WASHINGTON
HIGHER
EDUCATION
COORDINATING BOARD

BOARD MEETING AGENDA

St. Martin's University
Worthington Conference Center, St. Martin's University
5300 Pacific Avenue SE, Lacey, WA 98503
September 22, 2005

8:00 Continental Breakfast and Overview of Meeting Agenda
(*Worthington Conference Center - no official business will be conducted)*

9:00 Welcome and Introductions

- Bob Craves, Board Chair
- Dr. Barbara Gayle, Vice President of Academic Affairs, Saint Martin's University

Executive Policy Committee Report and Related Action Items **1**
Bob Craves, chair

- **Approval of the June 23, 2005 Meeting Minutes**
- **Approval of New Board Committee Structure, Charge and Membership**
- **Approval of the 2006 Board Meeting Calendar**
  Resolution 05-10
- **Approval of Board Resolution on Minimum College Admission Standards**
  Resolution 05-11

9:25 Consent Items

Approval of New Degree Programs

- **CWU, Bachelor of Applied Science in Information Technology and Administrative Management** **2**
  Resolution 05-12

- **WSU, Bachelor of Science in Informatics** **3**
  Resolution 05-13

9:30 Report of the Executive Director

Implementation of the Master Plan for Higher Education – status report **4**
Dr. Sulton will provide an update on the implementation of the 2004 Strategic Master Plan.

Life Sciences Discovery Fund **5**

In May 2005, Gov. Gregoire received legislative approval for the Life Sciences Discovery Fund, which will be used to help finance research and development of biomedical and other scientific advances in Washington state. A board of trustees will oversee its investments.

Dr. Sulton will provide an overview and description of the project.

Guaranteed Education Tuition Program **6**

To encourage Washington families to save for college, the state Legislature authorized the establishment of a prepaid college tuition program known as Guaranteed Education Tuition (GET). The state of Washington assures that one year of college tuition purchased through GET today will be worth one year of college tuition at a later date – regardless of how much tuition has increased over time. GET is self-sustaining and is the fastest growing prepaid college tuition program in the country.

GET Director Betty Lochner will present a brief overview and the latest trend report on GET.

10:15 Financial Aid Committee Report

Jesus Hernandez, chair

Mr. Hernandez will report on his committee's recent meeting, which included the following topics: Alternative student loan project, Less-than-halftime State Need Grant pilot projects, Latino student aid study, Foster care initiative, and new GEAR UP grant.

10:30 Fiscal Committee Report and Action Item

Mike Worthy, chair

HECB Agency Request for 2006 Supplemental Budget **7**

The Office of Financial Management (OFM) has directed state agencies to submit supplemental budget requests for the 2005-07 biennium by October 14, 2005. The Fiscal Committee has reviewed the proposed request agency budget, which includes funds to support a statewide student advising system, a student data warehouse, additional funding for GEAR UP scholarships, increases in administrative costs and technical corrections.

Resolution 05-14 requests board approval of the agency supplemental budget request.

11:00 Education Committee Report and Action Item

Sam Smith, chair

2004 Strategic Master Plan Policy Proposal 6: Meeting Regional Higher Education Needs

Revised Academic Planning - policies and procedures **8**

In June, staff proposed policies linking approval of new degree programs and facilities to comprehensive regional needs assessments. The proposed guidelines outline the board's oversight of off-campus program growth where sufficient need is demonstrated: from teaching sites, to learning centers, to new colleges or universities. Representatives from the State Board for Community and Technical Colleges and provosts from the public baccalaureate institutions have offered comments on the proposal.

At the September meeting, Dr. Randy Spaulding, associate director for program assessment and approval, will present a revised final draft for board approval.

Resolution 05-15 requests board approval of the proposed revisions to the HECB policies and procedures for new academic degree program approval and existing program review.

Needs Assessment **9**

Dr. Spaulding will present a preliminary report on state and regional needs assessment based on analyses of student, employer and community demand for programs and facilities. Needs assessment is the third and final piece of the board's three-pronged approach to meeting the state's regional higher education needs.

The board will take action on the needs assessment report during its meeting in October.

12:00 The Board will recess for lunch.
(*Worthington Conference Center - no official business will be conducted)*

1:00 Articulation and Transfer – Update **10**

Policy Analyst Andi Smith will provide an update on student transfer initiatives in the state, with recommendations for next steps.

1:30 Degree-granting Institutions Act – Overview **11**

Michael Ball, associate director for degree authorization, will present an overview of the Degree-granting Institutions Act. State law requires that all degree-granting institutions operating in Washington obtain authorization from the board OR are determined by the board to be exempt from the law. Enforcement of the act enables the HECB to protect Washington consumers from substandard, fraudulent and deceptive activities at degree-granting colleges and universities in the state.

Status Report on Previously Approved Degrees **12**

Public baccalaureate institutions seeking approval to offer existing degree programs at new sites or via distance education must submit a Notification of Intent (NOI) to the HECB at least 45 days before the proposed initiation of the program. HECB staff and other public baccalaureate institutions have 30 days to review the proposed program extension. If there is consensus, the HECB Executive Director can approve the proposal.

The following program extensions have been approved since June 21:

- CWU Extension of BA in Mathematics: Teaching Secondary Major to the CWU Lynnwood Center
- EWU Extension of BA in Children's Studies: Early Childhood Learning Environments to Bellevue Community College

2:00 Adjournment

Public Comment: A sign-in sheet is provided for public comment on any of the items presented above.
Meeting Accommodation: Persons who require special accommodation for attendance must call the HECB at 360.753.7800 as soon as possible before the meeting.

HECB 2005 Meeting Calendar

DATE	TIME	MEETING	LOCATION
October 6, Thurs	10:00 – 2:00 p.m.	Advisory Council Meeting	Highline Community College Des Moines
October 27, Thurs	8:00 – 5:00 p.m.	Board Meeting	Central Washington University Ellensburg
November 17, Thurs	10:00 – 2:00 p.m.	Advisory Council Meeting	Tacoma Community College Tacoma
December 15, Thurs	8:00 – 5:00 p.m.	Board Meeting	University of Washington Tacoma

Worthington Conference Center
Saint Martin's University

Directions to St. Martin's University

From **Interstate 5 northbound**, take **Exit 108** – this brings you to College Street. Turn right onto **College**.

From **Interstate 5 southbound**, take **Exit 109** – this brings you to **Martin Way**. Turn right onto Martin Way, turn left onto **College Street**.

Follow College Street to **Lacey Blvd** (be in the left lane on College). Turn left onto Lacey Blvd. – get in the left lane of Lacey Blvd.

At the first light, turn left on **Ruddell Road**. Immediately get into the right lane of Ruddell, At the light (the intersection of Pacific and Ruddell Road), go straight: this lane brings you directly into the parking lot of the Worthington Center and Pavilion. **Parking is available to the south and to the east of the Worthington Center.**

The main entrance to the Worthington Center is on the south side of the building. As you enter the lobby, the office is immediately to the left.

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July 2005

Minutes of June 23 Meeting

HECB Members Present

Ms. Roberta Greene, vice chair
Mr. Gene Colin, secretary
Mr. Jesus Hernandez
Mr. Anthony Rose
Sen. Betti Sheldon
Mr. Herb Simon
Mr. Bill Grinstein

Board introductions
Roberta Greene, vice chair, served as chair. Chairman Bob Craves, Mike Worthy, and Sam Smith were out-of-state and excused from the meeting.

Greene welcomed those in attendance and thanked Steve Wall, Pierce College district president and chancellor, for hosting the board meeting at the Puyallup campus. Wall gave some history of the school and discussed the area's rapid growth in recent years. He also informed the board and audience that Pierce College had received national recognition for its campus library.

Greene announced that Herb Simon's term has ended, and he will be leaving the board. She thanked him for his dedication to higher education and reviewed some of Simon's accomplishments while serving on the board – particularly his work with the development of the branch campuses. Simon was appointed to the board by Governor Locke in July 2000. Greene also said that by law, the student member's term on the board is limited to one year, and that Anthony Rose's term will expire June 30. (Rose was not present at this time.) Green also announced the departure of Becki Collins, director of student financial services. Collins has accepted a position with the Pierce College District as vice president of administrative services.

Board action on consent agenda items

ACTION: **Gene Collin** moved to approve the minutes of the March 4 board meeting, as well as the cost study procedures (**Res. 05-07**). **Jesus Hernandez** seconded the motion, which was passed unanimously.

Executive Director's Report

Executive Director Jim Sulton introduced Andi Smith, academic policy analyst, who began her work with the HECB earlier in the week. Smith's former employment includes work as a graduate research intern with the Snohomish Economic Council, and as a program director for the Northshore School District. Smith holds a Master of Arts degree in policy studies from the University of Washington and a bachelor's degree in political science and public policy from St. Olaf College in Minnesota.

Sulton spoke of the recent town hall meeting he attended in the Tri-Cities regarding the development of WSU Tri-Cities. The Tri-Cities Economic Development Council asked Sulton to communicate to board members that they intend to continue planning efforts to expand the branch campus.

The HECB advisory council meeting -- originally scheduled for June 23 -- was postponed, possibly for a full-day meeting to allow more time for policy discussion.

Governor Gregoire held an education summit earlier in the month to announce the *Washington Learns* project. The project was created as a result of Senate Bill 5441, and will build on the goals of the Strategic Master Plan. In particular, the initiative focuses attention on Washington's education funding policies. Greene is serving as chair of the higher education advisory committee for the *Washington Learns* project.

Sulton updated the board on the success of the state's Guaranteed Education Tuition (GET) program, a prepaid college tuition program. GET accounts currently total more than 55,000, with an additional 11,000 added this year.

HECB staff continue to put forth efforts to improve student articulation and transfer, working toward incorporating a Web-based transfer system to make the transition more seamless.

The American Association for Higher Education has dissolved. It is expected that many of the projects AAHE was spearheading will be transferred to colleges and other associations.

Chairman Bob Craves has received an honorary Ph.D. from the University of Puget Sound. Sulton was present for the honorary dinner and recognition ceremony.

Sulton recognized HECB staff members Nina Oman and Becki Collins for their work on two recent projects. Oman, associate director for academic affairs, has been working with the provosts of the public four-year institutions to obtain student-specific data. Thanks to Collins' work, Sulton said the HECB has received conceptual approval from the attorney general's office to go forward with making "bulk" financial aid payments to private institutions. The change will enable staff to use technology to better serve students and institutions.

Minimum Admission Standards

(*http://www.hecb.wa.gov/boardmtgs/documents/4-MinAdmissionsBoardBriefing.pdf*)

State law requires the board to set the minimum freshman admission standards, while each institution retains the authority to accept or reject individual applications for admissions (RCW 28B.76.290). During the December meeting, the HECB presented proposed changes to the state's minimum college admission standards. Since then, HECB staff and board members have listened to public comments at five public hearings held across the state, and have also reviewed electronic and conventional mail. The board's policy committee met on June 16 to discuss the public comments and the proposed changes *(described under Tab 4, and Appendix B).*

Prior to Sulton's report on possible revisions to the admission standards, Greene asked that public comment be limited to comments on the proposed changes only. Sulton briefly described the initial proposal, as well as suggested changes. In summary, the minimum admission standards would maintain the current English requirements, expand the math requirement from three years to four credits, and expand math-based lab science from one year to two credits (the wording was changed to "credits" to recognize schools that schedule equivalent courses in a shorter time period).

Sulton spoke of conversations held with colleagues. State Superintendent of Public Instruction Terry Bergeson is concerned about the timing of the proposed change. Recommendations initially presented to the board in December called for the revised minimum admission requirements to take effect in 2008 -- the same year that students will be required to pass the Washington Assessment of Student Learning (WASL) in order to graduate from high school. Bergeson also expressed concern about the resources needed to hire additional teachers.

In addition, the Workforce Training and Education Coordinating Board (WTECB) contacted Sulton with concerns that the proposed admission requirements would compromise the opportunity for students to take courses in vocational and technical education.

Board materials include a summary of comments from the public hearings. Sulton thanked the board for their attendance at the public hearings.

Public Comment

Jim Meadows, representing the Washington Education Association (WEA), spoke of concerns based on a survey of K-12 public school teachers:

- Teachers favor amending the timing, and support extending the effective date for the revised admission requirements to 2010.
- Teachers support the added rigor of the admissions proposal, and understand that the new requirements would help students make the transition to college.
- Teachers support maintaining the Admissions Index.
- Teachers recognize the need for additional educators to provide the added coursework.

Meadows commented that higher education needs to be held accountable for some of the transition problems within the system, and mentioned several reform efforts undertaken by the K-12 system. He discussed the working relationship between the HECB and the WEA, and how

it has diminished in recent years. Meadows made a commitment to help regain a productive working relationship.

Roberta May of the State Board of Education (SBE) addressed three issues:

- May supports delaying admission requirements to 2010.
- There should be a greater emphasis on recruiting students into the colleges of education, to ensure that the K-12 system would have enough teachers to implement the proposed standards.
- May suggests possibly differentiating the requirements between different institutions in the state, rather than holding all institutions accountable to the same requirements.

Terry Teale, executive director, of the Council of Presidents (COP) made several comments:

- The COP supports the proposed revisions to the minimum college admission requirements.
- The COP and HECB have been in collaboration for two years regarding the proposal, and also have discussed the issue with Bergeson. Teale said the minimum admission requirements bring clarity to parents and students by communicating what the colleges and universities will require.
- Teale welcomes more time for communication with OSPI and representatives of K-12, believing that support of the superintendent will be helpful.

Board members Grinstein, Sheldon, and Greene discussed the importance of a proactive approach for students to receive counseling and early intervention, as a way of communicating to students and parents the importance of preparing for the future and for college readiness.

Hernandez and Greene agreed that communication with parents is essential. Awareness should be increased through correspondence with parent groups/meetings.

Meeting Regional Higher Education Needs
(*http://www.hecb.wa.gov/boardmtgs/documents/5-ProgramandFacilityApproval.pdf*)

Joann Wiszmann, HECB deputy director, discussed three efforts underway to address regional higher education needs. The planning process began with creating a program and facility inventory to show programs and facilities that are currently in existence. Secondly, the planning team developed a needs assessment by comparing the inventory of what currently exists with projected student, employer and community needs, in order to identify gaps and encourage institutions to fill them. Finally, staff are proposing revisions to the board's current policies for program and facility approvals. Board approval will be requested at the July meeting.

