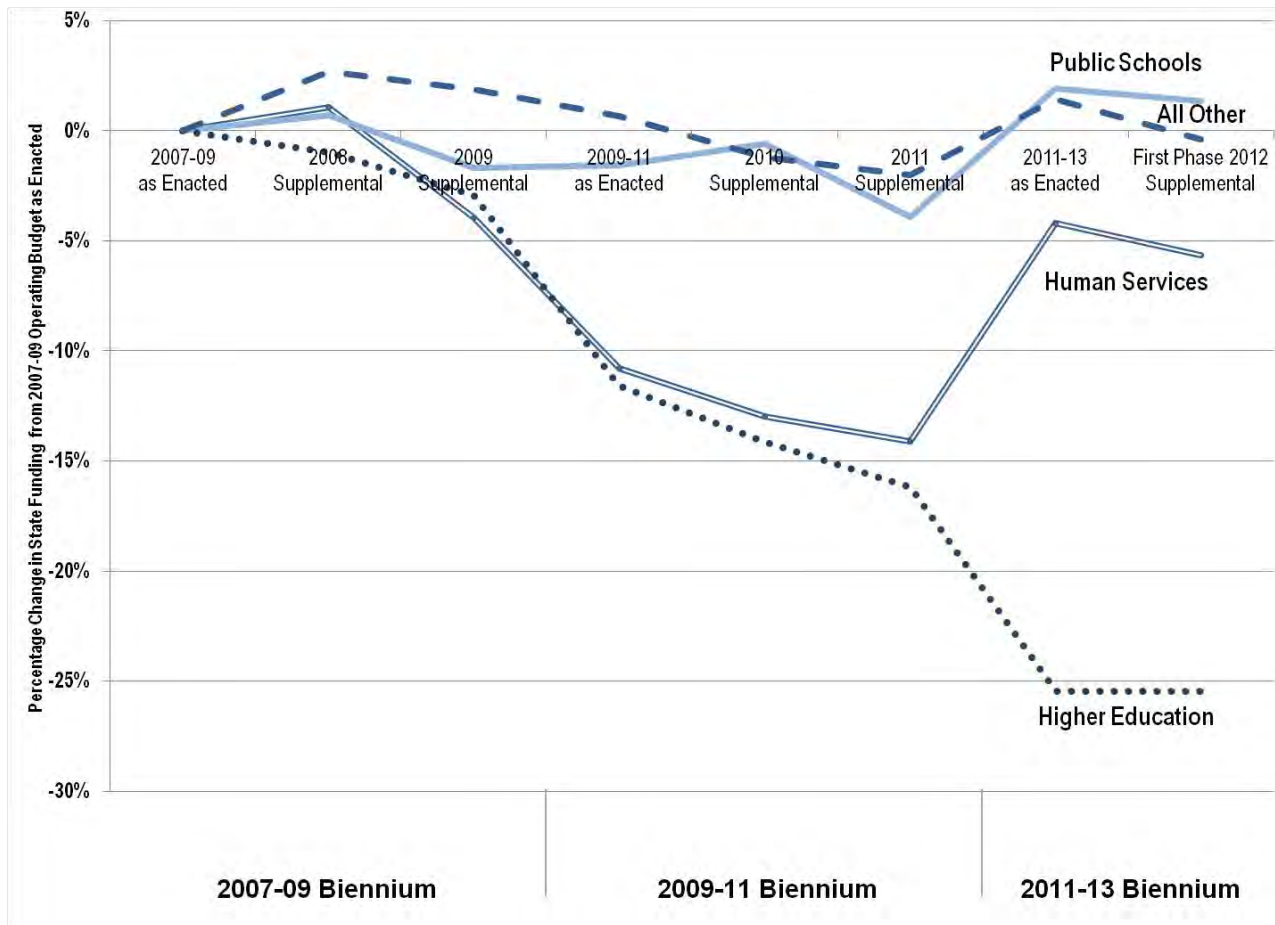
Higher education budget cuts go deeper than other state services

Unlike K-12 education, the state is not required to provide a certain level of higher education services for its residents. As revenue has declined, legislators reluctantly have cut higher education and other discretionary parts of the state budget more than areas that are protected under Washington law.

The chart below shows percentage changes since the 2007-09 biennium in state general fund appropriations for higher education, human services, K-12, other government services. The graph clearly shows higher education has sustained the deepest cuts—an overall decrease of 25.5 percent since 2007-09. This cut represents a reduction of \$939 million.

Especially in a tough economic climate, it is more important than ever to remain competitive with other states and countries by continuing to pursue the state’s goals of increased degree attainment. While the state’s revenue picture may leave leaders with few alternatives, reductions in appropriations for the higher education system may require cutting back on Washington’s degree goals or extending the timeline for achieving them.

**Major State Operating Budget Components
by Percent Change in Appropriations
from 2007-09 Biennial Budget**



Source: HECB staff analysis of data from Washington State Fiscal Information. Retrieved from fiscal.wa.gov, 12/15/11.

Per-student FTE support has dropped significantly at public baccalaureates

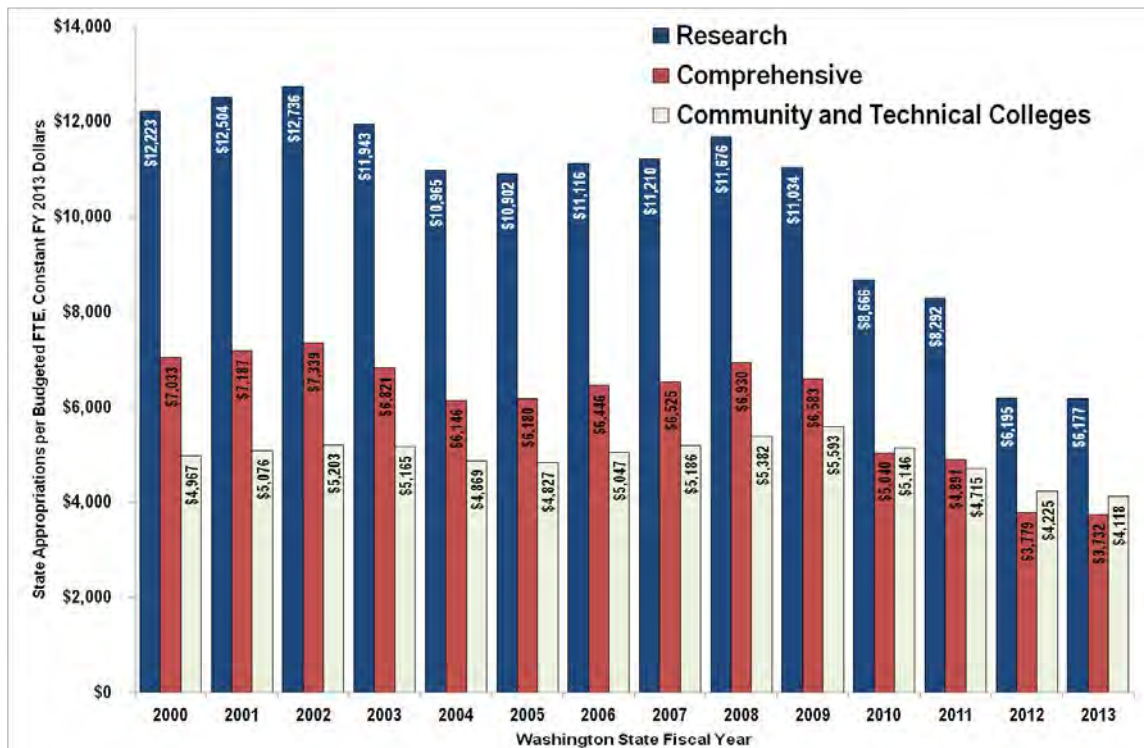
One measure of the level of state support for public higher education institutions is the amount appropriated per budgeted student FTE. Over the past decade, per-student FTE support has remained fairly stable at community and technical colleges, but has declined significantly at baccalaureate institutions.

Between 2000 and the 2013 fiscal year, per-student FTE appropriations:

- Declined 17 percent overall at community and technical colleges. This represents a decline of approximately 1.2 percent per year.
- Dropped 47 percent overall at the comprehensive institutions (CWU, EWU, TESC, and WWU) – an average decline of about 3.4 percent per year.
- Dropped 49 percent at the state’s two research institutions (UW and WSU) – an average decline of 3.5 percent per year.

Calculated in 2013 dollars, the chart below shows the level of support per state-funded student FTE in each sector between 2000 and 2013. Institutions frequently enroll more students than budgeted, so FTE figures are usually lower than headcounts. The chart reflects appropriations in the final supplemental biennial budgets, except for FY 2012 and FY 2013, which reflect the First Phase 2012 Supplemental 2011-13 Operating Budget. Running Start enrollments are not reflected in community and technical college budgeted FTE enrollments.

Near General Fund-State Operating Appropriations per Budgeted Student FTE for Washington Public Higher Education Institutions by Sector



Sources: For Appropriation Data: Office of Financial Management Budget Allocation and Support System. For Budgeted Student FTE Data: Legislative Evaluation and Accountability Program (LEAP) Committee Legislative Budget Notes.

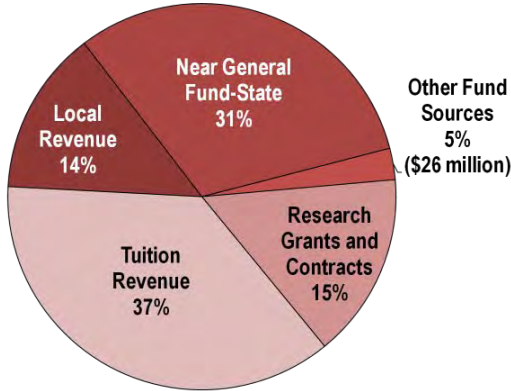
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Differing roles influence amounts institutions receive from non-state sources

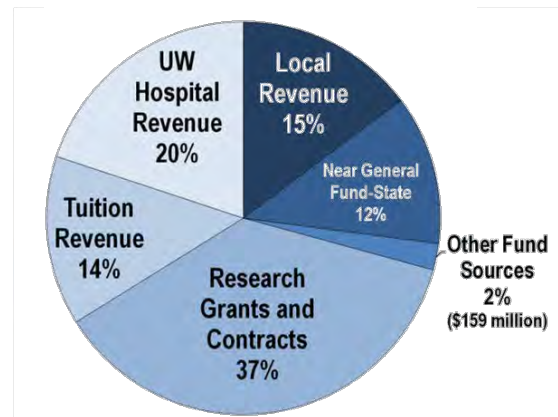
The differing missions of Washington’s higher education institutions are reflected in the revenue they receive from funding sources other than tuition and state appropriations. For example, faculty at the University of Washington and Washington State University are more engaged in research than the state’s other public baccalaureate institutions or its community and technical colleges. The latter are primarily engaged in teaching. As a result, the two research institutions receive more money from research grants and contracts. In addition, the UW has the unique mission in this state of operating a university hospital, which generated \$1.5 billion in the 2009-11 biennium.

Public Higher Education Institution Funding Sources by Sector, 2009-11

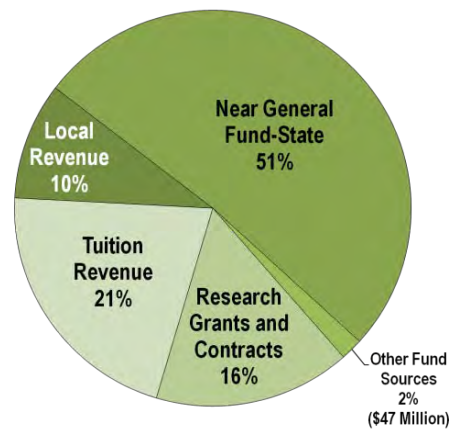
**Comprehensive Institutions
Total: \$1 billion**



**Research Institutions
Total: \$7.3 billion**



**Community & Technical Colleges
Total: \$2.2 billion**



Note: Revenue is measured as the expenditure from a given funding source during the 2009-11 biennium.

Source: HECB staff analysis of data from Washington State Fiscal Information. Retrieved from fiscal.wa.gov, 11/9/11.

Providing educational system infrastructure

Over the decades, Washington has invested heavily in the classrooms, research facilities, administrative offices, and support structures that constitute the brick and mortar of its public colleges and universities. These structures account for more than half of the state’s physical plant.

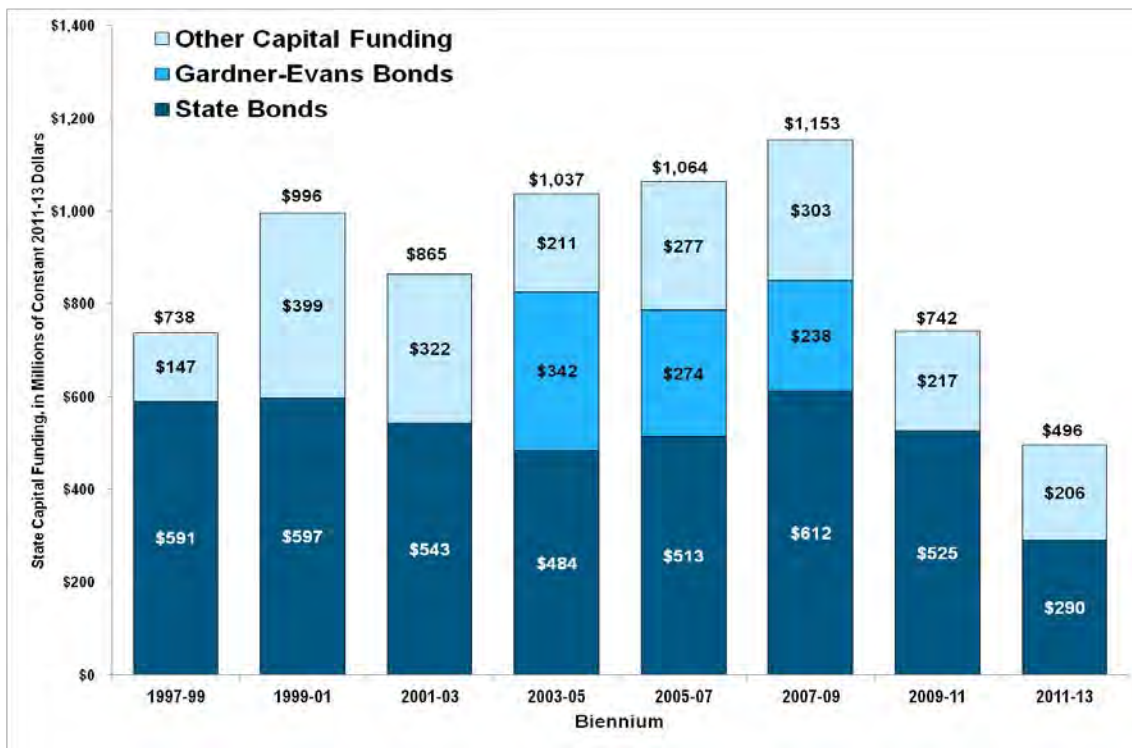
The state provides three kinds of facility support: 1) building maintenance; 2) repair and renovation; and 3) expanded capacity to meet increased levels of enrollment. Operating budget funds are earmarked for repair and renovation, and capital funds are used to support new construction.

Since 1997, about 70 percent of all higher education capital appropriations have come from borrowing through the sale of general obligation bonds. The remaining 30 percent come from local, dedicated sources.

Because state law limits the amount of state debt incurred through general obligation bonds, institutional requests for new capital construction must be prioritized on a biennial basis. Institutions submit capital budget proposals to the Office of Financial Management, which creates a prioritized list that is sent to the Higher Education Coordinating Board. The Board then makes funding recommendations based on the OFM list and sends them to OFM and the Legislature.

Capital spending, on the rise since 1997, has fallen sharply in the current and previous biennia due to the recession and the absence of Gardner-Evans Bonds, which helped finance facility preservation projects. Authority to issue Gardner-Evans Bonds ended in 2009.

Higher Education Capital Appropriations by Source
IPD Adjusted Constant 2011-2013 Dollars in Millions



Note: Data reflects new appropriations only. Does not include alternative finance projects.

Sources: Capital Appropriations Data: HECB analysis of data from Washington State Fiscal Information. Retrieved from fiscal.wa.gov, 12/15/11. Biennial IPD Adjustments: Legislative Evaluation and Accountability Program (LEAP) Committee, Economic Forecast Data.

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What students pay: It's more than just tuition

Statutory tuition consists of two components:

- **Operating Fees:** Primarily used to fund the instructional activities of an institution.
- **Building Fees:** Cover debt service on the institution's buildings.

Tuition and the following additional fees are commonly referred to as the “sticker price” to attend a higher education institution:

- **Services and Activities Fees:** Support student activities.
- **Technology Fees:** Charged at some institutions to support technology enhancements.

However, tuition and fees are not the only cost of a college education. Other expenses, including room, board, books, transportation, and incidentals must be considered in determining a total cost. In addition, federal and state financial aid, institutional aid, scholarships, and work study jobs help determine the “net price” a student actually pays to attend a college or university.

Both sticker price and total costs vary among public institutions. To help offset reductions in state appropriations, the 2011 Legislature gave public baccalaureate institutions authority to set their own tuition rates—with some stipulations—through the 2018-19 academic year.

The 2011-13 state budget assumed 16 percent annual resident-undergraduate tuition increases at the UW, WSU, and Western; 14 percent at Central and The Evergreen State College; 12 percent at the community and technical colleges; and 11 percent at Eastern Washington University. Only the UW exceeded those amounts, raising in-state tuition 20 percent for the 2011-12 academic year.

2011-12 Selected Tuition and Fee Rates at Washington Public Higher Education Institutions

(Includes Tuition, Service & Activities, and Technology fees. Other fees may apply.)

	Washington Resident		Nonresident	
	Undergraduate	Graduate	Undergraduate	Graduate
University of Washington				
UW Seattle	\$10,223	\$12,547 ¹	\$27,707	\$25,417 ¹
UW Bothell	\$10,241	\$12,565 ¹	\$27,725	\$25,435 ¹
UW Tacoma	\$10,343	\$12,667 ¹	\$27,827	\$25,537 ¹
Washington State University	\$9,886	\$10,188	\$21,164	\$23,342
Central Washington University	\$7,125	\$8,187	\$17,796	\$18,144
Eastern Washington University	\$6,794	\$9,036	\$16,473	\$20,736
The Evergreen State College	\$6,909	\$7,568	\$18,089	\$20,048
Western Washington University	\$7,048	\$7,520	\$17,395	\$17,200

	Washington Resident		Nonresident	
	Undergraduate	Upper Division in Applied Baccalaureate	Undergraduate	Upper Division in Applied Baccalaureate
Community & Technical Colleges²	\$3,542	\$6,701	\$8,777	\$18,021

¹ The University of Washington uses a tiered graduate tuition system. These tuition rates assume Tier I tuition levels.

² These tuition rates are an average of all community and technical colleges.

Note: See full tuition and fee schedule at: <http://www.hecb.wa.gov/sites/default/files/Tuition-2011-12Tuition-Fees.pdf>.

Source: 2011-12 tuition and fee rates collected by HECB.

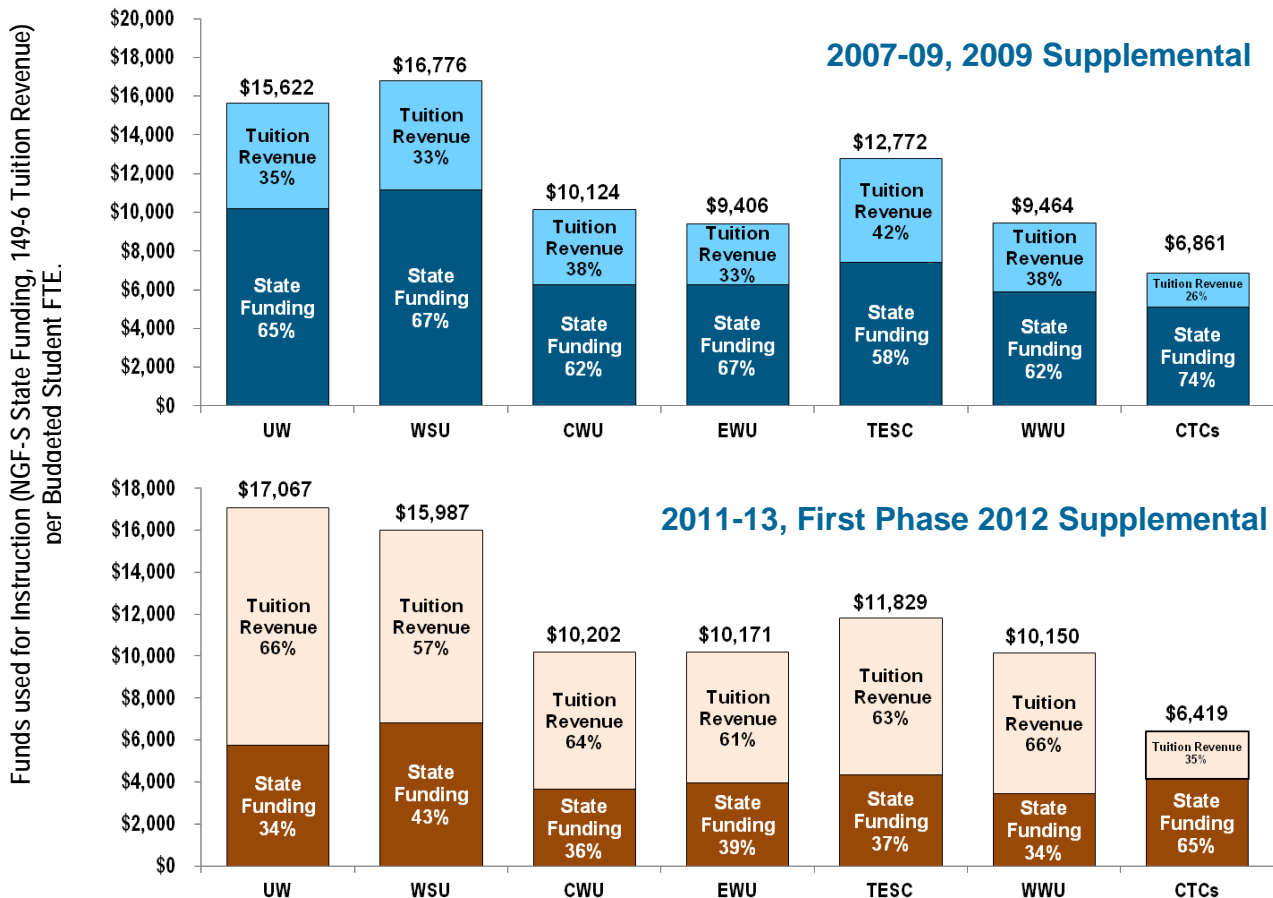
Tuition covers a growing share of higher education costs

In recent years, Washington has witnessed a major change in the way higher education programs are funded at public colleges and universities. Taxpayers and students still share the cost of higher education, but the dramatic drop in state support caused by the recession has meant that the portion students now pay through tuition and fees is much higher, especially at four-year colleges and universities.

Prior to the 2009-11 biennium, state funding accounted for the majority of per-student funding at public institutions; by 2009-11, that had reversed at four of the state's six public baccalaureate institutions, where tuition accounted for a majority of per-student funding. In the 2011-13 biennium, that trend has accelerated, with all public baccalaureate institutions now expected to generate a majority of their per-student funding from tuition—most by roughly two thirds, as shown below. At the community and technical colleges, state funding is still the primary source of per-student dollars, although that contribution has declined relative to tuition in recent years.

Maintaining a proper balance between the two revenue sources is consistent with the principle that higher education benefits both individuals who attend colleges and universities and the general public.

**State Funding and Tuition Revenue per Budgeted Student FTE
by Institution, 2007-09 Compared to 2011-13**



Source: State Funding and Tuition: HECB analysis of data from Washington State Fiscal Information. Retrieved from fiscal.wa.gov, 12/15/11; Budgeted Student FTE: Legislative Evaluation and Accountability Program (LEAP) Committee Legislative Budget Notes.

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Student financial aid helps bridge the gap between college costs and family income

State and federal financial aid programs are a critical component of Washington's higher education funding system. Without financial aid, the goal of a college degree or certificate would be beyond the reach of many Washington families.

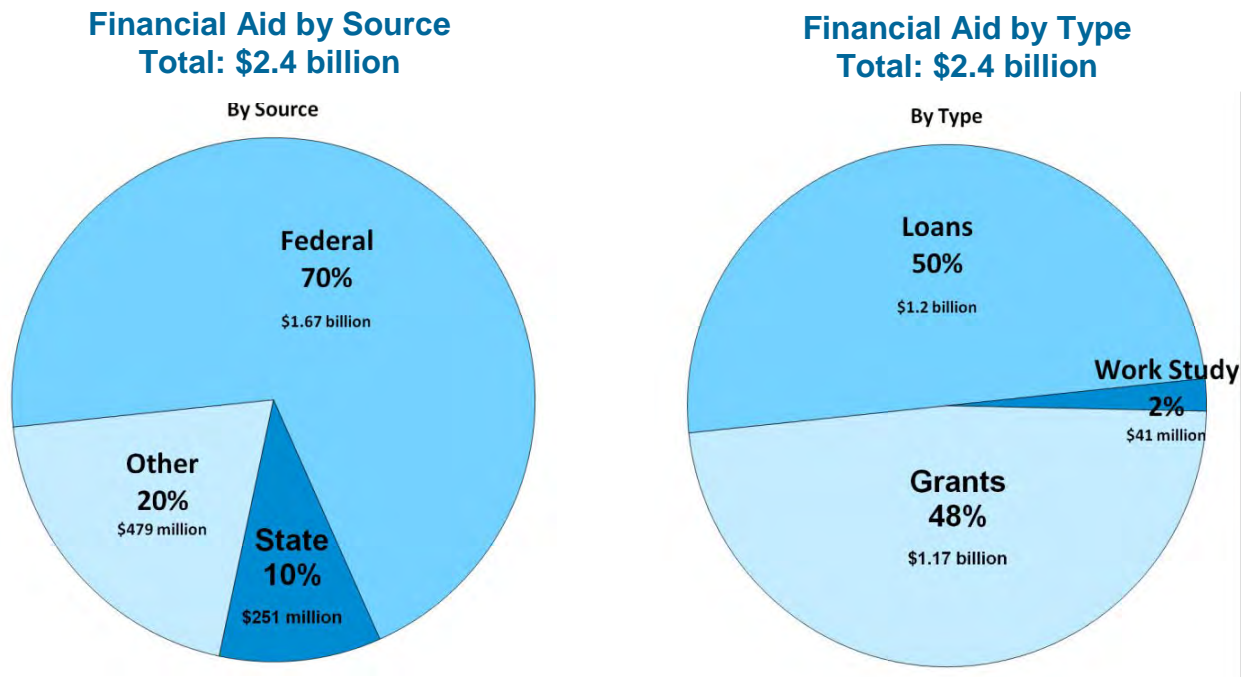
How much students are expected to pay toward the cost of attendance is based on variables such as family income, assets and family size. The Free Application for Federal Student Aid (FAFSA) is used to establish the amount students will be expected to pay and their eligibility for state and federal financial aid programs.

In 2010-11, a total of \$2.4 billion was provided to about 186,800 needy Washington students from state, federal, and other sources. This represents an increase of \$207 million and 4,000 students compared to 2009-10 and a 34 percent increase in a two-year period.

This aid took the form of grants, work study awards, and loans. **Grants** are gifts with an obligation to make academic progress, but they do not need to be repaid. **Work Study** is a part-time employment opportunity offering subsidized wages. **Loans** require repayment with interest in the future, usually after graduation.

As in previous years, the federal government provided the majority of financial aid received by Washington students. About 69 percent of the federal aid was in the form of loans.

Financial Aid Received by Washington Need-Based Aid Recipients 2010-11 Academic Year



Source: HECB, 2010-11 Unit Record Report.

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Washington offers several types of financial aid programs

In 2010-11, about \$232 million in state aid was disbursed through programs administered by the HECB. In that year, more than 87,000 students attending 83 colleges and universities received state assistance through these programs.

In 2010-11, about 95 percent of the total program funds administered by the HECB went to need-based programs. Of the rest: 3 percent was directed to workforce programs and 2 percent went to merit programs.

The 2011 Legislature reduced 2010-11 funding to the State Need Grant (SNG) program by \$25.4 million mid-year. Participating public SNG institutions were asked to offset the cut by replacing the SNG funds with institutional funds. More than 3,000 SNG-eligible students received the SNG budget cut replacement funds from the institutions.

The estimated expenditures for FY 2012 reflect appropriations contained in the 2011 conference budget. Additional changes for the 2011-12 academic year are not anticipated.

State Student Aid Programs Anticipated Expenditures for Fiscal Year 2012

Public Purpose	Program	Estimated Expenditures	Students Served
Need-Based	State Need Grant	\$267 million	70,000
	State Work Study	\$7.8 million	3,500
	Passport to College	\$1.4 million	432
Merit-Based	Washington Scholars	\$2.3 million	268
	Washington Award for Vocational Excellence	\$1 million	188
	GEAR UP Scholarships	\$0.4 million	150
	American Indian Endowed Scholarship	\$ 14,800	14
Targeted Workforce	Future Teachers Conditional Scholarship	\$40,000	8
	Alternative Routes to Teaching	\$1.5 million	450
	GET Ready for Math & Science	\$1.0 million	99
	Health Professional Conditional Scholarship/Loan Repayment	\$3.0 million	218
	WICHE Professional Student Exchange	\$71,000	4
Total State Funding		\$285 million	75,331

Note: Includes programs which the HECB administers or serves as the fiscal agent. Other aid programs administered by the SBCTC are not included. Expenditures include the appropriation and/or pre-existing committed funds. The number of served students represented may be duplicated amongst programs.

Source: HECB, Student Financial Assistance Division.

Institutions provide significant additional financial assistance to students

In addition to student financial assistance provided by federal and state governments, institutions and private sources provide significant aid to students:

- More than 76,000 needy students received \$479 million in financial aid from institutional and private sources—representing 20 percent of total aid disbursed to needy students in 2010-11.¹
- Washington law requires public two- and four-year institutions to set aside at least 3.5 percent of revenue collected from tuition and services and activities fees to be used for needy students (RCW 28B.820). Funds are usually awarded as grants but also may be used to fund work study or loans.
- In 2010-11, \$44.5 million was offered in grants to 24,000 needy students through this funding source.

In 2011, the requirements for institutional aid were modified with the tuition-setting authority legislation (E2HB 1795). The portion of revenue that must be provided to needy students as financial aid was increased to 4 percent for the public baccalaureate campuses or 5 percent if tuition is raised above the amount provided in the budget.

- The estimate of tuition revenue collections for public institutions is \$1.088 billion for fiscal year 2012.²
- Based on the return-to-aid requirements noted above, an estimated \$46 million would be provided to students in institutional financial aid in 2012.

The 2011 legislation also requires that campuses choosing to raise tuition beyond budgeted levels provide financial aid to offset tuition increases above State Need Grant award levels. The requirements are directed toward the lowest income students and prorated on a sliding income scale.

Other Forms of Institutional Aid:

Additional local financial aid comes in the form of tuition waivers. Both required and voluntary waivers exist for various categories of students including veterans, teachers, and state employees. Institutions that have resources from endowments, gifts, and other sources often use those funds to augment student aid as well.

¹ HECB, 2010-11 Unit Record Report as submitted by 68 public and private institutions.

² 2011-13 Operating budget as Enacted FY 2011, Fund total for Tuition Revenue for State Supported Programs (Fund 149-6). Source: Office of Financial Management Budget Allocation and Support System.

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Borrowing remains a necessity for many students as college costs go up

Despite the availability of student financial aid, many low- and middle-income students still need to borrow to help pay for postsecondary education. The amount of college-related debt some students carry with them into post-college lives and careers is an increasing concern.

The table below shows the average level of borrowing by resident undergraduate students in Washington who received either need-based financial aid or non-need based loans during the 2010-11 academic year. The average loan amount incurred by non-needy students was slightly higher than for needy students (\$9,600 versus \$7,700, respectively).

Dramatic changes in tuition and state financial aid policies could have a direct impact on borrowing behavior by students in the future. As tuition and other costs increase, students' financial need increases. If grant aid is not sufficient to cover the rising cost of attendance and the increasing numbers of financially needy students, students will need to borrow more, work more, drop out, or defer enrollment.

Resident Undergraduate Borrowing by Sector, 2010-11

Sector	Need-Based Aid Recipients with Loans*	Average Annual Loan	Non Need-Based Loan Recipients*	Average Annual Loan
Four-Year Public	35,650	\$8,342	7,974	\$11,221
Two-Year Public	33,685	\$5,528	3,481	\$4,958
Four-Year Private	10,126	\$10,984	1,376*	\$11,112*
Private Career	6,260	\$9,072	347	\$9,974
Total	85,130	\$7,654	13,135	\$9,533

*These figures do not include aggregate loan data for Non Need Based Aid recipients at Seattle University. The Total represents unduplicated headcount and average loan was manually calculated. Source: 1011 URR for Resident Undergraduates with loans. (Grouped by SSN and Sector, Sum of Loan, where YearInSchool <5, Resident=1, and Loan>0)

Source: HECB, 2010-2011 Unit Record Report.

GET program helps families save for future college expenses

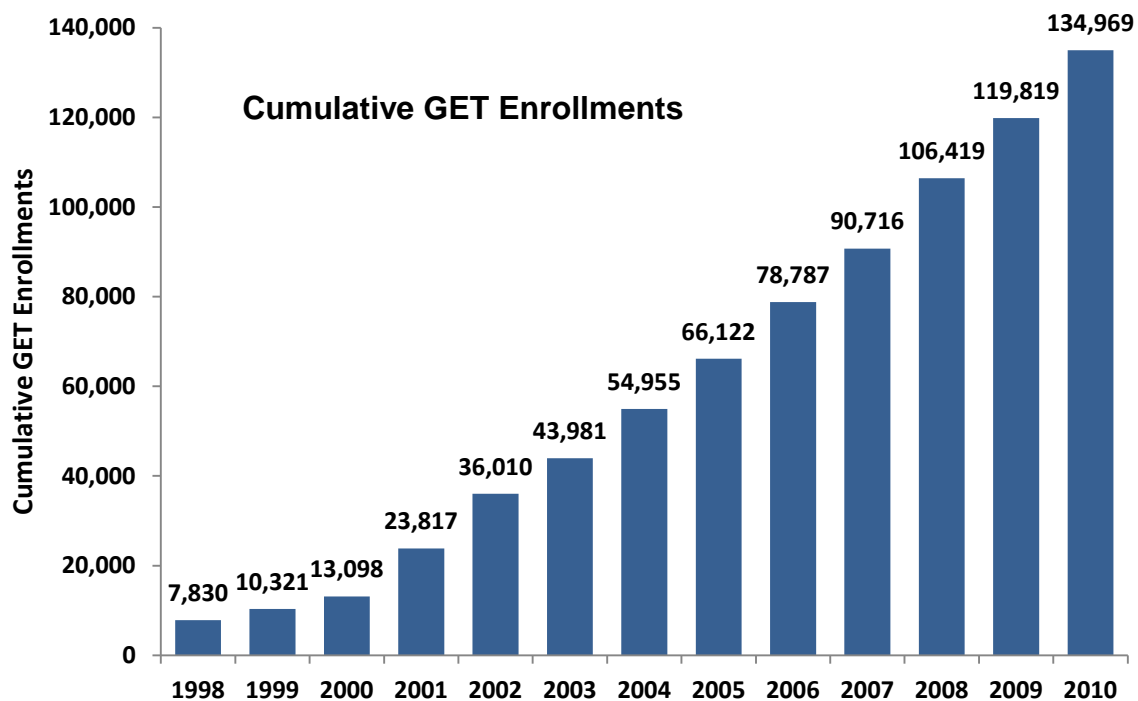
To encourage Washington families to save for college, the state Legislature, in 1997, authorized an IRS Section 529 prepaid college tuition plan called the Guaranteed Education Tuition (GET) program. GET, which began operation in August 1998, allows families to purchase tuition units now for use at a later date. The funds are invested and the purchaser is guaranteed a return to help cover future tuition.

Families can purchase between one and 500 units. The state guarantees that 100 units will cover one year of resident undergraduate tuition and state-mandated fees at the highest-priced public college or university in Washington. Students may use their GET units at any eligible in-state or out-of-state public or private accredited educational institution.

The Committee on Advanced Tuition Payment, commonly referred to as the GET Committee, governs the program. The committee is comprised of the executive director of the Higher Education Coordinating Board (chair), the State Treasurer, the director of the Office of Financial Management, and two citizen members. The HECB administers the GET program, while the State Investment Board oversees its investments.

As of June 2011, Washington families had opened nearly 135,000 accounts, valued at \$1.9 billion. More than 20,766 students have used their GET accounts to attend colleges and universities in all 50 states and in five foreign countries. GET is one of the nation's fastest-growing prepaid tuition plans in both assets and number of accounts.

The GET Committee annually sets the price of a GET unit, currently \$163. Families can buy units by setting up a customized monthly payment plan or by making lump sum purchases. The annual enrollment period runs November 1 through May 31. For more information, visit www.get.wa.gov or call 1-800-955-2318.



Source: HECB, Guaranteed Education Tuition program.

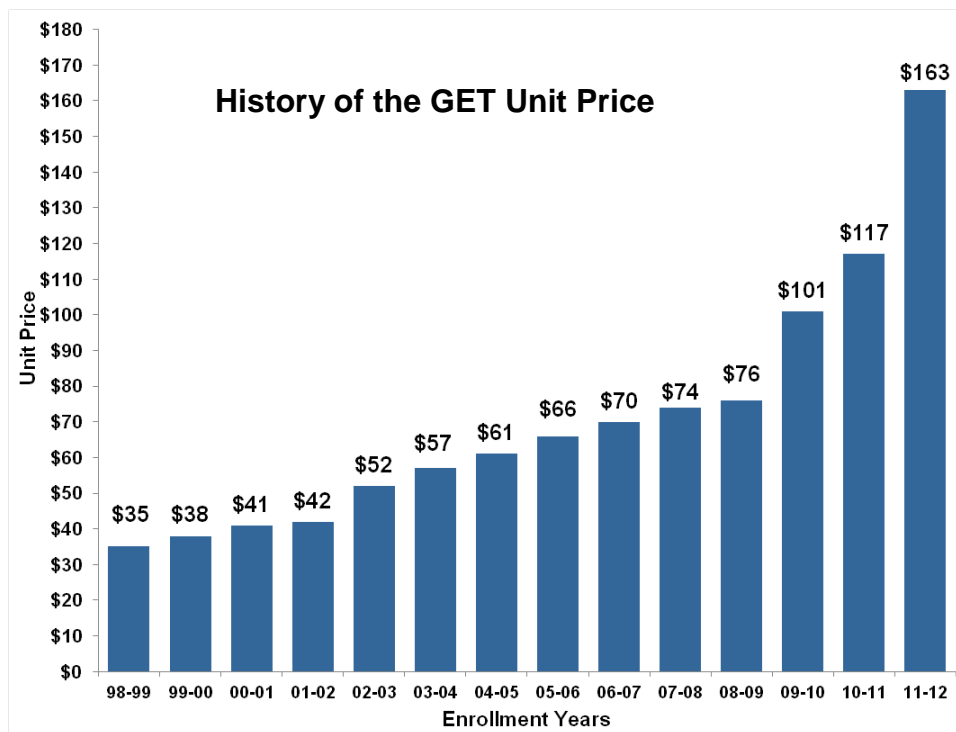
GET and the rising cost of tuition

In 2011, a Legislative Advisory Committee was established to advise the GET Committee and the State Actuary regarding decisions on pricing guidelines, the unit price and the payout value. The GET Committee sets the unit purchase price based on an actuarial formula that takes into account expected future tuition costs, expected return on investments, inflation, administrative costs, and a reserve to assist in periods of higher-than-expected tuition increases or lower-than-expected investment returns. GET is self-sustaining and receives no ongoing state appropriations.

Over the years, the unit price has steadily increased to accommodate the rising cost of college tuition. Current tuition increases, and those predicted for the future, have recently led to a significant increase in the GET unit price.