Holly Zanville, HECB senior administrator and chief academic officer, discussed the academic and program facility inventory in more detail. The inventory is expected to be completed by September. It combines data previously collected by the HECB through four separate approval processes (degree authorization, veteran's benefits, program approval, and facility approval). The new inventory will provide a clearer picture of the size and shape of Washington's higher

education system, providing a "snapshot view" of programs at two and four-year, public and private institutions. The inventory will include more than 70 institutions, and over 3,000 degree programs. Additionally, the inventory will contain a comprehensive listing of academic programs and their locations.

Randy Spaulding, HECB associate director for program assessment and approval, discussed new off-campus facility requirements, changes in classification status, a requirement to report relocation or renaming of existing off-campus facilities, and policies regarding the acquisition of major off-campus facilities. The reporting requirements ensure up-to-date and accurate information and provides quality control.

Grinstein asked if regional demographic data, per-capita participation rates by region, and data characterizing student populations would be considered in the program planning and review process, or if that was covered in another part of the Strategic Master Plan. Spaulding replied that demographic information is covered in many areas, but will also be included in the program planning and review process. Wiszmann informed Grinstein that much more data will be provided at the July meeting.

Hernandez spoke of a similar interest in viewing the demographic data, and asked what other agencies and groups were involved in the work that went into defining the program approval processes. Spaulding answered that collaboration with campus representatives was key in developing policies and procedures. The needs assessment portion sought insights from a broader group that included campus representatives, as well as the Workforce Training and Education Coordinating Board, the State Board for Community and Technical Colleges, the state office for Community Trade and Economic Development, as well as the Employment Security Department.

Grinstein asked for a definition of a regional accreditation agency. Zanville replied that each region of the United States has a regional accrediting association that accredits institutions. All of the public institutions in Washington are reviewed the Northwest Regional Accreditation Association. Because it is an elaborate process, regional accreditation can take as long as five, seven, or ten years. The review process examines faculty, curriculum, campus buildings, new programs -- even the library. Accreditation agencies address the question: "Does the institution have the capacity to offer quality degree programs?"

Public Comment

Loretta Seppanen, assistant director of educational services at the SBCTC, asked who holds authority to approve community and technical associate degrees and certificates. She said that all of those programs are reviewed and analyzed by the SBCTC, and that is where the authority lies. Seppanen said the SBCTC requests that A9 in the listing (tab 5, page 17) be removed.

Additionally, the SBCTC is asking the HECB to change the language in the proposal to ensure that university centers are considered a permanent solution to meeting the place-bound needs of Washington residents. This would require additional language and terminology changes in the approval processes listed under A10-11 (tab 5, pages 17-18). Seppanen said the SBCTC encourages collaboration with the HECB regarding their vision for the university centers.

Fred Campbell, dean emeritus of the University of Washington, said the single most important issue that must be addressed is access. Increasing access requires more space *and more programs*. Campbell shared comments on the program approval process.

> Institutions want the process to be timely. Ideally, a program would gain approval within a year – a timetable that has been a reality in recent years at the UW. Institutions want the process to be collaborative, enabling them to work with HECB standards to ensure high quality, and allowing for collaboration across all institutions. Institutions want to work with HECB staff from beginning to end, so there are no surprises. There is also the matter of whether institutions are offering the right program, in the right place, by the right institution, at the right cost, to the right students. These questions of "rightness" are a key part to the approval process. More attention has been given to quality, but Campbell believes that questioning quality is wrong, because quality has not been a problem with the colleges and universities. What is more important and less often addressed is the question of "rightness." The strategic questions that shape the entire system of higher education are beyond the scope of any one of the institutions. It is the HECB that has the capacity to take on the strategic questions of "rightness." In the approval process, Campbell would prefer that the HECB focus less on quality and more on the more strategic questions.

Jane Sherman, associate vice provost of Washington State University, spoke of the close working relationship between the HECB and the institutions in developing the new guidelines. Sherman said she believes campus representatives were surprised by a number of new pieces that were added without full discussion. She said she is hopeful that the policies will be fine tuned prior to board approval. Sherman also said that the earlier question about regional accreditation was very timely. Her perception is that the HECB, on behalf of the state and taxpayers, is interested globally in all aspects of a new program, but is *most* interested in the wise use of state resources. That concern is expressed as efficient revision of degree programs that are useful to the state and are desired by students.

Sherman said that the faculty senates of the institutions -- along with the Northwest Commission on Colleges and Universities, are most interested the quality of the institution as a whole, which includes governance, academic programs and their learning outcomes, instructional support, and student services. Regional accrediting agencies are not interested in efficiency; they are interested in quality. Institutions like to see ways in which these different kinds of reviews and approvals come together to provide support and to strengthen the institution, reducing redundancy; which is why Sherman and her colleagues will continue to work with HECB staff to refine aspects of the approval process.

Andy Bodman, Western Washington University provost, expressed concern regarding the role of the HECB in the selection process of external reviewers for new degree programs. Bodman said that some institutions felt this addition to the proposal did not undergo the usual consultation and discussion, and they would prefer that the board come back at the next meeting with significant revisions. Bodman said the current system works well, whereby the institutions select external reviewers for degree programs; with quality control as a top priority. These reviews have been a critical part of the process, sometimes suggesting ways in which the institutions could improve

the program proposal prior to submission to the HECB. Bodman believes the new process would be more time consuming and inefficient.

Bodman asked, "Where does the expertise lie? The expertise lies in the departments. Institutions must rely on their departments to select the appropriate reviewers." Bodman said that if the change in the process took effect, the HECB would still have to rely on the institutions' departments.

Bodman said the institutions believe that a single definition of a certificate is not adequate. WSU and the UW have variable certificate programs, and believe those differences need to be recognized. He also said there is some confusion and artificial division between the teaching sites and the centers. Bodman said that he and his colleagues endorse the comments of the SBCTC regarding the nature of university centers, and how they are defined in the proposal. The institutions are concerned that there may be significant redundancy in the approval of lease arrangements, which are already subject to GSA approval. He said it appears that the institutions would have to go through a two-step process, where one is currently sufficient.

Greene called for questions from board, and mentioned her appreciation for the comments regarding "rightness" and efficient use of resources.

Sulton explained that this is a new involvement for the HECB. He reminded the institutional representatives of their responsibility as stewards of the state's resources and their responsibility at the state level to get involved. Through the goals in the Strategic Master Plan, the HECB must be globally focused at the macro level and at the state level, and must have a good conceptualization of the institutions' role and mission. Currently, Sulton said, we do not have a working agreement of the role and mission of each institution. Careful consideration in planning is vital as we progress and continue to form the size and shape of higher education in the state.

Hernandez asked if other models of this approach have been reviewed or considered. Sulton responded that there are models of governing boards that are becoming involved with this approach. The goal, according to Sulton, is not to become micro-managerial, but to consider a careful balance that can be brought back and presented to the board in July; one that is satisfactory for both the HECB and the institutions.

Grinstein asked for clarification of the HECB's statutory responsibility regarding university centers on community college campuses. Sulton responded that a number of names exist for university centers, and that state statute does not specifically prohibit the centers from being made permanent. Sulton said that during the recent legislative session, there was some discussion about the HECB having oversight of the centers' regulatory process. However, Sulton said, there is a solid partnership between two-year and four-year universities, and the HECB does not want to interrupt that.

(Anthony Rose arrives)

Greene recognized Rose for his dedication to higher education as the board's student member, acknowledging the time and commitment that are required of a student who is also attending

college fulltime. Hernandez read resolution 05-09. Sulton offered words of encouragement and appreciation to Rose.

Legislative and Budget Review

Legislative Review

Bruce Botka, director of government and policy relations, provided an overview of the 2005 legislative session (*http://www.hecb.wa.gov/boardmtgs/documents/6-june23-05.Finallegislativereportandbranchside-by-side.pdf*).

- The capital budget was divided almost equally between the two- and four-year institutions.
- Governor Gregoire signed HB 1794 into law, authorizing three of the state's four branch campuses to offer lower-division courses and enroll freshman and sophomore students.
- The Senate confirmed the governor's appointment of three HECB members: Betti Sheldon, Herb Simon, and Mike Worthy.
- On June 3, Governor Gregoire convened an education summit to launch the *Washington Learns* project. The steering committee will begin an 18-month effort to examine Washington's education system and find ways to improve K-16 education.
- The North Snohomish Island Skagit Consortium (NSIS) will work to develop and manage an educational plan for Everett Community College, utilizing a university center model.

Botka introduced Colleen Scovill, HECB communications specialist, and publicly thanked her for her work at the Higher Education Coordinating Board through the legislative session.

Operating and Capital Budget Review

Gary Benson, director of fiscal policy, discussed the 2005-07 operating and capital budgets (*http://www.hecb.wa.gov/boardmtgs/documents/OpCapBudgetReview-Revised6-23-05.pdf*).

Responding to the HECB Strategic Master Plan goal of increasing production of baccalaureate and associate degrees, the Legislature expanded the operating budget to include a total of 7,900 additional full-time equivalent enrollments over the next two years. The Legislature did not identify specific enrollments for any of the high-demand programs recommended by the board.

The 2005-07 operating budget added $243 million in state funding for higher education. The institutions received seven percent of the budget increase to add enrollments, increase faculty salaries, and provide other enhancements. Along with the funding increases, colleges are being asked to make progress toward several goals, including: transfer, job training programs, enrollment by low-income students, and freshmen retention rates.

Resident undergraduate tuition continues to increase as a percentage of the cost of instruction. Tuition increases continue to outpace both per-capita income growth and inflation.

State financial aid funding increased by nearly 19 percent for the 2005-07 biennium. The State Need Grant was increased to equal the board's goal of serving students up to nearly 65 percent of

median family income. The Promise Scholarship was terminated, beginning with the high school graduating class of 2005.

Greene asked if colleges and universities are still overenrolled with the additional funding provided for FTEs. Benson said that the community and technical colleges are overenrolled by approximately 2,500 students, while the four-year institutions are overenrolled by approximately 3-4,000 students.

Benson also discussed the 2005-07 capital budget.

The two-year capital budget totals $3.2 billion, with $1.6 billion of that from state bonds. Several major projects are underway in both the two- and four-year sectors. In addition, the Legislature has appropriated $500,000 to the HECB to conduct a higher education needs assessment of the Snohomish, Island and Skagit Counties project. The assessment will address needs in the region, evaluate alternative organizational models for meeting those needs, assess sites, and identify costs – as well as a process for completing a higher education expansion plan. Recommendations are to cover the types of institution(s) to be established, where the site(s) will be located, identification of site acquisition costs, and the cost and process for completing a master plan for higher education expansion.

Sheldon asked if there was a difference between an education center and a university center. Benson responded that they are the same.

Sulton informed the board of the extensive work that HECB staff have put into defining college readiness and revising the minimum admission standards. In addition, he said that the needs assessment for the Snohomish, Island and Skagit Counties project will also require intensive staff work in the months to come.

The meeting adjourned at 11:45 a.m.

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2005-06 HECB Officers and Committees

Board chair, Bob Craves
Board vice chair, Roberta Greene
Board secretary, Jesus Hernandez

HECB Executive Policy Committee

The Executive Policy Committee acts on behalf of the full board in evaluating the job performance of the executive director, recommending a legislative agenda for the HECB, and establishing membership of the fiscal, education and financial aid committees. Between regularly scheduled full board meetings, the committee may act for the board on matters where a timely response is required, subject to full board approval at its next regularly scheduled meeting. This committee fulfills numerous managerial responsibilities, such as setting schedules for board meetings and retreats, and arranging meetings with other governing boards or institutions of higher education.

In addition, the committee has primary responsibility for the development of the statewide strategic master plan for higher education every four years, including scheduling public hearings and reviewing policy proposals offered in the interim and final versions of the plan. This committee reviews policy reports prepared by agency staff pursuant to legislative direction, and submits them as necessary for adoption by the full board. This committee reviews issues that overlap multiple policy areas and may also consider matters relative to fiscal, financial aid, academic or other policy areas.

Board Chair
Board Vice Chair
Board Secretary
Committee Chairs

HECB Fiscal Committee

The Fiscal Committee has responsibility for policy development and issue management relative to statewide budget planning and decision making in statewide higher education. This committee prepares operating and capital budget recommendations for public colleges and universities, which includes the following duties:

- Identifying budget priorities and funding levels for higher education
- Developing guidelines that outline budget item prioritization
- Reviewing and evaluating operating and capital budget requests

The Fiscal Committee also has responsibility for reviewing the agency's operating budget request, reviewing agency budget reports as submitted biannually by the Executive Director, and reviewing agency audit reports.

Mike Worthy, Chair
Ethelda Burke
Roberta Greene
Bill Grinstein

HECB Education Committee

The Education Committee develops guidance on all matters pertaining to higher education's trilateral mission of instruction, research and public service. The committee promotes awareness, knowledge and information about state level policies and practices related to the advancement of higher education. The committee's scope of work includes such areas as accountability, P-16 linkages, accreditation, new degree program approval and existing program review.

Sam Smith, Chair
Ethelda Burke
Bill Grinstein
Jesus Hernandez
Betti Sheldon

HECB Financial Aid Committee

The Financial Aid Committee has responsibility for policy formulation and guidance in the area of student financial assistance for Washington's students. The Higher Education Coordinating Board is the state's central provider of financial assistance aimed toward helping students gain access higher education. The committee is responsible for the periodic evaluation and review of state aid programs; the preparation of recommendations to the Legislature on financial aid issues; the development of financial aid budget recommendations to the full board; and rule-making for the student financial aid programs.

Jesus Hernandez, Chair
Roberta Greene
Lance Kissler
Sam Smith

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Tentative 2006 Board Meeting Calendar

Tentative Date	Tentative Location
January 26, Thurs	University of Puget Sound Wheelock Student Center Rotunda 1500 N. Warner, Tacoma
February 23, Thurs	Everett Community College Jackson Center Auditorium 2000 Tower St, Everett
March 30, Thus	Western Washington University Old Main 340 516 High St, Bellingham
May 25, Thurs	Whitman College Reid Campus Center Ballroom B 345 Boyer Avenue, Walla Walla
July 27, Thurs	Grays Harbor Building 200, Room 220 1620 Edward P. Smith Drive, Aberdeen
September 28, Thurs	State Investment Board Board Room 2700 Evergreen Parkway NW, Olympia
October 26, Thurs	Yakima Valley Community College Deccio Higher Education Center, Parker Room 16th Avenue & Nob Hill Blvd, Yakima 98907
December 14, Thurs	University of Washington Walker Ames Room

RESOLUTION NO. 05-10

WHEREAS, The Higher Education Coordinating Board is required to adopt an annual calendar of regular meeting dates for publication in the State Register; and

WHEREAS, The members of the board have reviewed the proposed 2006 meeting schedule;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board adopts the attached HECB 2006 meeting calendar.