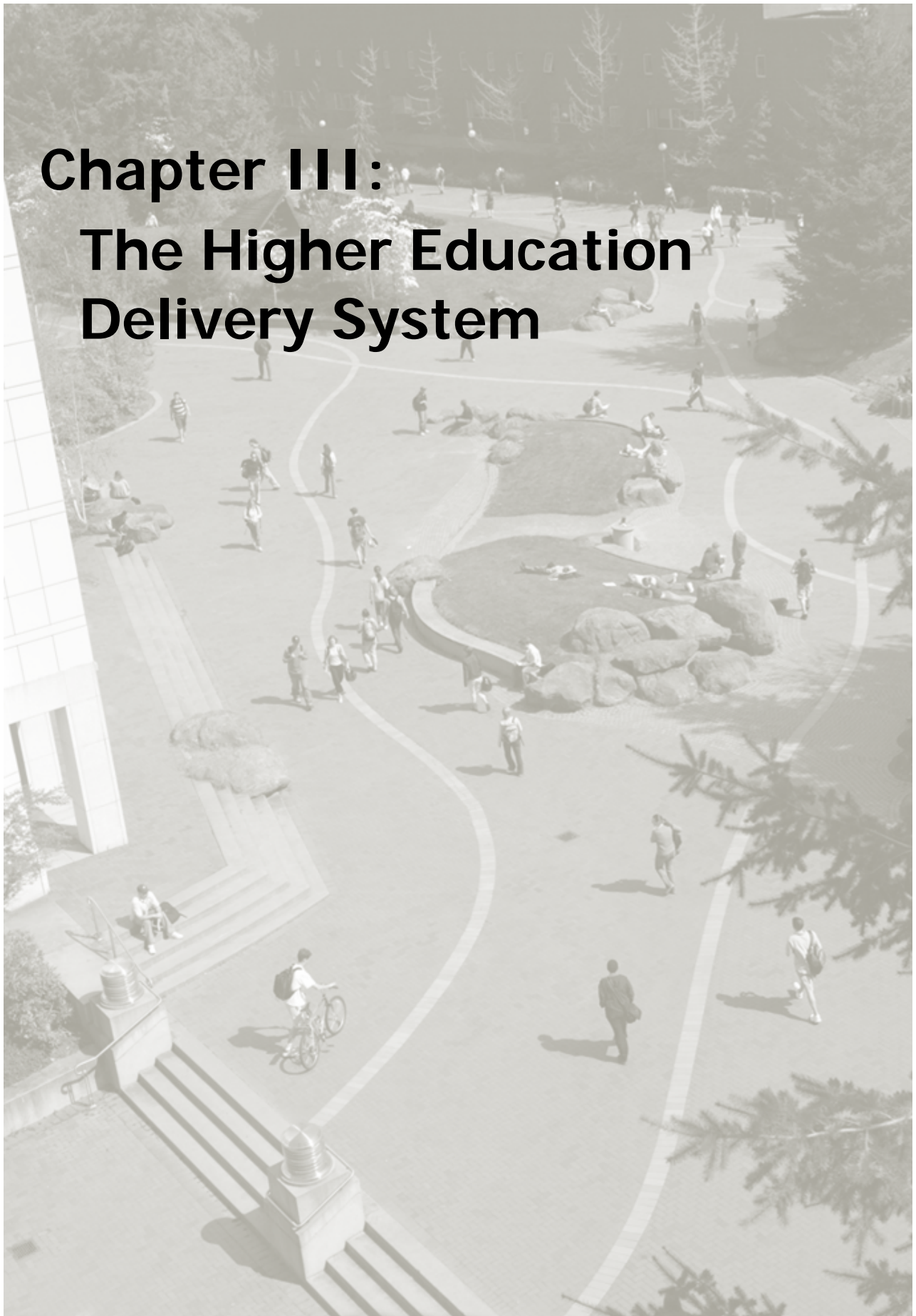
The unit price increase was caused in large part by a change in state tuition policy. In 2011, universities were given expanded authority to set tuition levels through 2015, and universities increased tuition as much as 20 percent for the 2011-12 academic year. The impact of these changes raised concerns among some legislators about the long-term solvency of the program. In light of current and expected tuition increases, the concern was whether the state would incur liability if it continues to guarantee that GET units will cover the full cost of tuition and fees in the future.

However, a recent study of the fund by the State Actuary indicated that the program remains financially solvent. As long as large tuition increases do not continue indefinitely and tuition units are appropriately priced, the GET program's actuarial stability is expected to continue. By carefully structuring the unit price and reviewing it annually, the program should be able to manage payout values over future years and still recover from any current unfunded liability.



Source: The Guaranteed Education Tuition (GET) Program: Program Options and Analysis, Report to the Governor and Legislature of the State of Washington. October 2011. <http://www.hecb.wa.gov/sites/default/files/GET-MASTER%20Leg%20Report-Final.pdf>

Chapter III: The Higher Education Delivery System



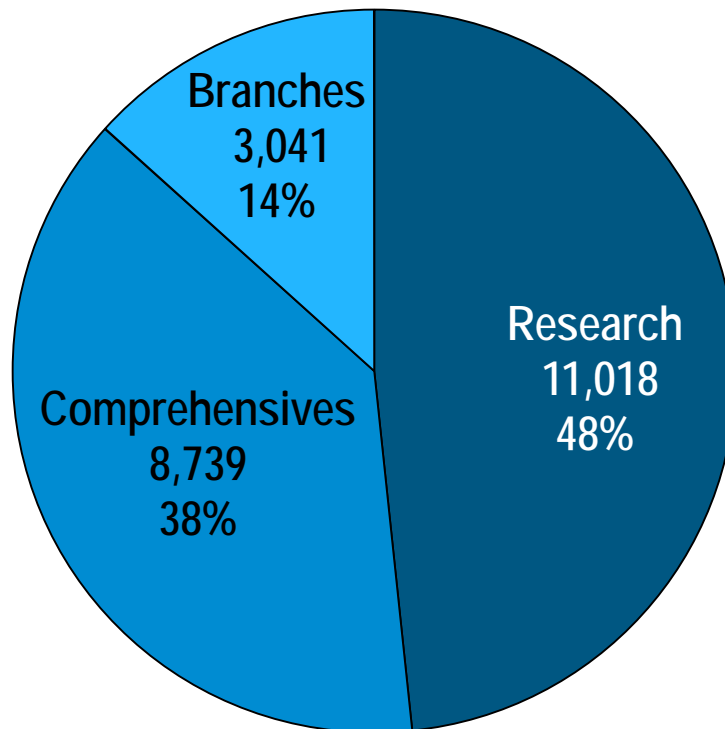
Variety in public institutions offers a wide range of academic opportunities

Bachelor's degree programs are widely available in Washington State through public and private institutions. The public institutions include two research universities (UW and WSU) and four comprehensive institutions (EWU, CWU, TESC, and WWU). The research universities also operate five branch campuses.

In addition, the state operates 10 higher education centers, which often are located on community college campuses. Centers house educational programs offered by one or more baccalaureate institutions whose main campuses are elsewhere in Washington or in another state. Baccalaureate institutions also offer teaching sites, which may be temporary and generally enroll fewer than 150 students in no more than three degree programs.

In 2009-10, Washington's public institutions produced about 75 percent of the state's bachelor's degree graduates, about 53 percent of its master's degree graduates, and 69 percent of its doctoral degree graduates. Among public institutions, the research universities with branch campuses accounted for about 60 percent of all baccalaureate degrees produced.

Public Baccalaureate Degrees Awarded by Location Type, 2009-10
Degrees Awarded: 22,798



Sources: Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics; Washington State University Institutional Research Office, retrieved from <http://irwsu.edu/Degrees>.

CTCs prepare students for careers and college transfer

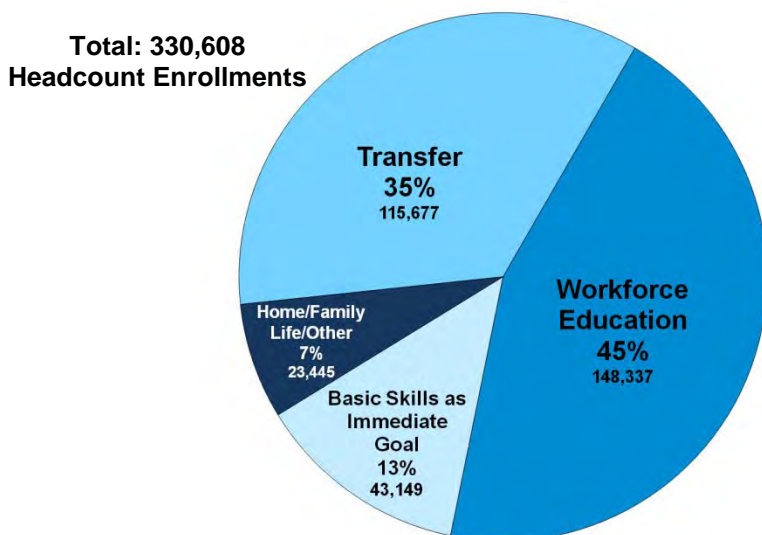
Washington maintains a system of 34 public community and technical colleges (CTCs) located in many parts of the state. These institutions offer a variety of two-year degrees and certificates.

Seven CTCs have been authorized to award nine applied baccalaureate degrees designed to provide advanced training, in fields in which technical associate degrees exist and there is industry, community, and student demand for applied bachelor’s degrees.

Community colleges award associate of arts degrees that prepare students for transfer to a baccalaureate institution or recognize two years of general education. They also award associate degrees in applied technologies in several hundred programs that provide workforce education for technical and paraprofessional positions.

In addition, community and technical colleges award certificates in various specific job-related programs. These programs can take from several weeks to more than two years to complete. Thousands of adults complete high school or earn their General Education Development (GED) certificates at community and technical colleges.

Percentage of Community and Technical Colleges’ State-Supported Students by Purpose for Attending, 2010-11



Source: State Board for Community and Technical Colleges, 2010-11 Academic Year Report.

CTC Student Goals

Academic transfer:

Earning credits that can be applied to a bachelor’s degree program when students transfer to four-year institutions.

Workforce education:

Preparing for jobs or upgrading job skills.

Basic skills as immediate goal:

Taking courses that focus on English as a second language, adult basic education, and courses leading to a high school diploma or General Education Development (GED) certificate.

Note: Some portion of students classified as “transfer” and “workforce” also enroll in one or more basic skills courses.

Home and family life, other, and not reported:

These students enroll for parent education, retirement planning, or other purposes. This category also includes students who did not specify a goal when they enrolled.

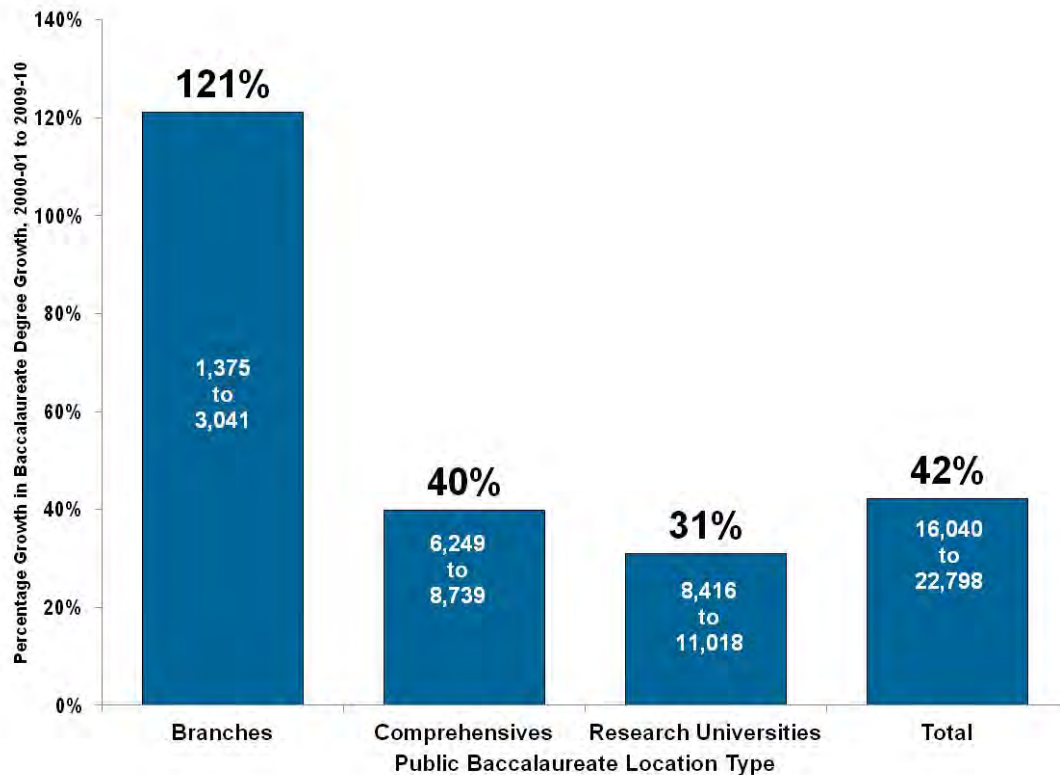
Bachelor's degree production is growing fastest at branch campuses and centers

Over the last two decades, Washington's public baccalaureate institutions have evolved from a handful of central campuses to a diverse mix of institutional types located in communities across the state. This has allowed the state to respond to growth demands and has opened new opportunities for students who are not able to pursue baccalaureate degrees on central campuses.

Five branch campuses of Washington's two research universities—the University of Washington and Washington State University—were launched beginning in the early 1990s. Branch campuses provide access to higher education in urban growth areas where there is no four-year institution. Another type of institution, the university center, houses baccalaureate programs offered by one or more baccalaureate institutions at a single location. University centers are located in Everett, Des Moines, Yakima, and other communities.

Although the research and comprehensive institutions still account for most of the baccalaureate degrees awarded in the state, branch campuses and centers have seen the most rapid percentage growth in degree production. Among other benefits, branches and centers help facilitate the student needs of working adults who wish to complete baccalaureate degree work.

**Public Baccalaureate Degree Award Growth
by Location Type 2000-01 to 2009-10**



Sources: Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, and Washington State University Institutional Research Office. Retrieved from <http://ir.wsu.edu/Degrees>.

Distance and eLearning are playing a larger role in higher education

Taking courses in traditional classrooms remains the way most students pursue higher education today. However, new technologies and instructional approaches are helping to serve more students whose jobs or other circumstances make it inconvenient or impossible to attend college in the traditional way.

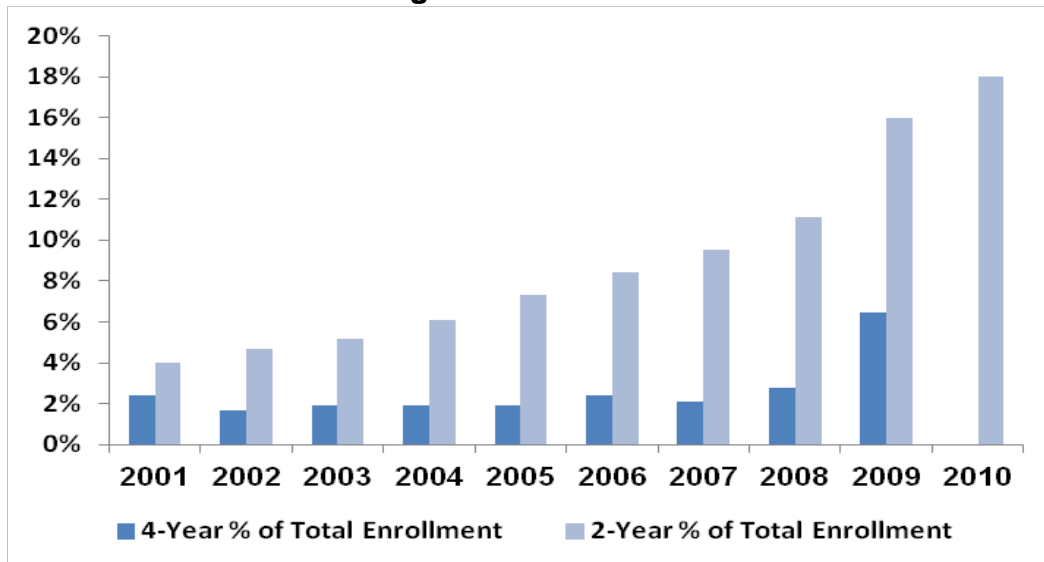
Distance learning is the general term used to describe educational activities that occur when teachers and students are physically separated for at least part of the instructional time. Distance learning includes use of the Internet, satellite transmissions, cable networks, and other technologies.

eLearning is a more specific term referring to the use of digital and online technologies to provide educational opportunities any place, any time. In the 2008-09 academic year, eLearning enrollments accounted for about 29,000 FTEs in the public two- and four-year sectors. These included both state-funded FTEs and FTEs in programs for which state funding was not provided.

In Washington, the state-funded portion of total instruction that can be characterized as distance learning has averaged about 2 percent in the public four-year institutions and 5 percent in the public two-year system since 2000.¹

Nationally, the number of students taking at least one online course grew at a compound annual rate of 19 percent between fall 2002 and fall 2009. More than 29 percent of all students enrolled nationally took at least one online course in fall 2009 compared with 24.6 percent in fall 2008.²

**Distance Learning Enrollment as Percentage of Total Enrollment
Washington Public Institutions**



Note: 2010 not available from the Public Centralized Higher Education Enrollment System (PCHEES) for the public four-years as of 1/12. Source: Office of Financial Management, "Higher Education Trends & Highlights," February 2009. Retrieved from http://www.ofm.wa.gov/hied/highlights/07_enr_char.pdf; personal communication from SBCTC staff.

¹Office of Financial Management, "Higher Education Trends and Highlights," February 2009.

²Babson Survey Research Group & The Sloan Consortium, "Class Differences: Online Education in the United States, 2010," Nov. 2010.

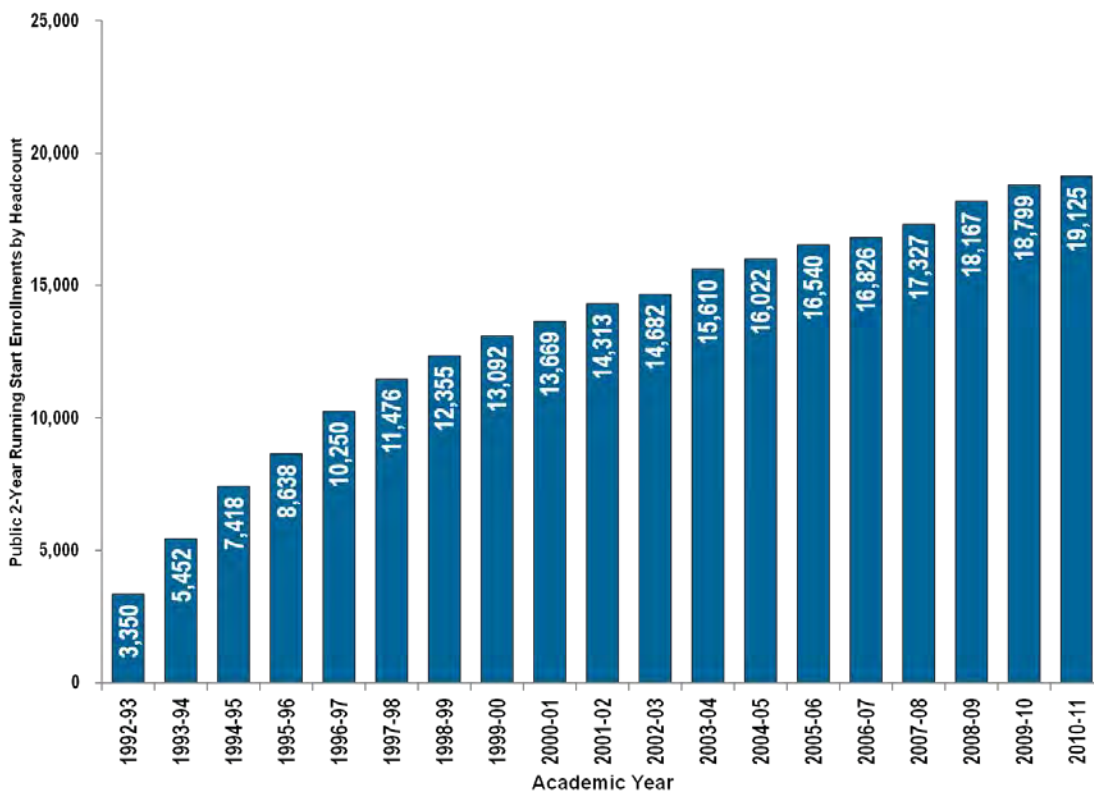
Through Running Start, many students earn college credit while still in high school

The Running Start program enables qualified high school juniors and seniors to earn college credit by taking courses without paying tuition at community and technical colleges, most baccalaureate institutions, and Northwest Indian College. About 9 percent of all high school juniors and seniors in public schools take at least one college course through Running Start. Before they can be admitted, high school students must pass a test to determine their ability to do college-level work.

The number of Running Start students has grown steadily. In 2010-11, 19,125 students participated at CTCs, resulting in 12,690 FTE enrollments—a 2 percent increase (230 FTEs) over the previous year.³ More than 1,370 additional students participated through baccalaureate institutions.

As Running Start enrollments continue to grow, funding becomes an even greater challenge for the colleges providing the instruction. The 2011 Legislature gave colleges and universities the authority to charge up to 10 percent tuition. No institution implemented this fee in 2010-11.

Headcount Enrollment in Running Start Programs at Public Two-Year Institutions, 1992–2011



Note: Does not include Running Start students at public four-year education institutions.

Source: State Board for Community and Technical Colleges, Running Start: 2009-10 Annual Progress Report.

³ State Board for Community and Technical Colleges, Annual 2010-11 Enrollment Report.

Other college-prep programs offered to high school students

Advanced Placement

The Advanced Placement Program® of the College Board is a cooperative endeavor between secondary schools and institutions of higher education. The program offers high school students college-level courses taught by specially trained teachers. The students are then given examinations to determine their level of mastery of the material on a 1-5 scale.

The American Council on Education recommends that colleges and universities grant credit and/or placement into higher-level courses to entrants with AP Exam grades of 3, 4, and 5 – with each college determining course applicability.

In 2010-11, 39,328 Washington students took 66,242 Advanced Placement Exams. Of these, 24,354 received a grade of 3 or higher on 39,935 total examinations.

More information: www.collegeboard.com/student/testing/ap/about.html.

Data source: College Board Student Achievement Report 2010-11.

International Baccalaureate and Cambridge Program

The International Baccalaureate (IB) Diploma Programme is a college prep course of study leading to examinations in core fields. Colleges and universities may award credit for International Baccalaureate work, depending on IB examination scores.

The program began as a way to establish a common curriculum and university entry credential for students moving from one country to another. Eighteen schools in Washington currently offer the IB Diploma Programme. More than 4,800 students participated in IB programs in 2010-11.

The Cambridge Program offers an international, pre-university curriculum and examination system that emphasizes the value of a broad and balanced study for academically able students. This new program to our state is offered at one high school; 74 students were enrolled in 2010-11.

More information: International Baccalaureate Organization – www.ibo.org.
Cambridge – www.cie.org.uk/countries/usa.

Data source: Office of Superintendent of Public Instruction, Comprehensive Education Data and Research System (CEDARS), 2010-11.

College Prep Programs (continued)

College in the High School

College in the High School programs provide college-level courses to 11th and 12th grade students. These courses are offered at the high schools and may be taught by high school faculty who are also adjunct faculty at a college or university. The courses use the same curriculum, assessments, and textbooks as would be used in identical courses offered on campus.

The courses must be college-level, included in the college's catalog or an appropriate supplement, and taught as part of the college curriculum. In 2010-11, 13,081 high school students participated in the program.

More information: State Board for Community and Technical Colleges – www.sbctc.ctc.edu/college/_e-wkforcecollegeinhighschool.aspx

Data source: Office of Superintendent of Public Instruction, Comprehensive Education Data and Research System (CEDARS), 2010-11.

Tech Prep

Tech Prep offers students an opportunity to earn community college credit, while still in high school, by enrolling in a “tech prep” course. These courses are aimed at preparing students for technical and professional careers by requiring that they earn a B grade. Fees vary by college and result in minimal to no cost to students.

Tech Prep credit is awarded for many types of courses: accounting, auto body repair, drafting, and Website design, to name a few. In 2010-11, 36,378 students were enrolled statewide in the program — a 6 percent decrease over the previous year.

More information: State Board for Community and Technical colleges – www.sbctc.ctc.edu/college/_e-wkforcetechprep.aspx.

Data source: State Board for Community and Technical Colleges

Majority of public college employees are engaged in teaching, research, and public service

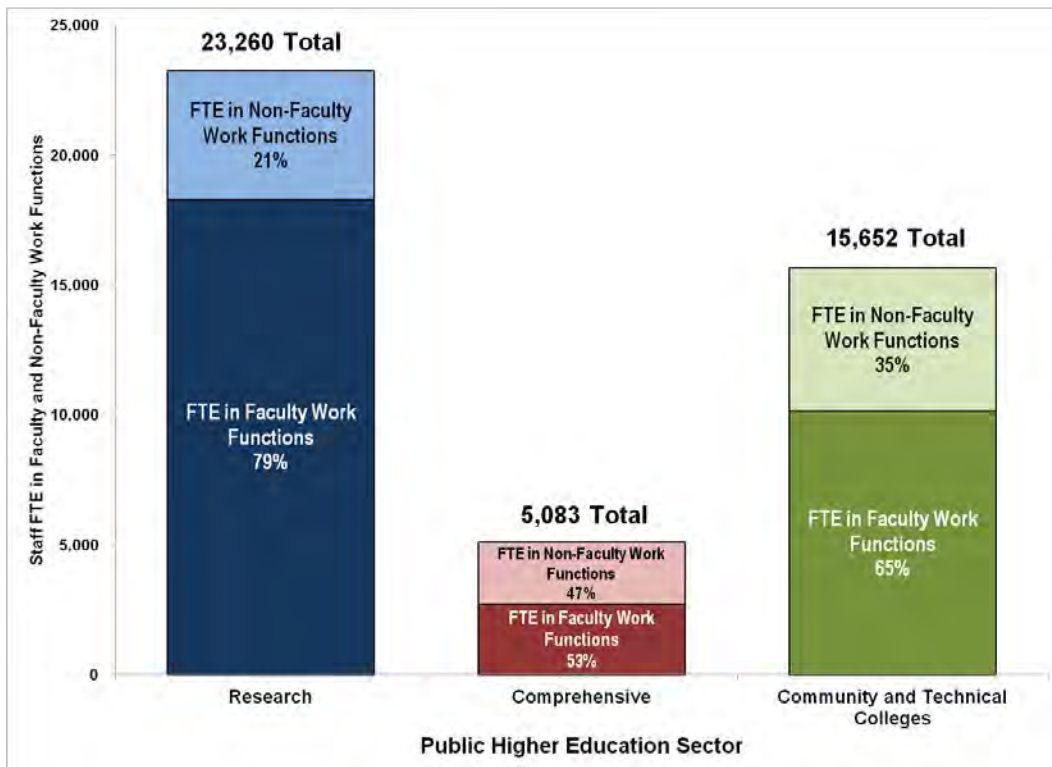
Operating a world-class educational system requires thousands of faculty and staff to educate students, conduct research, carry out essential business functions, provide student services, and preserve the state investment in higher education infrastructure.

Faculty whose main assignments are instruction, research, or public service form the core of the college or university community. Faculty members may hold various academic rank titles. Executive, administrative, managerial, technical, clerical, secretarial, skilled crafts, and service and maintenance activities are carried out by administrative and support staff.

The majority of employees at the state’s public institutions are directly engaged in instruction, research, or public service. At the research universities, more than three-fourths of the faculty and staff are engaged in these functions, and less than a quarter hold non-faculty-support positions.

Average Annual FTE in Faculty and Non-Faculty Program Areas In Washington Public Institutions of Higher Education, by Sector

Operating FTE Staff, All Fund Sources, 2009-11 Biennium Actual Data



Note: **Faculty Work Functions** are defined as including Instruction, Research, Public Service, and Sponsored Research and Programs. **Non-Faculty Work Functions** are defined as including Primary Support, Library, Student Services, Institutional Support, Plant Operations and Maintenance, and other special projects.

Source: HECB staff analysis of Legislative Evaluation and Accountability Program (LEAP) Committee data retrieved from fiscal.wa.gov, downloaded 11-14-11.

Average faculty salaries at most public four-year institutions lag behind peers

In 2009-10, average faculty salaries at all of Washington's public four-year institutions, were below the 75th percentile of their peer groups. These averages reflect full-time faculty (for three academic ranks—full professor, associate professor, and assistant professor) whose major assignment is instruction or instruction combined with research and/or public service.

Washington Public Higher Education Average Faculty Salary For All Tenure-Track Faculty among Peers

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
University of Washington									
<i>Average salary</i>	\$76,777	\$77,613	\$79,894	\$83,530	\$86,800	\$92,502	\$97,893	\$103,022	\$102,904
<i>Peer group percentile rank</i>	50 th	38 th	38 th	54 th	54 th	58 th	62 nd	67 th	63 rd
Washington State University									
<i>Average salary</i>	\$64,707	\$64,901	\$65,974	\$68,365	\$72,702	\$75,491	\$78,566	\$82,966	\$83,604
<i>Peer group percentile rank</i>	18 th	14 th	14 th	14 th	18 th	18 th	18 th	18 th	18 th
Central Washington University									
<i>Average salary</i>	\$52,828	\$52,832	\$54,607	\$56,583	\$58,435	\$62,933	\$63,287	\$65,698	\$66,408
<i>Peer group percentile rank</i>	28 th	23 rd	29 th	31 st	35 th	43 rd	34 th	36 th	38 th
Eastern Washington University									
<i>Average salary</i>	\$55,340	\$55,333	\$54,745	\$56,029	\$57,550	\$61,050	\$61,194	\$65,780	\$65,622
<i>Peer group percentile rank</i>	46 th	35 th	31 st	29 th	29 th	35 th	27 th	37 th	34 th
The Evergreen State College									
<i>Average salary</i>	\$53,548	\$54,014	\$54,995	\$54,879	\$56,805	\$58,073	\$58,144	\$62,299	\$64,048
<i>Peer group percentile rank</i>	32 nd	29 th	32 nd	23 rd	24 th	22 nd	11 th	23 rd	28 th
Western Washington University									
<i>Average salary</i>	\$57,017	\$57,448	\$57,224	\$58,433	\$60,673	\$63,354	\$63,305	\$69,036	\$68,620
<i>Peer group percentile rank</i>	54 th	50 th	42 nd	42 nd	45 th	46 th	35 th	51 st	49 th
Community / Technical Colleges									
<i>Average salary</i>	\$46,247	\$47,916	\$48,303	\$48,240	\$49,518	\$50,766	\$52,520	\$55,320	\$55,982
<i>Peer group percentile rank</i>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes: Average salary refers to the arithmetic mean of faculty salaries. A percentile rank represents the salary at which that percentage of institutions' salaries falls at or below. For example, in the table above, in 2009-10, the UW's average faculty salary of \$102,904 was at the 63rd percentile. This means that in 2009-10, 63 percent of the UW's peer institutions' salaries fell at or below \$102,904, and 37 percent were above that amount. Peer group comparisons for community and technical colleges were discontinued in 1997-98.

Sources: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics; HECB, Faculty Salary Survey; American Association of University Professors, Report on the Economic Status of the Profession; State Board for Community and Technical Colleges, Academic Year Reports.

Part-time faculty play an important role at public two-year and private institutions

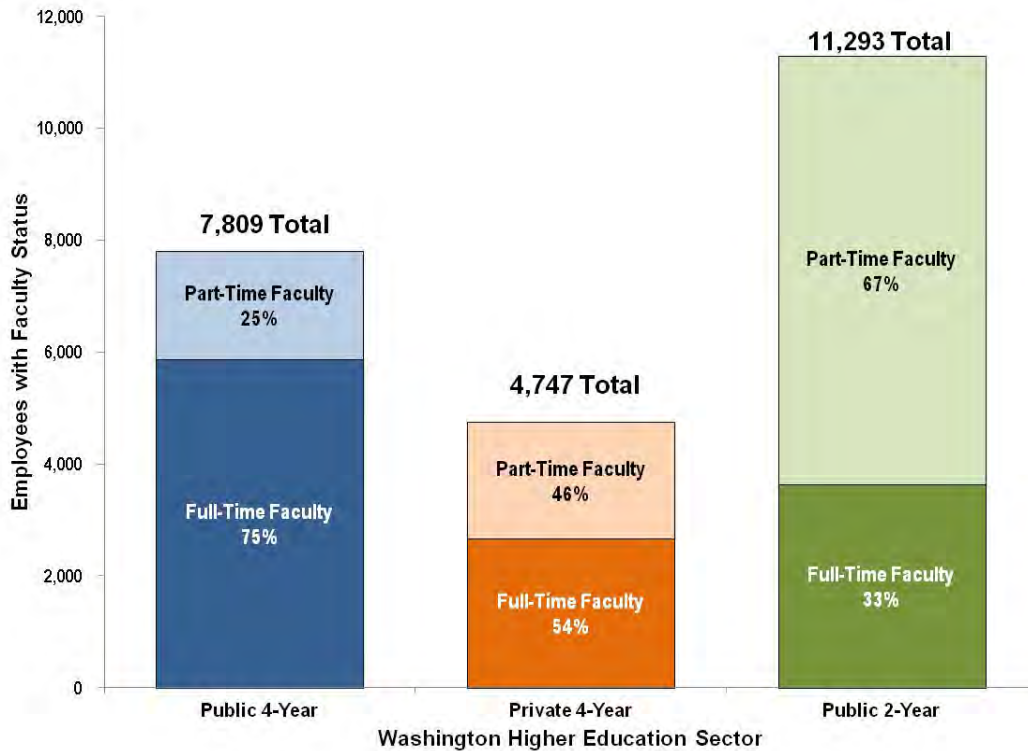
Part-time (or adjunct) faculty members make up a significant component of the instructional workforce at the two- and four-year colleges and universities.

While part-time faculty members outnumber full-time faculty at two-year institutions, full-time faculty spend more hours in the classroom. Each part-time faculty member teaches about five credits, while full-time faculty members teach about 15 credits. In 2009-10, about 56 percent of state-supported credit hours at two-year institutions were taught by full-time faculty.

While nearly half the faculty members at private four-year institutions are part-time, only one-fourth of those at the Independent Colleges of Washington (ICW)⁴ are part-time. Regarding full-time faculty, ICW institutions more closely resemble public baccalaureates than do the remaining private institutions—many of which are extensions of out-of-state universities.

Part-time faculty members give colleges the flexibility to offer courses outside the fields of expertise of full-time faculty, to offer more evening and off-campus courses, and to quickly adjust course offerings in response to changes in student demand or funding.⁵

Faculty Full- and Part-Time Status, by Sector
(Excludes Medical School Employees)



Source: Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2010.

⁴ ICW institutions include: Gonzaga University, Heritage University, Pacific Lutheran University, Saint Martin's University, Seattle Pacific University, Seattle University, University of Puget Sound, Walla Walla University, Whitman College, and Whitworth University.

⁵ State Board for Community and Technical Colleges, 2009-10 Academic Year Report.

Do students find jobs and continue with further education after completing a baccalaureate degree?

Within their first year of graduation, nearly two-thirds of bachelor’s degree graduates worked at least one quarter in Washington. At least 6 percent more re-enrolled in postsecondary education and at least 13 percent more both worked in the state and re-enrolled. The remaining 18 percent were not found in the Washington workforce data⁶ and were not enrolled in postsecondary education.

In the second and third years following graduation, the percentage working declined while the percentage that may have left the state to enroll or find other jobs increased—possibly due to the onset of the state’s recession. It also is possible that more students move out of state for various reasons by the second or third year after graduation, or they find work with non-profit organizations in Washington. Employment data from other states, however, were not available at the time the analysis was conducted.

Because of the long-term nature of this analysis, tracking students multiple years after graduation, results are several years old. It will be interesting to see if the trends continue in subsequent years when the study is repeated.

**Post-Graduation Work and Further Education of 2005-06 and 2006-07
Baccalaureate Degree Recipients, One, Two, and Three Years after Graduation**

Degree Recipients	2005-06 (N=19,983)			2006-07 (N=20,457)	
	Year 1 (2006-07)	Year 2 (2007-08)	Year 3 (2008-09)	Year 1 (2007-08)	Year 2 (2008-09)
Worked in WA at least one quarter – not enrolled in college	64%	57%	54%	61%	55%
Worked in WA at least one quarter and enrolled in college	13%	14%	13%	12%	12%
Enrolled in college but did not work in WA⁶	6%	8%	9%	7%	9%
Did not work in WA⁶ – not enrolled in college	18%	21%	25%	20%	24%

Note: Analysis includes only degree recipients for whom data was available and does not include every degree recipient.

Sources: HECB staff analysis of data from Public Centralized Higher Education Enrollment System (PCHEES), Employment Security Department data, and National Student Clearinghouse data provided by the Education Research & Data Center (ERDC).

⁶ Graduates may have worked in other states, were self-employed in Washington, or were employed by a Washington non-profit organization.

In what industries do baccalaureate degree recipients obtain employment?

Baccalaureate degree recipients who were employed in Washington within one year of graduation were most likely to be employed in the following industries: educational services (15 percent); health care and social assistance (11 percent); professional, scientific, and technical services (13 percent); or retail trade (10 percent).

This trend continues into the second year following graduation for both groups and into the third year following graduation for the 2005-06 degree recipients. Results from this longitudinal study will need to be repeated to determine whether these results held during the state's Great Recession of 2009-2011.

Top Employing Industries by Discipline, Number, and Percentage of Graduates Working in Washington One Year After Graduation, 2005-06 Graduates

Major Discipline	Industry Where Employed
Agriculture & Conservation (N=366)	
13%	Professional, Scientific, & Technical Services
13%	Public Administration
12%	Retail Trade
Arts & Letters (N=3,469)	
14%	Retail Trade
12%	Accommodation & Food Service
10%	Educational Services
Business (N=2,009)	
17%	Professional, Scientific, & Technical Services
17%	Finance & Insurance
Computer Science (N=270)	
30%	Professional, Scientific, & Technical Services
25%	Information
Education (N=971)	
80%	Educational Services
Engineering & Related Technologies (N=666)	
38%	Manufacturing
27%	Professional, Scientific, & Technical Services
Health (N=668)	
71%	Health Care & Social Assistance
11%	Educational Services
Sciences (N=1,058)	
19%	Health Care & Social Assistance
16%	Professional, Scientific, & Technical Services
16%	Educational Services
Social Sciences (N=3,216)	
15%	Health Care & Social Assistance
12%	Educational Services
12%	Retail Trade

Note: Analysis includes only degree recipients for whom data was available and does not include every degree recipient.

Sources: HECB staff analysis of data from Public Centralized Higher Education Enrollment System (PCHEES) & Employment Security Department data provided by the Education Research & Data Center.

How much do baccalaureate degree recipients earn?

Graduates who were working full-time in Washington and were not enrolled in postsecondary education earned an average of \$36,800 in the first year following graduation. Over time, the median annual income increased by 21 percent, to \$44,600, in the second year following graduation.

Graduates who secured full-time jobs in construction, manufacturing, management, and information industries earned the most. Graduates who worked full-time in Leisure and Hospitality industries earned the least. An analysis of the 2006-07 graduates shows similar trends.

Median Annual Income⁸ – 2005-06 Baccalaureate Degree Recipients (Working full-time in Washington⁹ and not enrolled in a postsecondary institution – one, two and three years after graduation)

Industries Where Graduates Employed	Year 1	Year 2	Year 3
Administrative & Support Services	\$32,400	\$39,600	\$43,600
Construction	\$50,000	\$49,600	\$55,200
Educational Services	\$34,400	\$37,200	\$40,000
Finance, Insurance, & Real Estate	\$34,800	\$39,200	\$41,600
Health Care & Social Assistance	\$35,200	\$37,600	\$39,200
Information	\$42,000	\$46,000	\$54,000
Leisure & Hospitality	\$28,000	\$31,600	\$33,600
Management of Companies & Enterprises	\$49,600	\$50,000	*
Manufacturing	\$49,200	\$52,800	\$56,000
Natural Resources & Mining	*	*	*
Other Services (except Public Administration)	\$31,200	\$34,400	\$37,600
Professional, Scientific, & Technical Services	\$40,000	\$44,800	\$48,000
Public Administration	\$39,600	\$43,600	\$47,200
Trade & Transportation	\$32,000	\$37,600	\$40,000
Utilities	*	*	*
Total	\$ 36,800	\$41,200	\$44,600

*Number of employees is insufficient for the purposes of reporting income.

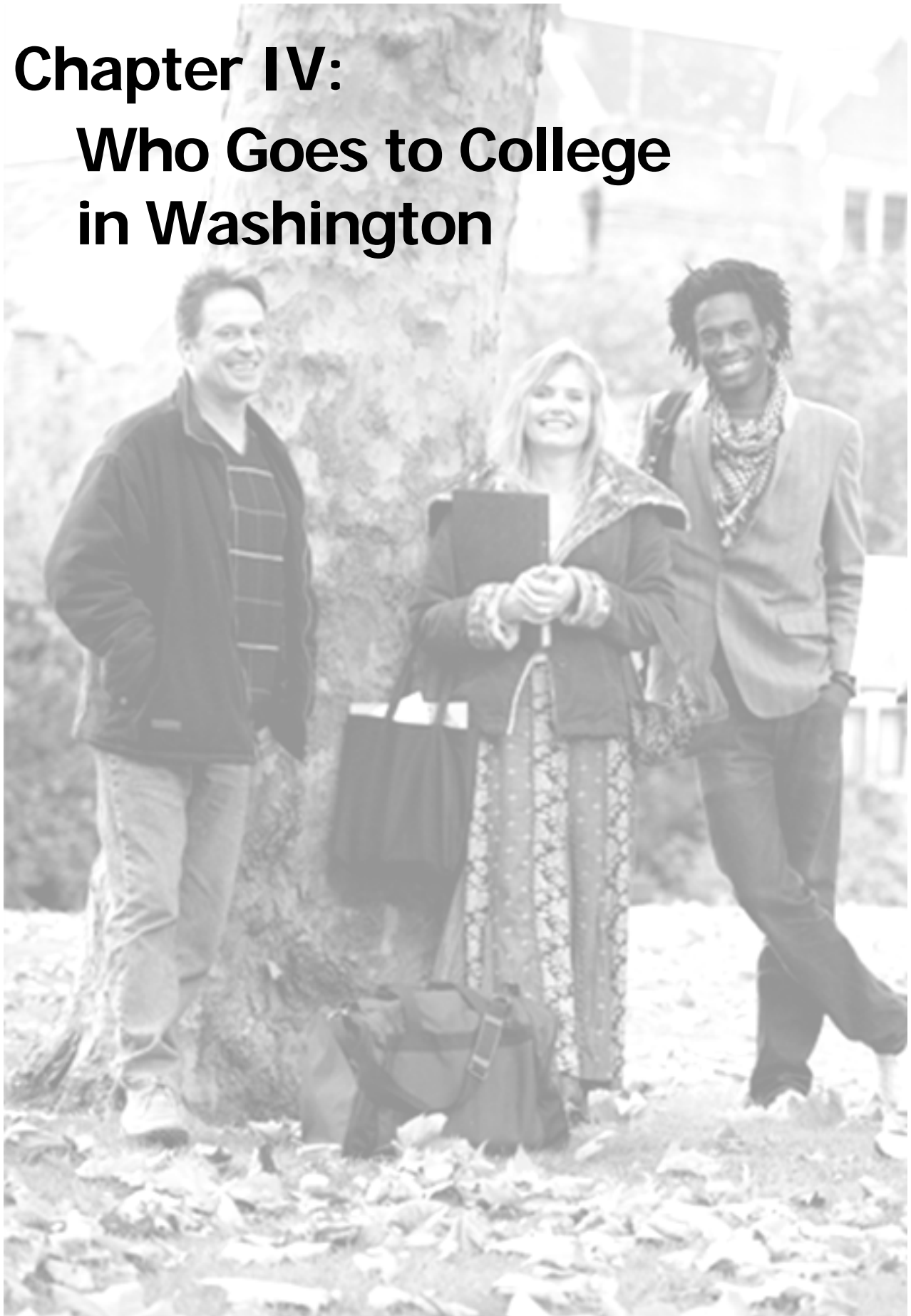
Note: Analysis includes only degree recipients for whom data was available and does not include every degree recipient.

Source: HECB staff analysis of Employment Security Department data provided by the Education Research & Data Center (ERDC).

⁸Annualized quarterly median income based on income reported for the third quarter of each year following graduation, adjusted for inflation.

⁹Employment status in the third quarter of the year following graduation. Graduates who worked in Washington in some other quarter, worked in other states, were self-employed in Washington, or were employed by a Washington non-profit organization are not included.

Chapter IV: Who Goes to College in Washington



Chapter IV: Who Goes to College in Washington?

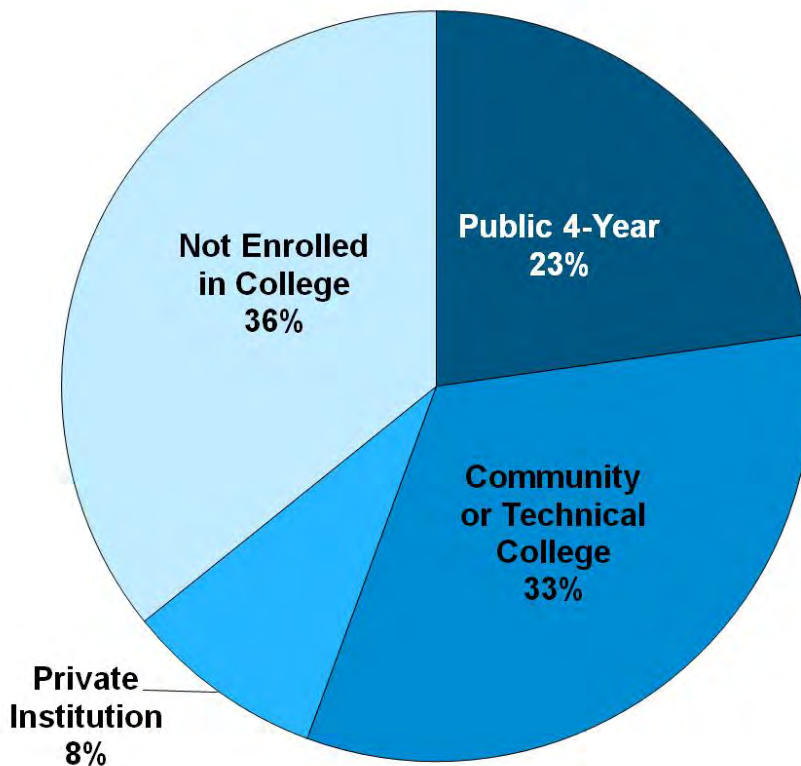
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College-going behavior after high school

The traditional path to a postsecondary education—high school immediately followed by two to four years at a college or trade school—is not the typical journey for many college students today. Increasingly, college experiences occur throughout one’s adult life. By choice or necessity, some go to work full-time immediately after high school and defer college. Others work and attend college part-time. Many return to college later in life for career retraining or to update job skills.

The Washington State Education Research & Data Center looked at education-related activities of Washington’s Class of 2009 high school graduates in their first year after graduation. Of the 63,386 high school graduates, 40,708 (64.2 percent) enrolled in postsecondary education. The remaining 36 percent presumably were working or decided not to attend college for other reasons. According to the study, female graduates were more likely to enroll in college the first year after high school graduation (67.6 percent) than male graduates (60.6 percent).

**Student Activity One Year After High School Graduation
from Washington Public High Schools, Class of 2009**



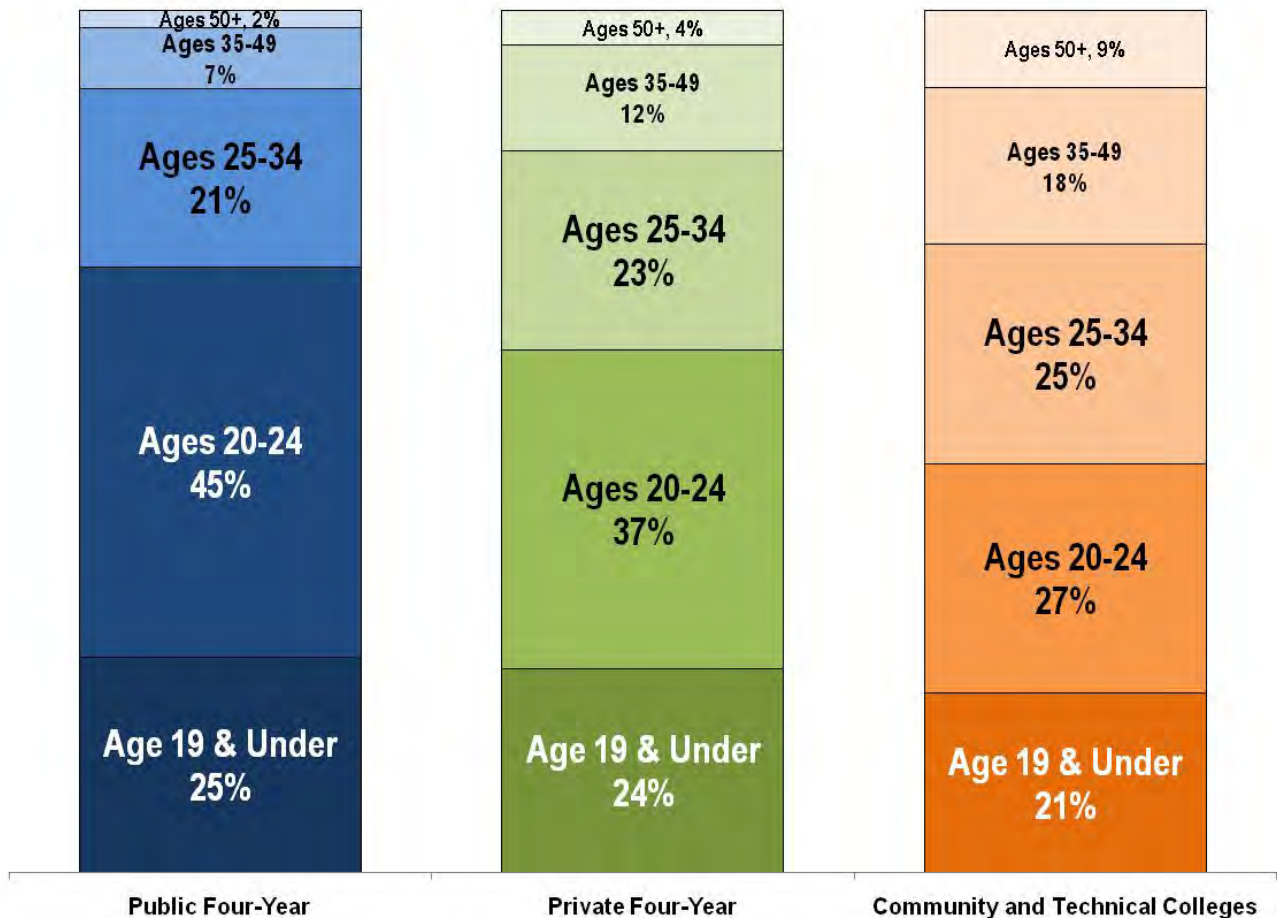
Note: Students for whom no enrollment or employment data exists are not included.

Source: Education Research & Data Center (ERDC), "Participation in Post-secondary Education, Washington State High School Graduates, 2008-09," December 2010.

Students at baccalaureate institutions more likely to be in their early 20s

Students attending four-year public and private institutions tend to be in the age categories most commonly associated with college students (ages 18-24). The community and technical colleges, on the other hand, serve a greater percentage of older students.

Student Age Distribution as a Percentage of Total Headcount Enrollment by Sector, Fall 2009



Note: Students for whom no age data exists are not included.

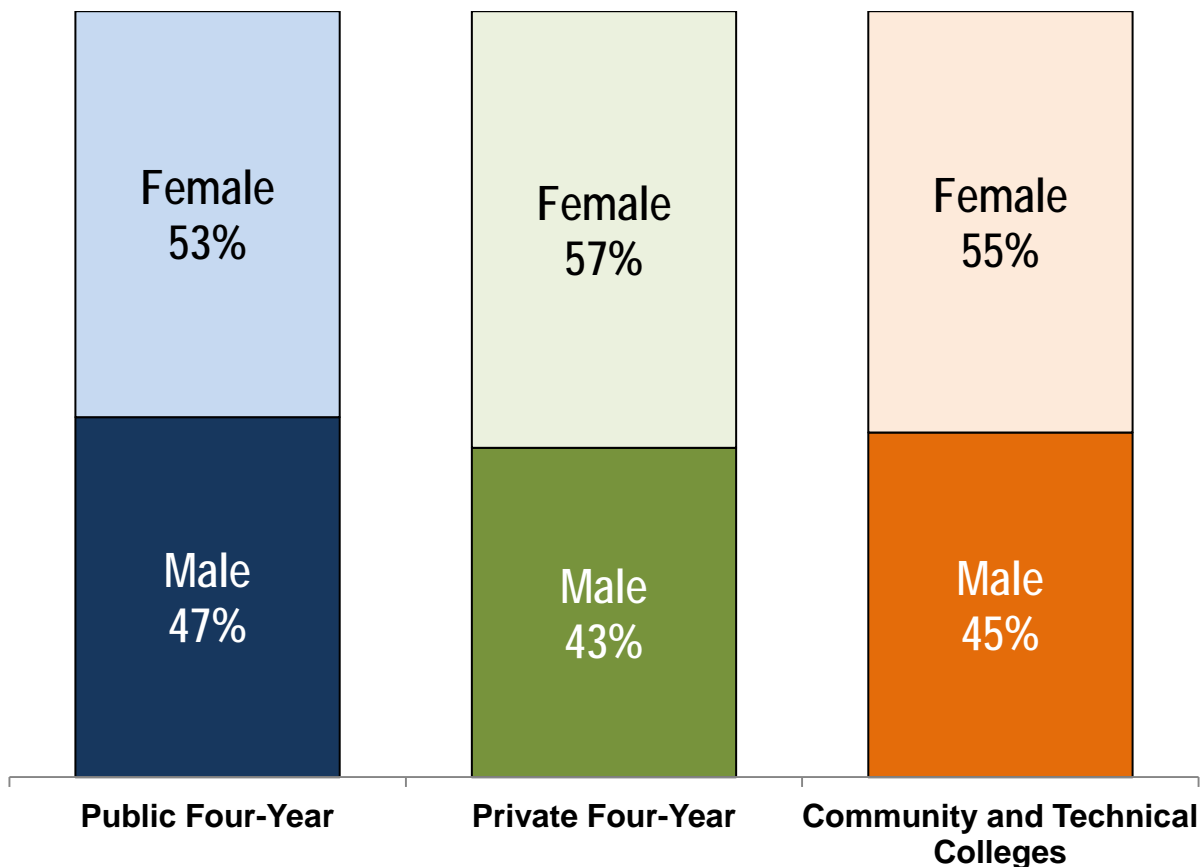
Source: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2009.

More than half of college students at two- and four-year institutions are female

In 2010, females continued to outnumber males on Washington college campuses— although the percentage of women enrolled at community and technical colleges continued a slight decline from the previous two years. Female enrollments at most institutions have consistently outpaced male enrollments at most Washington institutions since at least 1996.

While females outnumber males in overall numbers on college campuses, they trail in pursuit of degrees in the science, technology, engineering, and mathematics (STEM) fields. In 2009-10, just 32 percent of all STEM postsecondary degree awards in Washington’s public and private institutions went to female students.¹ That represented a slight downward trend from two years earlier.

Student Gender Distribution as a Percentage of Total Headcount Enrollment by Sector, Fall 2010



Source: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2010.

¹ HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, 2009-10.

Chapter IV: Who Goes to College in Washington?

More students leave the state for their college educations than come here

Washington is a net exporter of high school graduates to colleges and universities in other states. More students leave the state to attend college than come here for the same purpose.²

Most of the 1,235 students who represented Washington's net student loss in 2008 attended private colleges and universities in other states. High school graduates entering and leaving the state to attend public colleges and universities were roughly even.

High school graduates who were eligible for federal student aid (Pell Grant) in 2008, left Washington to attend private colleges and universities at a much higher rate than Pell-eligible students who migrated to Washington to attend private institutions.

Washington's net out-migration of high school graduates further complicates the state's efforts to expand degree production among its own population in order to meet projected demand for college-educated workers in the future.

Migration of Recent High School Graduates by Institution Type, Fall 2008

Sector	In-Migration	Out-Migration	Net In-Migration
Public Two-Year	260	273	-13
Public Four-Year	2,743	2,642	+ 100
Private Two-Year	0	118	- 118
Private Four-Year	2,914	4,118	-1,204
All Sectors	5,917	7,152	-1,235

Source: Postsecondary Education Opportunity Analysis of U.S. Department of Education, National Center for Education Statistics. Integrated Postsecondary Education Data System (IPEDS) Fall 2008 Enrollment Survey.

² Spaulding, Randy. "The Impact of Interstate Migration on Human Capital Development in Washington," HECB, September 2010. Available at <http://www.hecb.wa.gov/research/documents/2010migrationReport-final.pdf>.

Chapter IV: Who Goes to College in Washington?

State's growing diversity reflected on Washington campuses

Washington is growing more diverse. The share of the state population that includes people of color and Hispanics grew from 20.6 percent of the state population in 2000, to 25.2 percent in 2010.³

The mix of students on Washington's college campuses also has undergone a transformation. In 1999, 76 percent of students attending the state's public four-year institutions were white. By 2010, fewer than 68 percent were white. At the state's independent four-year institutions, 77 percent of students were white in 1999. By 2010, 72 percent were white. At the state's community and technical colleges, more than 79 percent were white in 1999, compared to about 69 percent in 2010.

Hispanics, Washington's fastest-growing minority group, accounted for nearly 4 percent of students at public four-year institutions in 1999, compared to 6.8 percent in 2010. The next fastest-growing group, Asians and Pacific Islanders, accounted for nearly 11.5 percent of the student population in 1999; it was nearly 13 percent in 2010.

Student Race/Ethnicity Distribution as a Percentage of Total Headcount Enrollment by Sector, Fall 2010

Race/Ethnicity	Headcount Enrollment			Percentage Within Sector		
	Public Four-Year	Private Four-Year	Community & Technical Colleges	Public Four-Year	Private Four-Year	Community & Technical Colleges
Fall 1999						
Black	2,188	1,335	7,498	2.6%	3.5%	4.6%
Native American	1,581	521	3,415	1.9%	1.4%	2.1%
Asian/Pacific Islander	9,657	3,088	11,631	11.5%	8.2%	7.2%
Hispanic	3,163	1,488	7,670	3.8%	3.9%	4.7%
White	63,633	29,072	128,780	75.7%	77.0%	79.2%
Nonresident Alien	3,866	2,232	3,619	4.6%	5.9%	2.2%
TOTAL	84,088	37,736	162,613	100.0%	100.0%	100.0%
Fall 2010						
Black	3,617	2,153	10,167	3.3%	4.7%	5.5%
Native American	1,553	664	3,107	1.4%	1.4%	1.7%
Asian/Pacific Islander	14,040	3,471	13,145	12.8%	7.5%	7.0%
Hispanic	7,480	3,349	16,643	6.8%	7.3%	8.9%
White	74,298	33,300	128,835	67.9%	72.1%	69.1%
2 or More (see note)	2,310	1,530	8,360	2.1%	3.3%	4.5%
Nonresident Alien	6,154	1,711	6,253	5.6%	3.7%	3.4%
TOTAL	109,452	46,178	186,510	100.0%	100.0%	100.0%

Note: Beginning in Fall 2008, "Two or More Races" became an optional reporting category. This category was not widely used by public 4-year and private 4-year institutions and is not included in this table.

Source: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2010.

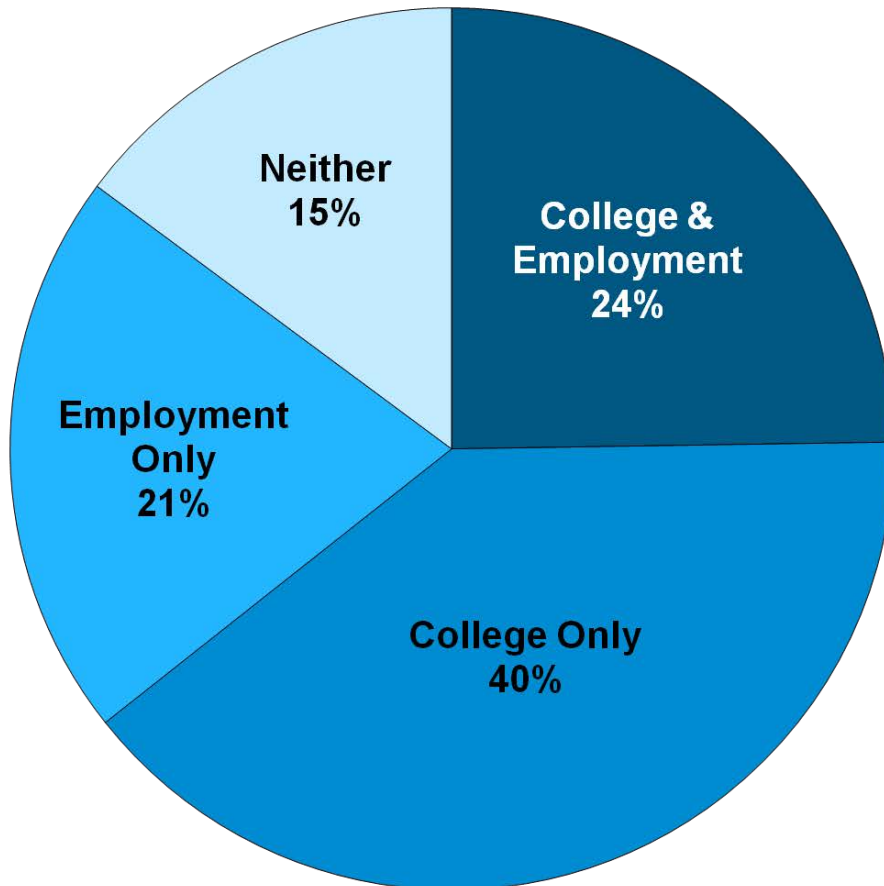
³OFM, "Population by Race and Hispanic Origin: 2000 and 2010." <http://www.ofm.wa.gov/pop/race/10estimates/executivesummary10.pdf>.

Juggling study and work is a reality for many Washington students

Many students face the challenge of balancing college work with the demands of a job or family. Some work intermittently or full-time to earn money to help pay tuition and cover living expenses, or to gain valuable work experience in a chosen field. Others work at career jobs full-time while taking college classes to update job skills in specific areas.

On average, about 65 percent of 17 and 18-year olds in Washington enroll in college after high school graduation. Of these, more than half also worked while enrolled in college.

Efforts by Washington 17- and 18-Year-Olds after High School Graduation



Source: HECB staff analysis of data from American Community Survey, 2005-09.

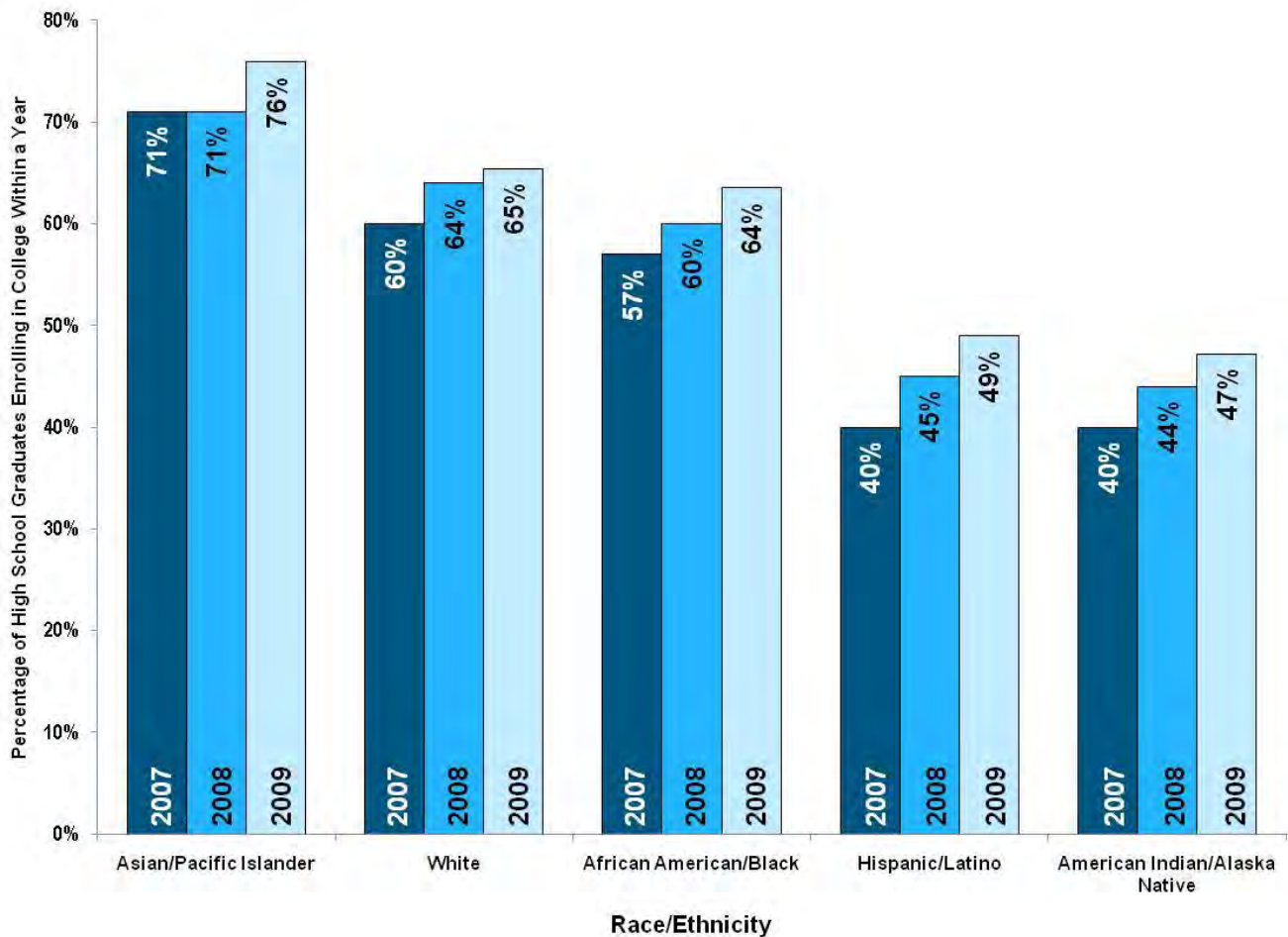
College participation rates vary among racial and ethnic groups

While more minority students are enrolling at Washington colleges and universities, the level of participation by different ethnic groups varies and does not always correspond to their overall growth rate in the state population.

Asians and Pacific Islanders are the state's second fastest-growing minority group, but they lead all racial and ethnic categories in rates of college participation. Hispanics, the fastest-growing racial and ethnic category, trail Asian and Pacific Islanders, whites, and African Americans in college participation.

To meet the state's long-term goals for increased production of college degrees, more members of minority groups will need to be encouraged to pursue college degrees and certificates.

Percentage of High School Graduates Enrolling in College within a Year, by Race/Ethnicity, 2007-2009



Sources: WSU Social and Economic Services Research Center for the Office of the Superintendent of Public Instruction, Washington State College Enrollment Study (2007, 2008), Education Research & Data Center (ERDC), 2009.

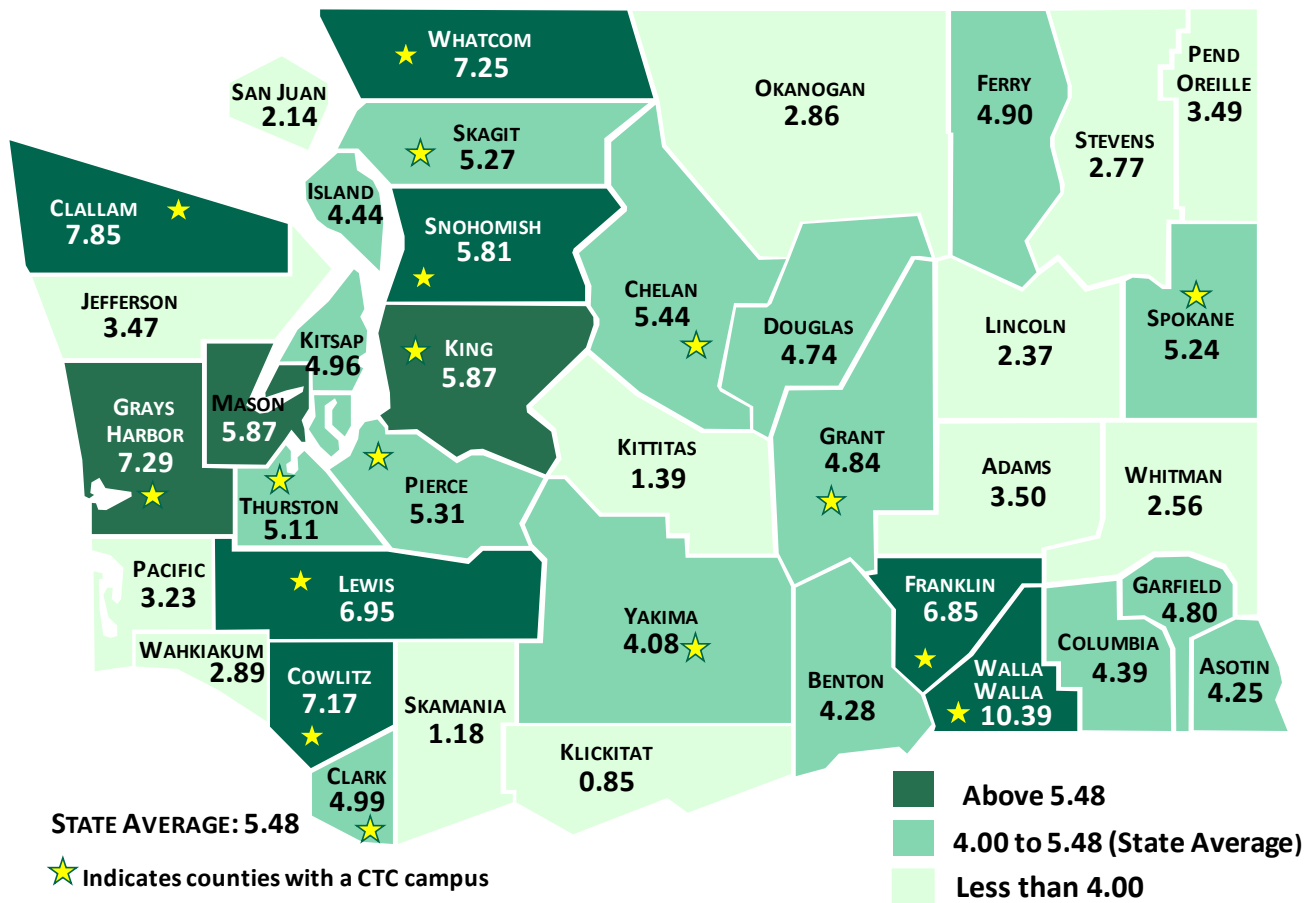
Chapter IV: Who Goes to College in Washington?

Proximity to college increases odds of enrollment

Having a college in one's hometown or a nearby community makes it easier to attend college. Data confirm that Washington residents who live in counties where community or technical colleges are located attend CTCs in greater numbers than people who live in counties that do not host CTCs.

The map below shows CTC participation rates as a percentage of the county resident population age 17-64. The impact that proximity and ease-of-access have on college participation rates highlights the importance of improving college access, especially for people whose incomes or other circumstances make it difficult to travel long distances to attend college.

**Community College Participation Rates by County
Percentage of Population Aged 17-64, Fall 2010**



Sources: HECB staff analysis of data from State Board for Community and Technical College's Management Information System Reports, fall 2010; Office of Financial Management's county population estimates, fall 2010.

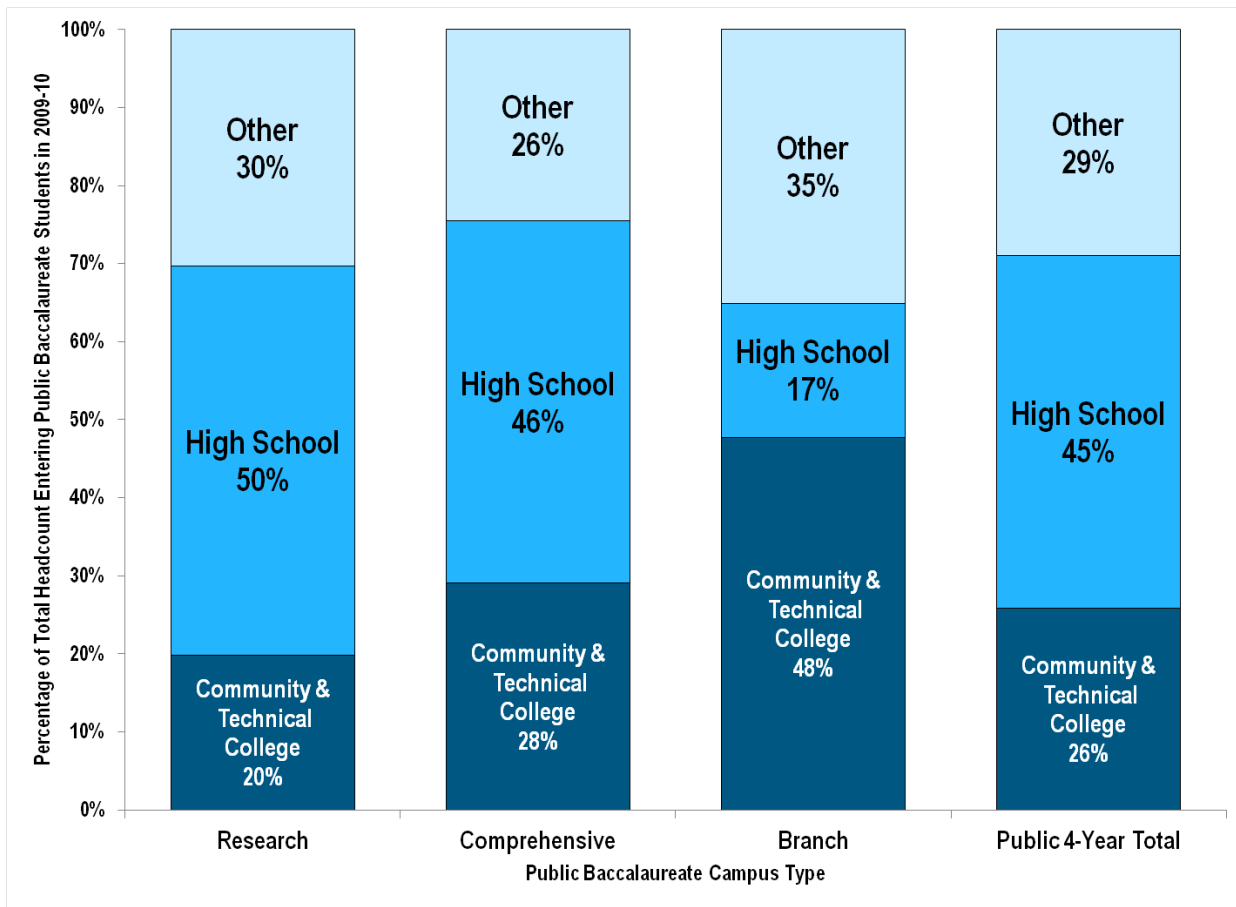
Students travel a variety of pathways to reach baccalaureate institutions

Students arrive at the state’s public baccalaureate institutions with a variety of educational backgrounds. Some come straight from high school, while others transfer from community and technical colleges or from other baccalaureate institutions.

The chart below shows that the educational backgrounds of the student populations within each institutional type vary considerably. More than half the entering students at the research and comprehensive institutions enrolled directly from high school, while less than a quarter of those enrolling at branch campuses entered directly from high school.

Branch campuses, which began admitting freshmen in 2006, have a higher percentage of students with varied educational backgrounds, including transfers from other four-year institutions in Washington or out-of-state.

Students Entering Public Baccalaureate Institutions as a Percentage of Headcount Total, by Source and Campus Type, 2009-10 Academic Year



Notes: Students with Running Start credits are included in "High School." "Other" includes transfers from Washington four-year institutions, transfers from out-of-state, and unknown.

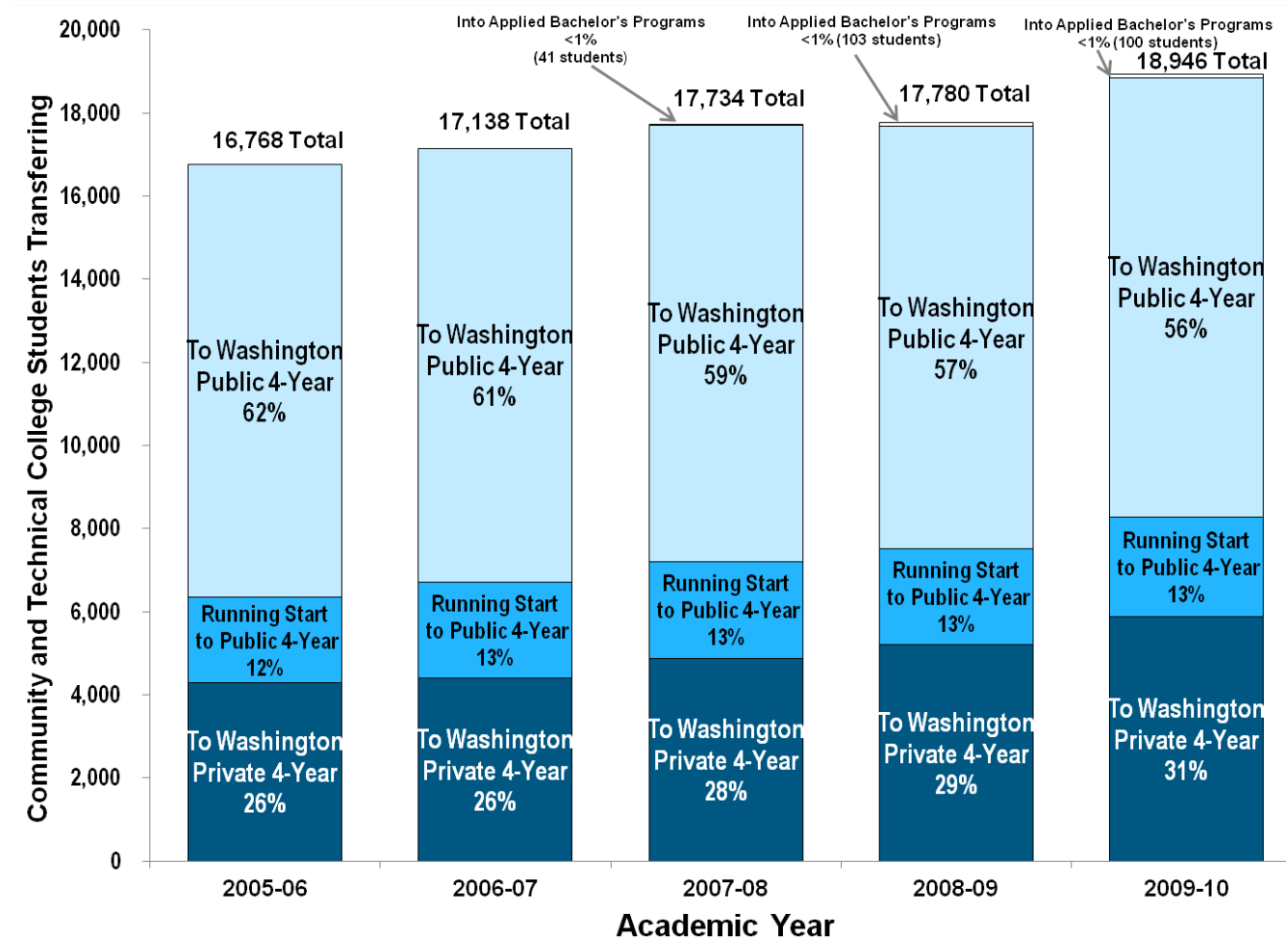
Source: HECB staff analysis of data from Office of Financial Management, Higher Education Enrollment Report, Table 7, 2009-10.

Many baccalaureate students begin college at two-year institutions

The number of community and technical college students who transfer to public or private baccalaureate institutions has grown at a modest pace in recent years. In 2009-10, nearly 19,000 Washington community and technical college students transferred to four-year institutions in the state. Another 3,000 students transferred to out-of-state institutions.

Not all transfer students have degrees and not all students with two-year degrees transfer. Of those who transferred to a Washington college or university, nearly 70 percent enrolled at public four-year institutions; this includes about 2,400 Running Start students. In addition, about 5,900 students transferred to independent four-year institutions in Washington or to Portland State University.

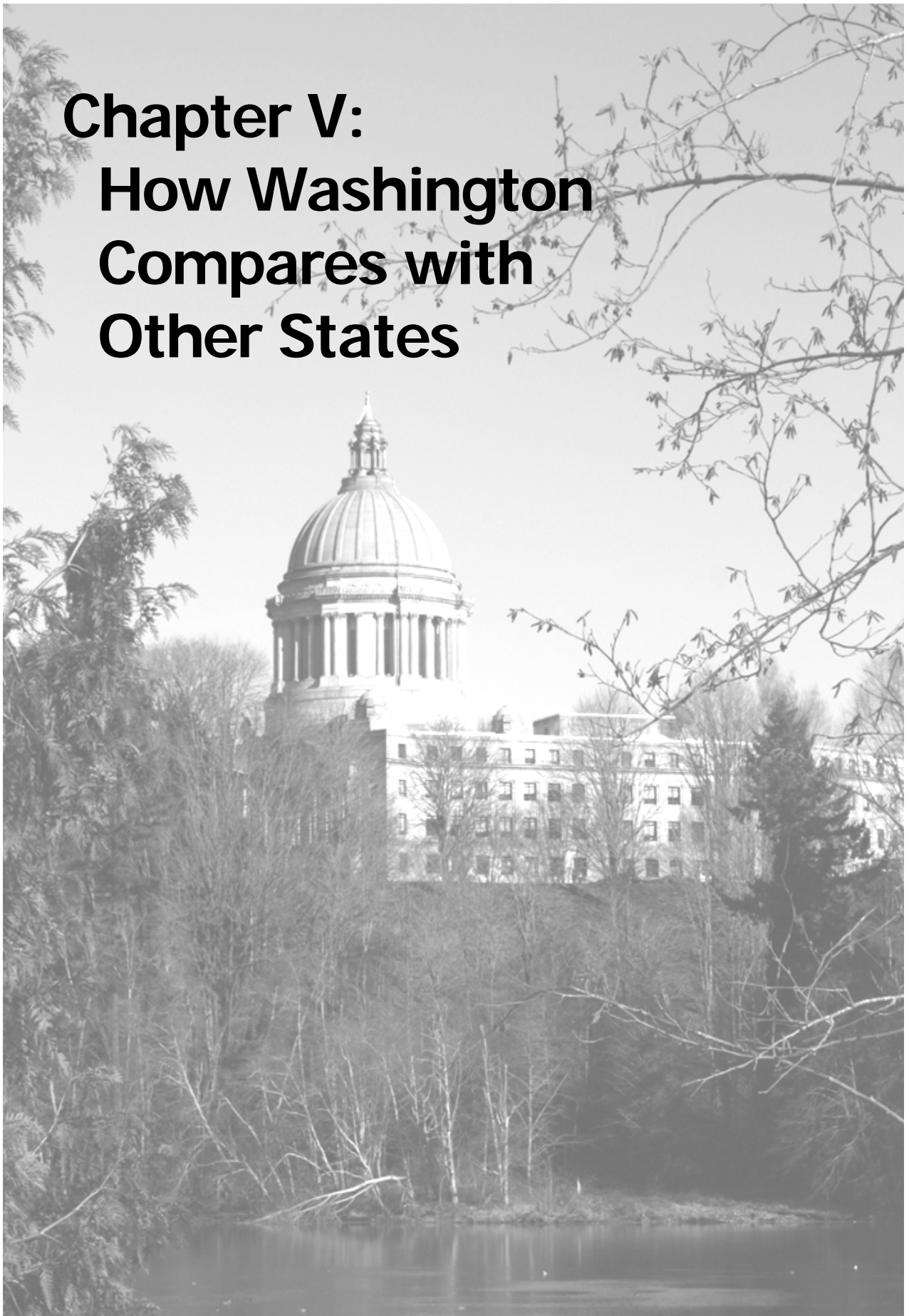
Transfer Students from Community and Technical Colleges, by Destination 2005-06 to 2009-10



Note: Totals may not add due to rounding.