Adopted:

September 22, 2005

Attest:

_____

Bob Craves, Chair

_____

Jesus Hernandez, Secretary

RESOLUTION NO. 05-11

WHEREAS, The Higher Education Coordinating Board has statutory authority to establish minimum freshman admission standards for students at Washington's public baccalaureate college and universities; and

WHEREAS, The board and its staff have worked during the past two years to analyze the effectiveness and relevance of the current minimum admission standards, which have not been substantially revised since their original adoption in 1988; and

WHEREAS, The board proposed new standards in December 2004 and conducted public hearings in Spokane, Ellensburg, Des Moines, Tacoma and Vancouver during the spring of 2005 to hear public comment on the proposal; and

WHEREAS, The proposed standards were also the subject of legislative work sessions during the 2005 session by the House Higher Education Committee and the Senate Early Learning, K-12 and Higher Education Committee; and

WHEREAS, There is broad agreement that the presence of clear and well-communicated college admission standards can serve as a valuable tool to help students understand what they need to study in high school to improve their chances for successful entry into college and completion of a post-secondary degree program; and

WHEREAS, Governor Gregoire has initiated the Washington Learns education study, which will focus on improving transitions between high school and college as part of its comprehensive review of all levels of education in the state; and

WHEREAS, The consideration of teaching and advising capacity necessary to meet changing college admission standards should appropriately be included in the Washington Learns agenda of high-priority education issues;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board work cooperatively within the framework of the governor's Washington Learns process to integrate consideration of this issue with other critically important elements of the P-16 system and the transitions between high school and college; and

BE IT FURTHER RESOLVED, That the Board will reconsider its proposed standards following the completion of the Washington Learns study in 2006.

Adopted:
September 22, 2005
Attest:

_____
Bob Craves, Chair

_____
Jesus Hernandez, Secretary

WASHINGTON
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COORDINATING BOARD

September 2005

DRAFT
Bachelor of Applied Science in Information Technology and Administrative Management
Central Washington University

Introduction

Central Washington University (CWU) seeks Higher Education Coordinating Board (HECB) approval to offer a Bachelor of Applied Science (BAS) degree in Information Technology and Administrative Management. The program is designed to serve students who hold an applied professional/technical degree in information technology from a community college and work experience, but lack the general education coursework required for a Bachelor of Science degree. The program would be offered at CWU's main campus in Ellensburg and at the university centers in Des Moines and Lynnwood.

Relationship to Institutional Role and Mission and the Strategic Master Plan

The competencies outlined by the proposal's general education requirements would provide students with a foundation that will help them achieve goals integral to the mission of CWU. These include development of the tools necessary to become responsible citizens prepared to lead an enlightened and productive life.

The programmatic goals are consistent with the strategic master plan goals of providing opportunities for students to earn degrees and responding to the state's economic needs. The program is designed to provide a pathway to a baccalaureate degree for students with a technical educational background that would not transfer for academic credit toward most bachelor's degree programs. The proposed degree program would be responsive to the needs of employers and students by developing in students a strong set of technical skills and providing them with important communication, management, and teamwork skills.

Program Need

Several colleges and universities around the country are offering or developing BAS degrees. These degrees typically allow students to transfer credits from an applied associate degree and enroll in an additional two years of full-time study (or equivalent), with an emphasis on broad upper-division general education coursework, as well as additional coursework in the chosen professional field.

Applied science programs are intended to meet the educational and economic needs of a community by providing outreach and training that result in the practical utilization of scientific knowledge. With these programs, the universities train professionals who are able to apply and use what is known from the body of scientific research, as well as develop the critical thinking and analytical skills that are required of today's knowledge workers. The BAS Information Technology and Administrative Management degree is designed to meet state and regional student, employer, and community needs by responding to a need to develop programs that provide a mix of technical skills and management and communication skills.

Employers consistently report difficulty hiring appropriately trained workers with a correct mix of technical skills and management and communication skills. The proposed program would develop in students a unique blend of technical skills and problem solving, communication, administrative, and supervisory skills and other knowledge typically associated with a baccalaureate-level education. Existing baccalaureate programs do not provide a pathway for students with a technical degree in information technology to efficiently transfer and complete a baccalaureate degree program.

After a period of decline in hiring of information technology-related occupations, growth in the sector is expected to be strong over the coming years; however, employers are more selective than in the past and there is an emphasis on attracting workers with the mix of skills described above. The demand for workers in information technology-related fields is supported by the HECB statewide and regional needs assessment.

Program developers expect strong student demand, due to the large numbers of graduates from information technology programs at the community colleges and the need for workers to develop program-specific supervisory and management skills in order to effectively compete in the marketplace. A number of community colleges provided letters of support for the program and indicated a strong student interest in a baccalaureate degree program that is designed to meet the needs of their graduates.

Program Description

By offering the BAS degree in Information Technology and Administrative Management, CWU would join a growing number of institutions nationwide that are responding to changing workplace demands by providing an avenue for technically trained workers to obtain a bachelor's degree.

The program would enroll 25 students in the first year and grow to full enrollment at 100 students in year three. Students would be admitted to the program after completing an Associate of Applied Science or other appropriate associate-level program in an information technology-related field, satisfying the CWU basic skills requirements, and completing at least one year of full-time work (or 2,000 hours).

Once admitted to the program, students would be required to complete 60-68 quarter credits within the major (40-43 semester credits) and an additional 22-30 quarter credits outside the major. At least 60 credits must be completed at the upper-division level and 40 credits must be taken in approved information technology courses. Students could complete their course of study within six quarters of full-time enrollment (or equivalent part-time enrollment).

The general education requirements for students in the BAS degree program would be the same as those required of students in other baccalaureate degree programs at CWU. As with all BAS programs at CWU, students would receive a waiver of the foreign language requirement (this waiver is also available in certain other academic degree programs at CWU). The key competencies expected from foreign language study – such as an understanding of other cultures and traditions – would be met through other general education requirements.

The program would rely on existing courses delivered primarily through live instruction, two-way interactive video, and online.

The proposed program has well-defined goals and objectives. Assessment of program objectives is linked to specific coursework, with each objective assessed in multiple courses. Specific learning outcomes are identified for each of the courses included in the core curriculum.

The program would be assessed through a campus-wide review process on a five-year cycle. The administration and faculty would monitor three key indicators of program quality, which include student course evaluations, focus groups with exiting seniors, and surveys of graduates and their employers about the quality of preparation for work in the field.

The program faculty would consist of four full professors, two assistant professors and four non-tenure track instructors. In addition, the program would add a coordinator with instructional responsibilities and a half-time instructor at each center where the program is offered.

Diversity

The program would work with the CWU admissions staff on university-wide efforts for diversity. In addition, the program has identified various strategies to advise and support diverse students, including a telephone campaign to ensure that students are receiving the institutional support they need to be successful in the program, and attendance at conferences and other events that would attract a diverse audience. The program developers have identified specific groups on campus and in the community with whom they would collaborate to attract and retain

a diverse student body. These include: the Black Student Union, Movimiento Estudiantil Chicano de Aztlan (MECHA), American Indian Science and Engineering Society (AISES), the Washington State Association for Multicultural Education (WSAME), Lesbian Gay Bisexual Transgender Alliance (LGBTA), and Multicultural Students of Color Yakima.

Program Costs

The program would draw largely on existing resources for curriculum delivery; however, additional faculty and staff support would be required to offer the BAS in Information Technology and Administrative Management. The program would add 1.7 FTE faculty in the first year and add an additional 2.3 FTE faculty by year three (full enrollment). Other staff required for the program include a part-time administrative support person (.5 FTE). The program's first-year estimated costs are $7,770 per FTE, and $5,131 per FTE at full enrollment in year three. Included in the overall program cost is an estimated impact on the delivery of general education instruction at a cost of $27,300 in the first year and $81,900 at full enrollment in year three to accommodate the need for additional general education coursework.

The program would add to the existing array of programs in the information technology area by providing a pathway for students with a technical education background to efficiently access a baccalaureate degree. It would not duplicate existing programs.

External Review

The program was reviewed by two external experts.

The chair of the business and information systems program at Utah State University, while in support of the program, expressed some concern that the course of study did not include sufficient coursework in management. In addition, he asked for clarification that a program would be in place at the Ellensburg campus that would prepare students for entry into the proposed degree program. While the latter concern was not addressed in the proposal, the curriculum was modified to include additional management coursework.

The chair of business technology at Linn-Benton Community College in Albany, Oregon, expressed support for the program, citing the unique mix of skills that students could develop, as well as employer demand. She asked for clarification about access to the program for graduates of programs outside of Washington and the alignment of course content and student learning outcomes.

In addition to the required outside reviews, letters of support for the program were submitted by a number of community and technical colleges, other departments at CWU, and Eastern Washington University.

Staff Analysis

The proposed program would support the unique role and mission of the institution by providing students a liberal arts foundation through general education courses and providing the technical skills required to be successful in the field. The goals of the state's strategic master plan would also be supported through a degree program that would be responsive to employer needs and allow baccalaureate degree access for students with technical education training.

The student and program assessment techniques are appropriate for the program and include input from current and former students, faculty, and employers that would provide institutional leadership and faculty with the information they need to develop a high-quality program. The required curriculum is well defined and would allow students to complete their studies in a reasonable amount of time.

The program would meet a clearly identified need expressed by employers. The local community colleges attest to a strong interest in the program among students and their communities.

The proposed program would add to the array of programs available to prepare students for jobs in information technology-related occupations. The program is unique in that it is designed to cater to students who hold an Associate of Applied Science degree and would not duplicate existing programs.

With availability at CWU's university centers as well as the main campus in Ellensburg, the program should appeal to a diverse population of students. The program developers have also committed to working with CWU admissions staff and a number of campus-based and outside groups on strategies to attract a diverse student body.

By drawing heavily on existing resources, the program would be offered at a reasonable cost, especially given the highly technical nature of much of the curriculum.

Recommendation

Based on careful review of the program proposal and supplemental sources, HECB staff recommend approval of the Bachelor of Applied Science in Information Technology and Administrative Management at the Central Washington University Ellensburg campus and Lynnwood and Des Moines university centers.

RESOLUTION NO. 05-12

WHEREAS, Central Washington University proposes to offer a Bachelor of Applied Science in Information Technology and Administrative Management; and

WHEREAS, The program would provide students with a liberal arts general education and advanced coursework in management and information technology; and

WHEREAS, The program would help meet student, employer, and community needs for degrees and programs; and

WHEREAS, The diversity and recruitment plans are appropriate for the program; and

WHEREAS, The program would not create unnecessary duplication and would be delivered at a reasonable cost; and

WHEREAS, The program would be delivered at the Central Washington University Ellensburg campus and university centers in Lynnwood and Des Moines;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board approves the Bachelor of Applied Science (BAS) in Information Technology and Administrative Management.

Adopted:

September 22, 2005

Attest:

_____
Bob Craves, Chair

_____
Jesus Hernandez, Secretary

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September 2005

DRAFT
Bachelor of Science in Informatics
Washington State University

Introduction

Washington State University (WSU) seeks Higher Education Coordinating Board approval to offer a Bachelor of Science (BS) in Informatics. Informatics emerges from the synthesis of business and computer science and statistics to effectively use information resources through systematic processing of data in support of evidence based in decision making.

The program is designed to serve students in the Spokane area and from across the state through in-person classroom instruction at the WSU Spokane Riverpoint campus.

Relationship to Institutional Role and Mission and the Strategic Master Plan

WSU has a statewide mission to foster learning and inquiry among individuals, institutions, and communities. In support of that mission, the Riverpoint education center provides a higher education magnet center that attracts an array of distinctive undergraduate and graduate degree programs to the Spokane community

The proposed program would meet strategic master plan objectives by providing access to a high-quality degree program that meets student needs as well as the economic needs of the state. Informatics fits within a broader category of information technology which has consistently been considered a high-demand field. The program would help meet that demand by providing a desirable mix of the technical and management skills employers are seeking.

Program Need

Statewide demand for workers in computer and mathematical occupations is growing at a pace that exceeds the state average growth rate of all occupations. In its May 2005 occupational projections, the Washington State Employment Security Department estimated over 4,000 annual

openings from 2007-2012, due to industry growth and job replacement needs. However, growth in the demand for computer and mathematical occupations in the Spokane region is expected to be slower than the state average, with a projected 110 annual openings during the same period.

The US Bureau of Labor Statistics Occupational Outlook Handbook points out that workers with a strong technical background and experience, along with strong communication and administrative skills, enjoy the best employment opportunities. The proposed program is designed to develop this mix of skills, which should position graduates well in the labor market.

In addition to state and national projections, the proposal references a local survey of businesses -- banks, credit unions, securities firms, government agencies, and health care non-profit organizations -- that indicates strong support for a BS in Informatics. Two-thirds of the respondents indicated the program would improve employees' opportunities for advancement, and half said they would hire program graduates. All of the respondents indicated they would provide flexibility in scheduling to allow their employees to attend the proposed program.

Student demand for the program is expected to be high. Although no survey of students was included with the proposal, demand for similar programs across the state has remained competitive.

Access to similar programs in Eastern Washington is limited. Pace University in New York continues to offer the first program in information systems accredited by the Accreditation Board for Engineering and Technology (ABET). Local programs include Eastern Washington University's Bachelor of Science in Computer Information Systems and the Computer Science program at Gonzaga University. EWU's program offers some similar components, but does not require the same level of preparation in the decision sciences and is not ABET accredited. The Gonzaga program is a traditional computer science program that does not include the decision science and business content provided in WSU's proposed degree program.

Program Description

The BS degree in Informatics at WSU would provide an interdisciplinary program with a distinctive emphasis that includes substantial coursework and experience in computer science, business, and decision sciences. The program would provide a broad technical and general education background, as well as an emphasis on communication and practical application of knowledge through project experiences and mentoring. The program has been developed with the goal of seeking Accrediting Board for Engineering and Technology (ABET) accreditation when eligible.

The program would require a total of 120 semester credits, of which students would typically transfer 60 semester credits from a community college, other four-year colleges, or another WSU campus.

The program would enroll approximately 12 students in the first year (10 FTE) and grow to approximately 70 students (66 FTE) at full enrollment by the fifth year. Students would be admitted after completing 60 semester credits -- including general education requirements and a series of required prerequisite courses that would include calculus, linear algebra, computer programming, accounting, and economics.

Admitted students would typically enroll full-time for two years, although part-time attendance would be possible. Students would be required to complete an additional 60 credits -- including 51 semester credits of required coursework and 9 approved elective credits.

The program proposal includes the upper-division curriculum as well as a proposed course of study for the first two years, including articulating courses at WSU Pullman and Spokane Falls Community College. Program staff would work closely with students and advisors at both SFCC and WSU Pullman in order to ensure that students are prepared to transfer with appropriate coursework.

Assessment/Program Review

The proposal identifies nine major learning outcomes for program graduates that are aligned to specific courses and experiences in the program. The primary measure of student success in achieving outcomes would be through student grades. To ensure that grade point average (GPA) is an accurate measure of student achievement, a faculty committee would review samples of work from each assignment to assess the range of work presented by students and make recommendations for improvements in the program that would ultimately improve student achievement and the program as a whole.

The accreditation process through ABET would entail additional scrutiny of program quality and resources.

Diversity

The program would actively participate in all WSU diversity plans. In addition, the program has identified resources for faculty and staff training in diversity issues, and WSU Spokane participates in a number of community initiatives -- including the Spokane Task Force on Race Relations and the Spokane Chamber of Commerce Workforce Diversity Committee. WSU also sponsors a number of community events around diversity. In addition, WSU Spokane participates in outreach programs (including MESA and CityLab) that work with students of color at local schools.

The proposed program's recruiting effort as a whole is robust and includes a variety of approaches -- including Web, print, and radio advertising; alumni support; and faculty participation through guest lectures, classroom visits, and participation at public events.

Program Costs

Program development would require 3.5 FTE faculty -- including one full-time tenure-track faculty member, two full-time term-appointment faculty members, and two part-time adjunct faculty members. Administrative support would be provided through a part-time (0.5 FTE) senior secretary position. The program would add 10 FTE students in the first year and grow to 66 FTE students at full enrollment in year five. The program's first-year estimated costs are $15,861 per FTE, and $7,433 per FTE at full enrollment in year five.

In the most recent accreditation visit (1999), the Cooperative Academic Library Service (CALS) was recognized as a major strength of WSU Spokane. Improvements in the library and additional space for the informatics program provided by development of the Academic Center Building on at the Riverpoint campus, would accommodate growth.

External Review

The program proposal was submitted to two experts in the field for review.

The interim dean of the College of Engineering at the University of Idaho provided a number of recommendations, to which the program developers responded with modifications to the program proposal and further explanation. Most notably, the UI reviewer was concerned with the depth of preparation in computer programming; a concern also raised by the WSU Faculty Senate. In response, the program proposal was modified to include a greater emphasis in this area, while maintaining a balance with other areas to preserve the interdisciplinary nature of the program.

The professor and chair of bioengineering at the University of Washington raised two key concerns; one which yielded a significant change in the program proposal. The reviewer commented that one of two proposed options would not meet ABET standards without substantial changes, a concern echoed by the WSU Faculty Senate. In response, the program proposal was modified to eliminate the option in question and instead focus on the remaining option that better fit ABET accreditation requirements. The second concern was whether students would be exposed to hands-on projects linked to industry. Program developers clarified that the intent of the senior project was to connect students with industry relevant projects and experiences.

The program proposal also was circulated among the public four-year colleges for review and comment. Central Washington University submitted a letter in support of the proposed degree program.

Staff Analysis

The program proposal provides a well-defined course of study. Transfer courses from the key feeder school (SFCC) are identified; as are WSU course numbers for the first two years of the program. This will enable advisors at the two-year and four-year schools to help students effectively plan their coursework and efficiently complete the degree requirements. In addition, the proposal indicates that program staff will work with SFCC and WSU Pullman staff to clearly communicate program requirements to prospective students.

The proposed program is designed to meet employer needs for information technology workers who have a diverse set of skills including key technical skills and essential "soft" skills in communication and management areas. While the employment demand statewide is large and growing, the employment picture in the Spokane region is less certain, with relatively few projected openings. Support of the local business community may be an indicator that the estimates are low or that workers with these skills are needed in other parts of the economy (beyond those included in the projections for computer and mathematical occupations).

The program proposal provides a mix of theory and practical experience that is consistent with the role and mission of a research university and the state's strategic master plan goals.

The program assessment and review process, while focusing on grades as the key metric, provides a clear link between required coursework and established student learning outcomes. In addition, the process would provide a mechanism for faculty review of the assessment approaches, assignments, and student performance in order to recommend improvements in the program over time. The additional step of ABET accreditation would help ensure that the program is providing students and faculty with the appropriate resources to deliver a high quality program.

The program would fill a niche and does not appear to unnecessarily duplicate other programs offered by local colleges and universities.

The program also includes an aggressive recruitment plan that includes a number of strategies to attract a diverse student body.

Although program costs are high in the first few years, costs are reasonable by year five; particularly given the highly technical nature of the program.

Recommendation

Based on careful review of the program proposal and supplemental sources, HECB staff recommend approval of the Bachelor of Science in Informatics at Washington State University Spokane.

RESOLUTION NO. 05-13

WHEREAS, Washington State University proposes to offer a Bachelor of Science in Informatics degree; and

WHEREAS, The program would provide students with an interdisciplinary education rooted in computer science, management, and decision sciences; and

WHEREAS, The program would help meet student, employer, and community needs for degrees and programs; and

WHEREAS, The diversity and recruitment plans are appropriate to the program; and

WHEREAS, The program would not create unnecessary duplication, and would be delivered at a reasonable cost; and

WHEREAS, The program would be delivered at the Washington State University Riverpoint campus in Spokane;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board approves the Bachelor of Science in Informatics at Washington State University Spokane.

Adopted:

September 22, 2005

Attest:

_____
Bob Craves, Chair

_____
Jesus Hernandez, Secretary

WASHINGTON
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September 2006

2004 Statewide Strategic Master Plan for Higher Education: Update on Implementation

In December 2004, the Higher Education Coordination Board submitted its 2004 Strategic Master Plan for Higher Education to the Legislature and governor. At the time, the board said the plan would be a "living document" and would be updated as needed to reflect the state's progress in implementing the plan's policy initiatives and achieving its goals.

Following is an update on the state's progress on the plan's policy initiatives, including achievements to date and key milestones ahead. The board will provide additional information in meeting the plan's goals in October, when additional information becomes available from Washington's public and private colleges and universities, and the community and technical college system.

Board members and staff also are working closely with Governor Gregoire's Washington Learns steering committee as it examines key policy issues addressed in the master plan and prepares a series of reports culminating in final recommendations in November 2006. Coordination between the HECB and the Washington Learns process will be enhanced by the governor's appointment of Roberta Greene, HECB vice chair, to lead the Washington Learns higher education advisory committee. Among other subjects, the Washington Learns study will examine the following issues in higher education:

- Options for a new higher education funding system;
- The number and distribution of enrollments needed to respond to population changes and job training needs;
- Methods to determine the cost of instruction in various academic fields and programs;
- The appropriate share of the cost of instruction that should be funded through tuition, state funds, and financial aid;
- Providing for smooth transitions from high school to college, including dual credit options and adequate preparation for college-level coursework;
- Strategies and associated costs to increase opportunity for access to baccalaureate degrees at public colleges and universities;

- Incentives to optimize research conducted by public universities and colleges that has the potential to stimulate the economy and address economic and social issues relevant to Washington citizens;
- Options to use existing capacity for additional students at independent colleges and universities; and
- Options for coordinating capital and operating appropriations

In all cases, the issues identified in the initial phase of the Washington Learns study are consistent with the goals and strategies contained in the 2004 master plan and offer an excellent opportunity for the state to comprehensively improve the state's K-12 and higher education systems.

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2004 Statewide Strategic Master Plan for Higher Education

Update on Implementation

September 2005

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Goals

Helping students succeed; helping the state prosper

Washington must open the doors of higher education to a record number of students, and the state should do everything possible to help those students succeed. Students who earn college degrees, complete job training programs or improve their basic skills earn higher incomes, enjoy a better quality of life, and are less likely to be unemployed. A better-educated and more highly skilled workforce translates into higher tax revenue, greater civic participation, and stronger state economy.

Goal 1: Increase opportunities for students to earn degrees

The 2004 Strategic Master Plan called for a 12 percent increase in the total number of students who earn college degrees per year at public and private colleges and universities by 2010.

Specifically, by 2010:

- The total number of students who earn college degrees will increase by 7,200 to reach 68,500 per year.
- The number of students who earn associate degrees will increase by 3,300 to reach 27,000 per year.
- The number of students who earn bachelor's degrees will increase by 2,800 to reach 30,000 per year.
- The number of students who earn graduate degrees will increase by 1,100 to reach 11,500 per year.

Goal 2: Respond to the state's economic needs

- The number of students who earn degrees and are prepared for work in high-demand fields will increase by 300 per year compared with current totals to reach 1,500 per year by 2010.
- The number of students who complete job training programs will increase by 12 percent to reach 25,000 per year.[1]
- The number of students in adult basic education and English as a Second Language programs who demonstrate improved literacy skills will grow by 19 percent to reach 20,525 by 2010.[1]

The Higher Education Coordinating Board will announce the state's progress in reaching these goals in October 2005, when data are available from Washington's public and private colleges and universities, and the community and technical college system.

[1] This goal is based on a goal adopted by the State Board for Community and Technical Colleges.

1. Funding for Student Success

Overview

The 2004 Strategic Master Plan for Higher Education identified clear and measurable goals that focused on outcomes rather than inputs alone. To reinforce this outcomes-based approach, the plan proposed that the state develop a new funding method to reward public colleges and universities for student success. Specifically, it proposed that the state allocate higher education funding based on enrollment in the 2005-07 biennium and then transform the funding system beginning with the 2007-09 biennium.

The board outlined four potential approaches to implementing the new system:

- **Performance contracts that involve a formal pact between the state and an institution that spell out the obligations of both parties.** Specifically, the contract would detail the outcomes that would be delivered by the college or university and the resources that would be provided by the state to help achieve those outcomes.

- **Budget provisos that would define legislative expectations for a college or university in terms of degrees and performance targets rather than enrollment levels.** Currently, the most important performance measure of a college or university is whether it met or exceeded the full-time student equivalent enrollment target set by the legislature.

- **Calculating enrollment levels at the time of course completion rather than on the 10th day of classes.** Under this approach, student enrollment would be counted for state funding purposes only if students completed the courses, not if they just enrolled in them.

- **Changing the criteria for selecting high-demand programs for funding from delivering enrollments to producing results.** While the HECB's high-demand budget request was presented in terms of expanding enrollments, the strategic master plan goal for high-demand was stated in terms of program completions.

Implementation

- **In December 2004, the HECB** submitted its final 2005-07 higher education budget recommendations to the governor and Legislature. The board's recommendations were based on how well the institutions' requests aligned with the board's budget priorities, the missions of the institutions, and the goals of the 2004 strategic master plan. The recommendations also addressed the first biennium objectives of the master plan.

- **In December 2004, the public research universities and several comprehensive universities** completed prototype performance contracts in collaboration with the Office of Financial Management.

- **The final 2005-07 operating budget** included budget provisos for each public four-year college and university and the State Board for Community and Technical Colleges (SBCTC). In return for increases in core funding, the budget directed the colleges and universities to show "demonstrable progress" toward achieving identified six-year programmatic goals by June 30, 2007.

- **By November 2005, each public four-year college and university**, in cooperation with the Office of Financial Management (OFM) and HECB, will establish six-year targets for these goals based on the per student funding level. **The SBCTC and OFM** will establish six-year targets for the goals outlined for the public two-year college system based on the per student funding level.

- **In December 2005, the HECB** will adopt final budget guidelines for the public colleges and universities that reflect the goals identified in the 2005-07 operating budget and the 2004 strategic master plan.

- **By October 1, 2006, each public four-year college and university** will report to the HECB on its progress and ongoing efforts to meet the six-year targets.

- **By October 31, 2006, the HECB and the SBCTC** will provide summaries to the governor and Legislature of the progress and efforts of the public two-year and four-year colleges and universities to meet the six-year targets.

- **By November 15, 2006, the Washington Learns steering committee** will complete an 18-month comprehensive study of Washington's education system and submit a final report, including recommendations, to the Legislature. (The steering committee will submit interim reports by November 15, 2005 and June 16, 2006.)

  As directed in Senate Bill 5441, the steering committee will recommend options for creating a new funding system for higher education. The HECB will be working closely with the Washington Learns steering committee and higher education advisory committee as they examine various options and develop their final recommendations.

2. Allocating Student Enrollments

Overview

The Higher Education Coordinating Board needs to make specific enrollment allocation recommendations to carry out the intent of the 2004 Strategic Master Plan for Higher Education. The size and shape of the state's higher education system is of primary concern for decision makers looking to optimize state resources.

Issues that will influence discussions of the "size and shape" of the system and the board's specific enrollment recommendations include:

- The division of resources among the public two-year and four-year colleges and universities;
- The allocation of new resources and enrollments among the main campuses, branch campuses, and off-site learning centers;
- The role of private colleges and universities in meeting the state's need for additional higher education capacity;
- The regional economic, educational, and programmatic needs; and
- The methods of program delivery, such as traditional instruction, 2+2 programs for transfer students, and technology-enhanced distance learning.

Allocating student enrollment to meet the board's goals requires answering the following questions:

- How many degrees will students earn in the public and private sectors?
- How many public sector enrollments are needed to meet the public sector goals?
- How does this differ from current enrollments?
- What is the current physical capacity of the public colleges and universities?
- What is the regional demand for additional student enrollments?
- What are the funding needs for the additional student enrollments?