Source: State Board for Community and Technical Colleges, Academic Year Report, 2009-10.

Chapter V: How Washington Compares with Other States



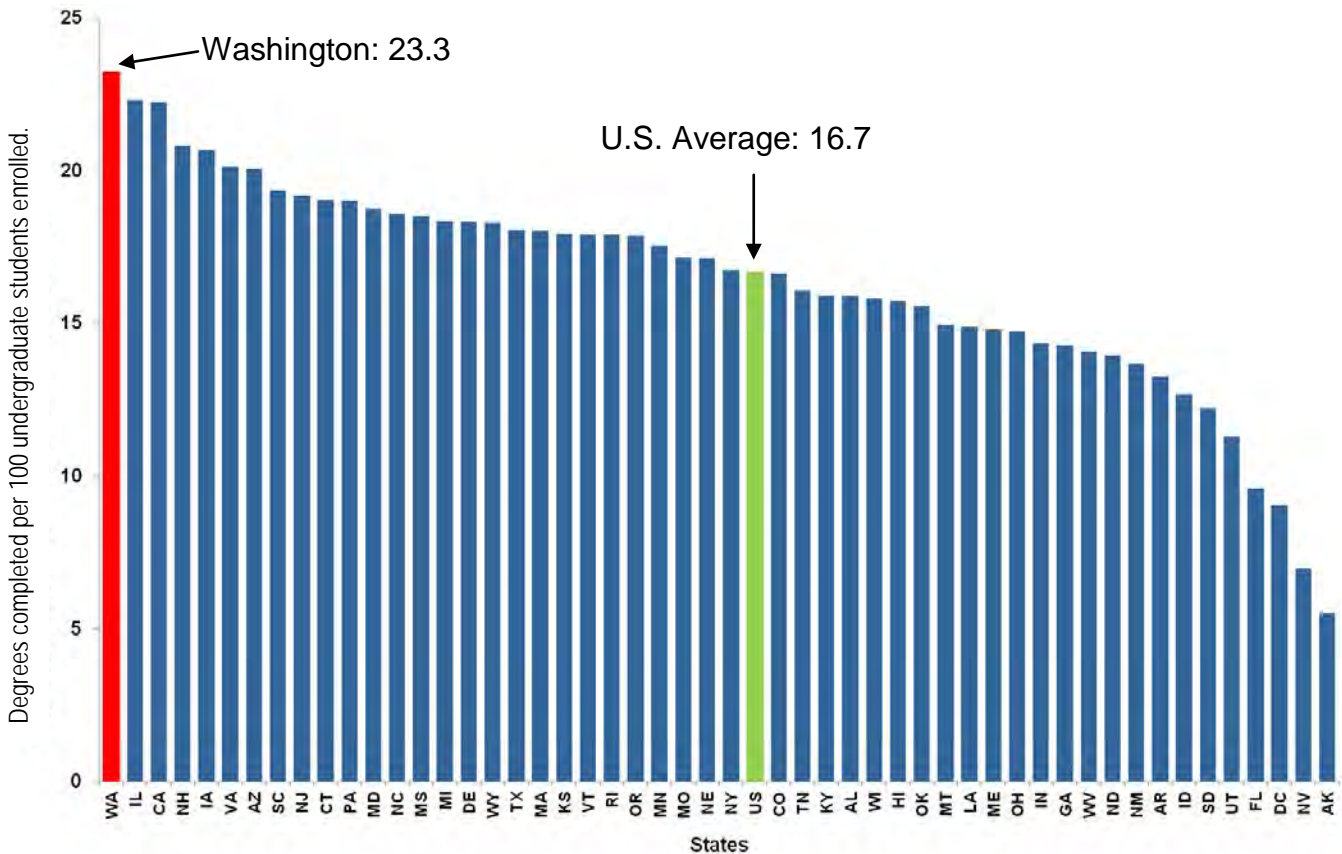
Chapter V: How We Compare with Other States

Washington's public four-year colleges are highly productive in degree completion . . .

An undergraduate who attends one of Washington's four-year public colleges and universities has an excellent chance of successfully completing his or her studies and receiving a baccalaureate degree. During the 2009-10 academic year, Washington again was first among all 50 states in the efficient production of baccalaureate degrees among students already enrolled in college.

Factors that help account for Washington's high ranking include the high number of freshmen and transfer students who go on to graduate from the state's baccalaureate institutions.

How States Compare in Completion of Bachelor's Degrees Public Baccalaureate Institutions, 2009-10



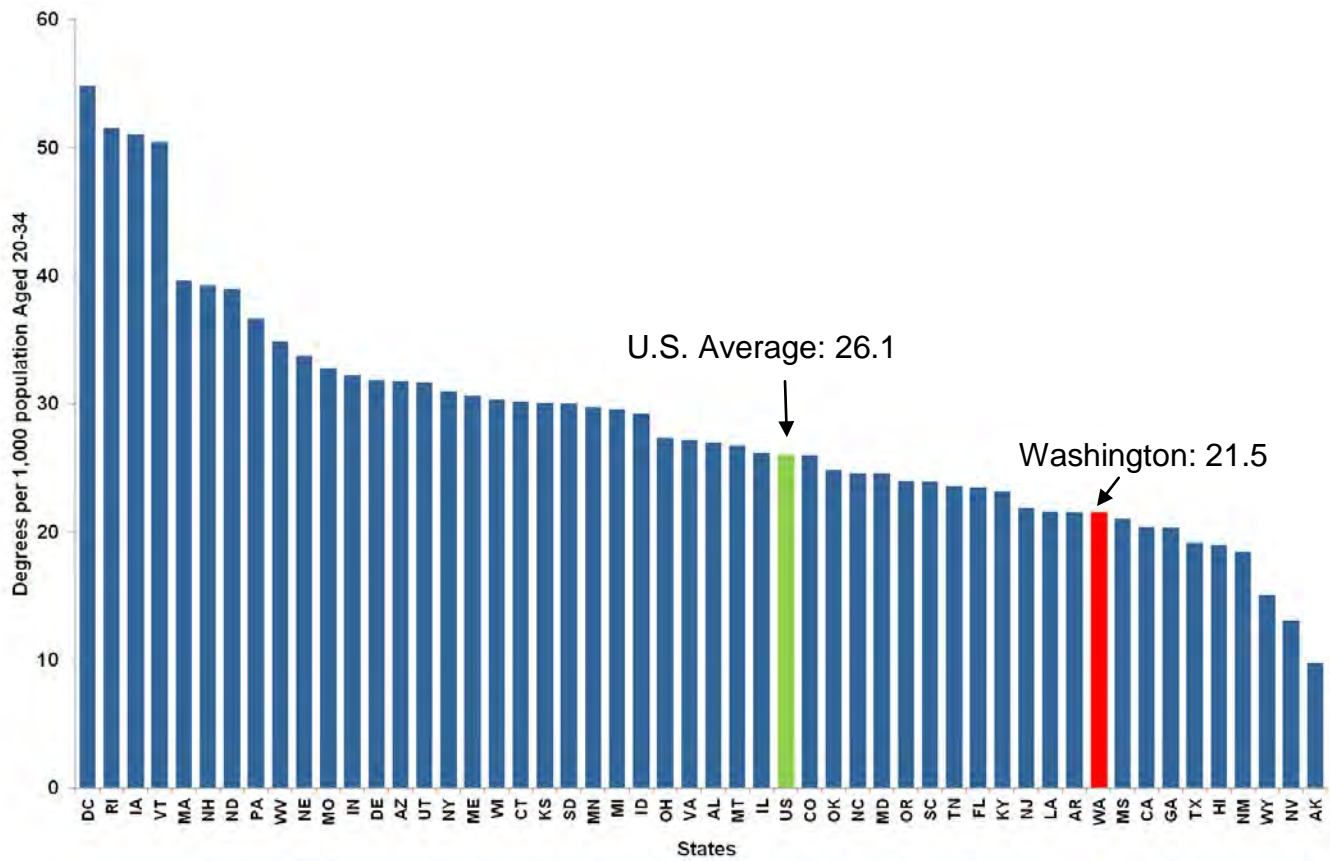
Source: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2010.

... but, based on population, Washington degree production ranks in bottom third of states

Even though Washington is first in baccalaureate degree production among students who *do* go to a four-year college, Washington does not compete well with other states in the number of bachelor's degrees produced in comparison to the state population as a whole.

A major factor contributing to Washington's low ranking in degree production compared to state population is inadequate institutional capacity, which limits access to baccalaureate degree programs. Also, Washington needs to do a better job of encouraging more residents to earn four-year degrees.

**Bachelor's Degrees Produced per 1,000 Population
Aged 20 to 34, 2009-10**



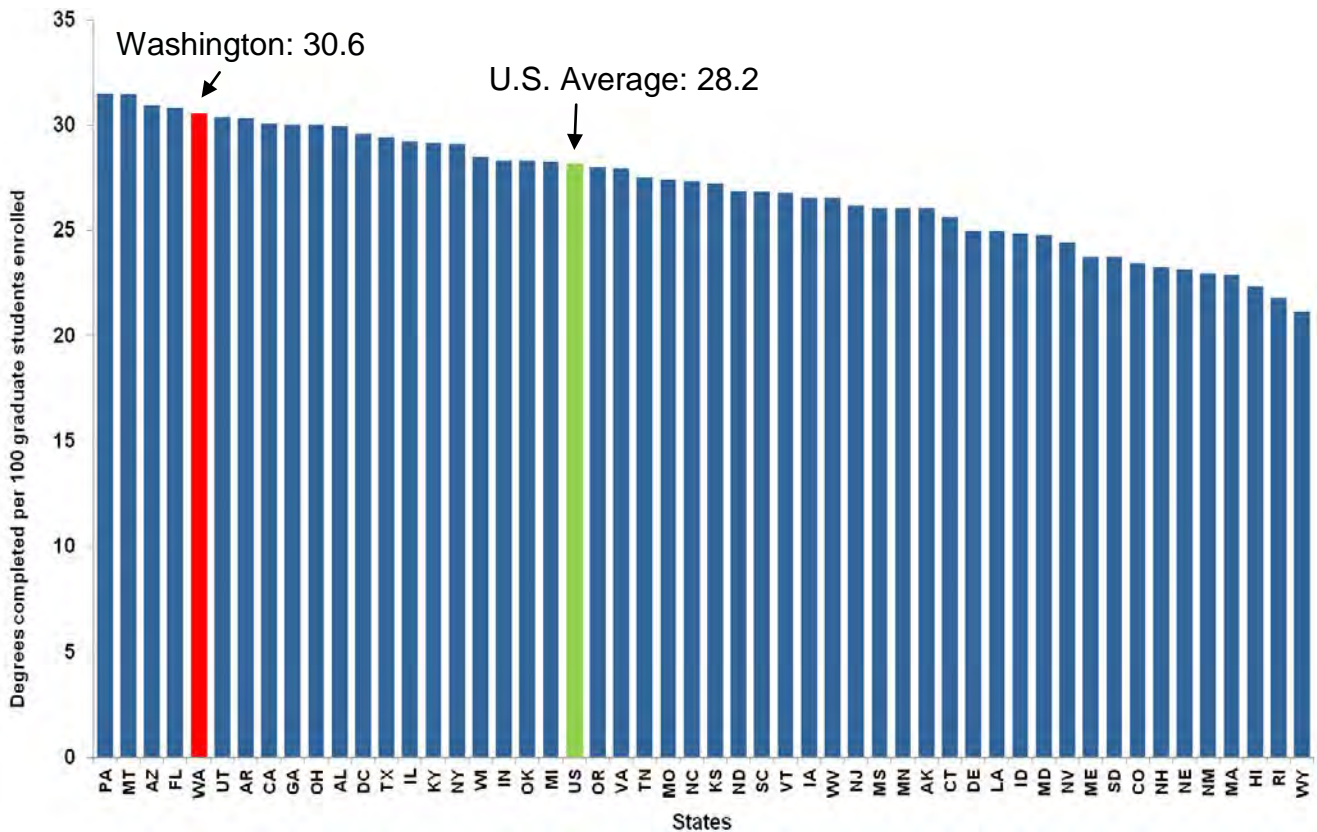
Sources: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS); U.S. Census Bureau 2009 Population Estimates.

Institutions are highly efficient in the production of graduate degrees . . .

Washington not only leads the nation in production of bachelor’s degrees among already enrolled students, it also is very efficient in graduating students who are already enrolled in graduate programs. Among all 50 states, Washington ranked fifth in 2009-10 in graduating students who are enrolled in master’s and doctoral degree programs.

One factor that may help explain why state colleges and universities are highly efficient in the production of graduate degrees is the highly selective nature of many graduate programs, which means only the very best students are accepted into those programs.

**How States Compare in Completion of Graduate Degrees
Public Baccalaureate Institutions, 2009-10**



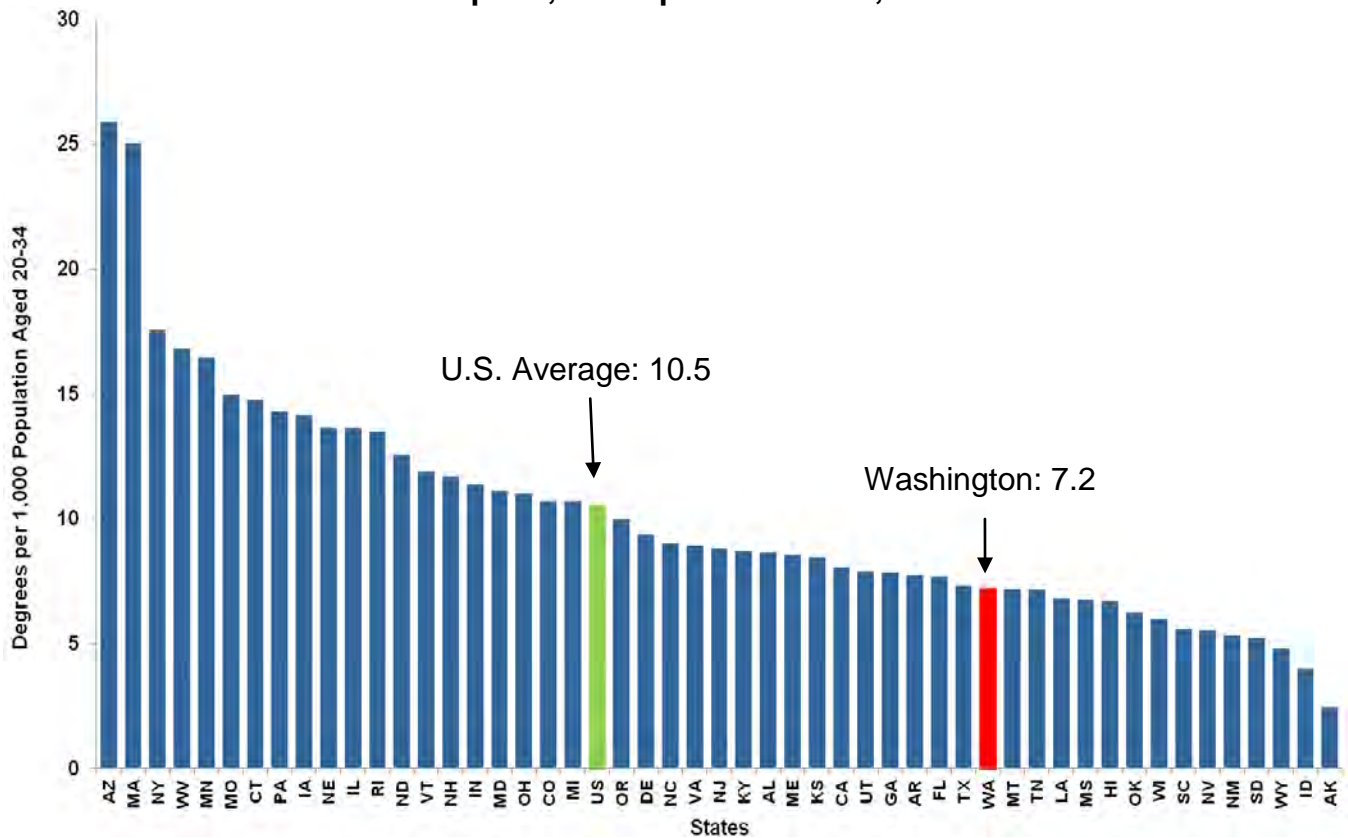
Source: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, 2010.

... but Washington needs to boost advanced degree production to keep pace with other states.

Overall, Washington trails many other states in the production of graduate degrees within the population age category most likely to produce master and doctoral degrees. Washington ranks in the bottom third among states in the number of graduate degrees produced.

Washington is home to two public research universities that together produce 88 percent of the doctoral degrees and 52 percent of the professional degrees awarded in the state. The state does a good job of graduating those students who do enroll in master's and doctoral programs. As with baccalaureate degree production, the issue is that not enough Washingtonians go to graduate school.

Washington Is 36th among All U.S. States in Advanced Degrees Produced per 1,000 Population 20-34, 2009-10



Sources: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics; U.S. Census Bureau 2009 Population Estimates.

Share of students attending 4-year institutions higher in Washington’s peer states

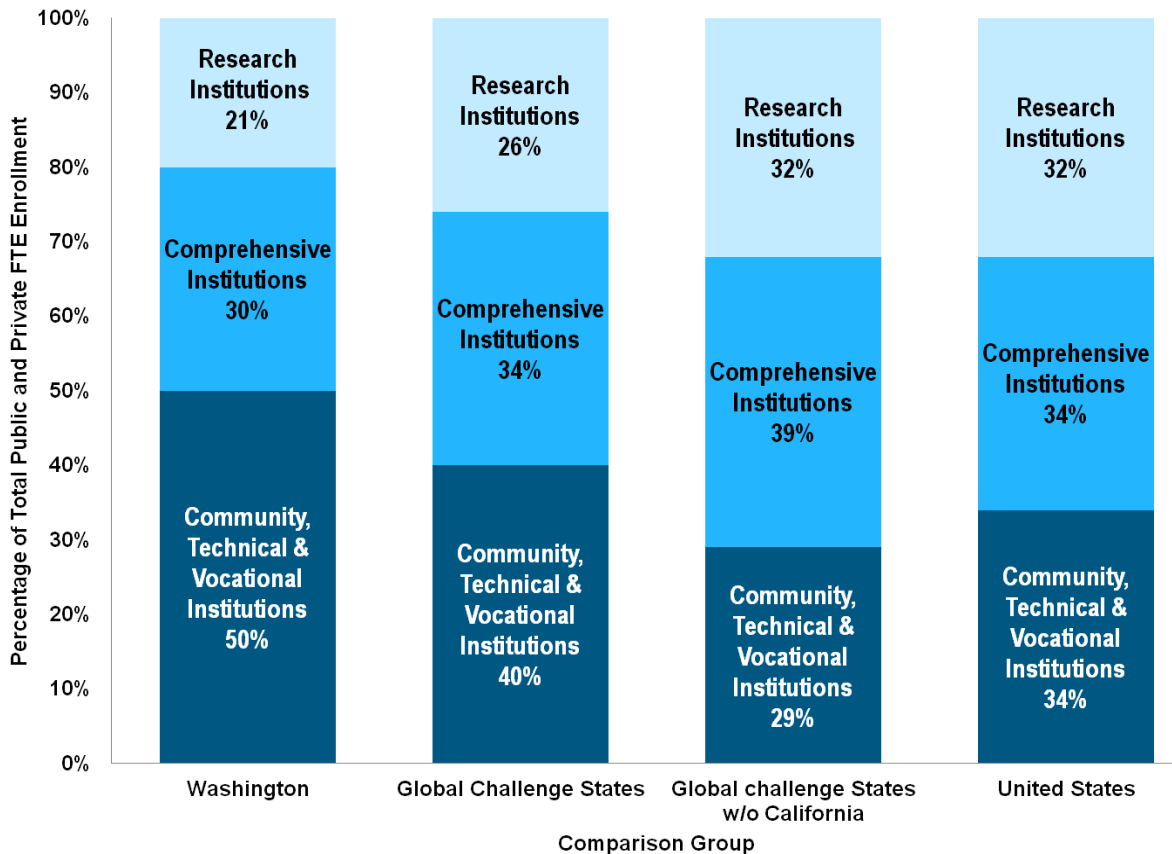
A higher proportion of public and private college students in Washington attend two-year institutions than do so in the United States in general — including in the states most compared with Washington. These include the 15 Western states that comprise the Western Interstate Commission for Higher Education (WICHE), and the Global Challenge States (GCS) of Washington, Massachusetts, California, New Jersey, Connecticut, Colorado, Virginia, and Maryland. The GCS are states that have been identified as having a high potential to succeed in today’s knowledge-driven, global economy.

While more FTE (full-time equivalent) students fill slots in two-year institutions, Washington has a lower percentage of students in four-year comprehensive and research institutions than in the comparison states.

The percentages suggest that Washington needs to boost the number of students attending four-year institutions if the state is to maintain a competitive standing with similar states in providing adequate numbers of more highly educated workers. It can do this in part by encouraging and facilitating the transfer of more students from two-year to four-year institutions.

Comparison of FTE Enrollment by Level, 2009-10

All Public and Private Institutions



Note: Totals may not add due to rounding.

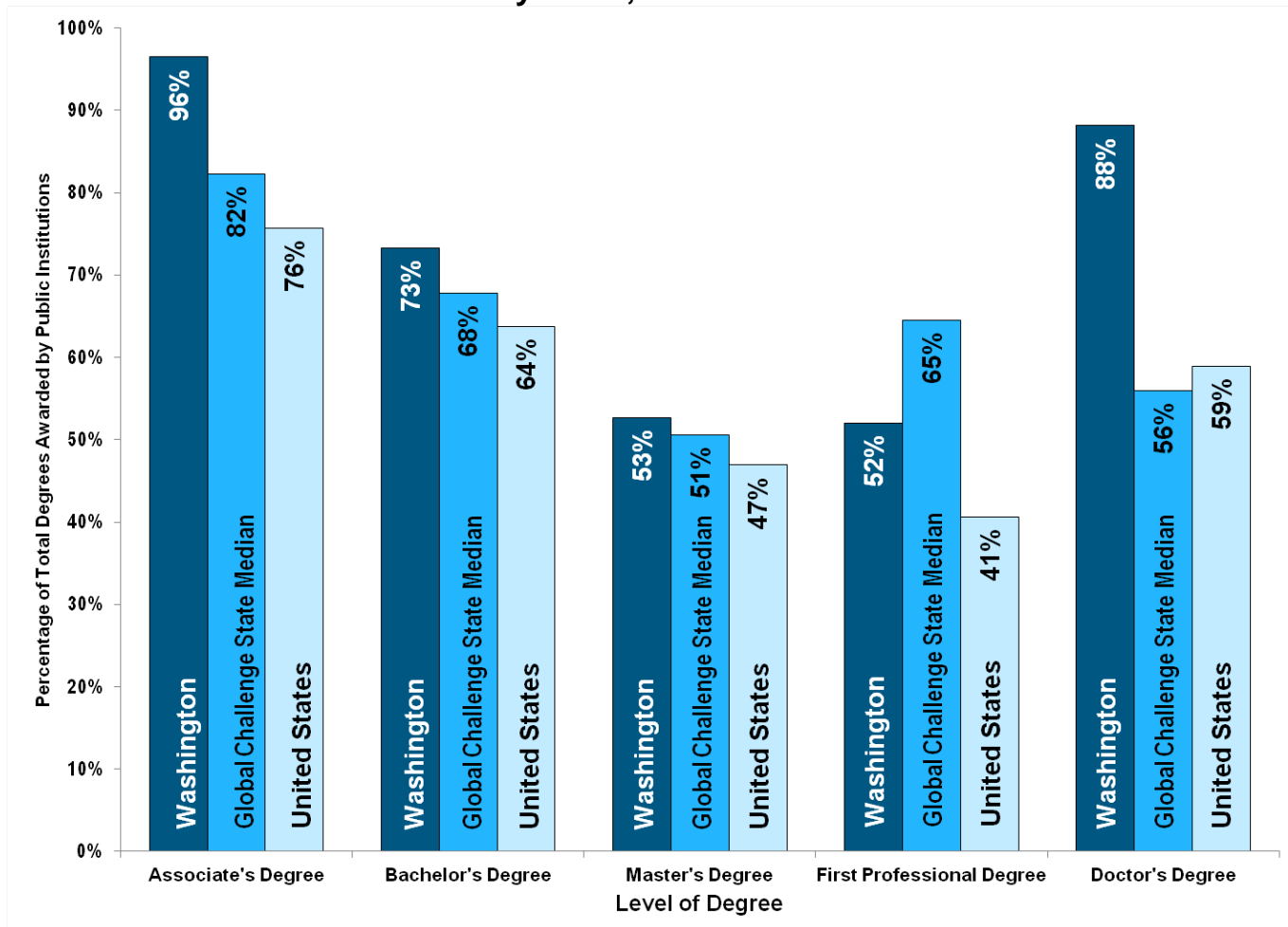
Source: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2010.

Washington’s public institutions produce a higher percentage of doctoral and associate degrees than other states

Compared to the rest of the nation, Washington relies heavily on public institutions to produce doctoral and two-year degrees. Only about 12 percent of doctoral degrees are awarded at the state’s private institutions, compared to 41 percent nationally and 44 percent in the Global Challenge States, with which Washington is often compared.

Private institutions produce about 4 percent of the associate degrees in Washington, compared to about 24 percent nationally, and about 18 percent in the Global Challenge States.

Percentage of Total Degrees Awarded from Public Institutions by Level, 2008-09



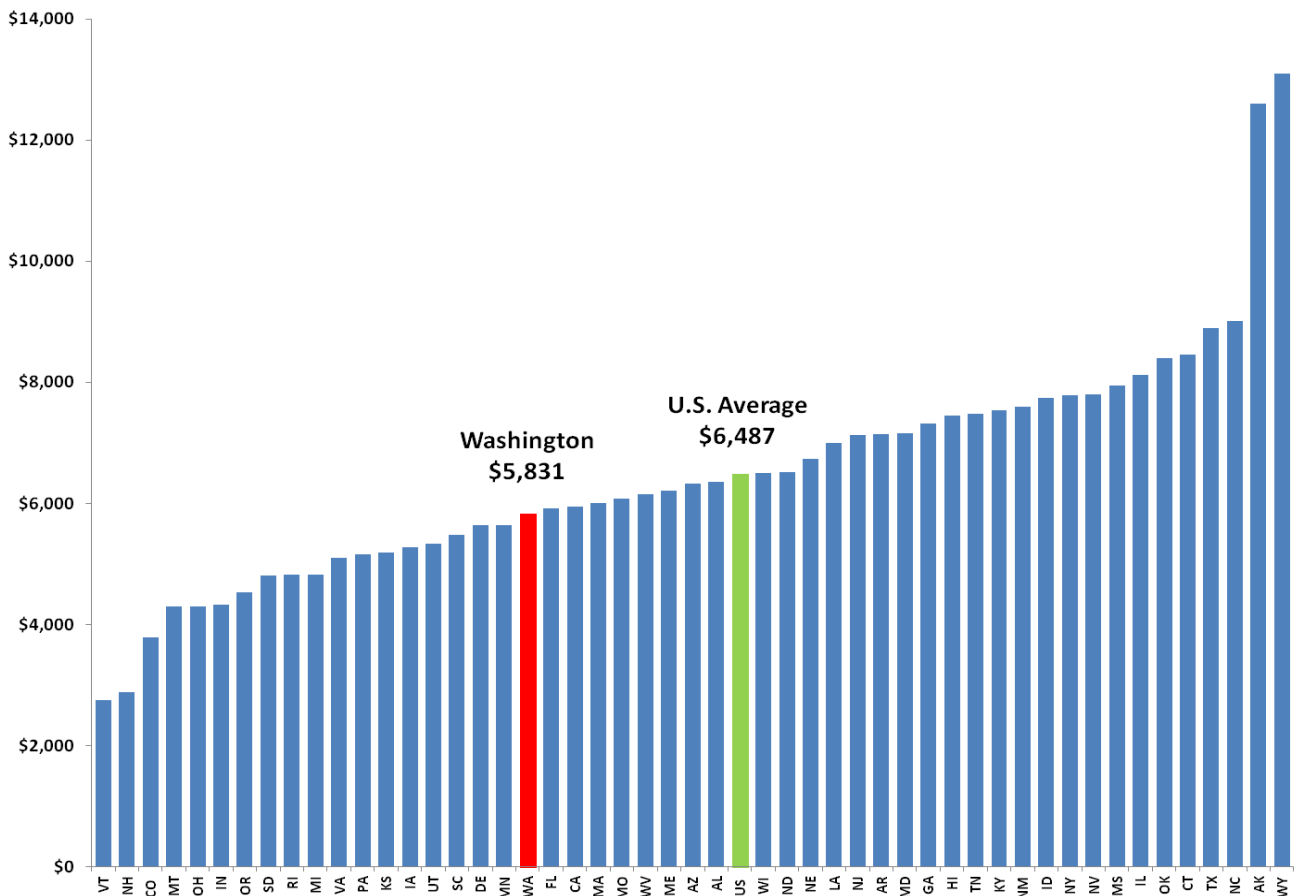
Source: HECB staff analysis of data from National Center for Education Statistics, Digest of Education Statistics 2010.

Washington falls below the national average in appropriations per student

The level of public funding per student attending public colleges and universities in Washington is lower than the national average. Washington’s per student appropriations have averaged slightly below the national average over the past quarter century, but the difference in 2010 was greater than the 25-year average. Significant cuts in state appropriations to the institutions in 2010 may partially account for the difference.

To offset cuts in appropriations and maintain a high-quality education system, Washington colleges and universities have significantly increased student tuition rates. As Washington institutions come to rely more heavily on tuition rather than public funding, questions may be raised over the extent to which the state’s public higher education system remains truly “public.”

State appropriations per student FTE by state, 2010



Source: State Higher Education Executive Officers (SHEEO), State Higher Education Finance FY 2010.

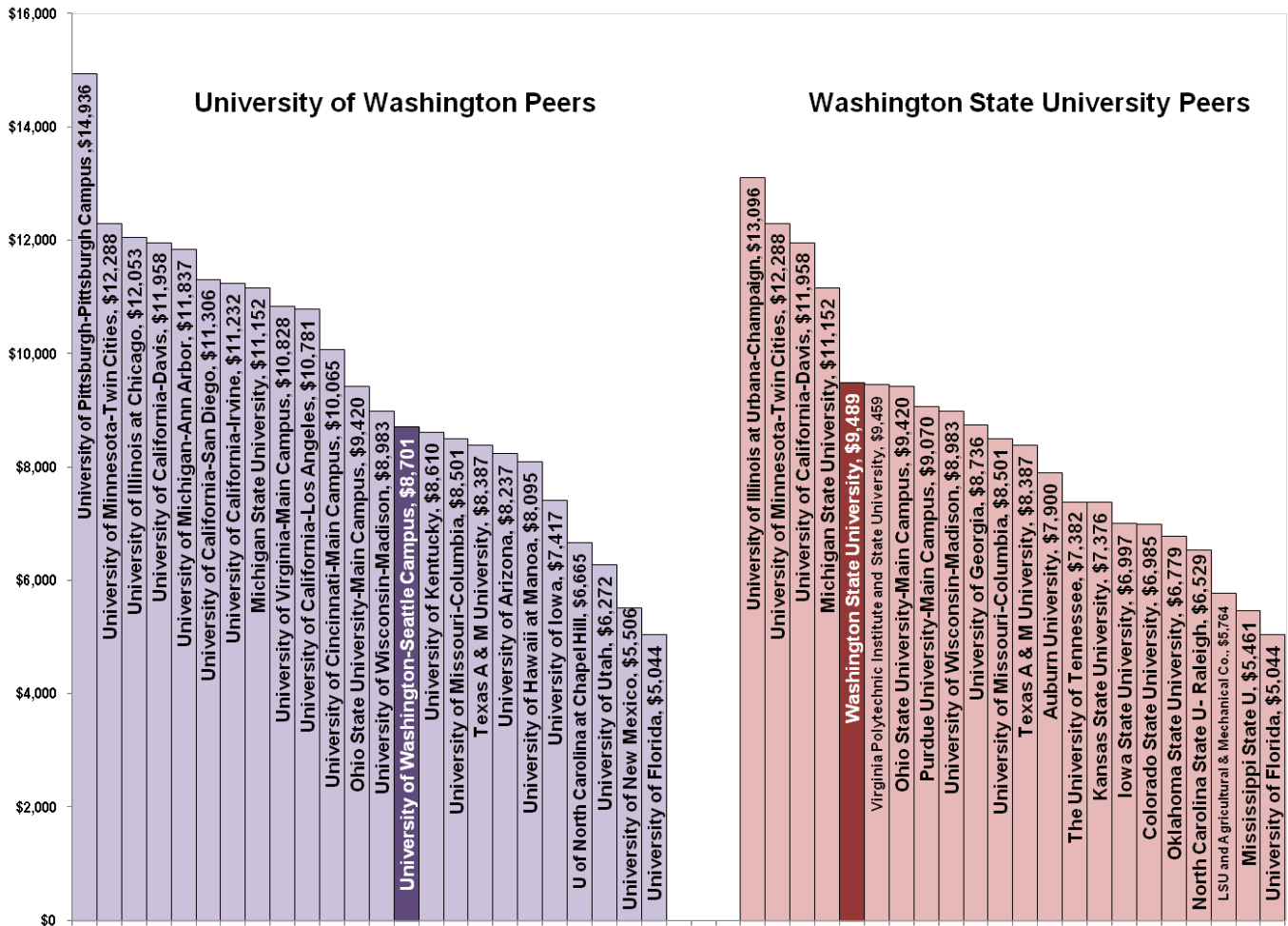
Comparing tuition rates among peer research universities

Peer colleges and universities can be compared based on a number of variables, including quality of academic programs, research output and fiscal matters. With tuition costs continuing to rise across the country, comparisons of tuition rates among peer institutions are of particular interest.

The chart on the left below shows resident undergraduate tuition rates at the University of Washington falling in the middle range compared with those of other public research universities containing medical schools. The chart on the right shows Washington State University's tuition rates ranking in the upper half of its peer set comprised of other land-grant institutions with veterinary medicine programs.

2010-11 Research Institution Peer Group Average Tuition and Fees

Annual Tuition and Required Fees for In-District Full-Time Students at Research Institutions



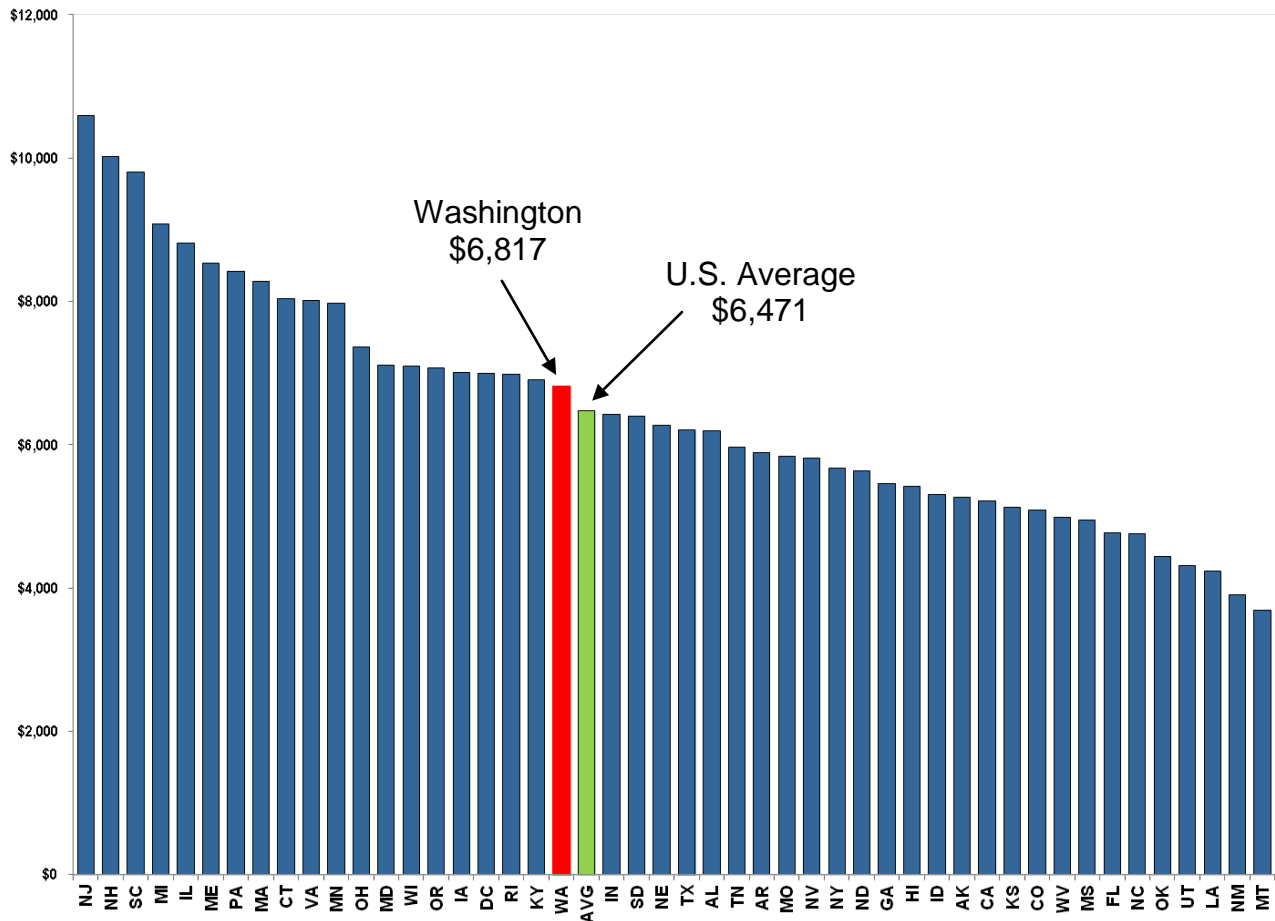
Source: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics.

Tuition at comprehensive institutions ranks near national average of similar institutions in other states

Baccalaureate institutions that are not classified as research universities also can be compared with peer institutions in other states based on the average tuition rates they charge.

In the chart below, the average annual tuition charged to resident undergraduate students at Western Washington University, Central Washington University, Eastern Washington University, and The Evergreen State College is compared to the average annual tuition at similar institutions in each of the states. The results show that the tuition charged by Washington’s comprehensive institutions ranks just slightly above the national average of their peer institutions in other states.

Annual Tuition and Required Fees for In-District Full-Time Students at Comprehensive Peer Institutions, 2010-11



Source: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2011.

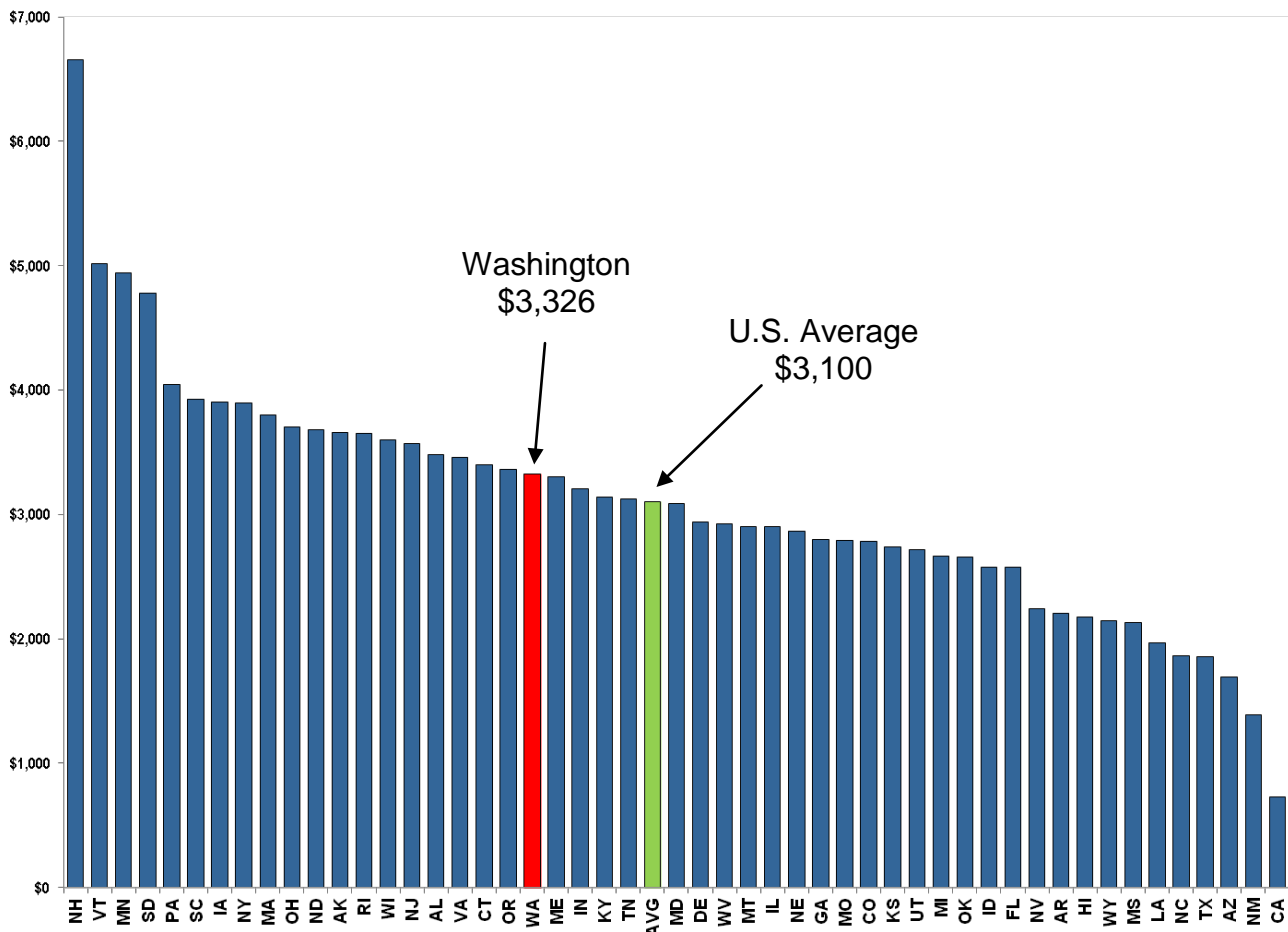
How Washington CTCs compare on tuition charged by peers in other states

Tuition and required fees at Washington’s community and technical colleges (CTCs) were slightly above the national average charged by similar institutions across the nation during the 2010-11 academic year.

Washington was the 20th highest state based on average tuition charged by peer two-year institutions in each of the 50 states. However, it is important to note that small changes in tuition and fees can produce significant changes in this ranking from year to year.

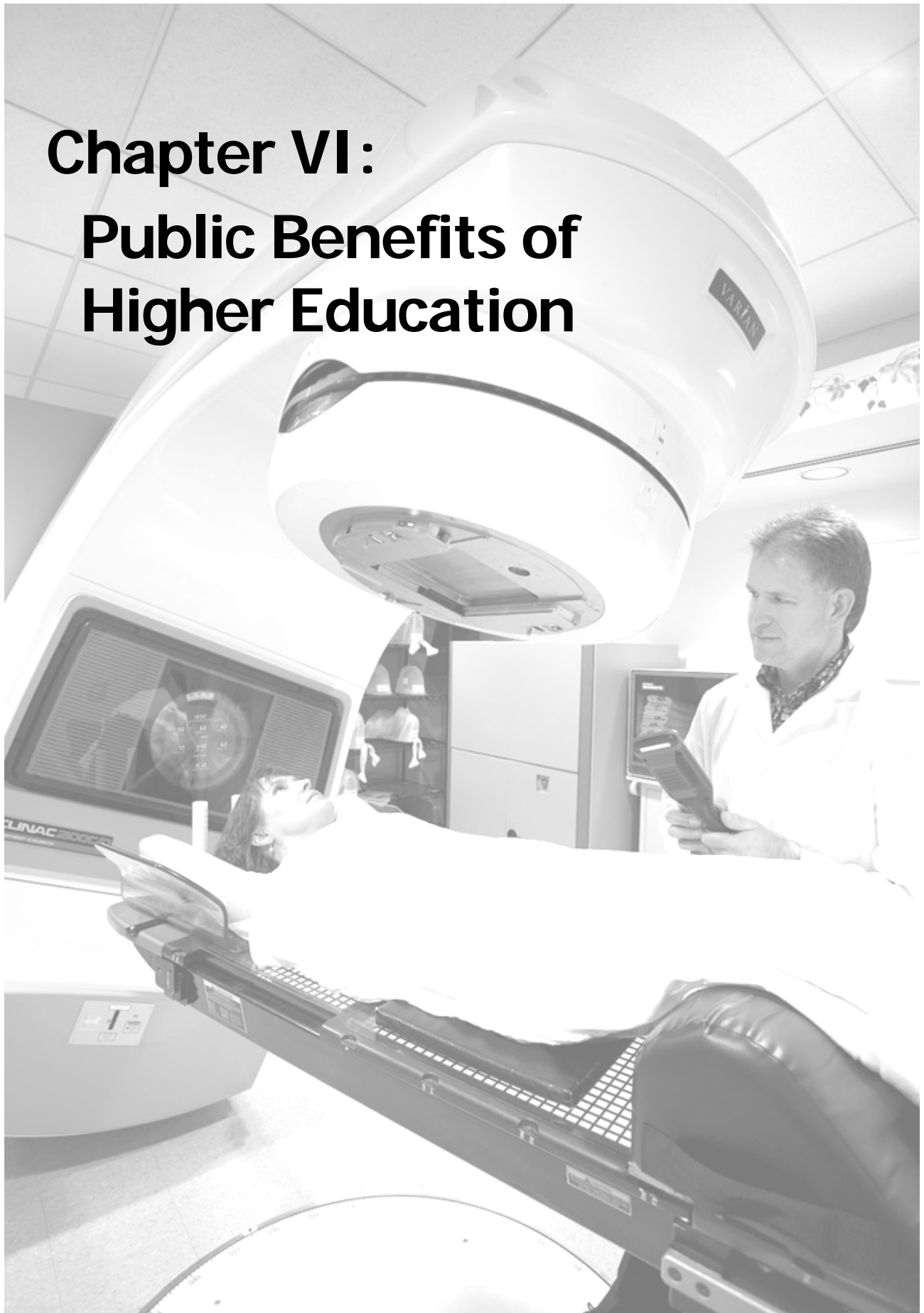
Institutions included in this comparison were all two-year public colleges offering postsecondary academic programs up to an associate degree. Several community colleges in Washington are currently authorized to offer a range of applied baccalaureate programs, but tuition amounts for those programs were not included in the calculations. Also excluded from the analysis were a few colleges that charge their students no tuition.

2010-11 National Community and Technical College Average Fees by State
Annual Tuition and Required Fees for In-District Full-Time Students and Public Two-Year Institutions



Source: HECB staff analysis of data from Integrated Postsecondary Education Data System, National Center for Education Statistics.

Chapter VI: Public Benefits of Higher Education



Higher education opens the door to more jobs in today's economy

The number of jobs requiring higher levels of education has increased substantially, both nationally and in Washington. According to a report issued in 2010 by the Bureau of Labor Statistics,¹ all employment growth in the nation over the previous two decades was among workers with at least some college experience, or a college degree or certificate.

While factors other than education undoubtedly impact the number of jobs a state may lose during a recession, evidence suggests that states with more highly educated populations tend to lose fewer jobs than those with less-educated populations.

Washington's economy serves as a magnet for workers with higher levels of education. Demand for these workers has remained far more stable during the recession than demand for less highly educated workers.

For example, the table below shows that Washington job growth occurred at all training levels in the pre-recession years of 2006 and 2007. However, during the recession years of 2008 and 2009, jobs declined in all education categories, except those requiring bachelor's degrees, which rose nearly 1 percent.²

Changes in Washington State Employment by Education Requirements

Education Level	Percent Change from 2006 to 2007	Percent Change from 2007 to 2008	Percent Change from 2008 to 2009	Average Annual Change from 2006 to 2009
Less than High School	2.8%	-0.5%	-6.0%	-1.2%
High School Diploma/GED	0.8%	-0.3%	-4.9%	-1.4%
Sub-Bacc. Credential	1.6%	1.8%	-3.8%	-0.1%
Bachelor's Degree	1.9%	4.4%	0.8%	2.4%
Graduate/Professional Degree	0.7%	1.1%	-2.5%	-0.2%

Note: Data does not include self-employment.

Source: HECB staff analysis of data from Second Quarter OES Survey Data, Washington Employment Security Department, LMEA Division.

¹ U.S. Bureau of Labor Statistics, "Spotlight on Statistics: Back to College," 2010. Available at <http://www.bls.gov/spotlight/2010/college/home.htm>

² Lederer, John. "Job Growth: Why Increasing Educational Attainment is so Important for Creating Jobs," HECB, October 2010. Available at <http://www.hecb.wa.gov/sites/default/files/TAB7A-JobGrowthPresentation.pdf>.

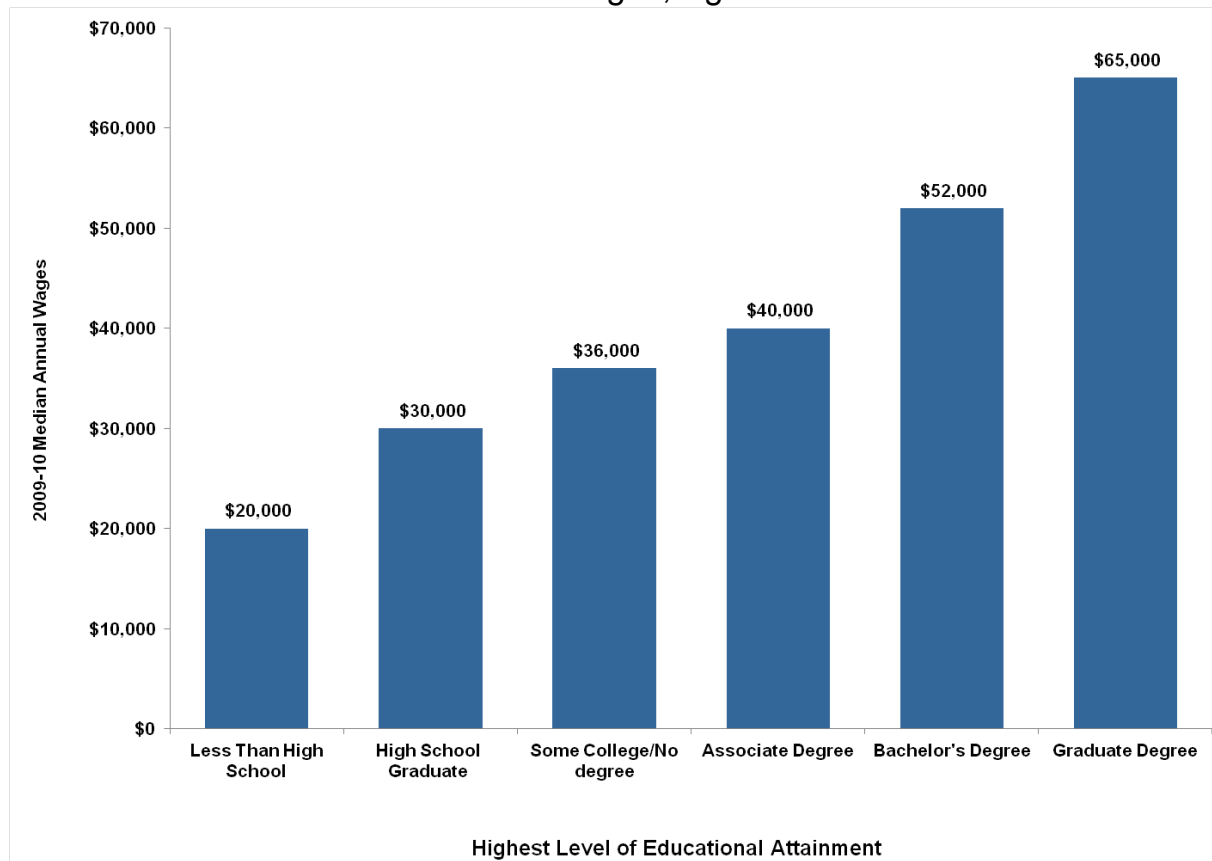
Increased educational attainment boosts personal earning power

Individuals have strong financial incentives to earn college degrees and certificates. Incomes tend to increase with higher levels of educational attainment. Median annual earnings for those with an associate degree are 33 percent higher than those with a high school diploma.

The increase for those with a bachelor's degree is even more striking, with graduates earning 30 percent more annually than those with an associate degree, and 73 percent more than those with a high school diploma.

Research suggests that increasing the number of educated workers even leads to financial benefits for people who have not attained higher levels of education. One study found that a 1 percent increase in the proportion of the population holding four-year college degrees led to a 1.9 percent increase in the wages of workers without high school diplomas, and a 1.6 percent wage increase for high school graduates.³

Washington Median Annual Earnings by Educational Attainment
2009-10 Wages, Ages 25-64



Source: HECB staff analysis of data from American Community Survey, 2010.

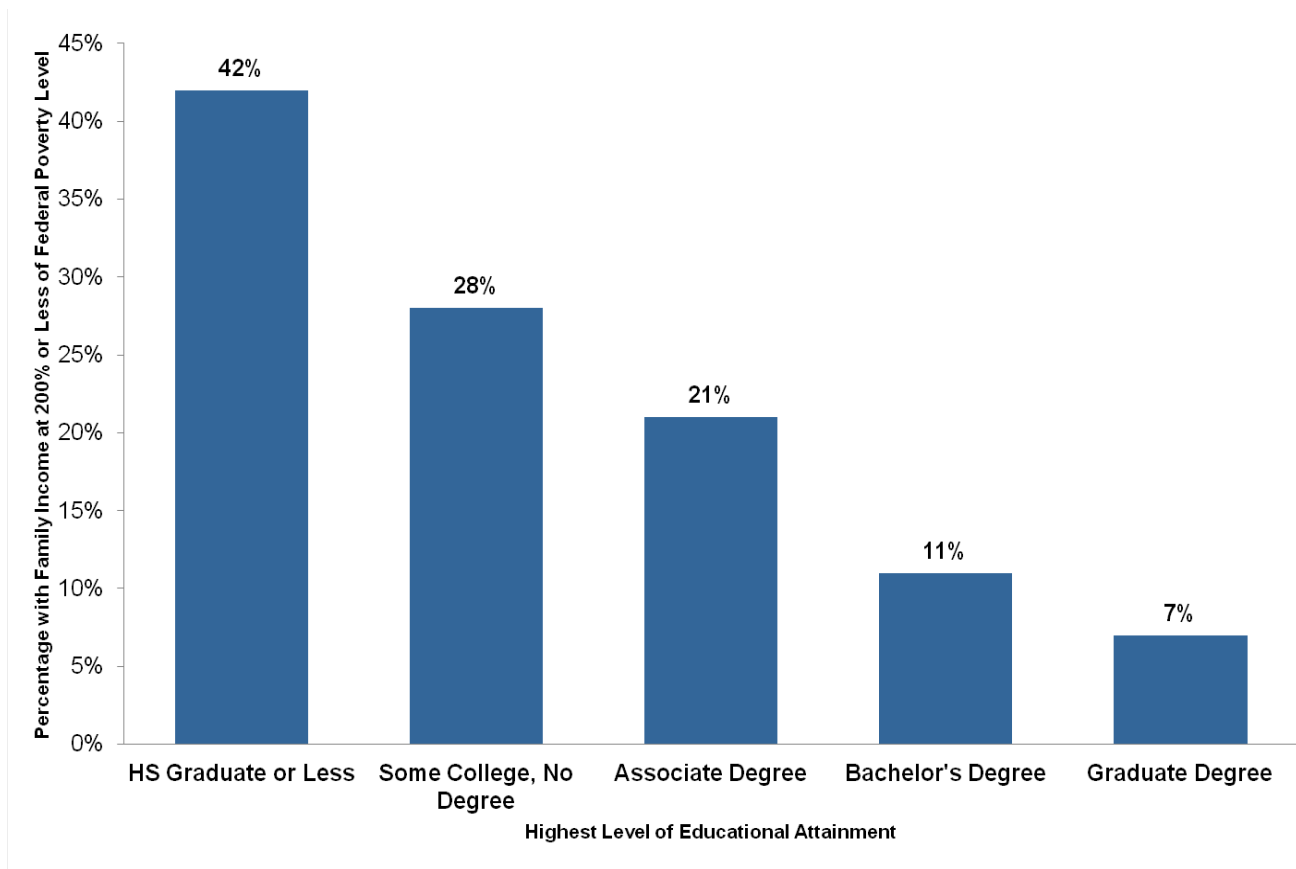
³ Moretti, E. "Estimating the social return to higher education: Evidence from longitudinal and repeated cross-section data," *Journal of Econometrics*, 121. pp. 175-212, 2004. Available at <http://www.econ.berkeley.edu/~moretti/socret.pdf>.

Poverty levels decline as education levels rise

The financial rewards that accompany higher levels of educational attainment allow many college graduates to live well above the poverty level.

The poverty rate for Washington households with bachelor's degree recipients is one-third the rate of households with high school graduates only.⁴

Washington Poverty Level by Educational Attainment and Family Income 2010, Ages 25-64



Source: HECB staff analysis of data from Washington State Population Survey, 2010.

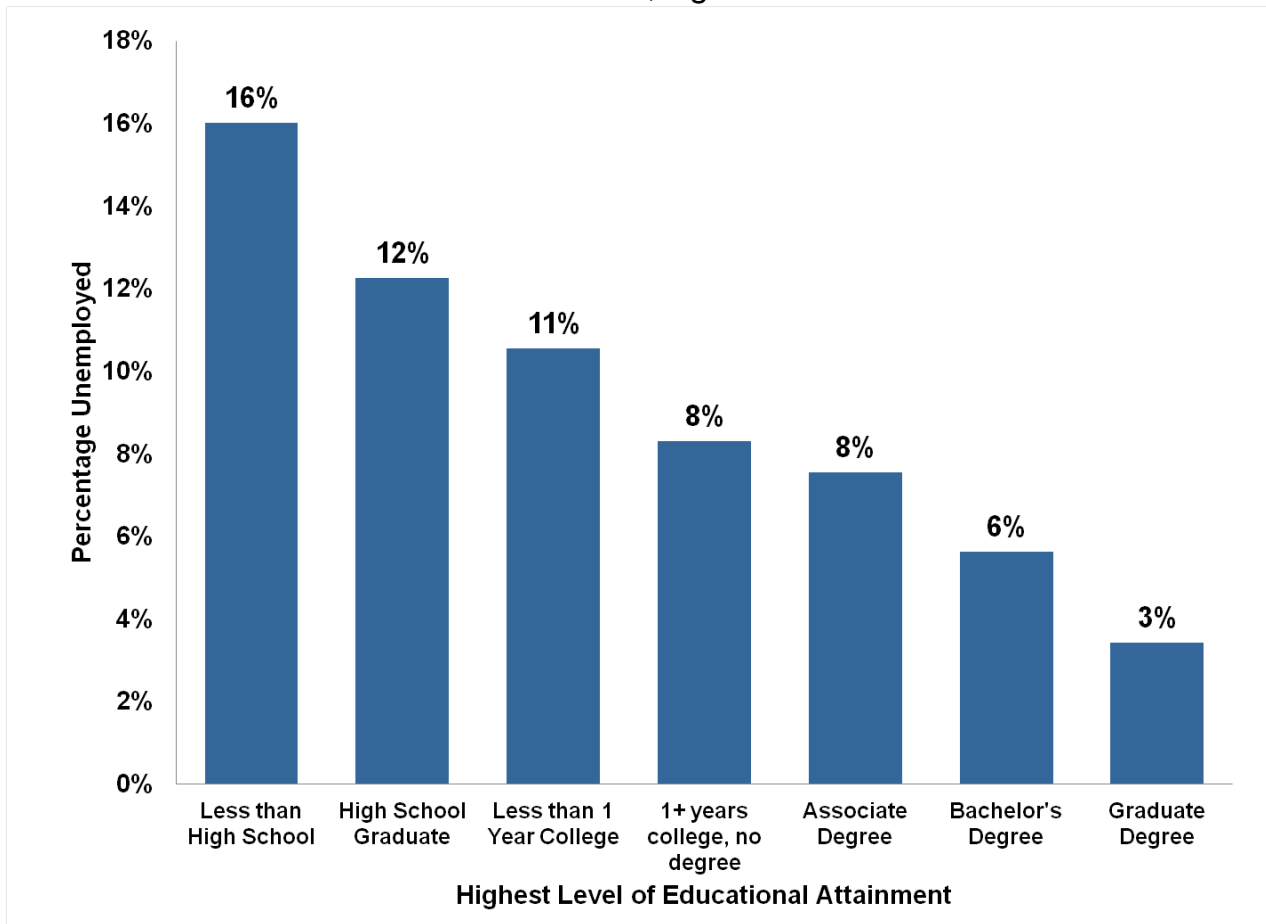
⁴ Baum, S., & Ma, J. "Education Pays. The Benefits of Higher Education for Individuals and Society." New York, New York: College Board, 2007.

More highly educated workers face fewer unemployment problems

People who possess knowledge or skills that are highly marketable in today's economy tend to experience a greater sense of security about future employment prospects than those who do not. This is especially true in difficult economic times. Jobs that remain in high demand through good and bad times often are those that require college degrees, certificates or other forms of specialized education after high school.

Data confirm that people who attain higher educational levels tend to have lower levels of unemployment and the financial uncertainty that comes with it. The chart below shows that the percentage of Washington residents who were unemployed during 2009-10 declined as education level increased. The data also suggest that more highly educated individuals will be less likely to require services such as unemployment insurance during their working lives.

Washington Unemployment by Educational Attainment
2009-10, Ages 25-64



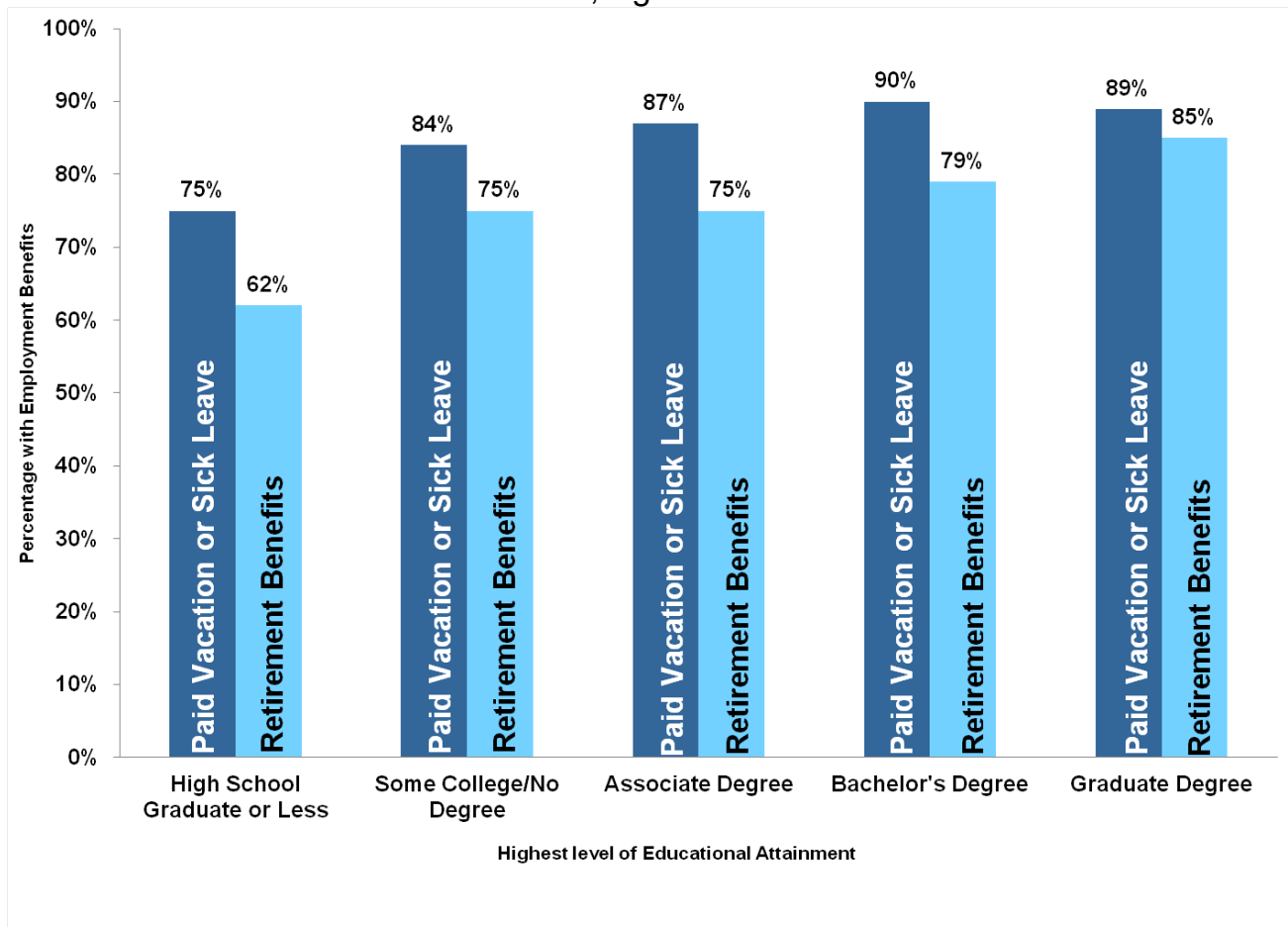
Source: HECB staff analysis of data from American Community Survey, 2011.

Education leads to more comprehensive employer benefits

In addition to higher annual wages and increased job security, educational attainment brings other financial benefits to workers and their families. For example, employees with higher levels of education are more likely to work in jobs that offer benefits packages such as paid vacation, sick leave, or company retirement plans.

Employers who need highly trained and educated workers tend to view benefits packages as one way to gain an edge over competing employers. By offering generous benefits packages, some employers also hope to reduce turnover in positions that require trained or experienced staff.

Washington Employment Benefits by Educational Attainment
2010, Ages 25-64

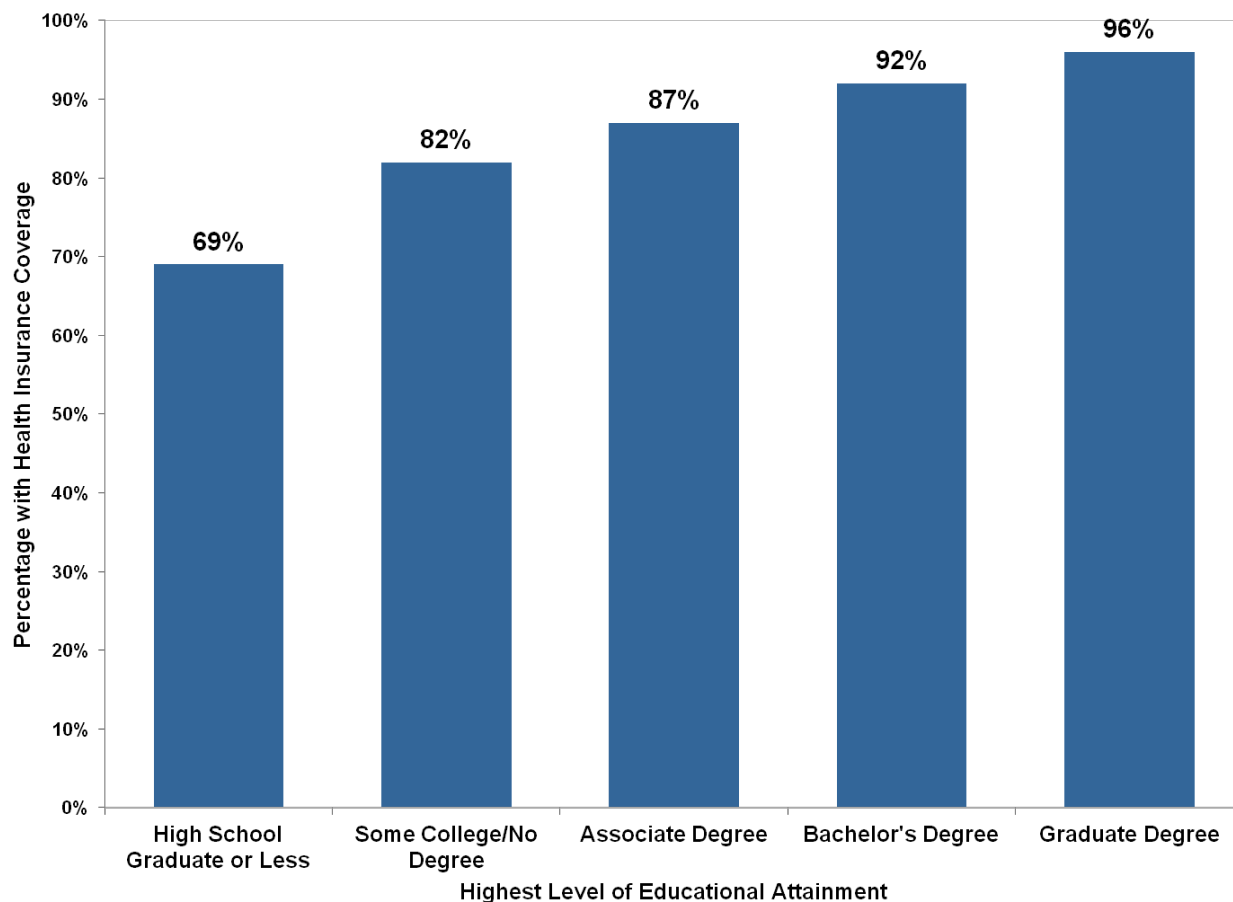


Source: HECB staff analysis of data from Washington State Population Survey, 2010.

Employer health insurance coverage increases with educational attainment

Individuals with higher levels of postsecondary education are more likely to have health insurance coverage from sources other than public plans that specifically are designed to provide health coverage to low-income people. Health insurance for higher-income persons typically is acquired through an employer, union, military organization, or by self-purchase.

Washington Worker Health Insurance Coverage by Educational Attainment 2010, Ages 25-64



Note: Includes health insurance provided by employer, union, military, or self-purchased.

Source: HECB staff analysis of data from American Community Survey, 2010.

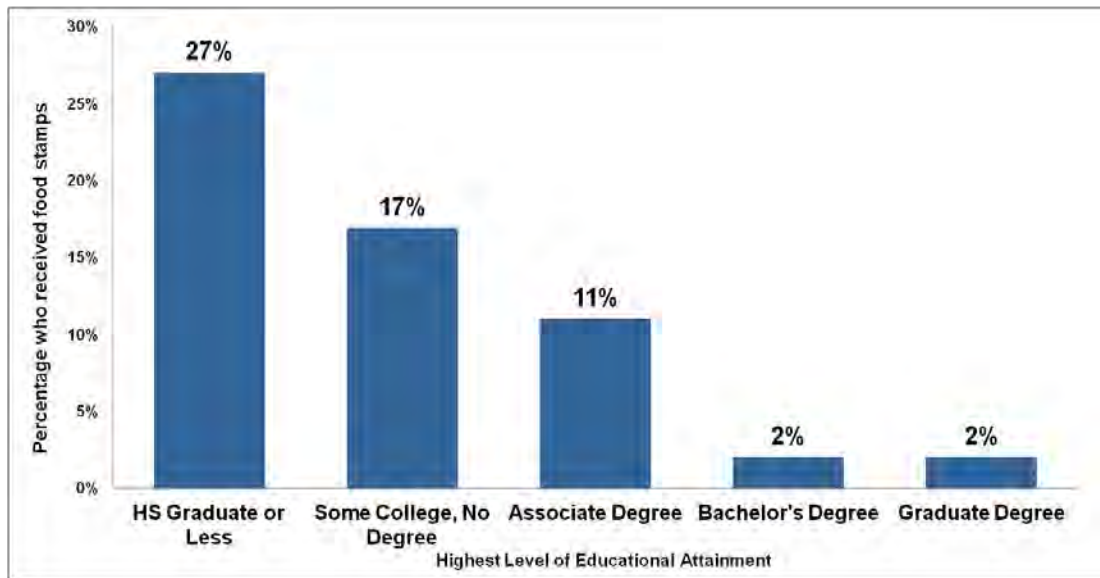
Increasing education reduces reliance on federal and state social services

The national recession has brought economic hardship to many, including some college graduates who hoped their investments in higher education would immediately lead to rewarding careers in their fields. Today, even people with more education may need some assistance to make ends meet.

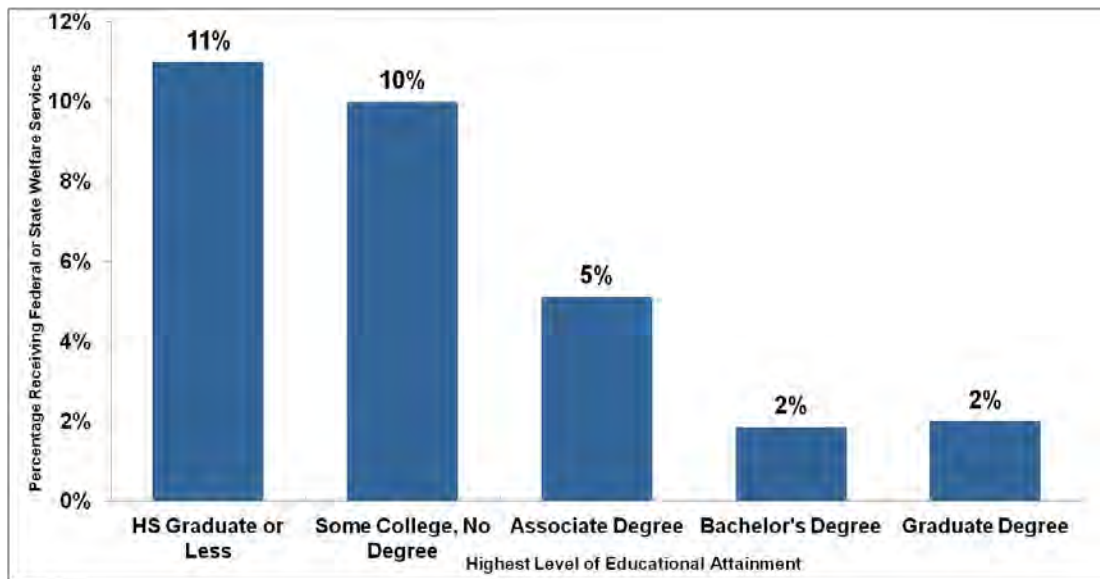
Nevertheless, it remains generally true that increasing levels of education mean less need for federal or state social service programs, such as food stamps or welfare. Reducing the cost of social programs by enabling more families to remain economically self-sufficient is another long-term benefit of continued public investment in higher education.

Use of Federal or State Services by Educational Attainment, Ages 25-64

Food Stamps



Federal or State Welfare Payments



Source: HECB staff analysis of data from Washington State Population Survey, 2010.

Educated people report feeling healthier

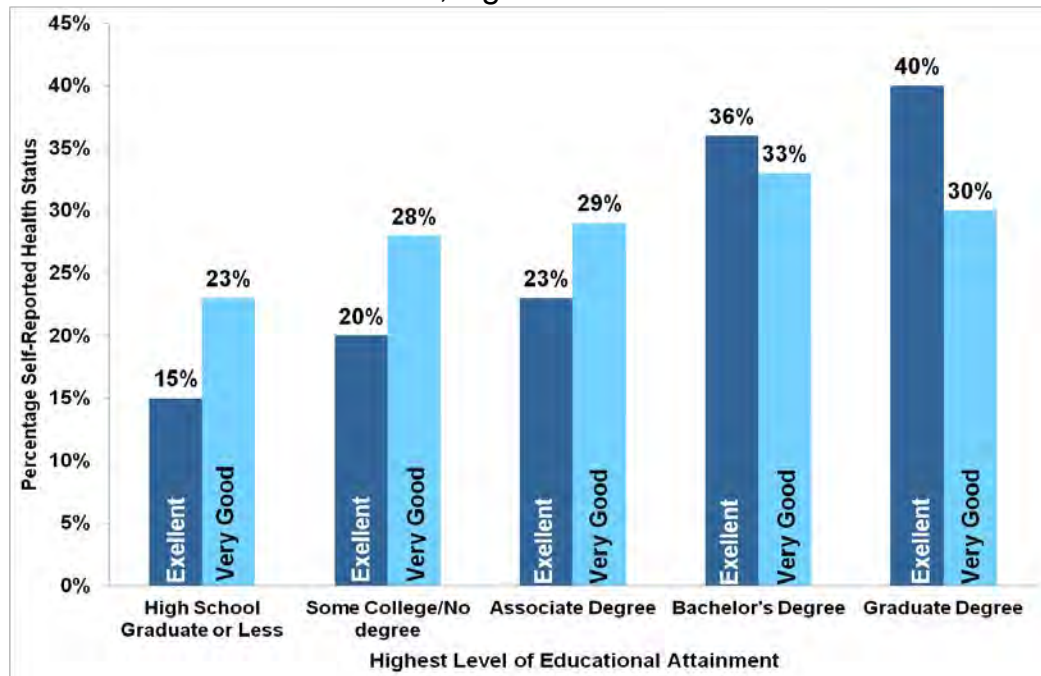
People who attain higher levels of education report they feel healthier than people who do not. Nationally, at every age and income level, individuals with higher educational attainment report better health than those with less postsecondary education.⁵

In Washington, the percentage of residents who perceive their health is either excellent or very good also increases with higher levels of educational attainment.

Evidence also suggests that more highly educated people may be less likely to engage in health-damaging behaviors. For example, studies suggest that college graduates are more likely to heed widespread public warnings about the serious health effects of smoking than those with less education. In 2010, the smoking rate among bachelor's degree holders was 10 percent and among graduate degree holders 6 percent—far lower than the rates among those with only a high school diploma (24 percent) or a GED (45 percent).⁶

The relationship between educational achievement and better health not only has implications for individuals, but also for the broader social goals of reducing health care costs and improving the overall health of the population.

Washington Resident Self-Reported Health by Educational Attainment 2010, Ages 25-64



Source: HECB staff analysis of data from Washington State Population Survey, 2010.

⁵ National Center for Health Statistics, National Health Interview Survey, 2005. As cited by Baum, S., & Ma, J., As cited by Baum, S., & Ma, J., "Education Pays. The Benefits of Higher Education for Individuals and Society." New York, New York: College Board, 2007.

⁶ Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report, Vol. 60, No. 35, 9-9-11.

Academic research generates new businesses for Washington's economy

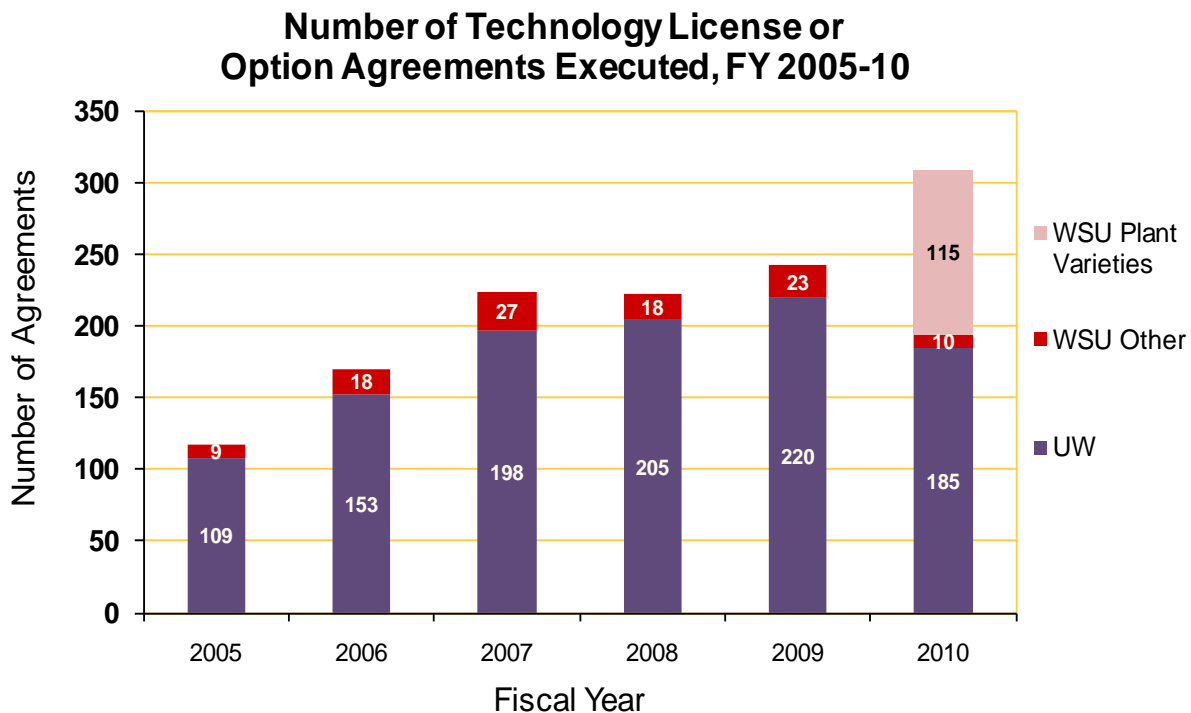
Academic research conducted primarily at the University of Washington and Washington State University impacts the state economy in two ways.

The first is through the hiring of research staff and the purchase of supplies and equipment. Academic research expenditures annually produce more than 15,000 jobs and \$2.2 billion in increased sales in Washington's economy.⁷

The second is through the use of research results to develop new technologies with commercial potential. This is known as "technology commercialization."

Licensing makes new research-generated technologies available for commercial application by outside organizations and private companies. The university and the researcher sometimes receive a small royalty for the commercial use of their research results. These royalties are often channeled back into research and development activities at the institution.

There has been a steady increase in licensing activity since 2005. In 2010, WSU developed a new apple variety that led to 115 separate licenses with individual growers in the Northwest. Without that technology, overall licensing activity would have declined due to the downturn in the economy and the short supply of investment capital.



Source: Government Management Accountability Performance, fall 2011.

⁷National Science Foundation and Economic Modeling Specialists, Inc., input-output model based on Employment Security Department data, 2008-09.

Higher education spending provides direct economic support to communities

Higher education institutions make direct contributions to the economies and social fabric of communities across the state. Without a higher education system, businesses would have to look to other states and countries for the trained and educated workers they need, and more Washingtonians would miss opportunities for well-paying jobs in local communities.

Higher education institutions are themselves major economic forces in the communities they serve. They make up a large segment of the education services industry, which has major supplier and purchasing linkages to many other industries in the Washington economy. Faculty and staff spend a portion of their salaries on groceries, autos, clothing, and other personal and family needs that help drive consumption spending.

A 2010 study commissioned by the University of Washington looked at the economic and employment impacts of the UW on Seattle, the Puget Sound region, and the state. It found that the UW has a statewide economic impact of approximately \$9.1 billion per year, is the state's third largest employer, behind Boeing and Microsoft, employing 6.1 percent of the total labor force in Seattle.⁸

On a smaller scale, Central Washington University may have an even bigger economic impact on the community in which it is located. CWU is the largest single employer in Ellensburg and Kittitas County.