Implementation Plan

- **In December 2004, the HECB** submitted its final 2005-07 higher education budget recommendations to the governor and Legislature. The board recommended that the state fund 12,900 additional full-time equivalent enrollments, including 6,300 at the public two-year colleges and 6,600 at the public four-year colleges and universities, in order to make incremental progress toward the goals articulated in the 2004 master plan.

- **The final 2005-07 operating budget** provided funding for 7,900 additional full-time equivalent enrollments, including 4,185 at the public two-year colleges and 3,695 at the public four-year colleges and universities.

- **In Spring 2005, the HECB** completed a simulation model to help policymakers analyze the impacts and costs of higher education enrollment and funding options. In addition, it will help the HECB develop options for the size and shape of the state higher education system.

- **In July 2006, the HECB** will release a draft higher education reconfiguration plan for discussion. The reconfiguration plan will address opportunities to expand student enrollment; assess the need to revise the roles and missions of existing institutions; and determine whether new colleges and universities are needed to meet regional and statewide needs. The board will use the reconfiguration plan, in conjunction with the simulation model, to develop its enrollment allocation recommendations.

- **In September 2006, the HECB** will present a final higher education reconfiguration plan to the governor and Legislature, college and university governing boards, and other interested parties.

- **By November 15, 2006, the Washington Learns steering committee** will submit a final report to the Legislature.

  As directed in Senate Bill 5441, the report will examine the number and distribution of enrollments at two-year and four-year colleges needed to meet demographic and workforce training needs; methods for determining the cost of instruction in various program areas; strategies to increase opportunity for access to bachelor's degrees at public colleges and universities; and options for using existing capacity in independent colleges and universities. The HECB will be working closely with the Washington Learns steering committee and higher education advisory committee as they examine various options and develop their final recommendations.

- **In November 2006 and every two years thereafter, the HECB** will include its enrollment allocation and funding proposals in its biennial higher education budget recommendations to the governor and Legislature.

3. Increasing the Number of Degrees in High-demand Fields

Overview

The Higher Education Coordinating Board believes it is critical that the state align its limited resources for public higher education with the needs of the economy. Traditional liberal arts education must remain a core component of the state's higher education system because the skills it imparts are central to business and career success. However, the state also must respond to student and employer demands in fields where current or projected job creation outpaces the capacity of the higher education system to produce trained graduates.

The 2004 Strategic Master Plan for Higher Education proposed that the state increase the number of students who earn degrees and are prepared for work in high-demand fields by 300 per year to reach a cumulative total of 1,500 by 2010. Reaching this goal requires adding about 1,000 full-time equivalent (FTE) students to the higher education system each year. These degrees and enrollments are in addition to existing degrees and enrollments in the higher education system.

High-demand programs have two primary elements: (1) instructional programs or fields in which student enrollment applications exceed available slots and (2) career fields in which employers are unable to find enough skilled graduates to fill available jobs. This definition recognizes both excess student demand for a program and strong economic requirements for graduates in particular fields.

Identifying high-demand fields and programs

To help meet the state's economic needs and respond to employer and student demand, the board will develop an ongoing method of identifying high-demand fields and programs based on student and employer needs and master plan goals. The board believes the state would provide greater service to students and employers and greater predictability to the colleges and universities if it facilitated an ongoing dialogue about the changing environment for high-demand programs and fields, rather than responding in a sporadic fashion based on the availability of funding.

House Bill 3103, enacted in 2004, directs the board to develop a comprehensive and ongoing assessment process to analyze the need for additional degrees and programs. The needs assessment will examine projections of student, employer, and community demand for education and degrees – including liberal arts degrees – on a regional and statewide basis. The process will help identify, on a regional and statewide basis, program areas with high student demand for certain programs, as well as significant employer demand for graduates. It also will be used to estimate the total high-demand program need.

Implementation Plan

1. Identify high-demand fields

- **In October 2005, the HECB** will complete an initial state and regional needs assessment, which will include recommended definitions of high-demand fields.

- **In June 2006, a work group** convened by the HECB will review the HECB definitions of high-demand fields and finalize a detailed list of high-demand fields for the 2007-09 biennium.

- **In November 2006 and every two years thereafter**, the HECB will include a list of eligible high-demand programs in its biennial higher education budget recommendations to the governor and Legislature.

2. Fund high-demand enrollment slots

- **In December 2004, the HECB** submitted its final 2005-07 higher education budget recommendations to the governor and Legislature. The board recommended that the state fund 2,300 high-demand full-time enrollments, including 1,300 at the two-year colleges and 1,000 at the four-year colleges and universities. The final 2005-2007 operating budget did not specify funding for high-demand enrollments.

- **In October 2006, the HECB** plans to request state funding in the 2007-09 operating budget to implement a new model for distributing high-demand enrollments based on measurable outcomes (e.g. number of degrees produced). Every two years thereafter, the HECB will include its high-demand enrollment funding proposals in its biennial higher education budget recommendations to the governor and Legislature.

4. Keeping College Tuition Affordable and Predictable

Overview

Washington, like many states, does not have a comprehensive tuition policy for resident undergraduate education. As a result, tuition increases generally have fluctuated in a cyclical pattern: increasing moderately when state revenue is high and increasing sharply when state revenue is low. The absence of a tuition policy has made it difficult for students and parents to anticipate college costs and for Washington's Guaranteed Education Tuition program, the state's prepaid college tuition plan, to plan for long-term affordability. It also has potentially devastating consequences for thousands of financially needy families who often do not have the financial reserves to respond to unexpected spikes in tuition.

The Higher Education Coordinating Board believes that Washington needs a state tuition policy that keeps tuition predictable and affordable for students and families while maintaining the high quality of education at the state's public colleges and universities. The 2004 Strategic Master Plan called for the state to adopt the following tuition policies for resident undergraduate tuition and fees at Washington public two-year and four-year colleges and universities.

Short-term Tuition Policy

- Tuition and fees would not increase by more than 31 percent during any consecutive four-year period (average increases of 7 percent compounded).

- Annual tuition increases would be spread as evenly as possible over this four-year period and no annual increase should exceed 10 percent.

Long-term Tuition Policy

The Higher Education Coordinating Board planned to examine alternative tuition policies and make recommendations to the governor and Legislature for consideration during the 2006 legislative session.

Implementation Plan

1. Adopt the recommended short-term tuition policy.

- **In December 2004, the HECB** recommended to the Legislature and governor that the state adopt the proposed short-term tuition policy, beginning with the 2005-06 academic year.

- **The final 2005-07 operating budget** limited increases in resident undergraduate tuition in each year of the biennium to 7 percent at the research universities, 6 percent at the comprehensive institutions, and 5 percent at the community and technical colleges.

2. **Recommend a long-term tuition policy to the Legislature and governor.**

   - **By November 15, 2006, the Washington Learns steering committee** will submit a final report to the Legislature.

     As directed in Senate Bill 5441, the report will recommend the appropriate share of the cost of instruction that should be funded through tuition, general fund-state, and financial aid. The HECB will be working closely with the Washington Learns steering committee and higher education advisory committee as they examine various tuition policy options and develop their final recommendations.

   - **In November 2006, the HECB** will submit to the governor and Legislature its 2007-09 operating budget recommendations, including tuition recommendations for resident undergraduate students.

5. Promoting Opportunity through Student Financial Assistance

Overview

State law declares that "financial need shall not be a barrier to participation in higher education" (RCW 28B.10.786). The Higher Education Coordinating Board believes the state must maintain its longstanding commitment to higher education opportunity for all students, regardless of income.

To help financially needy students meet the rising costs of a college education, the 2004 Strategic Master Plan called on the state to expand several state financial aid and scholarship programs and create a new pilot program to aid adults who attend college part-time while working full-time.

Implementation Plan

1. **State Need Grant – Serve the state's neediest students**
   The state should provide grants equal to 100 percent of tuition to students with family incomes at 65 percent of the state's median and serve all students eligible for the grant.

   - **In December 2004, the HECB** requested an additional $75.2 million in the 2005-07 state operating budget to ensure that the need grants keep pace with tuition increases and that sufficient funds are available for currently eligible students.
   - **The final 2005-07 operating budget** provided an additional $69.7 million in funding to increase the income service level from the current 55 percent of median family income to 65 percent, adjust awards to keep pace with tuition increases, and cover the impact of new state-funded enrollments.

2. **State Work Study – Provide placement opportunities in high-demand fields and restore the number of students served to the program's historic service level**
   The state should increase funding for the State Work Study program to provide students with additional job opportunities in targeted high-demand fields and to restore the number of students served to the program's historic level of one in 14 needy students. The board also recommended increases to maintain the student award at approximately 15 percent of each student's financial need throughout the next three biennia.

   - **In December 2004, the HECB** requested an additional $3.9 million in the 2005-07 state operating budget to adjust for increased costs and partially restore the program's historic service level.
   - **The final 2005-07 operating budget** provided a $2.9 million increase in funding to allow student awards to keep pace with tuition increases and higher enrollments.

3. **Educational Opportunity Grant – Increase student participation**
   The state should increase funding for the Educational Opportunity Grant program, the state's only targeted financial aid initiative specifically designed to increase the number of students who earn bachelor's degrees.

   - **In December 2004, the HECB** requested $0.5 million to increase the number of participating students.
   - **The final 2005-07 operating budget** did not include any increase in funding.

4. **Washington Promise Scholarship – Promote academic excellence**
   To motivate middle and high school students to excel and prepare for college, the state should fund the Washington Promise Scholarship award at the statutory maximum of two-year college tuition.

   - **In December 2004, the HECB requested an additional $3.5 million to increase annual awards from $1,176 to $1,400.**
   - **The final 2005-07 operating budget eliminated the Washington Promise Scholarship program, beginning with the high school graduating class of 2005.**

5. **Washington Scholars and Washington Award for Vocational Excellence – Maintain the value of awards.** The state should fund these programs to maintain scholarship awards at the value of public tuition and fees.

   - **In December 2004, the HECB** requested an additional $0.7 million to maintain scholarship awards at the value of public resident undergraduate tuition and fees.
   - **The final 2005-07 operating budget** provided a net increase of $0.4 million. The funding maintained scholarship awards at the value of public resident undergraduate tuition and fees, while also reducing the number of Washington scholars in each legislative district from three students to two students in fiscal year 2007.

6. **Financial Aid for Low-income Full-time Workers – Create a new pilot program**
   The state should develop a pilot grant program for low-income, full-time workers who attend college for five or fewer credits per term. Participating students would receive grants equal to tuition, plus an allowance for books.

   - **In December 2004, the HECB** requested $2 million in the state operating budget to fund the pilot project during the 2005-07 biennium.
   - **House Bill 1345**, as enacted in 2005, authorizes the HECB to develop a pilot project within the State Need Grant program to help students enrolled in college less than-half-time. The legislation reduces the enrollment threshold to at least four credits from the current six-credit minimum.
   - **In fall 2005, the HECB** will select up to 10 participating colleges and universities and begin implementation of the pilot project.
   - **By December 2006, the HECB** will report to the governor and Legislature on the number of students who might be eligible if the pilot project were expanded statewide, the demographic characteristics and college-going behavior of the students, and the costs to fund a statewide program.

6. Meeting Regional Higher Education Needs

Overview

Washington's current higher education system has evolved largely in response to changing student demographics, employer demand, community needs, and geographic disparities in students' college attendance. It has not always been planned or implemented in a conscientious or prioritized manner.

To improve the responsiveness and effectiveness of the current system, the 2004 Strategic Master Plan for Higher Education called for the development of a resource allocation framework to respond to local, regional, and state needs with clearly stated priorities. Specifically, this framework would do the following:

- Clearly identify the existing distribution of higher education resources;
- Explain the purpose and inter-relationship of these resources;
- Establish the criteria and authorities by which these resources could change in response to emerging and changing student and regional needs; and
- Use existing and new resources in a coordinated and flexible manner.

Implementation Plan

1. **Develop a simulation model that helps state policymakers analyze the impact and costs of higher education enrollment and funding options**

    - **In December 2004, the HECB** completed the simulation model. The model will help the develop options for the size and shape of higher education. The HECB recently used the model in developing its recommendations on the future of Washington's branch campuses. The model will be a critical tool in developing and analyzing options for the future size and shape of the state higher education system.

2. **Complete the needs assessment process, as outlined in House Bill 3103**

    - **In January 2005, the HECB**, with assistance from stakeholders, identified the regions of the state that should be the focus of future data collection and planning initiatives.

    - **In May 2005, a work group**, appointed by the HECB, developed criteria for the evaluation of state and regional needs. The work group included representatives of the State Board for Community and Technical Colleges (SBCTC) and the Workforce Training and Education Coordinating Board (WTECB).

    - **In September 2005, the HECB** will issue a report on state and regional needs assessments, with additional updates every two years. The report will recommend that the HECB complete three additional reports on training needs for specific occupational areas by June 2007.

3. **Revise the approval processes for new degree programs at the four-year and two-year colleges and universities.**

   - **In September 2005, the HECB** is scheduled to adopt updated guidelines for program approval, facility leases and purchases at public colleges and universities. These guidelines are outlined in *Program and Facility Approval Policy and Procedures*. The HECB developed the guidelines, in close consultation with the public four-year colleges and universities.

4. **Develop a higher education reconfiguration plan for presentation to state policymakers and higher education administrators.**

   The plan will address opportunities to expand student enrollment; assess the need to revise the roles and missions of existing colleges and universities; and determine whether new colleges and universities are needed to meet regional and statewide needs.

   - **By February 2006, the HECB** will complete a review of the roles and missions of existing public colleges and universities. In addition, the HECB will complete a statewide inventory of higher education resources, including locations and programs of public and private colleges and universities.

   - **In July 2006, the HECB** will present a draft higher education reconfiguration plan for discussion.

   - **In September 2006, the HECB** will present a final higher education reconfiguration plan to the governor and Legislature, college and university governing boards, and other interested parties.

7. Helping Transfer Students Earn Bachelor's Degrees

Overview

The state needs a barrier-free transfer system to help community college transfer students earn bachelor's degrees at four-year colleges and universities as efficiently as possible.

The 2004 Legislature directed the Higher Education Coordinating Board to assume a leadership role in working with Washington's colleges and universities to ensure efficient and seamless transfer across the state. Developing a statewide on-line student advising system was a key assignment, along with developing transfer associate degrees for specific academic majors. Both of these efforts focus on better preparing students before they enter four-year colleges.