The chart below provides a more general picture of the economic impact of operational (FTE) instruction funding for public higher education. It shows that each \$1 million in funding creates 23 direct and indirect jobs and generates \$2.1 million in additional sales in the state economy.

Return on Investment for Higher Education Operations Funding, 2010⁹

Economic Impact	\$1 Million in Operations Funding
Direct Employment	14 jobs
Total Employment (Direct and Indirect, 2010)	23 jobs
Jobs Multiplier (Total Employment/Direct Employment)	1.63
Increase in Total Earnings	\$1.0 million
Earnings Multiplier (Earnings from Total Employment /Earnings from Direct Employment)	1.59
Increase in Washington Total Sales	\$2.1 million

⁸ TrippUmbach, "The Economic and Societal Impact of the University of Washington, July 2010. Available at <http://www.washington.edu/externalaffairs/eir/pdfs/fullreport.pdf>.

⁹ Source: Economic Modeling Specialists, Inc., input-output model based on Employment Security Department data.

Higher education investments yield taxpayer dividends

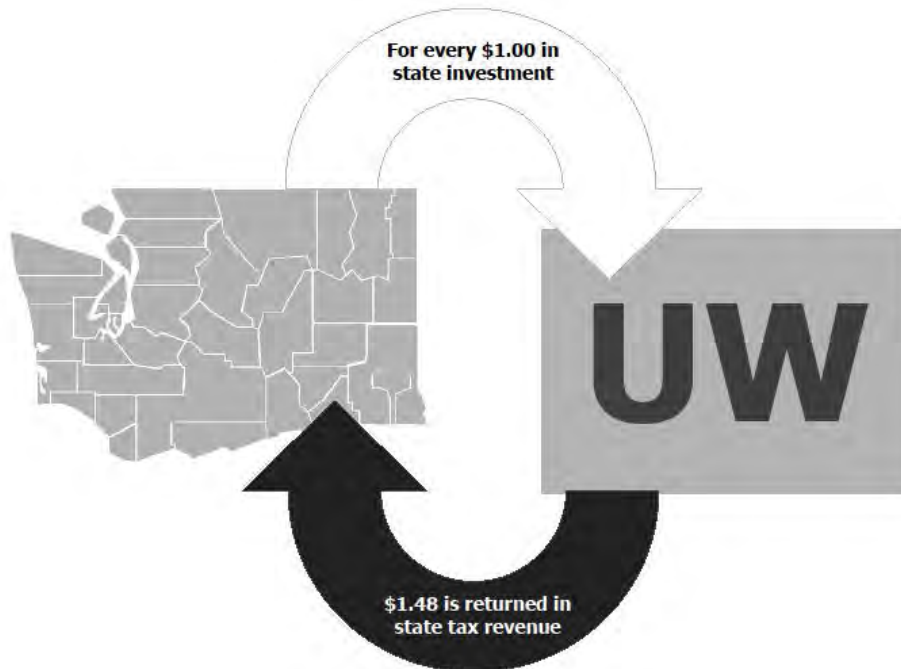
The flow of tax dollars for public higher education moves in two directions. Studies show that for every dollar of tax money allocated for higher education, a greater amount of revenue is returned to state and local governments through taxes on the economic activities conducted by the higher education system.

The State Board for Community and Technical Colleges and the University of Washington conducted economic impact studies examining the degree to which Washington taxpayers benefit from public investments in higher education.

The UW found that state and local governments received \$618 million in tax revenue as the result of university activities during fiscal year 2008-09. That included \$84.5 million in sales and corporate income taxes paid directly to the state, and \$533.6 million in indirect taxes paid to vendors that do business with the university. For every \$1 in state funding allocated to the UW, \$1.48 in tax revenue is returned to the state.¹⁰

The SBCTC study found that in a little less than 11 years, taxpayers recoup their investments in two-year professional and technical degree programs as a result of the increased taxes paid by higher-earning program participants.¹¹

University of Washington's Return on Investment for Taxpayers



¹⁰ TrippUmbach, "The Economic and Societal Impact of the University of Washington," July 2010. Available at <http://www.washington.edu/externalaffairs/eir/pdfs/fullreport.pdf>.

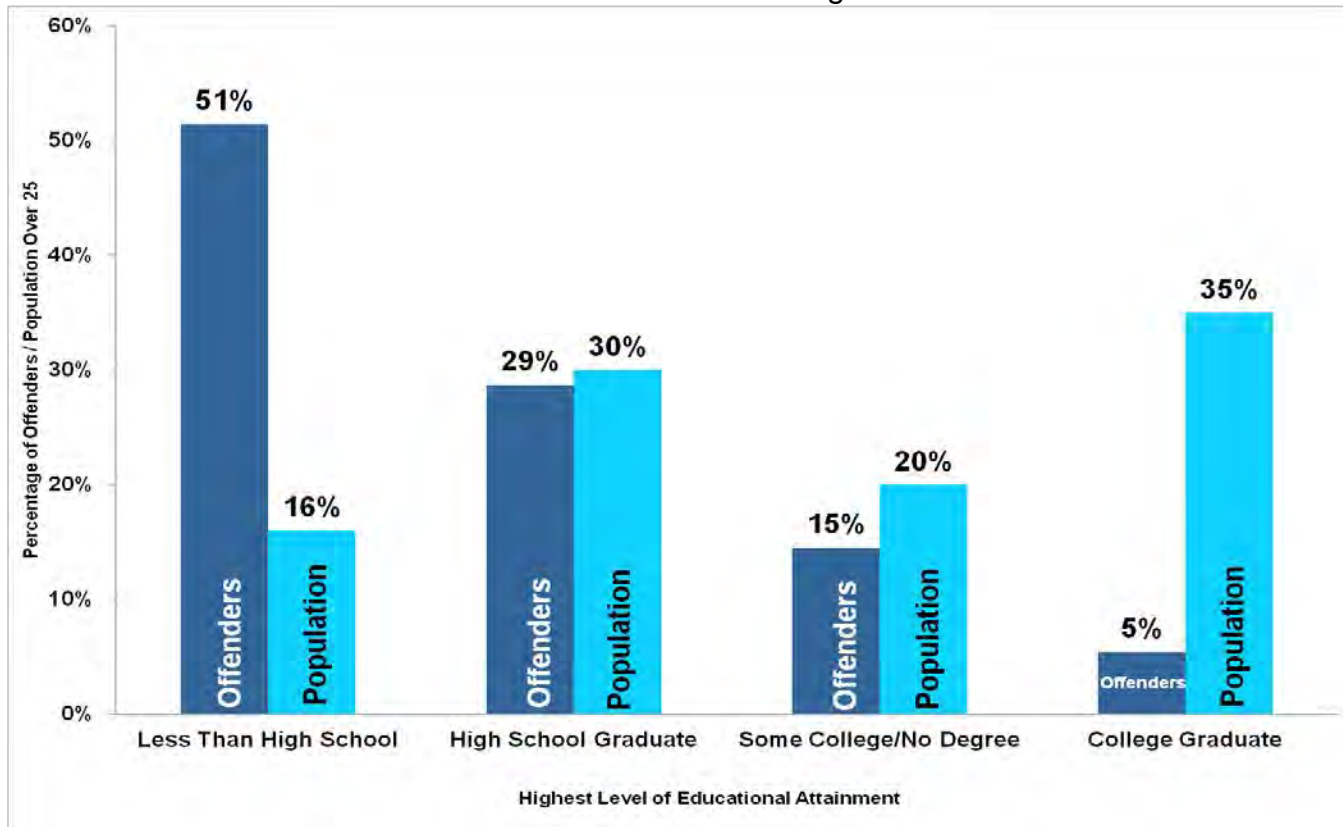
¹¹ "Investment, Innovation, Impact: Washington State Community and Technical Colleges," State Board for Community and Technical Colleges, 2009.

Education reduces propensity toward criminal behavior

Studies have long shown a relationship between levels of educational attainment and crime. Research exploring this relationship within Washington could not be found, but national studies suggest that more highly educated people tend to commit fewer criminal acts against their neighbors than less-educated people. This also means that individuals who have attained higher levels of education tend to be less likely to enter the criminal justice system and thus avoid attendant costs to the state.

The U.S. Department of Justice provides data on offenders by education level who have been sentenced in U.S. District Court. The data show a clear relationship between sentencing and level of education. While 16 percent of the U.S. population 25 or older have not earned a high school diploma, those with no diploma make up over half of those sentenced. At the same time, those with a college degree make up 35 percent of the U.S. population but only account for 5 percent of those sentenced.

Offenders Sentenced in U.S. District Courts as compared to United States Population 25 and Over, by Education Level
Offenders Sentenced under the U.S. Sentencing Commission Guidelines



Source: Sourcebook of Criminal Justice Statistics Online, 2010. Retrieved from <http://www.albany.edu/sourcebook/pdf/t5282010.pdf>.

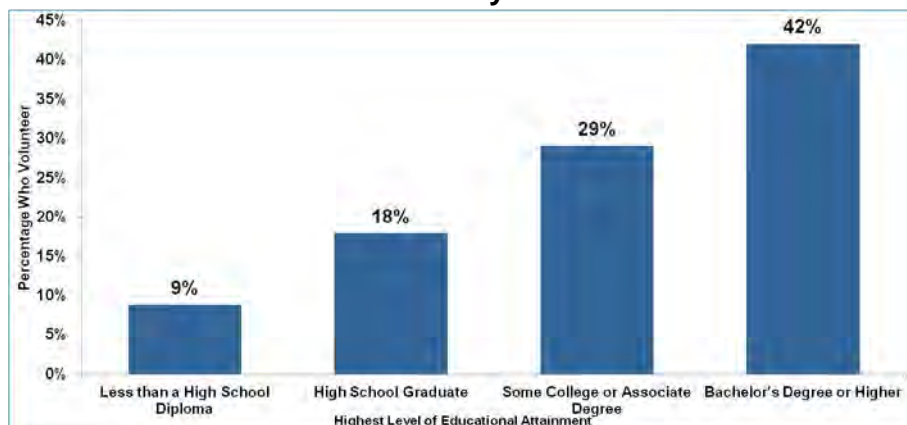
Education influences voting behavior and volunteerism

Society benefits when citizens actively engage in the democratic process and contribute time and resources to improve their communities. Evidence suggests that levels of educational attainment are associated with increased voting behavior and participation in charitable or public service activities.

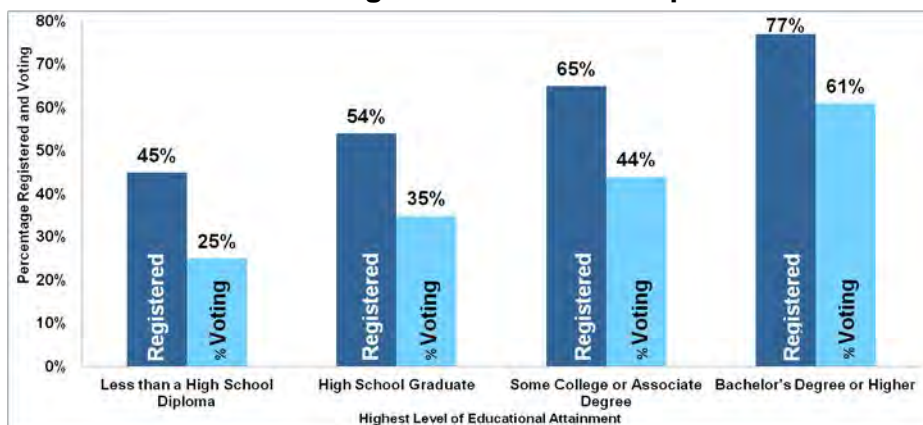
U.S. Census surveys conducted after recent national elections show that adults with higher levels of education are more likely to vote than those with less education. In another Census survey, the percentage of individuals 25 and older who engaged in volunteer activities also increased with higher levels of postsecondary education.

Rather than indicating a lack of interest in voting and volunteerism, these findings may suggest that at least some less-educated people face greater hurdles to participation than those with more education. For example, following the November 2008 general election, nearly 40 percent of non-voting survey respondents with high school diplomas or less reported “illness or disability” as a reason for not voting, compared to 23 percent of those with at least some college. Those with less education also were more than twice as likely to report “transportation problems” as a reason for not voting.

United States Volunteerism by Educational Attainment

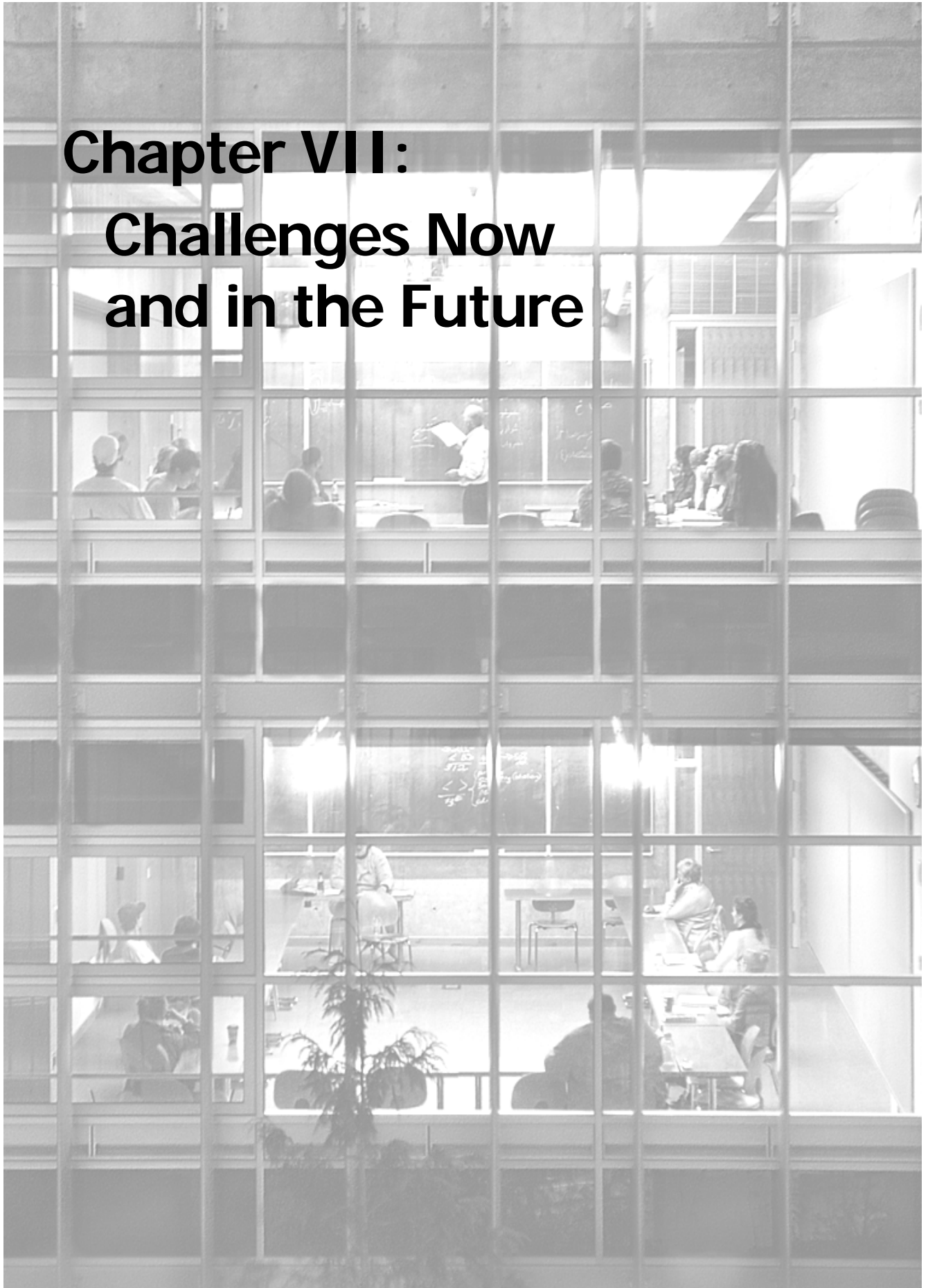


U.S. Voter Registration and Participation



Sources: HECB staff analysis of data from U.S. Census Bureau, Current Population Survey 2010.

Chapter VII: Challenges Now and in the Future



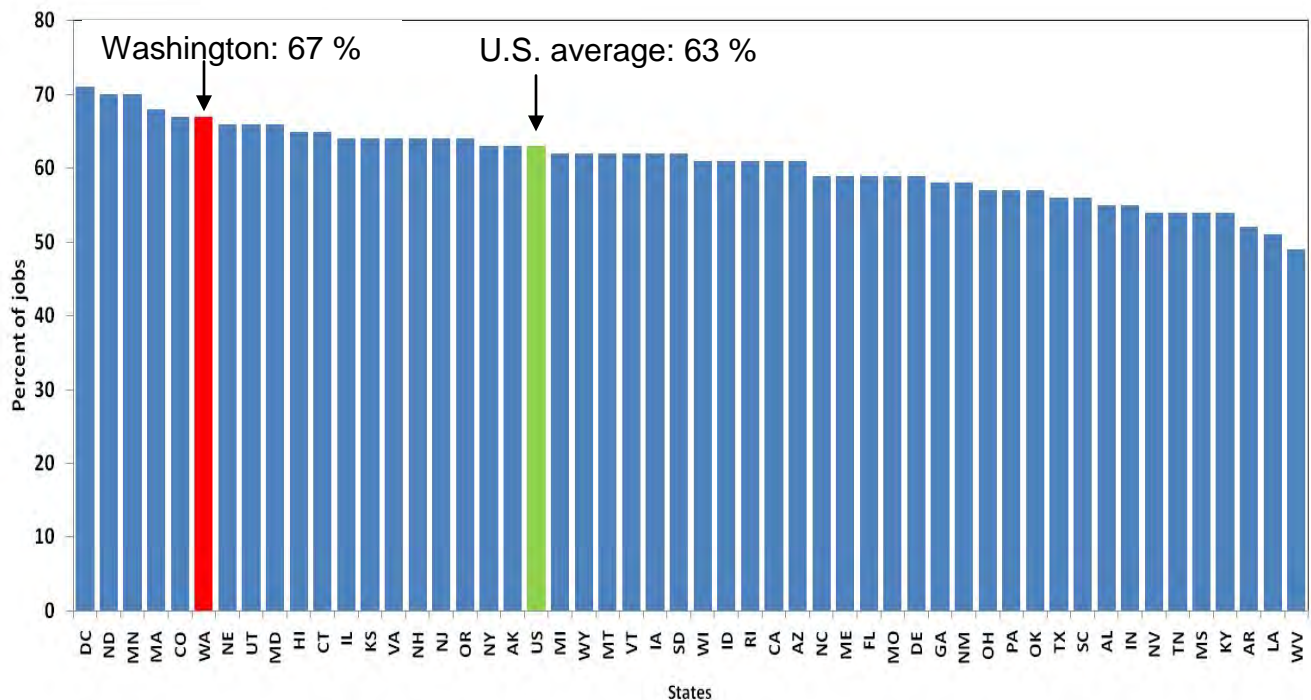
Washington near top among states in which jobs will require postsecondary education

While Washington continues to feel the painful effects of the national recession, its full impact may have been buffered by past employment growth in areas such as medicine, technology, and engineering. Many of these jobs require higher levels of education. Workers with such skills remained in high demand, even during the recession.

Studies suggest that the number of jobs requiring postsecondary education will continue to grow in the years ahead, and Washington will remain above the national average in the percentage of such jobs. A 2010 study by the Georgetown University Center on Education and the Workforce projected that, between 2008 and 2018, 677,000 jobs requiring postsecondary credentials would open in Washington, either through creation of new jobs or through retirements. This compares with 257,000 jobs for high school graduates and 94,000 jobs for high school dropouts. By 2018, 67 percent of Washington jobs are projected to require postsecondary education.

For Washington's educational system, these numbers present a serious challenge. Public and private colleges, universities, and trade schools will be called upon to educate the next generation of workers to fill the more knowledge-intensive jobs. The state's K-12 system will be asked to prepare more students—many from families without experience in higher education—to meet the academic demands of postsecondary education. Resources will be required to help needy, college-ready students acquire education beyond high school.

Percentage of Jobs in 2018 that Will Require Postsecondary Education



Source: Georgetown University Center on Education and the Workforce, "Projections of Jobs and Education Requirements through 2018," 2010. Available at <http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/State-LevelAnalysis-web.pdf>.

How changes in student funding, student enrollment and institutional efficiency affect college degree production

To meet the expected demand for workers with postsecondary education in the future, the number of Washington residents who earn college degrees or certificates will have to be significantly increased. One factor affecting this outcome is the number of high school graduates and returning adults who are able to enroll in college.

Another factor is higher education system “efficiency,” or an increase in the number of FTEs required to produce each degree or certificate. Both enrollments and efficiency are affected by funding available from tuition and state appropriations.

Improvements in efficiency can result in more college degrees being produced. But there’s a limit to that assumption. Normally, when efficiency improves, students get through a bachelor’s degree faster. But efficiency can also decline due to negative effects, such as students not being able to get into required classes when they need them because classes fill up. This can lengthen the time it takes for them to graduate.

The following chart shows how degree production can be affected by funding, student enrollments and efficiency.

The dark arrows represent increases or decreases in degree production resulting from changes in the number of students enrolled; the light symbols represent changes due to efficiency; the white symbol represents “no change” in degree production.

The cell in the upper right corner shows what happens when both total student funding per FTE and real enrollment (which includes both funded and over-enrollments) increase. In that case, an increase in degree production can also be expected, as indicated by the upward-pointing arrow.

The lower left corner represents the opposite scenario in which per student funding and real enrollment both decrease—resulting in lower degree production.

The bottom row of cells represents today’s reality, reflecting decreased student funding resulting from the poor economy. The bottom-middle cell presents a scenario in which real enrollment stays constant but total student funding decreases, resulting in overloaded classes and other conditions that cancel out or, worse, reverse degree increases due to greater inefficiency.

In the bottom right hand cell we see much uncertainty about whether continued enrollment increases also will increase degree production.

Chapter VII: Challenges Now and in the Future

Degree production could increase because more students are enrolled. But there's a limit to the supposition that simply enrolling more and more students will produce more and more degrees. At some point, the number of students pressing to get into classes or see advisors is greater than what the colleges can handle and backlogs, delays and other inefficiencies occur.

Degree Production Expectations as Related to Real Enrollment and Total Student Funding per FTE

Real Enrollment Includes Budgeted and Non-Budgeted FTE

Total Student Funding per FTE includes State Funding and Tuition Revenue

		Real Enrollment		
		Decreased	Constant	Increased
Total Student Funding per FTE	Increased	↓ -or- ▬	↑	↑
	Constant	↓	□	↑
	Decreased	↓	↓ -or- ▬	↑ -or- ▬ -or- ↓

Key	↕	Output Change due to Volume	□	No Output Change
	↕	Output Change due to Efficiency	▬	No Output Change due to Efficiency

State falling short of two-year degrees needed to meet future job growth

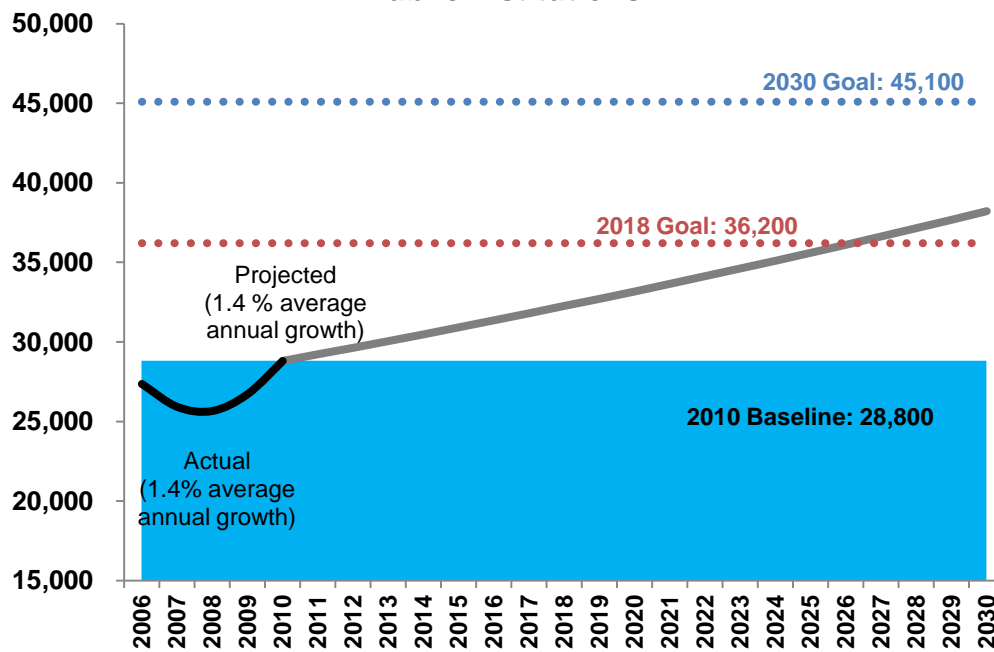
Based upon current trends, Washington is producing well below the level of degrees and certificates needed to ensure that the greatest number of state residents take full advantage of the well-paying, knowledge-based jobs that will be available in the future.

To meet the state’s needs for educated workers, Washington’s *2008 Strategic Master Plan for Higher Education* called for a 40 percent increase in the annual number of residents earning degrees and certificates by 2018. However, the national recession and its impact on higher education funding stymied efforts to achieve those goals. As a result, the 2018 degree goals were scaled back, and a new 2030 degree target was established.

The baseline in the chart below represents the 28,800 one- and-two-year certificates and degrees that were produced at public institutions in Washington in 2010. The upward-trending line shows the projected number of additional certificates and degrees that would be produced *if* we maintain the same 1.4 percent annual growth rate achieved between 2006 and 2010.

Based on that projection, Washington would fall nearly 7,000 certificates and degrees short of achieving its 2030 goal. That represents 7,000 Washington residents who would not be eligible for jobs requiring those certificates or degrees. Some residents also would miss out on jobs requiring higher levels of education, since two-year degrees and certificates often serve as pathways to bachelor’s or advanced degrees.

**Projected Growth of Mid-Level Degrees and Certificates vs. State Goals
Public Institutions**



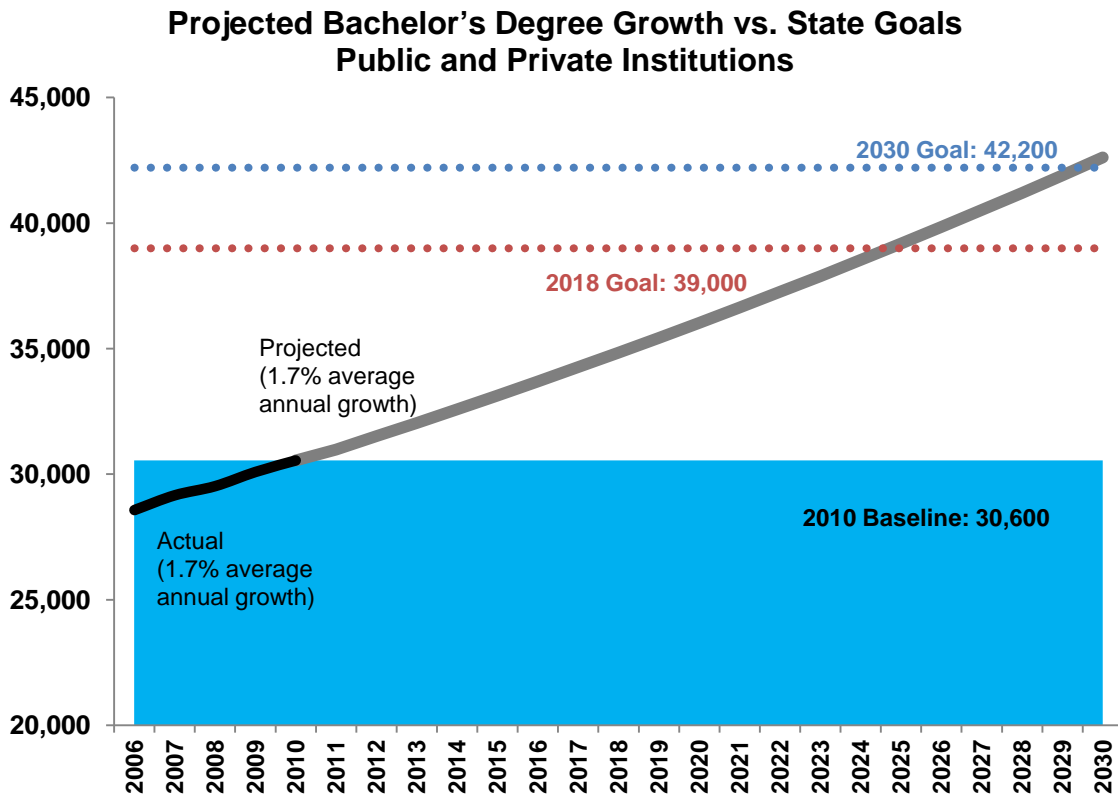
Source: HECB calculation based on data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics; State Population Forecast; HECB 2008 Strategic Master Plan.

Colleges could reach bachelor’s degree goals, but years later than planned

The degree-production goals in the *2008 Strategic Master Plan for Higher Education* were based upon extensive feedback from business and industry representatives who offered insights into the future employment needs of the state economy. The plan also recognized that many members of the baby boom generation would soon be retiring from the workforce.

Despite a recession that has led to severe cuts in public funding for higher education, public and private baccalaureate institutions in Washington have continued to increase the number of students earning bachelor’s degrees. The baseline in the chart below represents the 30,600 bachelor’s degrees produced in 2010.

Assuming bachelor’s degree production continues to grow at the same 1.7 percent annual rate achieved between 2006 and 2010, public and private institutions could meet the state’s bachelor’s degree production goal by 2030, although the goal set for 2018 wouldn’t be reached until about 2025. In addition, any assumptions about future degree growth could be negatively impacted by additional cuts in state funding, reductions in financial aid, or other factors.



Source: HECB calculation based on data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics; State Population Forecast; HECB 2008 Strategic Master Plan.

Washington needs to boost advanced degrees to move economy to next level

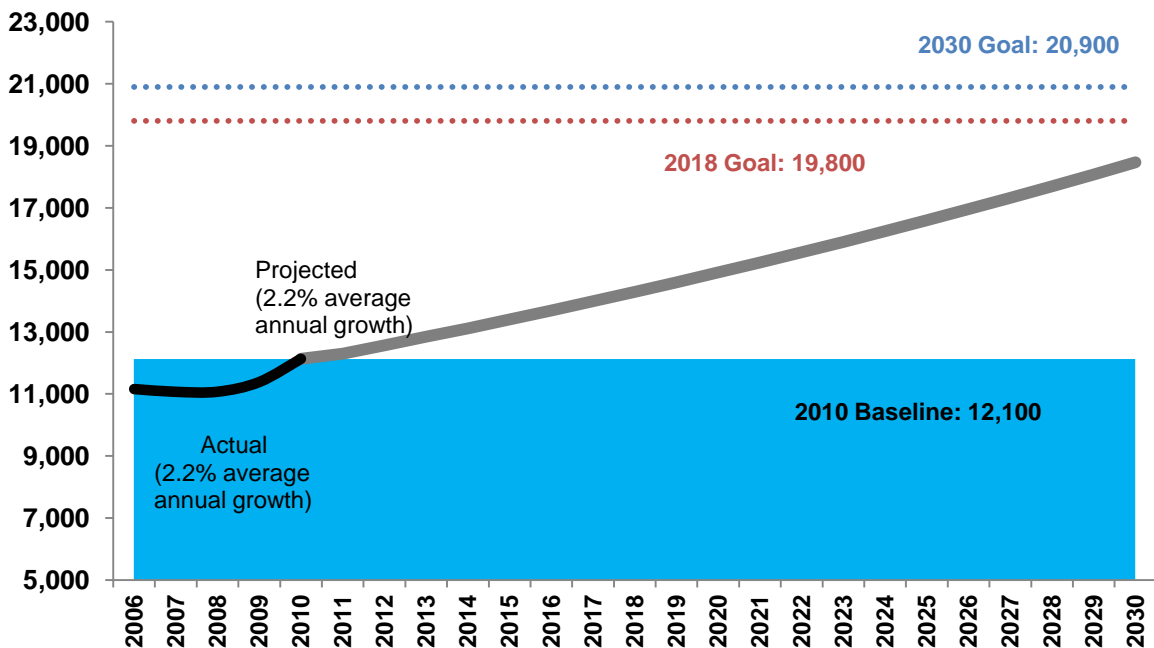
To maximize opportunities for all Washington residents to thrive in tomorrow’s economy, it will not be enough to merely produce more workers with *some* education after high school. This is particularly true in knowledge-based sectors such as aerospace, technology, and medicine.

If Washington residents are to help fuel the state’s economic growth in the years ahead, more residents must continue their educations beyond the two-year and bachelor’s degree levels. Unfortunately, current trends show Washington falling well behind in meeting the projected need for workers with advanced degrees. In fact, degree production at the graduate level is the most deficient of the three degree levels illustrated in this and the preceding two pages.

The baseline in the chart below represents the 12,100 graduate degrees produced by public and private institutions in Washington in 2010. Assuming graduate-degree growth continues at the 2.2 percent average rate of the previous four years, the state will still be about 5,500 additional advanced degrees short of the estimated annual number needed in 2018 and more than 2,400 degrees short of achieving the estimated number that will be needed by 2030. As with the other degree levels, the shortage could worsen if additional budget cuts further reduce the ability of institutions to produce more graduates with advanced degrees.

One of the implications of a graduate-degree shortage is that businesses will increasingly turn to graduates from other states or countries to help create their new products and services.

**Projected Graduate Degree Growth vs. State Goals
Public and Private Institutions**



Source: HECB calculation based on data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics; State Population Forecast; HECB 2008 Strategic Master Plan.

Washington is importing college-educated workers to meet demand

As the number of jobs requiring higher levels of education has grown, Washington has seen an increasing gap between the number of degrees needed to fill emerging jobs and the number being supplied by the state's higher education institutions. The gap exists across all levels of postsecondary education. To a significant degree, employers have filled this gap by attracting educated workers from other states and countries.

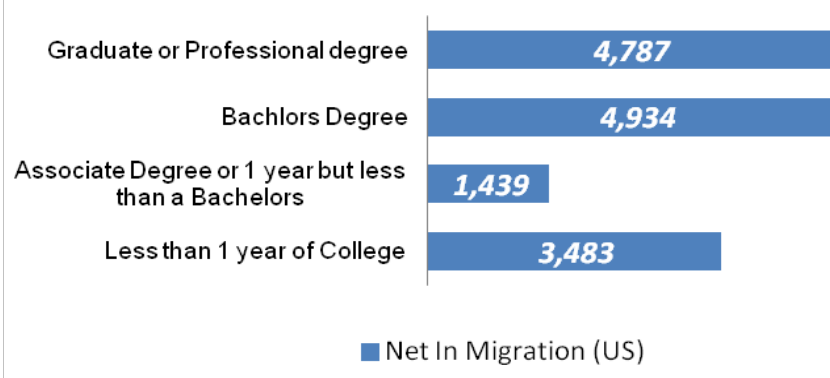
The chart below shows that between 2005 and 2009, Washington continued to rely on in-migration of talented workers to meet employment demand. At all postsecondary levels, more workers moved to Washington from other states than left. These five-year averages include net in-migration during recession years when employment openings were suppressed at all levels. Prior to the recession, net in-migration figures tended to be even more pronounced.

Graduate Degree Production is Not Meeting Demand. Washington's need for talented individuals with advanced degrees, in particular, far outpaces its current rate of degree production. The net in-migration of graduate and professional degree holders from 2005 to 2009, as shown in the chart below, was equal to 42 percent of the total number of graduate degrees produced during that period.

Washington also attracts large numbers of workers from other nations. Although data on workers leaving Washington for other countries over the five-year period are not available, the state drew nearly 3,500 foreign workers at the graduate level, more than 4,300 at the bachelor's level, and nearly 3,000 with some college but less than a bachelor's degree.

Washington's reliance on out-of-state workers may be partly due to fewer opportunities for Washingtonians to earn degrees in the state within key employment disciplines.¹

Annual Net In-Migration by Education Level. 2005-2009



Source: HECB staff analysis of data from American Community Survey, 2005-2009.

Note: Analysis represents average annual net in-migration of employed adults (age 25-64) based on state-to-state mobility. Additional in-migration from international sources is not reflected.

¹ Spaulding, Randy. "The Impact of Interstate Migration on Human Capital Development in Washington," 2010. Available at <http://www.hecb.wa.gov/sites/default/files/2010migrationReport-final.pdf>.

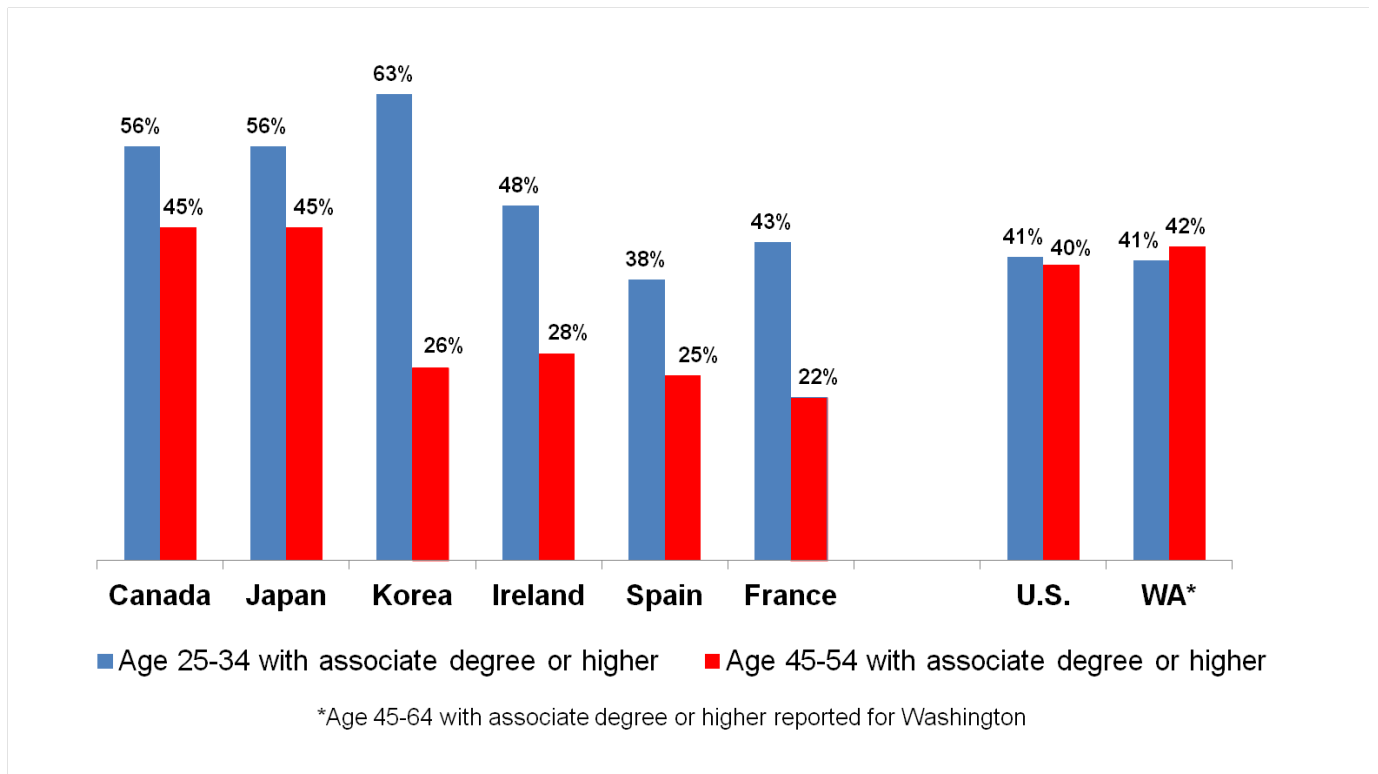
Many younger Washington residents have lower education levels than their parents

Higher education investments in the second half of the 20th Century helped make Washington’s baby boom generation the most educated in state history. That expansion of the higher education system helped baby boomers transform Washington’s economy and achieve a high level of financial well being.

But many baby boomers are now reaching retirement age at a time when their children and grandchildren are not achieving the same levels of educational attainment. That means a smaller proportion have the knowledge and skills necessary to fill today’s education-intensive jobs in an economically challenging and increasingly competitive world.

The bar chart below shows that younger adults in other countries have substantially improved degree attainment compared to their parents’ generation. In general, progress has been much slower in the United States. In Washington, the picture is even grimmer—the percentage of younger adults who have attained higher levels of education shows a decline compared with their parents’ generation.

**Percentage of Population by Age with Associate Degree or Higher
For Selected Countries, U.S., Washington**



Sources: Organization for Economic Co-operation and Development (OECD), Education at a Glance 2011, Table A1.3a; American Community Survey, Educational Attainment by Degree-Level & Age Group Three-Year Average, 2008-2010.

New K-12 assessment tools show need for continued math and science improvement

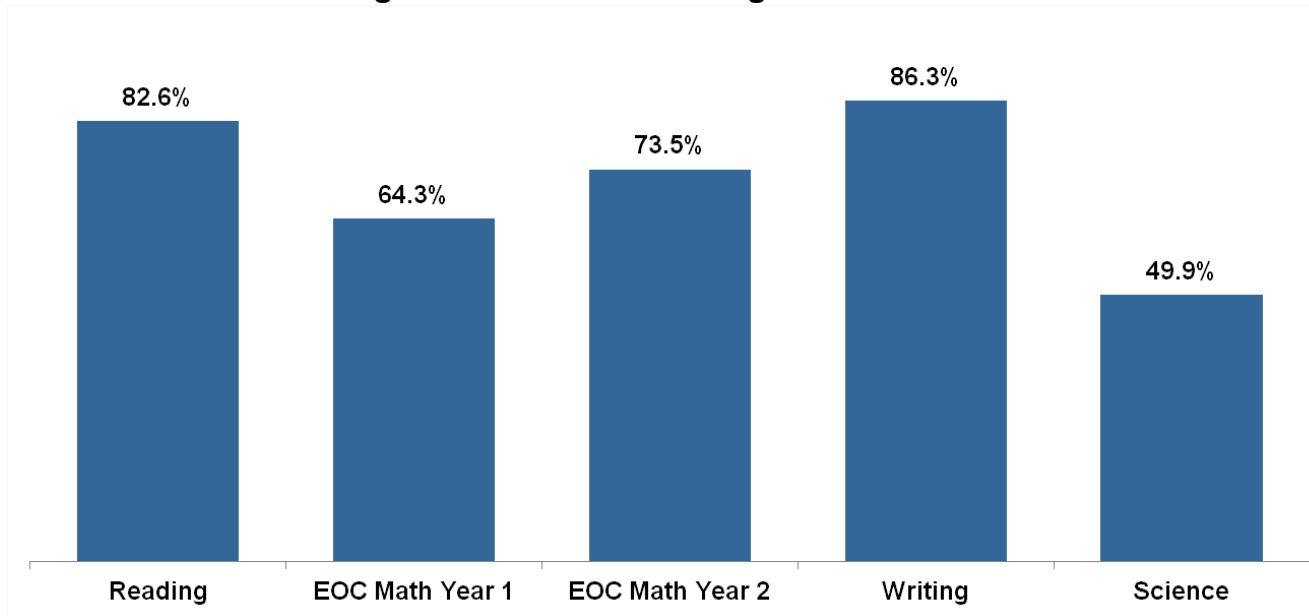
Students who fail to make sufficient academic progress in high school often face serious challenges completing college-level work. Statewide test results have long shown many college-bound students lack adequate preparation for college coursework, especially in science and mathematics. These disciplines constitute the educational cornerstones of many of Washington’s higher-paying career fields.

In 2009-10, Washington began implementing a new set of academic proficiency exams for K-12 students. The High School Proficiency Exam (HSPE) is now used to assess 10th graders on critical learning objectives in reading, writing and science. Two new exams, administered for the first time in Spring 2011, assess 6th through 12th grade students who have just completed classes in mathematics. The End of Course (EOC) 1 exam is for students who have just completed Algebra 1, and EOC 2 is for students who have completed Geometry.

The state is now in the process of implementing a requirement that students pass the new proficiency exams to graduate from high school.

While the new HSPE and EOC assessment results reported in the chart below offer some hopeful signs compared to earlier test results, they show that additional progress is needed to make more high school students college ready.

**2010-11 Washington Public School HSPE and EOC Scores
Percentage of Test Takers Meeting Statewide Standards**



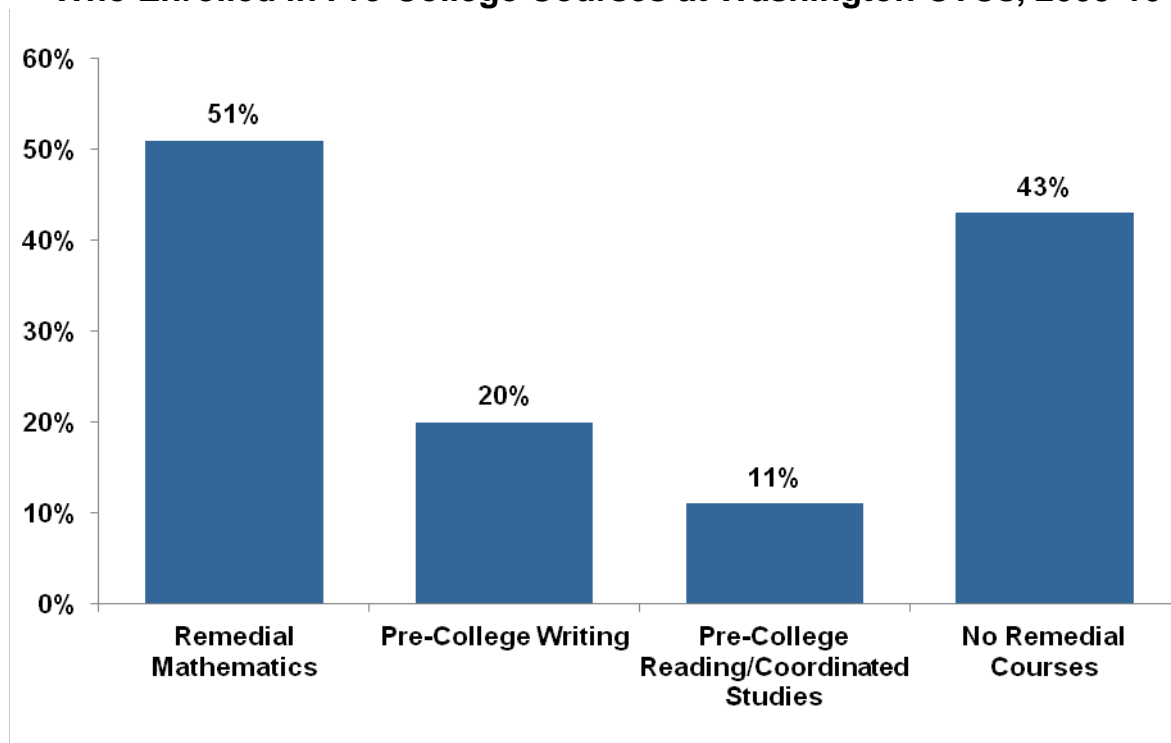
Source: Office of Superintendent of Public Instruction, 2011 Washington State Report Card data.

More than half of high school graduates enrolling at CTCs require remedial math

Students enter college with differing skill levels in subjects that are essential to successful completion of degree programs. For example, older students, who may have significant time gaps in their educational experience, often require pre-college coursework to refresh basic knowledge, particularly in math.

Significant numbers of recent high school graduates also require pre-college courses (also called remedial courses) after they enroll in college. Of 20,336 Class of 2009 public high school graduates who enrolled in Washington's community and technical colleges in 2009-10, 10,354 (51 percent) took remedial math classes. Pre-college writing classes were taken by 4,049 students (20 percent) and 2,196 took reading classes (11 percent). Less than half the incoming high school graduates took no remedial classes at CTCs in 2009-10.

Percentage of Class of 2009 Public High School Graduates Who Enrolled in Pre-College Courses at Washington CTCs, 2009-10



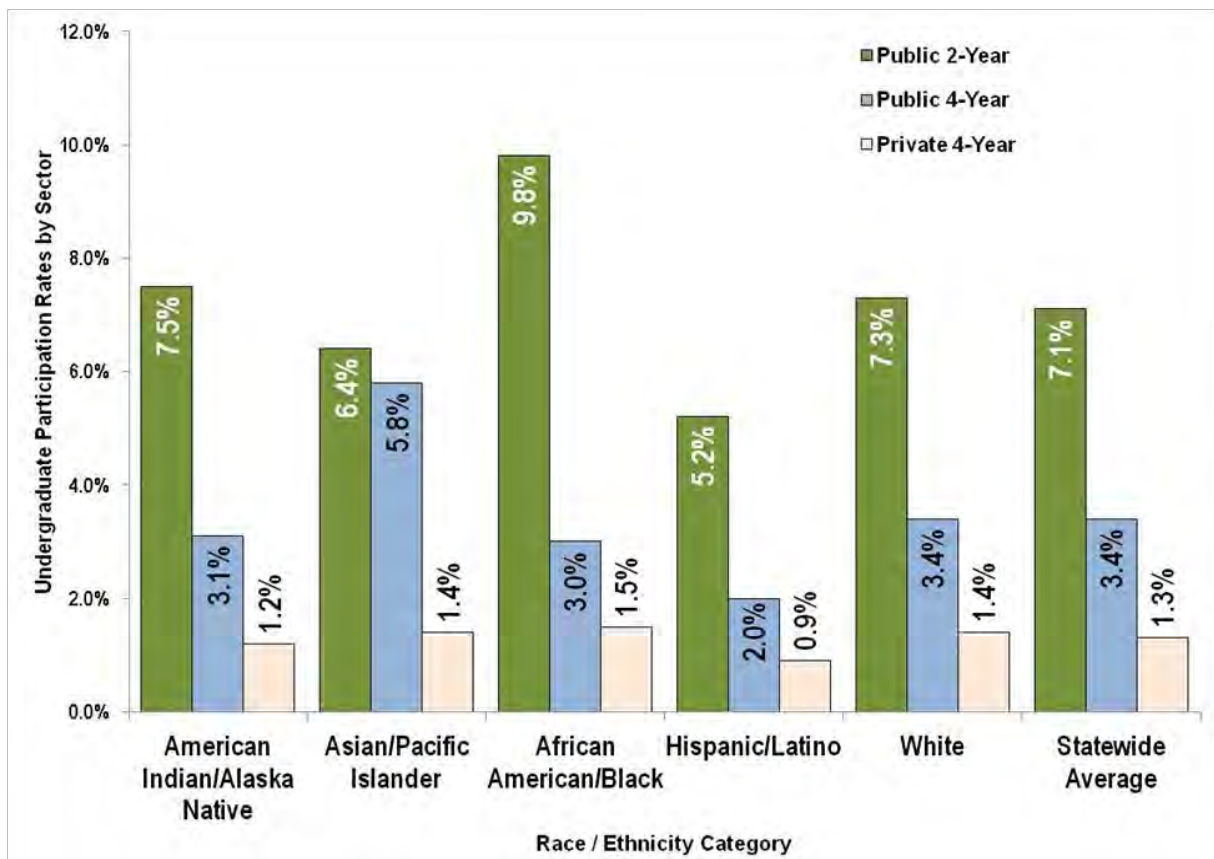
Source: State Board for Community & Technical Colleges, Role of Pre-College (Developmental & Remedial) Education, Research Report 11-3 System Summary for New, First-Time Students Enrolled in 2009-10, November 2011.

Some racial and ethnic groups have higher college participation rates than others

Racial and ethnic groups differ in their rates of college participation. Variations in family income may account for some of the differences. In addition, a lack of family history of college participation may influence the degree to which subsequent generations are encouraged to pursue postsecondary education as well as their ability to find guidance in navigating the higher education system to completion.

Among racial and ethnic groups, college participation also varies by the type of institution. For example, participation by 18-44 year-old African Americans is higher than the state average at community and technical colleges, but slightly lower than the state average at public four-year institutions. Hispanics, the state’s fastest-growing racial and ethnic group, have lower than state-average participation rates at both community and technical colleges, and public and private baccalaureate institutions.

Undergraduate Headcount Participation Rates by Race/Ethnicity and Sector, Fall 2010
Population Ages 18-44



Notes: To align with the Office of Financial Management population data, IPEDS enrollment data for Asian and Native Hawaiian or Other Pacific Islander were combined. Students with unknown status or multiracial status were not included.

Sources: HECB staff analysis of data from Integrated Postsecondary Education Data System, National Center for Education Statistics, fall 2010; Census Bureau.

Racial/ethnic groups vary in levels of degree attainment relative to share of population

As the percentage of Washington citizens from diverse ethnic and racial groups has grown, so has the overall percentage of students from these groups who earn bachelor's degrees at Washington's public and private colleges and universities. In fact, the percentage of minorities who earn bachelor's degrees has grown at a faster pace than their overall share of the population.

However, a closer look shows that minority groups vary in their levels of degree attainment. For example, the percentage of all students earning bachelor's degrees who are Hispanic/Latino is lower than their percentage of the overall population.

As the state's minority population expands, achieving the goal of increased degree production will require continued emphasis on improving degree attainment rates among groups that have had traditionally lower levels of college participation and success.

Proportionate Representation of Race/Ethnicity Groups In 2008 Washington Population and 2008-09 Degrees Awarded

Race/Ethnicity	2009 Population	Associate's Degree	Bachelor's Degree	Advanced Degrees
American Indian/ Alaska Native	1.6%	1.4%	1.3%	1.1%
Asian/Pacific Islander	8.6%	7.6%	11.7%	6.9%
African American/Black	4.1%	3.3%	2.8%	2.6%
Hispanic/Latino	11.9%	6.2%	5.0%	3.3%
White	71.1%	66.2%	67.6%	61.7%
Two+ Races	<1%	<1%	<1%	<1%

Sources: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics; U.S Census Bureau.

Washington has a pool of students who started college but never finished

Thousands of Washingtonians have completed at least some college but, for many reasons, have not earned college degrees or certificates. By focusing on the more than 450,000 Washington residents age 18-44 who, in 2010, had earned “some college but no degree” and were not currently enrolled in college, the state could take a significant step forward in degree production.

Encouraging more to return to the higher education system to finish degree or certificate programs is one strategy for helping the state fill the growing demand for college-credentialed workers.

**Washington's Residents Age 18-44
Whose Highest Educational Attainment is "Some College, No Degree"**

By Race/Ethnicity	Total with "Some College, No Degree"	% Not Enrolled in College	# Not Enrolled in College
American Indian/Alaskan Native	9,329	74%	6,919
Asian/Pacific Islander	51,087	56%	28,657
African American/Black	27,840	63%	17,493
White	502,418	67%	335,761
Multi-racial/Other	32,581	59%	19,207
Hispanic	66,974	65%	43,391
TOTAL	690,229	65%	451,428

Source: HECB staff analysis of data from American Community Survey, 2010; U.S. Bureau of the Census.

We need to increase opportunities for college access

To reach the state’s goals of increasing educational attainment 40 percent, we need to pursue multiple ways of encouraging residents to go to college—and finish with a degree. Not just high school graduates should be encouraged to pursue a college education. Adults who stopped out of school earlier in their lives but now want to better their lives should also have a second chance.

Community college students in technical programs should be provided with pathways to bachelor’s degrees to advance in their careers. And the state’s large population of adults who have gone to college for awhile, but never completed a degree, should be encouraged to return and get their diplomas.

The table below shows the categories of Washingtonians at various life stages who might be interested in pursuing a college degree. The last column shows how many in each category typically do continue to further higher education. Of particular note is the large category of adults, age 18-44, who have “some college.” These are people who already have tried college—often with success. There are many reasons students don’t persist in college—jobs, families, health and other personal reasons. If we were to encourage just 2 percent more in each category to continue to earn their degrees, we’d go a long way to achieving the state’s goal of a 40 percent increase in bachelor’s degree completion.

Educational Pathways Include Large Numbers of Students Who Should Be Encouraged to Consider Getting a Bachelor’s Degree

Educational Level Achieved	Completers /Residents	Percentage Who Actually Continue Education
High School Graduates ² , Class of 2009	65,700	64%
GED Completers ³ , 2008	13,000	39%
CTC Technical Two-Year Degrees ⁴ , 2010	9,875	13%
CTC Transfer Associate Degrees ⁵ , 2010	15,400	71%
Adults 18-44 with “a high school diploma or less ⁶ ”	925,000	12%
Adult Re-entry age 18-44 with “some college/no degree ⁶ ”	690,000	35%

² Office of the Superintendent of Public Instruction, Graduation and Dropout Statistics for Washington in 2009-10, Table 14, p. 34. Retrieved 12/07/11 from <http://www.k12.wa.us/DataAdmin/pubdocs/GradDropout/09-10/GraduationDropoutWashington2009-10.pdf>. (NOTE: Data includes late graduates.)

³ Retrieved 12/10/10 from http://www.acenet.edu/Content/NavigationMenu/ged/pubs/GED_ASU_2008.pdf.

⁴ Washington State Board for Community and Technical Colleges. Tina Bloomer, personal communication, 12/12/11.

⁶ HECB staff analysis of data from American Community Survey, 2010.

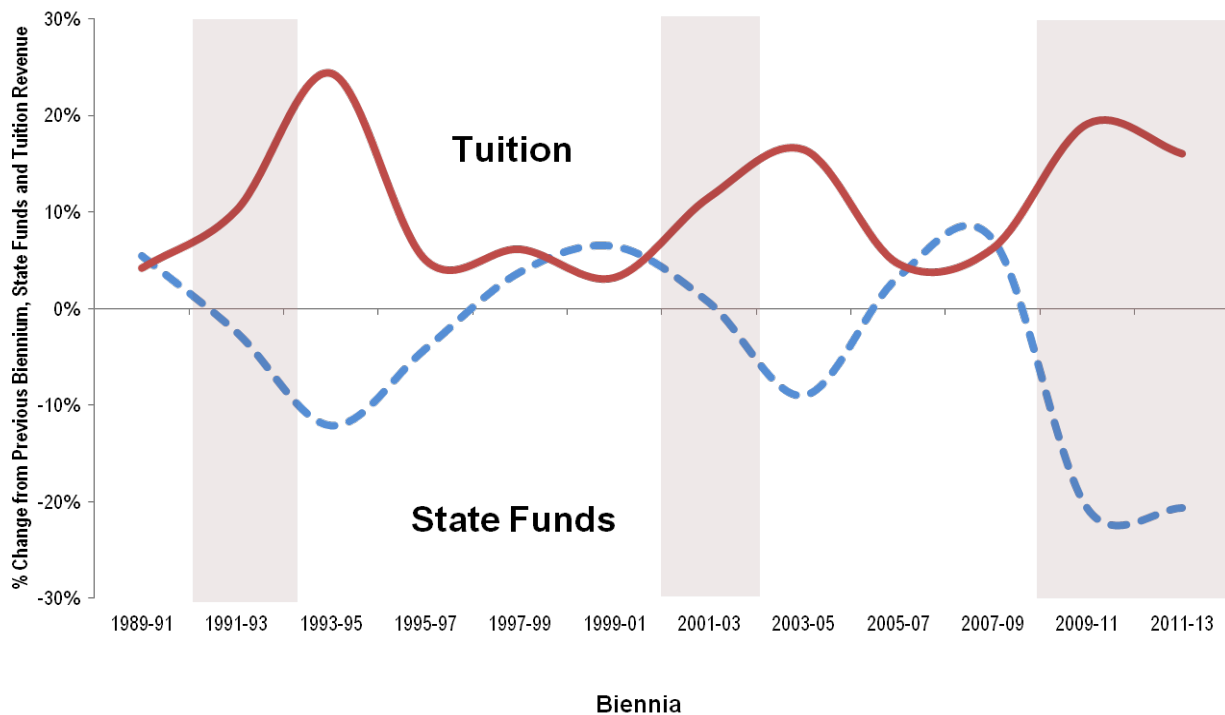
We need to adopt a stable funding model for higher education

Washington has a history of state support for higher education going back to the mid-19th Century. But, unlike basic education, higher education constitutes the largest source of discretionary funding in the state budget. State government is not required to provide a particular level of higher education for its citizens.

As the chart below illustrates, times of declining state revenue often cause leaders to reduce state support for higher education and increase student tuition. These shifts create enormous uncertainty for students and threaten the quality of educational programs.

A more stable and predictable funding approach is needed that includes reasonable support for public colleges, tuition-setting flexibility so that our institutions can maintain high-quality programs, and increasing levels of financial aid.

Washington Public Higher Education Institution Expenditures
% Change in State Operating Funds vs. % Change in Tuition Revenue
 1989-2013*, Recessions Are Shaded



*2011-13 funding levels reflect appropriation levels from First Phase 2012 Supplemental 2011-13 operating budget as passed Legislature.

Note: State Funds include Near General Fund-State, Opportunity Pathways, and Opportunity Express Accounts. Tuition funding is tuition revenue from state supported enrollments (149-6), budgeted student FTE.

Sources: HECB staff analysis of Legislative Evaluation and Accountability (LEAP) Program Committee higher education finance data.

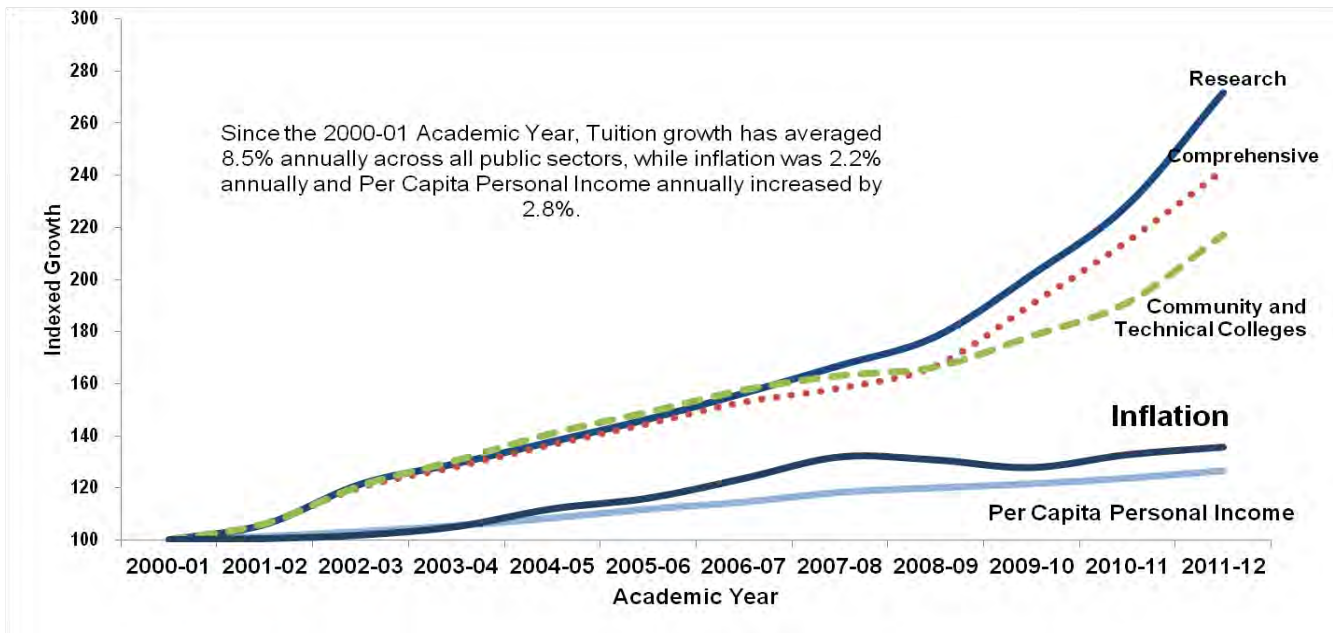
We need to ensure affordable access for more low- and middle-income students

The full cost of attending college is beyond the reach of many Washington students and their families. As the chart below shows, tuition costs have risen at a far more rapid pace than personal income or inflation in each of the three public higher education sectors. The gap has widened in recent years as institutions have turned to tuition increases as a way to partially offset reductions in state support.

Middle-income families and individuals—those who do not qualify for most student financial aid programs—find it harder to save for college, and the dollars they do save buy less education than in the past. The state’s fastest-growing demographic groups include many low-income families for whom college may seem an unrealistic dream.

Washington has a history of providing financial aid to help cover college costs that families are unable to provide themselves. Without a continued commitment to these resources, Washington’s ambitious goal of providing the trained and educated workers needed to meet the demands of its knowledge-based economy will be even more difficult to achieve.

2001-10 Tuition Increases at Washington Public Higher Education Institutions by Sector, Compared to Economic Indicators



Sources: Public Tuition and Fee Information: HECB National Tuition Survey. Inflation and Per Capita Personal Income: Legislative Evaluation and Program (LEAP) Committee. Median Household Income: Office of Financial Management.

Demand for financial aid has outstripped supply

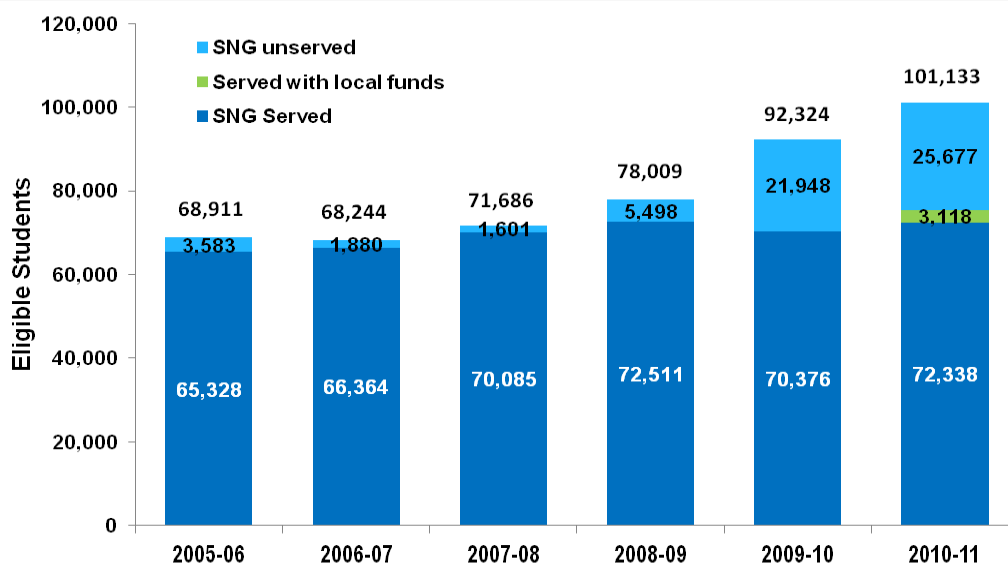
The state's economic downturn has prompted thousands of Washington residents to turn to higher education for new career training or to improve their job skills. However, many students lack the personal financial resources to pay the full cost of tuition and other college expenses. These circumstances have combined to create additional pressure on state and federal financial assistance programs at a time when the state budget situation has led to suspension of some student financial aid programs.

Eligibility for the State Need Grant (SNG), the largest state-funded financial aid program, continued to increase for the 2010-11 academic year, reaching the highest demand ever in the program's history. More than 101,000 students were eligible for SNG in 2010-11, which is 10 percent higher than 2009-10 when 92,324 students were eligible — and 30 percent higher than 2008-09, when 78,009 students were eligible for SNG.

The number of students served in the 2010-11 academic year increased by 2,377 students over the prior year due to a shift in eligible students to the Community and Technical (CTC) sector. The awards are lower in the CTC sector, which enabled more students to be served. In 2010-11, nearly 26,000 Washington students who applied for and were deemed eligible to receive SNG did not, due to insufficient funds. A \$25 million reduction in SNG funding in 2011 would have worsened the situation if the Legislature had not required institutions to provide financial aid from local resources to the more than 3,000 students affected.

Over the last five years, the percentage of all SNG-eligible students attending community and technical colleges has risen from 58 percent to 64 percent. Approximately 69 percent of all unserved students in 2010-11 were attending community and technical colleges.

State Need Grant-Eligible Students: Served Versus Unserved



Source: HECB Student Financial Assistance Division, "Annual Report on State Financial Aid Programs, January 2012. Available at <http://www.hecb.wa.gov/sites/default/files/SFAAnnualReport2012.pdf>



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

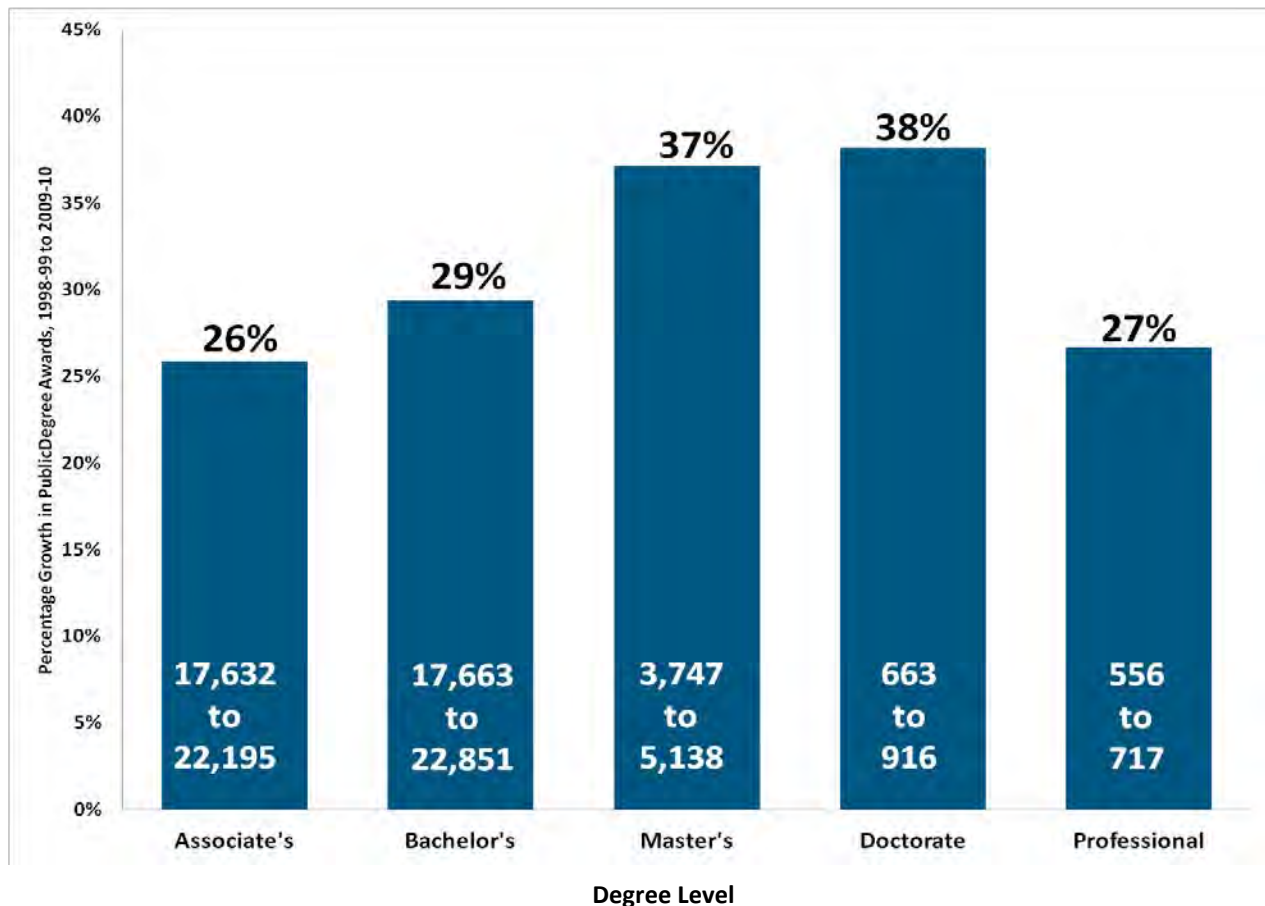
Degree production has grown over the past decade

The number of degrees awarded by Washington's public and private four-year colleges and universities has steadily risen in recent years. This was true for bachelor's, master's, doctoral, and professional degrees.

In the public sector, the largest percentage increases were in master's and doctoral degrees, although the actual number of doctoral 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. However, 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 2009-10**



Source: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2010.

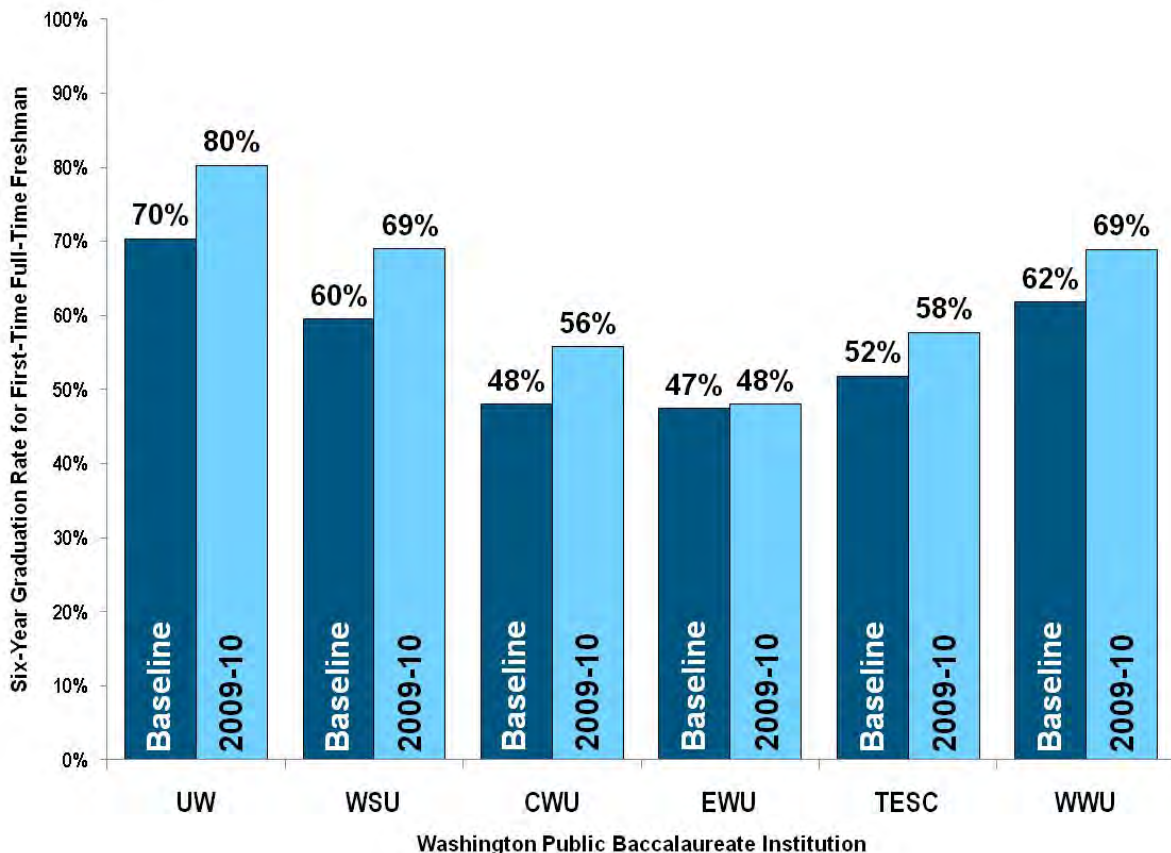
State baccalaureate institutions producing degrees at faster pace

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.¹

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: HECB, “Higher Education Accountability Report”, 2009-10.

¹ National Center for Education Statistics. Retrieved 12/10/09 from <http://nces.ed.gov/fastfacts/display.asp?id=40>.

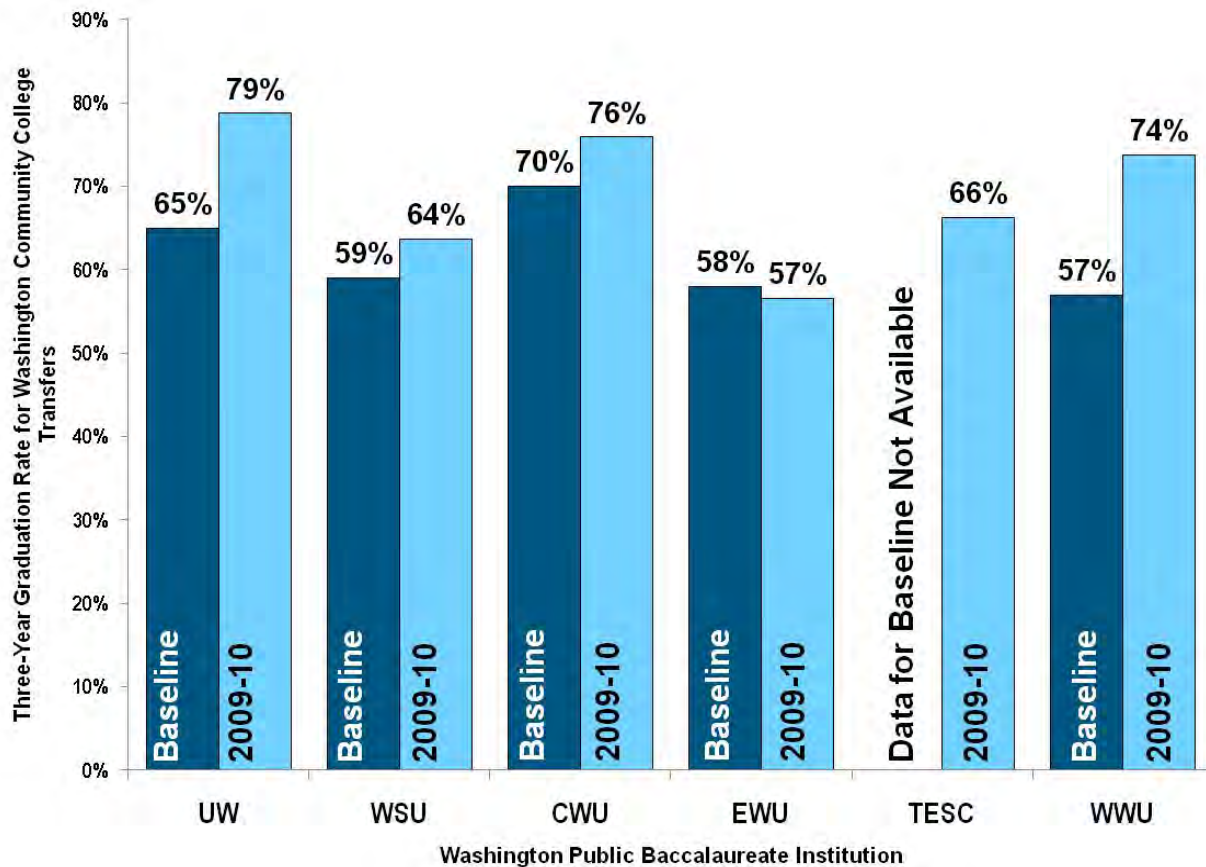
Graduation rate for transfer students has improved

The number of students who graduated within three years after transferring to Washington’s public baccalaureate institutions 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 Rates for Transfer Students with an Associate Degree from a Washington Community College

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



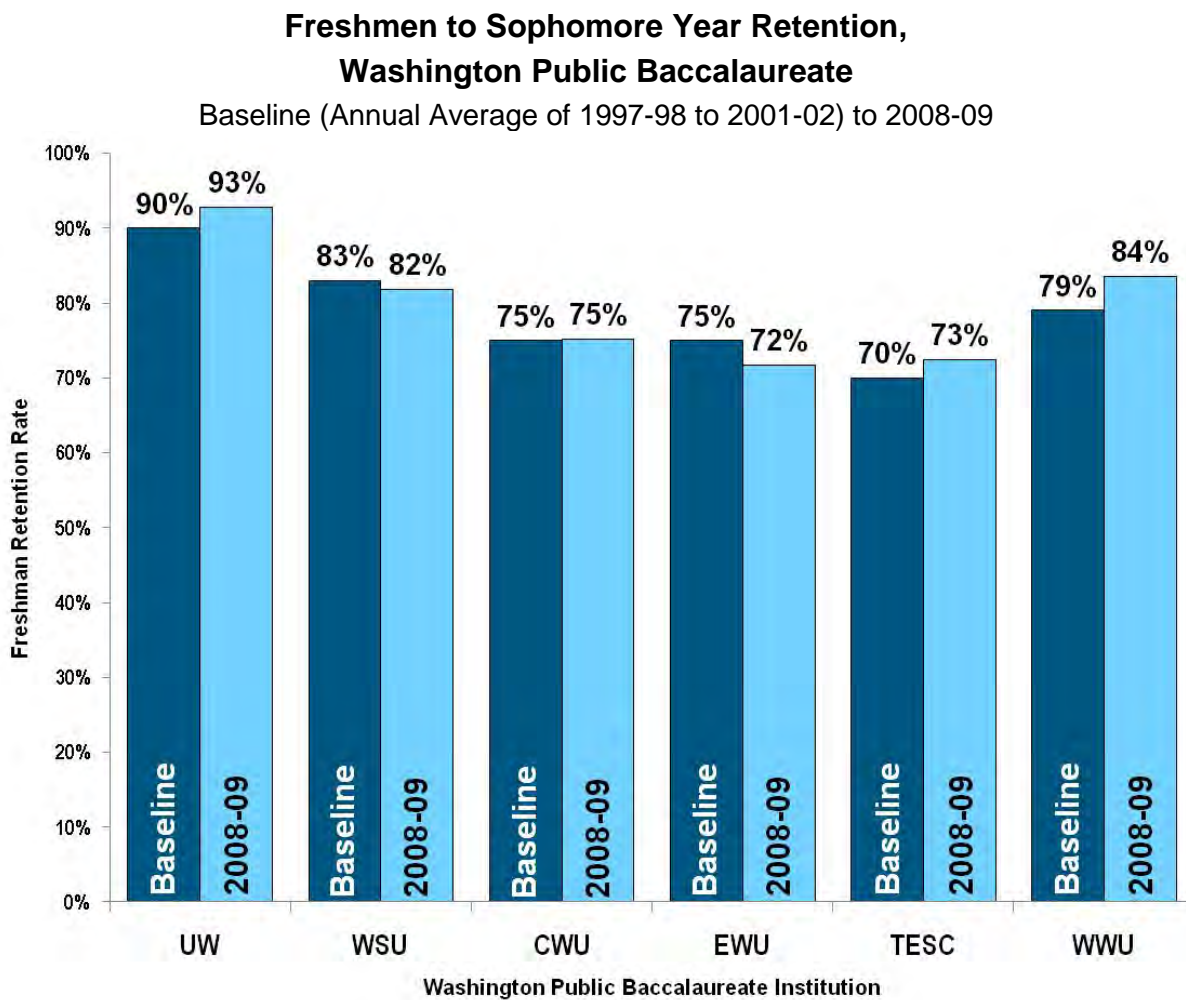
Source: HECB, “Higher Education Accountability Report,” 2009-10.