In addition to these legislatively mandated efforts, the 2004 Strategic Master Plan called for the elimination of a requirement that community college students who are transferring with associate degrees complete an additional 90 quarter-based credits at a public four-year college or university in order to earn a bachelor's degree. Eliminating this policy would allow students who complete associate degree pathways to graduate with exactly the credit they need to complete their bachelor's degrees.

Implementation Plan

1. **Develop new associate degree pathways that focus on readiness for academic majors at four-year colleges and universities, as required by House Bill 2382.**

    - **In January 2005, the HECB** submitted to the Legislature and governor a report, *Articulation and Student Transfer*, which summarized the progress of the work groups in developing associate degree pathways.

    - **In June 2005, a two-year/four-year college work group** completed a new associate degree pathway for nursing. In addition, it identified three additional associate degree pathways to be developed or revisited: (1) business, (2) engineering technology, and (3) earth science secondary education. The work group, known as the Joint Access Oversight Group, is composed of leaders from the public two-year and four-year colleges and universities.

    - **In September 2005, the HECB** is scheduled to adopt revised academic degree program approval guidelines for bachelor's degrees, which require colleges and universities to identify a corresponding associate degree pathway when they propose a new major.

    - **By December 2005, the work group** will complete new associate degree pathways for elementary education and engineering.

- **By December 2005, the HECB** will complete an inventory of existing associate degree pathways that prepare students for bachelor's degrees and identify the number of transfer students earning bachelor's degrees by major.

- **By June 2006, the work group** will revise the existing associate degree pathways in business and complete new pathways in engineering technology and earth science secondary education.

- **By June 2007,** all four-year degrees that are in high-demand by transfer students will be matched to corresponding associate degree pathways.

2. Eliminate the current 90-credit requirement for transfer students

- **In November 2004, the HECB** eliminated the 90-credit requirement from the statewide transfer policy and notified Washington colleges and universities.

3. Develop a statewide online student advising system to facilitate transfer and degree planning

- **In December 2004, the HECB** requested $1.65 million in the 2005-07 operating budget to implement and begin operation of the statewide on-line student advising system.

- **In January 2005, HECB staff and a work group** formed through House Bill 2382 submitted a report, *Articulation and Student Transfer*. The report outlined options and prospective operating and maintenance costs for a statewide online student advising system.

- **The 2005-07 operating budget** did not include any funding for the system.

- **In October 2005, the HECB** will request funding for the system in the 2006 supplemental operating budget to begin development of the system.

- **By January 2007, HECB and college/university staff** will work with the vendor to ensure that course equivalency data is integrated into the statewide system, a student feedback tool is developed, and electronic transcripts are available.

- **By June 2007**, the statewide online student advising system will be fully operational and available to students statewide.

8. Helping Students Make the Transition to College

Overview

Every year, large numbers of Washington students graduate from high school unprepared for college study or, many would argue, the workplace. Fifty-six percent of students who graduated from high school in 2002 enrolled in a Washington public two-year or four-year college or university within one year of graduation. Of those students, 38 percent required remedial mathematics or English courses.

Inadequate preparation in high schools takes an even greater toll on African American, Hispanic, and Native American students. Students from these groups in the high school class of 2002 were significantly less likely than their White or Asian peers to go on to college within a year of graduation and more likely to require remedial instruction when they enrolled. Higher education shoulders much of the cost of this lack of preparation.

The state higher education system must take a leadership role in developing a systemic solution to the problem of poor preparation. The Higher Education Coordinating Board proposes to collaborate with state K-12 and higher education systems to accomplish the following key initiatives:

- Develop a comprehensive definition of college readiness;
- Establish statewide student learning outcomes for grades 11 and 12 that are required for success in postsecondary study;
- Expand effective models that promote K-12/higher education collaboration and prepare students for college success; and
- Communicate with students, families, and schools the requirements of a rigorous high school education that will lead to successful postsecondary study and careers.

These initiatives will help students prepare for higher education with a clear understanding of the knowledge and abilities required for success and the confidence that their high school coursework will be enough to gain them admission and prepare them for the rigors of college work.

Key outcomes of this proposal include (1) an increase in the number of students who are ready for postsecondary study and (2) the establishment of the critical groundwork to improve instruction, teacher training and development, and guidance counseling; reduce remediation at state colleges and universities; and narrow the achievement gap.

Implementation Plan

1. **Define college readiness in the key subject areas of mathematics, science, English, social studies, world languages, and the arts.**

   - **The 2005-07 operating budget** provided $600,000 to the HECB to develop college readiness definitions for English and science.
   - **In September 2005, the HECB** will establish a project coordination team of state policy makers, K-12 and higher education administrators and faculty, and representatives of the private sector to begin development of the college readiness definitions for English and science.
   - **By fall 2006, the HECB**, in collaboration with the project coordination team, will finalize draft definitions of college readiness for English and science.
   - **In September 2006, the HECB** will request funding in the 2007-09 operating budget to develop college readiness definitions for social studies, world languages, and the arts.
   - **In December 2006, the HECB** will adopt final definitions of college readiness for English and science, following extensive public review.
   - **In July 2007, the HECB** will begin development of college readiness definitions for social studies, world languages, and the arts, if the governor and Legislature provide state funding. The board will establish an advisory committee of state policymakers, K-12 and higher education administrators and faculty, and representatives of the private sector.
   - **In January 2008, the HECB**, in collaboration with the project coordination team, will distribute draft definitions of college readiness for social studies, world languages, and the arts.
   - **In December 2008, the HECB** will adopt final definitions of college readiness for social studies, world languages, and the arts, following extensive public review.
   - **The State Board for Community and Technical Colleges, Office of the Superintendent of Public Instruction, HECB, and Council of Presidents** will continue to work together to develop definitions of college readiness for mathematics through the Transition Math Project. The project team plans to present the final definitions to the HECB for public review and discussion by December 2005.

2. **Support the efforts of the Superintendent of Public Instruction (OSPI) to develop guidelines that identify the knowledge and abilities high school students must gain in grades 11 and 12 to be ready for college.**

   - **In December 2005, the Superintendent of Public Instruction** will finalize draft Grade Level Expectations (GLEs) in math for students in grades 11 and 12 as part of the ongoing work of the Transition Math Project, with funding provided by the Legislature and governor.

3. **Document the variety of college preparation programs administered in Washington state.** The HECB will publish its research findings with analysis and options for expanding the reach of these efforts.

   - **In February 2005, the HECB** submitted to the Legislature a report, *Collaborative Efforts to Improve Student Transitions,* which summarized dual-credit opportunities, as directed in House Bill 3103.

   - **By fall 2005**, **the HECB** will publish a report on promising state and national college preparation practices, including dual-credit, early awareness, tutoring, mentoring, teacher development, curriculum alignment, and parent advocacy programs. The HECB will identify these promising practices, in collaboration with the State Board for Community and Technical Colleges, the Superintendent of Public Instruction, and public and private colleges and universities.

   - **By November 15, 2006, the Washington Learns steering committee** will submit a final report to the Legislature. As directed in Senate Bill 5441, the committee will examine ways to provide smooth transitions from high school to college, including dual credit options and adequate preparation for college-level coursework. The HECB will be working closely with the Washington Learns steering committee and higher education advisory committee as they develop their final recommendations.

   - **Beginning in January 2007, the HECB** will provide biennial progress reports on increasing dual-credit opportunities.

4. **Educate students, parents, and educators about the new college preparation requirements.**

   - **By September 2005, the HECB** will develop and, assuming the availability of adequate resources, execute a communications strategy to inform students, parents, educators, and the public about the development and implementation of new college readiness definitions.

   - **Following the 2004-05 academic year, the HECB** will collaborate with colleges, universities, and state agencies to improve feedback to high schools about the performance in postsecondary education of their recent graduates. Strategies will include publicizing the percentage of students from each high school who enroll in postsecondary programs, persist in their studies, and require remedial instruction.

   - **Beginning in August 2005, the HECB**, in partnership with the Superintendent of Public Instruction, is working to make college and career planning materials available to all Washington high school students. The HECB and Superintendent of Public Instruction will team up again in August 2006 to make materials available to all middle school students.

9. Reducing Barriers for Non-traditional Students

Overview

Washington's higher education system works well for traditional students – the recent high school graduates who go from high school to college and continuously enroll until they receive their degrees. It works less well for "non-traditional" students, although the community and technical colleges in particular have made significant advancements in programs and services during the past decade. "Non-traditional" students include, but are not limited to, unemployed adults, students whose first language is not English, and those who need to balance college, work, and family obligations.

The Higher Education Coordinating Board believes that it is imperative that the higher education system recognize and respond to the educational and training needs of non-traditional students. By increasing the skills and knowledge of these students through education and training, we will be increasing their opportunities to better serve themselves and the state's economic needs and development.

Implementation Plan

1. **Assess and address the need for educational and training programs for targeted non-traditional students**

   - **In December 2005, HECB staff** will present a draft report to the HECB for review and discussion. The report will include the following components:
     - Identified target groups of non-traditional students, including the numbers of people affected;
     - Statewide assessment of the students' education and training needs;
     - Types and number of programs available in the state to meet those needs;
     - A national and state review of best practices; and
     - Recommendations to the governor and Legislature to address the identified needs and gaps, including potential legislation.

     HECB partners include public and private colleges, universities and career schools, and state K-12, workforce training and higher education agencies.

   - **In January 2006, the HECB** is scheduled to adopt the final report, including recommendations to the Legislature and governor.

2. **Publicize best practices to meet the education and training needs of non-traditional students**

   - **In December 2005, the HECB and its partners** will complete a national and state review of best practices in serving targeted non-traditional students.
   - **In January 2006, the HECB and its partners** will begin distributing this information statewide.

3. **Strengthen the coordination of current efforts to provide education and training programs for non-traditional students**

   - **In October 2005, the HECB** will convene a team of partners representing community colleges, public and private four-year colleges and universities, private career schools, and statewide workforce development organizations. The team will identify programs that serve non-traditional students, gaps in these services, and/or potential areas for expansion. The team then will develop strategies to close the identified gaps through more effective leveraging of existing resources.
   - **On an ongoing basis, the HECB** is working with its partners to coordinate efforts to address the needs of non-traditional students through the approval of new degree programs at the public four-year colleges and universities, development of a statewide higher education needs assessment, and authorization of out-of-state colleges and universities to offer instruction and degree programs in Washington.

4. **Support and promote financial aid policies and programs targeted to non-traditional students**

   - **In December 2004**, the HECB requested $2 million in the state operating budget to fund the pilot program during the 2005-07 biennium.
   - **House Bill 1345**, as enacted in 2005, authorizes the HECB to develop a pilot project within the State Need Grant program to help students enrolled in college less than-half-time. The legislation reduces the enrollment threshold to at least four credits from the current six-credit minimum.
   - **In fall 2005, the HECB** will select up to 10 participating colleges and universities and begin implementation.
   - **By December 2006, the HECB** will report to the governor and Legislature on the results of the project. The report will evaluate the number of students who might be eligible if the pilot project were expanded statewide, the demographic characteristics and college-going behavior of the students, and the costs to fund it.
   - **During the 2004-05 academic year, the HECB** will gather input from the financial aid community to determine whether non-traditional students should be specifically identified for priority assistance through the board's Future Teachers Conditional Scholarship and Loan Repayment program. Bilingual instruction is already identified as a priority in this program.

5. **Increase the number of current or new college instructors who are trained to teach adults, particularly those who require English language or bilingual instruction.**

   - **By January 2006, the HECB and higher education partners** will collaborate to identify and publicize grant programs to provide relevant instruction and training.

10. Promoting Student Success through Greater Accountability

Overview

Accountability is the backbone of a successful educational system. Redesigning the state's higher education accountability system will help the state reach its goals and promote student success at the institution, sector, and state levels.

Currently, the purpose of higher education accountability is unclear and its performance indicators have little relation to institutional or state goals. The board has begun to redesign Washington's accountability system based on the following principles:

- Priorities of Washington colleges and universities are aligned with state goals as defined in legislation and the 2004 Strategic Master Plan for Higher Education;
- Targets are set for the state and each college and university;
- Annual reports detail both significant achievements and areas to strengthen for the state and each college and university; and
- Based on accountability data, statewide and institutional policies are developed to help students succeed in completing their education efficiently, equitably, and effectively.

Implementation Plan

1. **Develop and implement a higher education accountability model that measures progress toward statewide goals.**

   - **In April 2005, the HECB** adopted a new accountability model and a set of common and institution-specific measures for the public four-year and two-year colleges and universities.

   - **The final 2005-07 operating budget** included budget provisos with additional performance measures for each public four-year college and university and the State Board for Community and Technical Colleges (SBCTC).

   - **By November 2005, the SBCTC and each public four-year college and university**, in cooperation with the Office of Financial Management (OFM) and HECB, will establish performance targets for these measures.

   - **The HECB** will monitor the performance of the colleges and universities in meeting these performance targets and continue to issue annual statewide and institution-specific reports to the governor and Legislature.

11. Measuring Student Success with an Improved Data System

Overview

Detailed information about student success is essential to understanding current trends and planning for future improvements. However, unlike many other states, Washington lacks the coordinated data system needed by state policy makers.

The 2004 Strategic Master Plan for Higher Education called for a student unit record data system to evaluate progress toward state goals and to identify and eliminate barriers to student success. The new statewide student-level database would include data about all students at every stage of college – from submitting the college application and deciding where to enroll to choosing a major and earning a degree. A few data sources currently exist, but none are sufficient to meet state needs.

In a 2003 review of other state record systems, the National Center for Higher Education Management Systems reported the following:

- Thirty-seven states have established operational student-level databases, which are managed by either a state university system or state higher education coordinating/governing board;
- Twelve states include some information on private colleges and universities in their databases; and
- About one-half of states also link to other state-level databases, including high school records and wage records.

Implementation Plan

1. Develop a statewide unit record data system for four-year college students

This data system will be similar to the data system used by the state's community and technical colleges and developed in many other states. The Office of Financial Management (OFM) has agreed to collect the data, in consultation with the Council of Presidents (COP) and HECB staff.

- **In December 2004, the HECB** requested $500,000 for the student-focused data system in the 2005-07 operating budget. The final 2005-07 operating budget did not include any funding for the data system.
- **In March 2005,** staff from the HECB, COP, and OFM completed a drafted Memorandum of Understanding for sharing, protecting, and accessing data.
- **By October 2005, HECB, COP, and OFM staff** will reach final agreement with the public four-year colleges and universities on a Memorandum of Understanding.