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 rose from about 79 percent at the start of the decade to about 84 percent in 2008-09.



Source: HECB, "Higher Education Accountability Report," 2009-10.

Universities experience moderate growth in production of graduate degrees

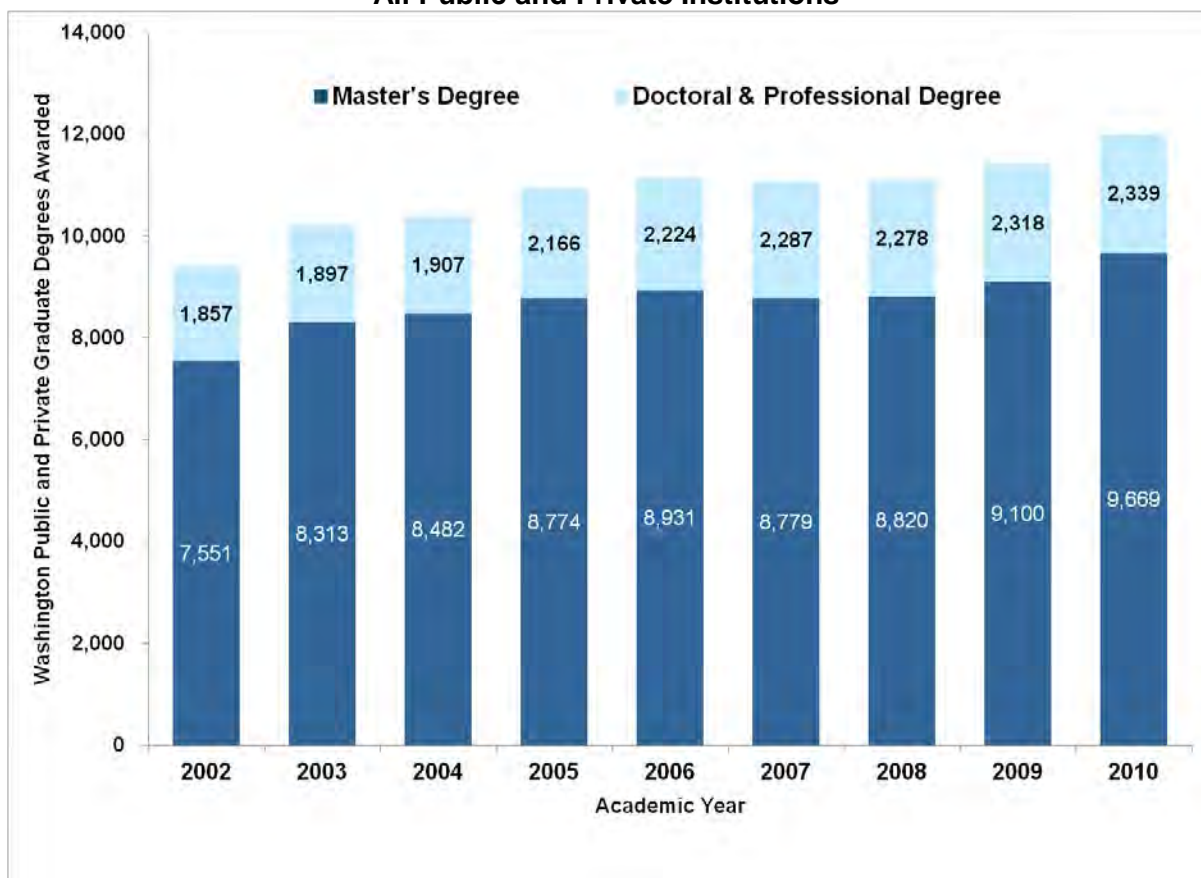
The annual production of graduate degrees at Washington’s public and private colleges and universities showed a moderate increase of nearly 22 percent between 2002 and 2010.

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.

About 94 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). In 2010, nearly 47 percent of the state’s master’s and first-professional degrees were awarded by private institutions.

Graduate Degrees Awarded in Washington by Type, 2002-2010
All Public and Private Institutions



Source: HECB staff analysis of data from Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, fall 2002 through 2010.

Public institutions produce biggest share of degrees in high demand fields

Although continuing problems in the economy have reduced demand for workers in many occupations, demand remains strong in 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 2008-09, public institutions produced 80 percent of the baccalaureate and graduate degrees in the STEM fields. In 2009-10, they produced 74 percent of the degrees in the health fields.

Public institutions have greatly increased high-demand degree production since 2002. The total number of high-demand degrees and certificates awarded by public institutions has grown by 42 percent since 2002-03. Allied Health and Health Sciences and Construction Management have shown consistent and steady increases in degrees conferred since 2002-03. Allied Health and Health Sciences have grown 77 percent since 2002-03. The number of graduates in math, biological, and physical sciences has increased by 33 percent since 2002-03. The number of new four-year degrees awarded in engineering declined in 2009-10 and was at approximately the same level as in 2004-05.

Annual High-Demand Degree Awards, 2002-2010

High-Demand Instructional Program Areas	Academic Year							
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Allied Health & Health Sciences	5,018	5,946	6,395	6,995	7,019	7,226	8,393	8,867
Computer and Information Sciences	1,877	1,899	1,516	1,222	1,191	1,183	1,212	1,597
Engineering Technologies and Technicians	1,936	2,176	1,823	1,821	1,840	1,915	2,429	2,844
Engineering, Four-Year Only	1,264	1,255	1,262	1,293	1,347	1,343	1,375	1,263
Math, Biological & Physical Sciences, Four-Year Only	1,974	1,949	2,133	2,215	2,396	2,374	2,537	2,619
Transfer High-Demand (STEM), Two-Year Only	1,056	1,281	1,111	1,059	1,013	1,129	1,051	1,187
Construction Management, Two-Year Only	44	84	94	125	253	304	270	332
Public Higher Education Total	13,169	14,590	14,334	14,730	15,059	15,474	17,267	18,709

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

Chapter VIII: Progress Toward Washington's Higher Education Goals

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 16 percent of new faculty hires at public institutions between fall 2008 and fall 2010 were nonresident aliens, compared to about 8 percent at private baccalaureate institutions and less than 1 percent at community and technical colleges.

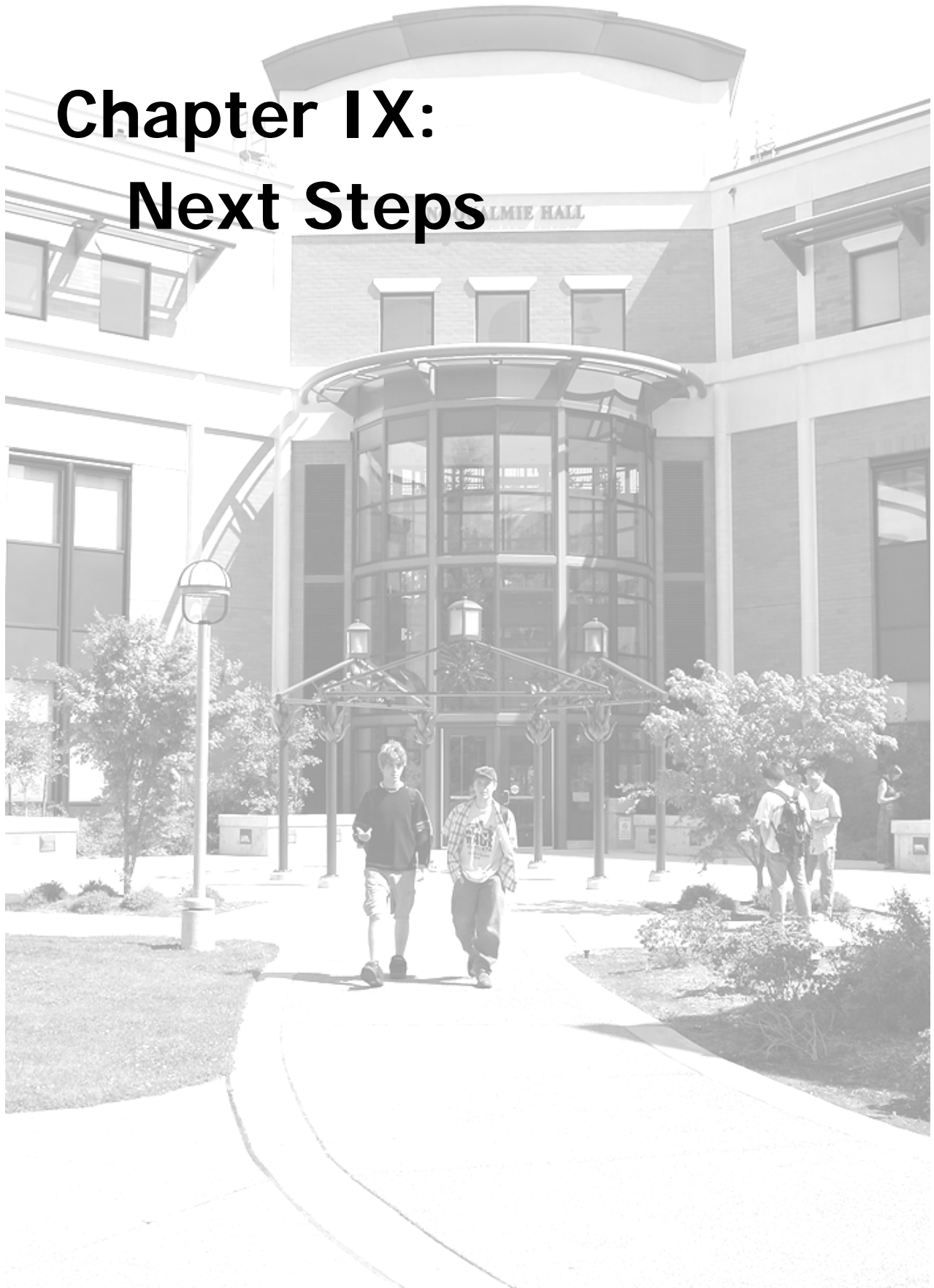
**Faculty and Student Population by Race/Ethnicity
Washington Public Higher Education Institutions**

Race/Ethnicity	Washington Public Undergrad. Student Population 2010	Washington Public Graduate Student Population 2010	All Public Faculty, Fall 2007	Public Newly Hired Faculty, Fall 2008-10
White Non-Hispanic	61.3%	62.5%	80.5%	44.5%
Black Non-Hispanic	4.2%	2.5%	2.0%	1.5%
Hispanic	7.5%	4.3%	3.0%	5.0%
Asian or Pacific Islander	8.5%	9.9%	6.5%	5.6%
American Indian or Alaska Native	1.4%	1.2%	1.1%	1.0%
Multiple / Other	3.4%	0.3%	0.6%	0.3%
Unknown	10.5%	7.8%	4.3%	29.2%
Non-resident Alien	3.2%	11.5%	2.1%	12.9%
TOTAL*	100%	100%	100%	100%

*Totals may not equal 100 percent due to rounding.

Source: Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, 2011.

Chapter IX: Next Steps



Educating more Washingtonians in hard times

In 2008, Washington adopted its first 10-year Strategic Master Plan for Higher Education. That plan supported three basic objectives:

- Increase educational attainment to create prosperity and opportunity;
- Promote economic growth and innovation; and
- Monitor and fund higher education for results.

The national recession that began soon after the 2008 plan was adopted seriously hampered efforts to educate more Washingtonians to be productive participants in the state’s knowledge-driven economy, as the broad master plan goals envisioned.

In 2011, the HECB completed a required four-year Strategic Master Plan update, which took into account the strong budgetary headwinds the state has been facing since the original plan was adopted. One of the key elements that emerged from that process was a renewed endorsement of the original master plan goals, in spite of the unforeseen economic circumstances that have slowed progress on achieving them.

An Advisory Committee representing academic institutions, state agencies, the Legislature, business and non-profit groups worked on the update during the summer and fall. The committee focused on parts of the plan where demonstrable gains in educational attainment might be achieved, given the current economic environment.

One of the realities the committee faced was that public appropriations for higher education—at least in the near term—probably are not going to be increased. In today’s economic climate, it is not possible to do everything.

The update approved by the HECB in November 2011 reflects the Advisory Committee’s advice on where to focus efforts over the next four to six years to achieve the goals set for higher education in Washington.

The following page describes these focused “next steps.” The chapter also describes in greater detail four of the seven recommendations from the master plan update:

- 1) Reaffirm commitment to the State Need Grant financial aid program.
- 2) Fulfill the state’s promise to College Bound Scholars.
- 3) Focus a simplified accountability funding initiative on completions, aligning incentives with state goals for educational attainment.
- 4) Grow capacity by promoting public-private partnerships.

This “Next Steps” chapter ends with commentary on the documented decline of the state’s investment in higher education, with national data to show what that has meant, in real terms, for access to college. Even though Washington is still reeling from the Great Recession, the state needs to monitor the gap between the educational attainment goals it set just four short years ago and the reality of how little progress has been made.

'Next steps' on the road to improving educational attainment

The original 2008 Strategic Master Plan for Higher Education included numerous strategies for increasing Washington's educational attainment. The Master Plan update proposes seven areas of focus over the next few years. These offer the best opportunities for progress within a poor economic climate. In most cases, they also build upon efforts already under way with some momentum.

1. Increase capacity for higher education to serve more students.

- Expand institutional enrollment capacity at existing sectors, institutions, branches, centers and through online options.
- Grow capacity in high employer demand programs of study, recognizing the higher cost of these programs.

2. Maintain commitment to access for low income students.

- Renew commitment to, and value of, the State Need Grant program.

3. Build on efforts to increase transitions and completion.

- Fulfill the state's promise to College Bound Scholars, providing the financial and mentoring services for these students to succeed.
- Provide capacity for transfer students, so that those who are part way to degrees can complete.

4. Focus a simplified accountability funding initiative on completions, aligning incentives with state goals for educational attainment while also recognizing institutional and sector missions.

- Align incentives with degree production to increase both the number of graduates and the quality of education.
- Reward improvements rather than goals or targets.
- Align higher education with state needs by providing accountability with other partners, including the legislature.

5. Define and develop K-12 through postsecondary program pathways, especially in high employer demand majors and careers.

- Provide incentives in STEM and high employer demand degrees and areas of critical state needs. Leverage the state's investment through Opportunity Scholarship Fund and Opportunity Expansion programs to meet labor market demand.
- Encourage business and industry leaders to assist the colleges in innovation.

6. Promote acceleration strategies for both high school students and adult learners through Launch Year, Prior Learning Assessment, CTC Alternate Math Pathway, I-BEST, and pre-college reform.

7. Maintain commitment to the *Strategic Master Plan's* original 2008 degree goals.

- Clearly track progress on the degree goals, showing the gap between the Master Plan goals, progress to-date, and the future trajectory.
- Continue to track Washington's progress compared to the Global Challenge States.

Focus on maintaining commitment to the State Need Grant program

During the 2010-11 academic year, 26,000 eligible students did not receive State Need Grant (SNG) financial assistance *even though* the Legislature provided increased support for the SNG program. The Legislature provided an additional \$107 million, for a total of \$569 million SNG funds in the 2011 biennium, in order to hold the lowest-income students served by the program harmless from double-digit tuition increases. However, this funding did not cover the demand of eligible student enrollments.

Washington currently is watching the demand for college access increase just when we most need to raise educational attainment. Unfortunately, more students are being shut out of college because of limited financing options.

Bottom line, Washington will not make progress on its goals to increase educational attainment without maintaining its commitment to the state's lowest-income undergraduate students. The State Need Grant program, a national model for such programs, provides grants to students for use at eligible public two- and four-year colleges and universities, as well as many accredited independent colleges, universities, and career schools in Washington. The SNG is available to students whose family income is 70 percent or less than the state's median family income, which for the 2011-2012 academic year is \$57,000 for a family of four. The award amounts are based on college tuition but the money can be used to cover anything included in the cost of attendance.

The high demand of needy students continues and more students are seeking assistance than ever before. As evidence of the increased demand, nearly 500,000 students applied for financial aid in academic year 2010-11, by completing the Free Application for Federal Student Aid (FAFSA). That is a 22 percent increase statewide over the previous year—61 percent in a three-year period. For the 2011-2012 academic year, applications have risen another 7 percent over the same time period.

The chart below models a potential 15 percent SNG reduction beginning in fall 2012. *If* this cut occurs, the HECB estimates that about 4,800 fewer degrees would be produced between 2012 and 2018. Not only would SNG cuts further erode Washington's progress on its baccalaureate degree goals, but also the most vulnerable populations that rely on SNG and other forms of SFA to participate in college would be unduly affected. In short, access is eroding.

Potential Impact of State Need Grant Cuts on Bachelor's Degree Production, 2012-2018

	2010 Actual Degree Production	Projected FY 2013 Degree Production w/o SNG Reductions	FY 2013 Reduced Degree Production	FY 2013-18 Total Reduced Degrees
Mid Level Degrees and Certificates	28,812	30,058	(642)	(3,851)
Bachelor's Degrees	30,551	32,042	(153)	(917)

Focus on College Bound Scholarship

Washington will not make progress on its goals to increase educational attainment without maintaining its commitment to access for low-income students. The state must fulfill its promise to College Bound Scholars and provide the financial and mentoring services for them to succeed.

Washington currently ranks 39th nationally in the percentage of low-income students who participate in postsecondary education.¹ And, what's worse, over the past decade the state has fallen in its ranking in serving low-income students. In 1998, the state ranked 30th in serving low-income students. By 2008, it ranked 39th. Clearly, this is the wrong direction for the state to be heading.

By 2020, low-income students will represent **one-third** of the high school graduating class. Without intervention, about **three-fourths** of these students from low-income families are unlikely to aspire to college—let alone enroll in college.

The College Bound Scholarship program was created in 2007 to provide an early commitment of financial assistance to low-income students who want to achieve the dream of a college education. The scholarship is available to students who meet income requirements for the free- and reduced-price lunch program and sign up in their 7th or 8th grade year. Students pledge to graduate from high school, stay out of legal trouble, and gain admission to a campus that participates in the College Bound Scholarship program. And they must meet the income standard at the time of college enrollment—65 percent of the median family income. In 2011-12, that was \$53,000 for a family of four.

Ways in which the state can support the College Bound Scholarship program include:

- 1) Scale successful sign up and support strategies statewide.
 - a. Continue to develop opportunities for districts to share best practices with similar size/population districts.
 - b. Ensure GEAR UP support is available in all schools with significant free- and reduced-price lunch populations.
 - c. Strengthen coordinated efforts with OSPI, to include data sharing, nutrition services, NAVigation 101, alternative schools, and *Readiness to Learn* initiatives.
- 2) Dedicate scholarship funding specifically for the College Bound program.
- 3) Formalize support on campuses to provide a continuum of services to College Bound students—to include services that go beyond financial and traditional academic support and include campus advocates and intervention at critical points.
 - a. Support *all* College Bound students, regardless of the scholarship dollars received.
 - b. Formally and publicly celebrate the success of College Bound students at each institution and statewide.
 - c. Begin to develop a database of College Bound alums to encourage them to “reach back” to support younger students.

¹“Postsecondary Education Opportunity,” September 2010. Retrieved 12-12-12 from http://www.postsecondary.org/last12/219_910pg1_10.pdf.

Focus a Simplified Accountability Funding Initiative on Completions

Higher education values what it measures. For decades, higher education has measured “countable inputs,” such as how many students enroll, how many faculty work full-time, how many books are in the campus library, and so on. However, in recent years the U.S. has turned its attention to “outputs” in the form of certificate and degree completion rates.

The Obama Administration, the National Governor’s Association, and other organizations have addressed the same need to focus on degree completion rates that the HECB promoted in its 2008 *Strategic Master Plan for Higher Education*. Without an equal focus on graduation, we risk seeing an open door to education become a revolving door—with students exiting well before they complete degrees.

Washington is poised to develop its own performance-based funding and accountability system. The state has learned from earlier unsuccessful efforts to develop performance agreements with institutions that were overly complex and not well-aligned with state-wide higher education goals. Several states are ahead of Washington in crafting workable performance-based funding and accountability initiatives, and their experiences may be instructive. More information on these states’ performance-based systems and some common criticisms and responses to those criticisms are available at www.hecb.wa.gov/sites/default/files/SMP-PerformanceBasedFundingBrief.pdf

Recommendations for States²

Policy experts have advanced several recommendations for states wishing to implement performance-based funding initiatives:

- Tie performance-based funding measures to the public agenda for higher education. Without goals, performance-based funding is simply a technical exercise.
- Ensure that you have good data, which is critical to the success of the initiative.
- Use different metrics for research and comprehensive universities and community and technical colleges. Define performance for audience and levels.
- Keep metrics simple and be very clear about how metrics will be used.
- Hold harmless at-risk populations; incentives must be fair.
- Pay attention to the implementation strategy as well as the design of the performance-based funding system.
- Put enough money into performance-based funding to make a difference.
- Determine how much of the budget will be dedicated to performance-based funding—and whether the sources will be new or reallocated.
- Determine a mechanism for allocating performance-based funding dollars. Should it be built into the regular funding model? Or designed as an add-on or categorical bonus?
- Don’t include tuition money with state appropriations in any metrics or formulas.

² Based on presentations at the August 2011 State Higher Education Executive Officers (SHEEO) Policy Conference.

Focus on Growing Capacity through Public-Private Partnerships

States that are successful in responding to demand for college and in increasing overall educational attainment actively include private, independent institutions in their goals for higher education. To exclude both the non-profit and the for-profit private sectors in state-level policy and planning is to risk falling behind in the race to develop a globally educated workforce and a well-educated citizenry.

Washington could learn from California, where several members of the higher education community have encouraged greater use of the state's well-developed private, independent sector. The impetus for this call is that California's public higher education system cannot, by itself, "respond to increased demand for higher education."³ Washington is in the same spot. With only six public universities in the state, Washington has a relatively small public higher education sector to serve its growing population—even with 34 community and technical colleges and the branch campuses of the four-year public institutions.

Among the ideas proposed by higher education experts at the University of Southern California are:

- 1) **Develop a common course numbering system and a transfer system** that includes *all* postsecondary institutions—including non-profit and for-profit private colleges and universities.
- 2) **Provide incentives to promote voluntary private-public partnerships that discount tuition** so students have expanded access to courses and majors in hard-to-serve geographic areas, while helping to keep the additional enrollments cost-neutral to the state.
- 3) **Provide incentives for non-profit private colleges and universities to enroll in-state, resident students.** To meet capacity challenges in certain fields, the state could provide a premium per student up to an additional 10 percent of the average student population over the past three years. The incentive for the private institution is a modest infusion of income, and the state would benefit from admitting more students at a marginal cost at a time when alternative options may be slim.
- 4) **Outsource online learning and focus on competency-based (not just credit-based) learning.** Washington has made good progress in online learning, through the State Board for Community and Technical Colleges' *Washington Online* initiative, which delivers more than 100 associate degree transfer courses through a centralized program and its Open Course Library collection. The state's Prior Learning Assessment work, begun this past year, also shows promise in helping adult learners complete college and should be continued. Both online learning and prior learning assessment allow students to speed up their learning and accelerate time-to-degree.
- 5) **Invest authority in a statewide planning board that includes all sectors and enables greater coordination and programmatic coherence.** An entity for all of higher education helps coordinate planning and policy functions and arbitrates disputes among sectors and regions, while maintaining focus on the state's needs as a whole.

³ Tierney, W.G. and Hentschke, "Making it Happen: Increasing college access and participation in California Higher Education: The role of private postsecondary providers." Available at http://cheпа.usc.edu/pdf/Making_It_Happen.pdf

Focus on Promising College Completion Efforts for Adults

The HECB's 2008 *Strategic Master Plan for Higher Education* declared that

“Postsecondary education is no longer optional. Virtually everyone needs some education or job training beyond high school, and everyone deserves the opportunity to get whatever level of education they need to meet their personal and career goals.” (p. 17)

Several of the preceding pages in this chapter target high school students in Washington's efforts to raise educational attainment. But another body of potential students in Washington—690,000 of them between the ages of 18 and 44—also should be targeted for special efforts to complete college. These are adults with “some college, no degree.” Many of them were successful in college, as far as they went, but stopped out or dropped out for personal, financial, or professional reasons. Some had to care for children or aging parents and could not juggle work, home care, and school. Others could not afford college. Still others could not find a way to keep their current job while also taking the next step to earn a degree that would likely get them a better job in the future.

Identifying these students and designing programs that help them to complete college may be one of the fastest ways for Washington to make demonstrable progress in increasing educational attainment. Similar efforts are currently going on in other states.

Project Win-Win, jointly coordinated by the Institute for Higher Education Policy and the Lumina Foundation, is one such program that Washington should investigate. That program, which was conducted as a pilot in several states during the 2009-10 academic year, seeks to identify former students who are “academically short” of an associate degree by nine or fewer credits and re-enroll them to earn a degree.

During the seven-month pilot involving nine institutions, nearly 600 associate degrees were awarded and almost 1,600 were identified as potential degree recipients. Based on early results from these pilot institutions, extending the estimates across all of U.S. higher education would mean, at minimum, a 12 percent increase in the number of associate's degrees awarded⁴. These results demonstrate great potential. Similar increases in completion rates could be anticipated if implemented in Washington.

Project Win-Win is focused on completion of an associate degree. However, the same approach could be implemented for baccalaureate completion.

⁴ Based upon press release provided by Institute for Higher Education Policy 8/ 25/10. Available at http://www.ihp.org/press-room/news_release-detail.cfm?id=189.

Conclusion: Outlook Beyond 2011 Shows Diminished Life Chances for the Next Generation of Students

In the Introduction to this volume of *Key Facts*, we wrote:

Washington is faced with a deep dilemma. How can it make the investment in students it needs to make when revenue desperately needed to provide basic social and health support to our most vulnerable populations is being reduced? To date, there does not appear to be an answer to this question.

However, one thing is for certain. If we continue down the current path, our higher education institutions will become far less accessible and affordable, more narrowly focused, and less capable of meeting future economic and societal needs. And this is exactly the opposite direction we should be heading.

The sad fact is that we *are* heading in the direction of offering fewer Washingtonians opportunities to educate themselves and their children. What we are likely to see is diminished life chances for a decade's worth of students. Until recently, the U.S. has dominated the world in higher education, providing a successful, more equitable model as an alternative to more elitist models that educated those in upper socio-economic brackets.

The U.S. model was built upon providing access to all who are willing and able to benefit from higher education. But that access is eroding. In Washington during the 2009-10 academic year, 22,000 *qualified, eligible* students who applied for State Need Grant dollars were turned away. This year, the number of students turned away is expected to increase to 27,000.

Declining enrollments do not only harm individuals. They also harm the state. If we educate more Washingtonians, the rewards to both state and individuals are great. At a Fall 2011 national meeting sponsored by the U.S. Dept. of Education, a national expert noted that, "The premium for having a bachelor's degree over a high school diploma now is 85 percent in lifetime earnings."⁵ Better-educated citizens also mean more revenue to states through expanded purchasing power and taxes paid, as well as reduced demand for social safety nets and other services. The public investment in higher education must be reaffirmed because an educated populace is truly in the public's best interest.

We know that we are not on track to educate Washingtonians to the level that we must. In Chapter VII of this volume we document just how far off track we are. *If* we muster the will to stop our educational slide and invest once again in higher education the way we need to, it will take until the year 2025 to reverse the trend and reach our goals for bachelor's degrees. That's the good news.

⁵ Ligonfelter, P. Testimony to the National Advisory Committee on Student Financial Assistance. Department of Education, September 30, 2011. Washington, D.C. Retrieved 12/23/11 from <http://www.shceo.org/about/paulpres/20110930Testimony%20to%20the%20National%20Advisory%20Committee%20on%20Student%20Ofinancial%20Aid.pdf>

Chapter IX: Next Steps

The bad news is that we've gone past the point of being able to reach our state's goals for mid-level or graduate degrees even by the year 2030—two decades away. That's how much ground we're losing. And we're going to miss the goals by a wide margin—7,000 mid-level degrees and certificates and 2,400 graduate degrees *each year less* than we need to produce to remain globally competitive. That's a loss of critical talent for this state that we will never get back.

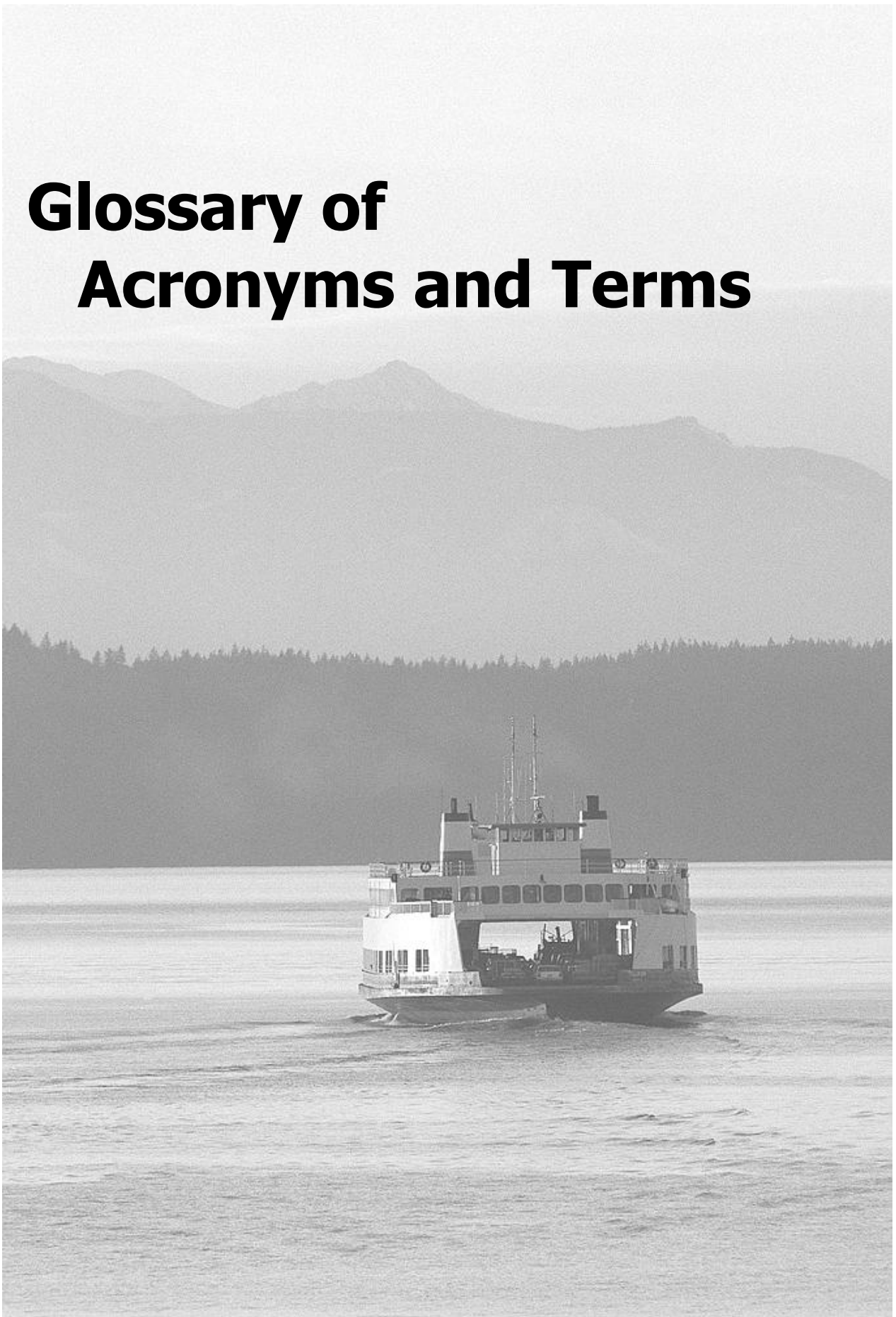
The question is not whether the students are willing to go to college. They are. The question is also not really whether colleges and universities can find some way to accommodate new entrants. They will innovate and find ways. The question is whether the state is willing to make the investment it needs to ensure the kind of future it says it wants.

A former Governor of Washington summed up the power of political will in one of his last interviews with the press, when he observed that "Everybody pays and everybody benefits . . . that's how you get things done."⁶ Students are covering more and more of the cost of their education because they understand a college degree provides individual benefits. But thousands more students are now being cut out of higher education—and this is a sad loss to the public good.

In this issue of *Key Facts*, we have provided information about the students, the institutions, and the system of higher education in Washington. We have also provided data to show that Washington is currently on a path of diminished opportunities for the state as a whole and for the people who live here. Data informs policy. It is our hope that Washingtonians use the data provided in this year's volume of *Key Facts* to reverse the course that the state is on and to re-invest in its people and its future.

⁶ Westneat, D. "99 percent' protests' math doesn't add up." *Seattle Times*. October 11, 2011. Retrieved 12/23/11 from http://seattletimes.nwsourc.com/html/dannywestneat/2016474631_danny12.html.

Glossary of Acronyms and Terms



Glossary of Acronyms and Terms

AAUP: American Association of University Professors, which conducts an annual salary survey. Its data is augmented with other organizations' data.

Building Fees: Building fees, in addition to operating fees, are the two components of statutory tuition. Building fees are used to cover debt service on the institution's buildings.

Degree: Any designation, appellation, letters, or words including but not limited to "associate," "bachelor," "master," "doctor," or "fellow" which signify or purport to signify satisfactory completion of the requirements of an academic program of study beyond the secondary level.

Degrees granted: Bachelor's, master's, doctorates, and first professional degrees are reported for the public and independent four-year institutions. Associate degrees are reported only for the public community and technical colleges. (Note: in Washington, professional degrees are awarded in five general areas: medicine, dentistry, pharmacy, veterinary medicine, and law.)

Degree-granting institution: An entity that offers educational credentials, instruction, or services prerequisite to or indicative of a degree.

Distance learning: Distance learning is the general term used to describe educational activities that occur when teachers and students are physically separated for at least part of the instructional time. Distance learning includes use of the Internet, satellite transmissions, cable networks, and other technologies.

eLearning: As compared to distance learning, e-learning is a more specific term applied to the use of digital and online technologies to provide educational opportunities any place, any time.

Enrollment: The number of individual students – i.e., headcount – for the fall quarter (or semester) of an academic year.

Fiscal year: The fiscal year begins July 1 and ends June 30 of the following calendar year. FY 2007 began on July 1, 2006.

FTE: Full-Time Equivalent. This is calculated by taking the total credit hours at a university/college and dividing by the normal full-time credit-hour load. In Washington, the normal full-time load is 15 credit hours for undergraduates and 10 credit hours for graduate students.

Full-time/part-time enrollment: According to IPEDS, a full-time undergraduate is enrolled for 12 or more credits per semester/quarter. A full-time graduate student is enrolled for 9 or more credits. These definitions apply to headcount enrollment at four-year institutions. At community and technical colleges, full-time enrollment (state-supported) is 10 or more credits.

Gardner-Evans Bonds: Gardner-Evans Bonds were authorized by the 2003 Legislature to help finance branch campus construction. These instruments helped the system rapidly ramp up facilities development between 2003 and 2009. The funds, totaling \$750 million, were earmarked for projects to modernize and restore existing facilities, as well as provide additional capacity for future enrollment demand. The authority to issue Gardner-Evans Bonds ended in 2009 when the Legislature chose not to renew it.

Glossary of Acronyms and Terms

Geographic origin: This category classifies students by their home address at the time of their initial application. In-state refers to those from Washington state; out-of-state includes other U.S. states, territories, and possessions; foreign refers to other countries.

Global Challenge States (GCS): The GCS are states that have been identified as having a high potential to succeed in today's knowledge-driven, global economy. Included are Washington, Massachusetts, California, New Jersey, Connecticut, Colorado, Virginia, and Maryland.

GMAP: Government Management Accountability and Performance. Program created by Governor Gregoire to hold state agencies accountable for delivering results. GMAP helps state agencies measure and improve their performance, and achieve results that matter to citizens.

HECB: The Higher Education Coordinating Board is a 10-member citizen board appointed by the Governor and approved by the state Senate. The HECB administers the state's student financial aid programs and provides strategic planning, coordination, monitoring, and policy analysis for higher education in Washington.

HEER: The Higher Education Enrollment Report is produced by the state Office of Financial Management (OFM). Data cover enrollment in the six public four-year institutions and are collected each term. This source is used for several tables. (Some minor differences exist between HEER and IPEDS headcount information due to different definitions.)

IPD: The Implicit Price Deflator is a common measure of inflation, calculated by the United States Bureau of Economic Analysis. It measures the difference between the nominal value of all goods and services in the economy as compared to real value over time.

IPEDS: The Integrated Postsecondary Education Data System (which is part of the United States Department of Education) is a national survey conducted annually by the National Center for Education Statistics. It covers many areas including enrollment and degrees granted. All degree information in this report is taken from IPEDS. For enrollment, IPEDS is used whenever possible for the public four-year institutions; IPEDS is always used for enrollment in the independent institutions.

LEAP: The Legislative Evaluation and Accountability Program committee data are used for information on State General Fund expenditures. LEAP was created by the Washington Legislature in 1977 to be the Legislature's independent source of information and technology for developing budgets, communicating budget decisions, tracking budget and revenue activity, consulting with legislative committees, and providing analysis on special issues.

Level of enrollment: The source of data is IPEDS. "Lower division" is calculated as all freshmen, all other first-year and all second-year students, and half of the unclassified undergraduates. "Upper division" are third-year students, fourth-year and beyond, and half of the unclassified undergraduates. "Graduate" and "professional" students are listed separately. In some cases, lower division and upper division are combined as "undergraduates," and a combined "post-baccalaureate" category includes graduate and professional enrollment.

Glossary of Acronyms and Terms

MIS: The Management Information System provides a series of reports on enrollment in the community and technical colleges. The data used in this document primarily came from the Student Management Information System (SMIS). These reports are prepared by the State Board for Community and Technical Colleges (SBCTC).

NCES: The National Center for Education Statistics (part of the United States Department of Education) collects the yearly IPEDS data. NCES also provides state-by-state compilations of data, which were used to calculate participation rates and state rankings.

NCHEMS: The National Center for Higher Education Management Systems provides state-by-state data on enrollment; NCHEMS uses IPEDS data as their source. NCHEMS information was used by OFM to calculate college participation rates from 1981 through 1988.

OFM: The Office of Financial Management for the state of Washington. OFM provides HEER data, budget information, fiscal services, and policy support that the Governor, Legislature, and state agencies utilize to serve the citizens of Washington.

Operating Fees: Operating fees, in addition to building fees, are the two components of statutory tuition. Operating fees are primarily used to fund the instructional activities of an institution.

OSPI: The Office of the Superintendent of Public Instruction is the primary agency charged with overseeing K-12 education in Washington. OSPI issues a report annually on graduation and dropout rates for Washington's public high schools.

PCHEES: The Public Centralized Higher Education Enrollment System is maintained by the Office of Financial Management and is used to track enrollments at public four-year institutions for budgeting and research purposes.

Race/ethnicity categories – as defined by the U.S. Department of Education for the IPEDS survey.

- **Nonresident Alien:** A person who is not a citizen or national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely.
- **Black, Non-Hispanic:** A person having origins in any of the black racial groups of Africa (except those of Hispanic origin).
- **American Indian or Alaskan Native (Native American):** A person having origins in any of the original peoples of North America or who maintains cultural identification through tribal affiliation or community recognition.
- **Asian or Pacific Islander:** A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or Pacific Islands. This includes people from China, Japan, Korea, the Philippine Islands, Samoa, India, and Vietnam.
- **Hispanic/Latino(a):** A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- **White, Non-Hispanic:** A person having origins in any of the original peoples of Europe, North Africa, or the Middle East (except those of Hispanic origin).
- **Race/Ethnicity Unknown:** This category is used ONLY if the student did not select a racial/ethnic designation, and the postsecondary institution finds it impossible to place the student in one of the aforementioned racial/ethnic categories.

Glossary of Acronyms and Terms

SBCTC: The State Board for Community and Technical Colleges is the source for enrollment data for these institutions. The State Board is required to provide general supervision and control over the state system of community and technical colleges.

STEM: STEM fields are currently identified as high demand fields, which include science, technology, engineering, and mathematics.

Services and Activities Fees: Services and activities fees are in addition to tuition charged to support student activities.

Technology Fees: Technology fees are charged at some institutions to support technology enhancements available to students.

Tuition: Statutory tuition consists of two components: operating fees, which are primarily used to fund instructional activities of an institution, and building fees, which are used to cover debt service on the institution's buildings.

University Centers: University centers house educational programs offered by one or more baccalaureate institutions whose main campuses are elsewhere in Washington or in another state. Centers are often located on community college campuses.

WASL: The Washington Assessment of Student Learning (WASL) was the state's primary tool for assessing academic progress in the K-12 system from the spring of 1997 until October 2009. The WASL has been replaced by two new assessment tools – the Measurements of Student Progress (MSP) and the High School Proficiency Exam (HSPE).

WFAA: The Washington Financial Aid Association is a professional membership organization of individuals whose aim is to promote higher education through the availability, support, and administration of student financial assistance programs.

WICHE: The Western Interstate Commission for Higher Education is a regional organization created by the Western Regional Education Compact, adopted in the 1950s by western states. WICHE is an interstate compact created by formal legislative action of the states and the U.S. Congress. Fifteen states are members of WICHE. Three gubernatorial-appointed commissioners from each state govern WICHE. WICHE was created to facilitate resource sharing among the higher education systems of the West.

WTECB/WTB: The Workforce Training and Education Coordinating Board advises the Governor on workforce development policy, ensures that the state's workforce preparation services and programs work together, and evaluates performance. The Board also advocates for the non-baccalaureate training and education needs of the workers who account for about 75 percent of Washington state's workforce.