- **In October 2005,** the HECB will request state funding for the system in the 2006 supplemental operating budget.
- **By January 2006, HECB staff,** in consultation with OFM staff and the Data Advisory Group**,** will select a model for collecting and standardizing data.

  The Data Advisory Group, required by House Bill 3103, is composed of representatives from public and independent colleges and universities and other state agencies. The staff and advisory group also will identify policy questions and research projects to be completed during the following two years and submit the prioritized list to the HECB for approval. Some of the priorities will address routine information requests by the Legislature, while others will focus on long-term projects that, for example, could track student progress over time and analyze how various factors affect their success.
- **By October 2006, the public four-year colleges and universities** will begin submitting outcomes data to OFM.
- **By December 2006, OFM and HECB staff** will have tested the data and developed prototype reports, ongoing routines, and standards for continuing to collect data on a regular basis.
- **By February 2007, HECB staff** will begin using the data on a regular basis to answer routine questions and to conduct research and produce reports according to the priorities set in June 2005. HECB staff will develop a report schedule for long-term research projects and a survey to determine whether users find the reports and data useful.
- **By March 2007, HECB and OFM staff** will revise the prioritized project list, seeking HECB approval as necessary.

2. **Link data between four-year colleges and other sources to conduct research for use in policy and improving programs.** For example, links would enable the tracking and analysis of data regarding student academic performance and employment.
   - **By June 2007, HECB staff and the Data Advisory Group** will identify potential data linkages, develop a list of prioritized policy questions and research projects to be completed during the following two years and revise or develop agreements for sharing, protecting, and accessing linked data.
   - **By September 2007, HECB staff** will submit the list of prioritized projects to the HECB for approval. The Data Advisory Group will assist in developing protocols, standards, and routines for regularly linking data between agencies and schools. HECB staff will begin linking and testing the new data.
   - **By December 2007, HECB staff, in consultation with the Data Advisory Group,** will develop a reporting schedule and user survey. The group will review and discuss any draft reports produced by the HECB staff and resolve any data problems.
   - **By March 2008, HECB** will begin regularly producing reports using the linked data. The Data Advisory Group will discuss user feedback, prioritize future projects, and resolve data problems.

WASHINGTON HIGHER EDUCATION COORDINATING BOARD

September 2005

Life Sciences Discovery Fund Authority

At Governor Locke's request, the Legislature provided funds in 2003 to contract with an outside entity to develop a plan to direct state and private resources to Washington's universities and nonprofit research institutions and their industry partners to make the state a leader in the emerging field of predictive and preventive medicine. The plan, known as "Bio 21," developed by a committee comprised of scientists and staff from large research organizations, executives of biotech and technology companies, and venture capitalists among others, was designed to build upon Washington's existing assets in life sciences and information technology to generate new jobs and health care innovations. The plan was submitted to the governor in January 2004 and, in 2005, Senate Bill 5551 represented one of the plan's major recommendations.

Senate Bill 5551 created the Life Sciences Discovery Fund Authority as an agency of the state. The powers of the Authority are vested in a board of trustees. The board of trustees is composed of seven members appointed by the governor and four legislators. Dr. Lura Powell has been appointed chair of the Authority. Dr. Lee Huntsman has been named as the executive director.

The Life Sciences Discovery Fund was established as an account in the State Treasury. A total of $350 million in forthcoming tobacco settlement funds will be used to attract an additional $650 million in private capital. The $1 billion fund will be used to help finance groundbreaking research and development of biomedical and other scientific advances to ease human suffering and make Washington a center for these activities.

The Authority can make grants to entities pursuant to contract for the promotion of life sciences research to be conducted within the state. The Authority must solicit requests for funding and evaluate the requests by considering the following factors:

- The quality of the proposed research
- The potential to improve health outcomes and lower health care costs
- The potential for leveraging additional funding
- The potential to provide health care benefits or benefit human learning and development
- The potential to stimulate health care delivery, biomedical manufacturing, and life sciences related employment in the state
- The geographic diversity of the grantees within Washington

- Evidence of potential royalty income and contractual means to recapture such income
- Evidence of public and private collaboration

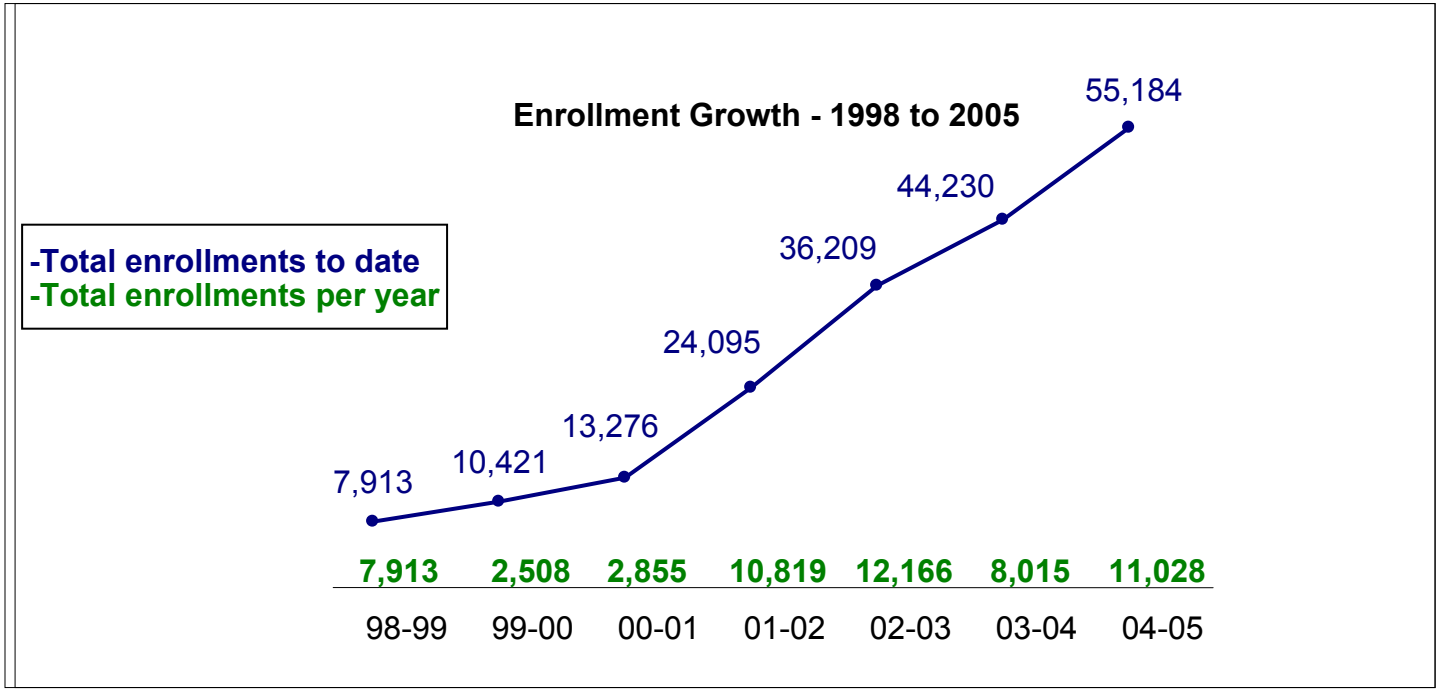
The Fund's executive director must report to the Legislature by December 2005 on the potential to direct revenues into higher education and, by December 2006, on the potential returns on investment of public funds in the Life Sciences Discovery Fund, including potential job growth, royalty income, intellectual property rights, and other significant long-term benefits to the state.

GET
GUARANTEED EDUCATION TUITION™

Director's Report **August 31, 2005**

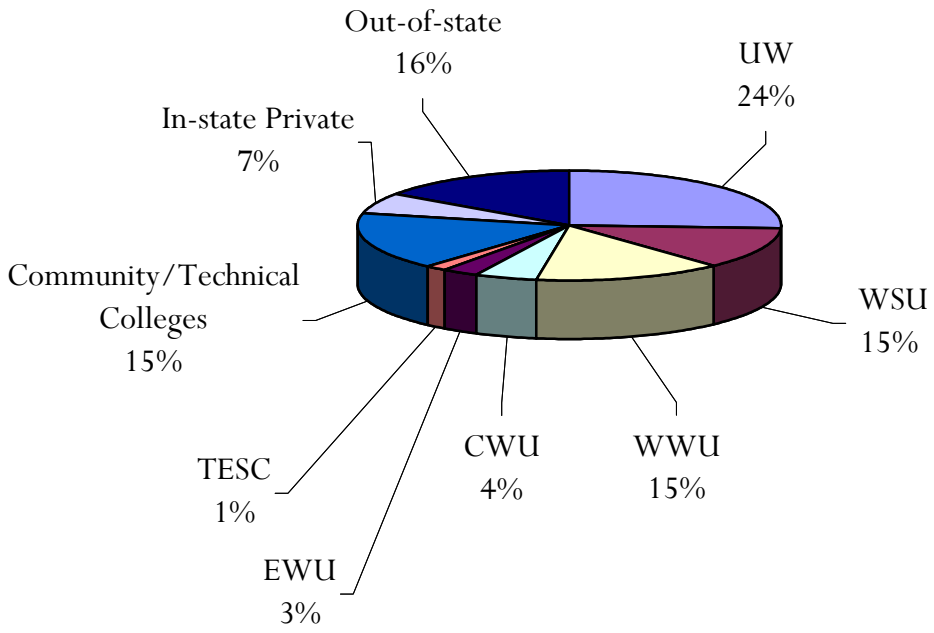
GET Program Since Inception	
Total active GET accounts since inception:	**55,184**
Total payments received:	**$467.7 million**
Total units purchased:	**11.3 million**
Total value of all contracts:	**$625.6 million**
Total benefits paid out to students:	**$22.5 million**
Total number of students who have used benefits:	**3,611**

GROWTH OF ACTIVE ACCOUNTS SINCE PROGRAM INCEPTION



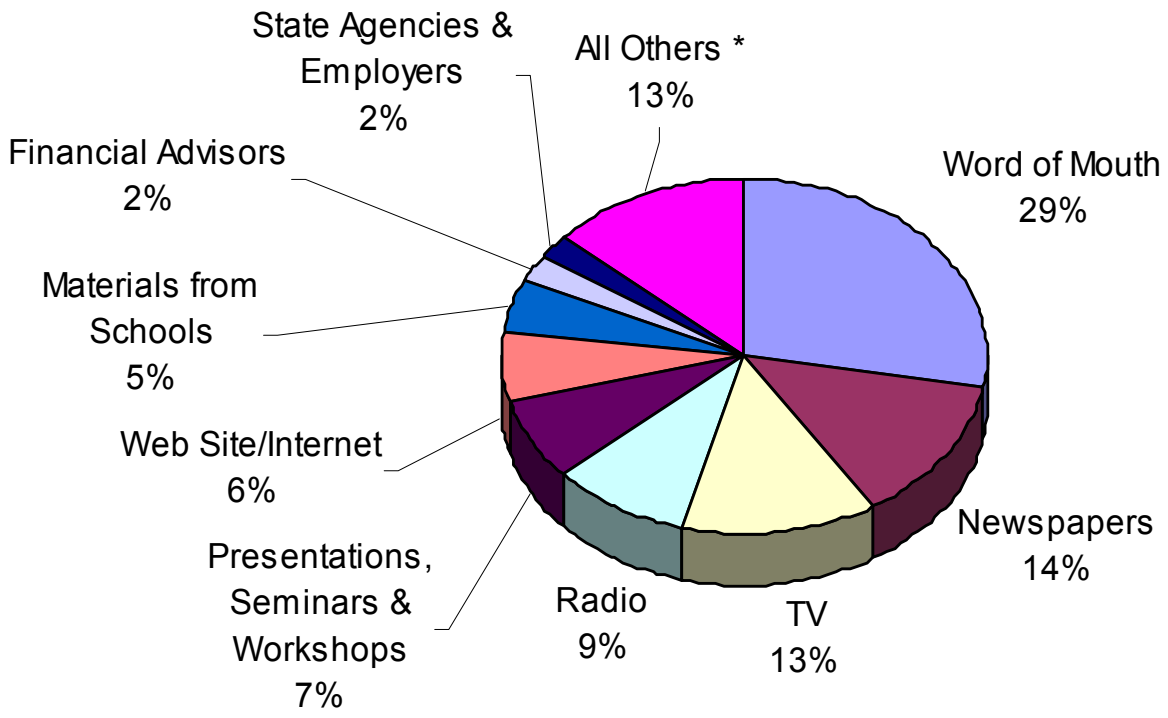
2005-06 Enrollment Year: September 15, 2005 – March 31, 2006

Most Students Use Their GET Units at Washington Public Colleges and Universities



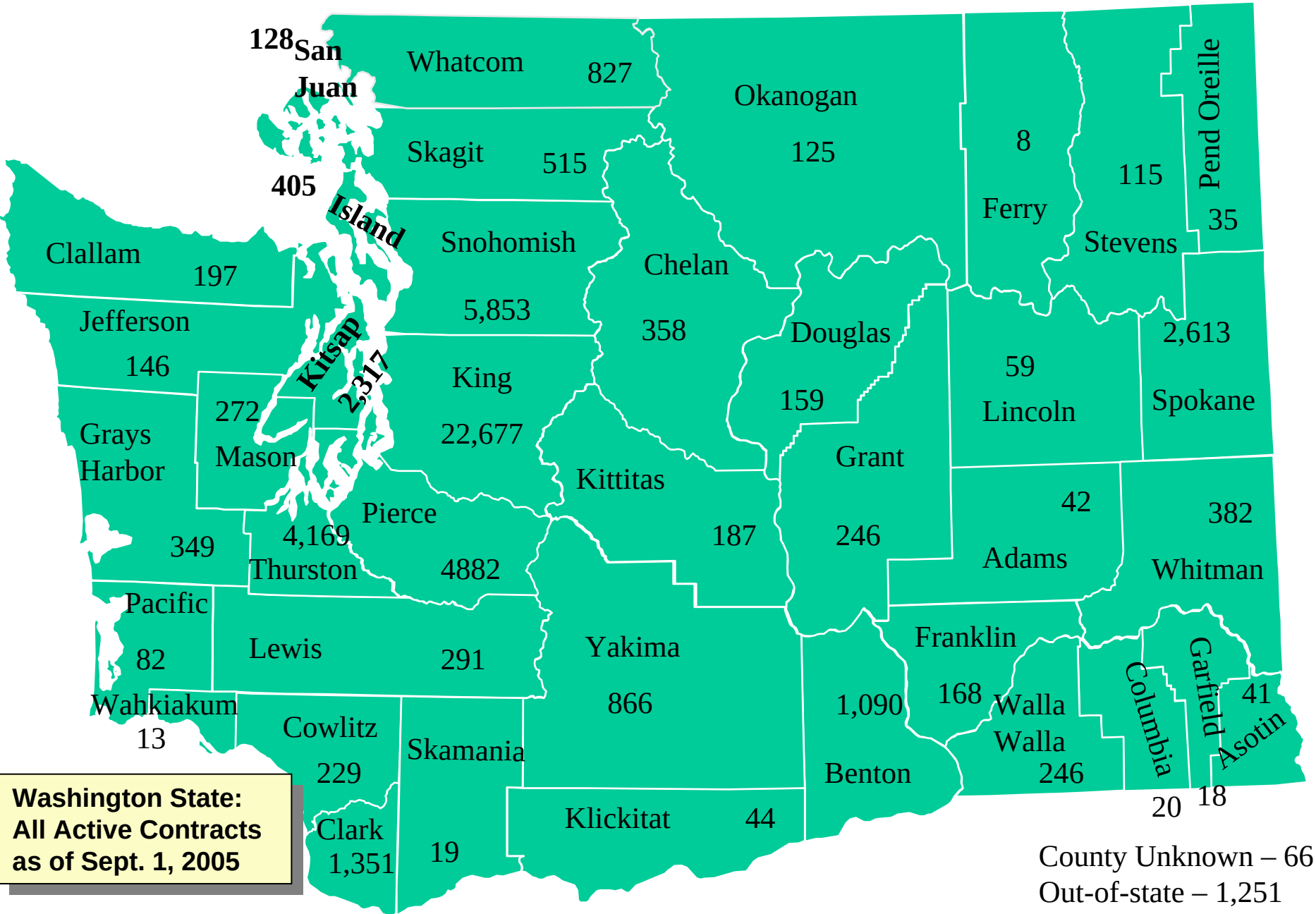
- University of Washington (UW)
- Washington State University (WSU)
- Western Washington University (WWU)
- Central Washington University (CWU)
- Eastern Washington University (EWU)
- The Evergreen State College (TESC)
- Community/Technical College's
- In-state Private
- Out-of-state

Word of Mouth is the Program's Most Effective Marketing Tool



* includes banks, hospitals, libraries, fair booths and conferences.

Contracts by County
Enrollment Years 1998-Present



**Washington State:
All Active Contracts
as of Sept. 1, 2005**

County Unknown – 66
Out-of-state – 1,251

WASHINGTON
HIGHER
EDUCATION
COORDINATING BOARD

September 2005

DRAFT
HECB Agency Request for 2006 Supplemental Budget

Performance Level

1. GEAR UP Scholarships – $2.1 million to maintain scholarship levels
2. On-line Student Advising System – $1.1 million for statewide student advising data system
3. Student Data Warehouse – $152,000 for student-focused data system
4. Purchased Annuity and Retirement Income Plan Authority – $294,000 to allow HECB to offer TIAA CREF type retirement in lieu of PERS

Maintenance Level

1. Technical Corrections – $0 for necessary corrections
2. Lease Increase – $324,000 for increased lease costs and additional space

Introduction

The state of Washington enacts biennial operating and capital budgets during each odd-numbered year and supplemental budgets each even-numbered year. The state Office of Financial Management (OFM) has directed agencies to submit supplemental budget requests for the 2006 supplemental budget by October 17, 2005.

The Higher Education Coordinating Board's (HECB) spending authority for the current biennium (2005-07, state general fund and legacy fund) is $392 million. Of that appropriation, $387 million (99 percent) is earmarked for student financial aid and direct services. The remaining one percent or $5 million supports the board's coordination and policy efforts.

The agency budget request is one step in implementing the priorities and proposals included in the board's *2004 Strategic Master Plan for Higher Education.* Other aspects of the plan will be carried out through the board's review of institutional budget requests and other board actions.

Board Action Requested

The board is requested to adopt the HECB draft 2006 supplemental budget request as outlined below. With board adoption, these proposals will be refined and drafted to meet OFM submittal requirements by October 17, 2005.

Performance Level

1. GEAR UP Scholarships – $2.1 million to maintain scholarship levels

Gaining Early Awareness and Readiness for Undergraduate Programs, or GEAR UP, is a federal initiative to help low-income and educationally disadvantaged middle and high school students prepare for and succeed in college. Students who complete the program's requirements earn annual scholarships for up to four years of college. The Higher Education Coordinating Board is requesting $2,146,000 for scholarships worth $4,050 per year to qualifying students.

2005-07 budget impact:

Dollars needed	$2,146,000
2005-07 state appropriations	$0
Required increase in state appropriations	**$**2,146,000

RCWs requiring amendment: None.

2. On-line Student Advising System – $1.1 million for statewide student advising data system

The *2004 Strategic Master Plan for Higher Education* and House Bill 2382 (enacted in 2004) identify a need for improved efficiency in student transfer. When students take credits that do not transfer, they take longer to complete their bachelor's degree.

An online, statewide advising system will help improve transfer efficiency. It will include a single Web site where students can enter a course taken at any college and determine its equivalent at any other college in the state. Students will also have the ability to send their transcripts electronically and have them evaluated for applicability toward specific degrees.

The current request of $1.1 million includes funds to purchase software and set up the system. It is expected to cost $.55 million each subsequent year to maintain the system.

2005-07 budget impact:

Dollars needed	$1,100,000
2005-07 state appropriations	$0
Required increase in state appropriations	**$1,100,000**

RCWs requiring amendment: None.

3. Student Data Warehouse – $152,000 for student-focused data system

The *2004 Strategic Master Plan for Higher Education* proposes the state measure student success with an improved data system. In addition, House Bill 3103 (enacted in 2004) directs the Higher Education Coordinating Board to work with the public colleges and universities to establish a data system so that policy decisions may be based on consistent, objective data. As required by law, the board has assembled a research advisory group to identify the most cost-effective methods to collect new data or access existing data. The HECB has taken steps to create a data warehouse, similar to one managed by the two-year college system, with student-level data for analysis and eventual linkage to other data sources, including the K-12 school system.

2005-07 budget impact:

Dollars needed	$152,000
2005-07 state appropriations	$0
Required increase in state appropriations	**$152,000**

RCWs requiring amendment: None.

4. Purchased Annuity and Retirement Income Plan Authority – $294,000 to allow HECB to offer TIAA CREF type retirement in lieu of PERS

The Higher Education Coordinating Board is the only higher education agency or institution in Washington State that does not have the authority to offer its employees a purchased annuity and retirement income plan in lieu of the Public Employees Retirement System (PERS). Funding and statutory authority is needed to allow the HECB to continue to compete in this market for employees.

2005-07 budget impact:

Dollars needed	$294,000
2005-07 state appropriations	$0
Required increase in state appropriations	**$294,000**

RCWs requiring amendment: RCW 28B.10.400 et. Seq. would be amended to include HECB employees.

Maintenance Level

1. Technical Corrections – $0 for necessary corrections

Technical corrections are made to the 2005-07 biennial budget affecting Financial Aid Administration and the Health Professional Conditional Scholarship, Washington Promise Scholarship, and State Need Grant programs. Funding between these programs is adjusted, but there is no net financial impact.

2005-07 budget impact:

Dollars needed	$0
2005-07 state appropriations	$0
Required increase in state appropriations	**$0**

RCWs requiring amendment: None. However, certain proviso language in the budget will need to be amended.

2. Lease Increase – $324,000 for increased lease costs and additional space

Due to an increase in lease costs effective in October 2005 and the continued expansion of the state's very successful GET program, additional funds are needed to pay for the added cost of existing space and to lease an additional floor in one of two buildings occupied by HECB staff.

2005-07 budget impact:

Dollars needed	$1,001,000
2005-07 state appropriations	$677,000
Required increase in state appropriations	**$324,000**

RCWs requiring amendment: None.

RESOLUTION NO. 05-14

WHEREAS, The Higher Education Coordinating Board (HECB) is a 10-member citizen board, directed in statute "to represent the broad public interest above the interests of the individual colleges and universities;" and

WHEREAS, The Higher Education Coordinating Board administers all state-funded financial aid so that loans, grants, and work – state and federal – may be coordinated to provide the best possible service to students and make best use of state resources; and

WHEREAS, The board also provides policy, regulatory, and fiscal recommendations at the request of the Legislature and governor; and

WHEREAS, The budget request reflects the comments and decisions of the board's fiscal committee; and

WHEREAS, The Office of Financial Management (OFM) has directed public agencies to submit 2006 supplemental budget requests by October 17, 2005;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board approves the 2006 supplemental budget request presented to the board on September 22, 2005, and directs staff to refine and redraft the request to accommodate OFM submittal requirements by October 17, 2005.

Adopted:

September 22, 2005

Attest:

_____
Bob Craves, Chair

_____
Jesus Hernandez, Secretary

WASHINGTON HIGHER EDUCATION COORDINATING BOARD

September 2005

DRAFT

Program and Facility Approval: Proposed Revisions to Current Policies and Procedures

Master Plan Policy Proposal 6: Meeting Regional Higher Education Needs

Introduction

The Higher Education Coordinating Board (HECB) is scheduled at its September 22 meeting to take action on its proposal to revise current policy and procedures regarding program and facility approval. The proposed revisions cover seven areas of responsibility assigned to the board. House Bill 3103, enacted into law in 2004, and House Bill 1794, enacted into law in 2005, gave the board responsibility for approving the following:

- New degree programs by a four-year institution;
- Creation of any off-campus programs by a public four-year institution;
- Purchase or lease of major off-campus facilities by a public four-year institution or a community or technical college;
- Creation of higher education centers and consortia;
- New degree programs and creation of off-campus programs by an independent college or university in collaboration with a community or technical college;
- Applied baccalaureate degree programs developed by a community or technical college under Section 6 of HB 1794; and
- Agreement between a community college, or technical college, and one or more regional universities, branch campuses, or the state college to offer baccalaureate degree programs under the pilot program established in Section 12 of HB 1794.

The board last approved revisions to its *Guidelines for Program Planning, Approval and Review* in January 2001 (Resolution 01-02) and its *Off-Campus Property Acquisition Policy* in April 1992 (Resolution 92-16). The *Program and Facility Approval Policies and Procedures* will replace these two policies.

At the board's June meeting, staff provided an overview of regional planning efforts. The *2004 Strategic Master Plan for Higher Education* calls for state policymakers to link the plan's goals with the state's higher education needs and resources. It states: "To accomplish the goals of the strategic master plan, the state must identify the needs of various regions and devise appropriate strategies."

Response to Public Comment on Proposed Revisions

At the June meeting, the board received comments on several proposed revisions to the *Program and Facility Approval Policies and Procedures.* Based on these comments, staff have made several changes to the draft policy and procedures.

- **The State Board for Community and Technical Colleges (SBCTC) requested that the requirement for review of associate degree programs in excess of 120 credits be removed as an area of authority since the Legislature has given sole authority to approve associate degrees and certificates to the SBCTC, without reference to credit levels.**

  HECB policy has required review of associate degrees exceeding 120 credits for more than 20 years; however, following a review of the statute and consultation with the Attorney General's Office, HECB staff agree with the SBCTC recommendation and have removed the requirement from the current draft of the guidelines.

- **The SBCTC requested the addition of information about university centers as a permanent way to meet placebound needs of people in Washington; clarification of who has the responsibility to seek HECB approval in the case of a contract between a two-year institution and four-year institution to offer baccalaureate degrees; and clarification of the concept of a progression of development among off-campus sites (e.g. teaching sites, centers).**

  HECB staff, in collaboration with SBCTC staff, have modified the appropriate sections to indicate that a center may be a permanent means to serve placebound students. In addition, language has been added to the sections that outline the procedure required to establish an agreement to offer programs between a community college and public or private four-year college to indicate that the community college is responsible for seeking approval of the agreement, but the four-year college retains responsibility to seek approval of the new program (if required).

- **The academic leadership of the six public baccalaureate universities requested that the procedure for external review of new degree program proposals maintain the board's current procedure in which the HECB requires institutions to select external reviewers.**

  HECB staff have reviewed several issues related to external review with the provosts' offices. The staff concur that the faculty proposing the new degree program would be most knowledgeable about the experts available to review the program. At the same time, campuses recognize the need to ensure high-quality and independent critical review of program proposals. Under the revised guidelines, the institutions retain the authority to select external reviewers for new degree programs based on guidelines established by the HECB. The HECB retains the authority to request additional review of proposals prior to board action in circumstances it deems unusual.

- **The academic leadership of the six public baccalaureate universities requested clarification of which certificate programs would be reviewed as part of new degree program approval. They also asked that institutions be required to report new certificate programs to the HECB instead of submitting them to the HECB for review and approval prior to implementation.**

  HECB staff have revised the guidelines to require HECB review of only those certificate programs at the undergraduate or graduate level that require the equivalent of one year or more of full-time study and contain a recognizable body of instruction for which a certificate is awarded and transcripted.

- **The universities raised a concern about a potential redundancy in the approval of acquisition of major off-campus facilities.**

  HECB approval of the acquisition of major off-campus facilities is required under RCW 28B.76.230(4). The revised policies and procedures would represent no change to current policy and procedures, with the exception of an increase in the threshold of "major" facilities in terms of square footage and cost. Language has been added to the draft policy and procedures to clarify the role and timing of HECB approval of major facilities.

Staff Recommendations

Higher Education Coordinating Board staff recommend that the board adopt the revised policies, areas of authority, and procedures contained in the *Program and Facility Approval Policies and Procedures*. Staff also recommend that the board delegate authority to the executive director to amend the procedures as needed to incorporate policy changes adopted by the board.

RESOLUTION NO. 05-15

WHEREAS, In the *2004 Strategic Master Plan for Higher Education*, the Higher Education Coordinating Board states its intent "to integrate degree and program approval with the planning process for centers and other off-campus programs;"

WHEREAS, State law (RCW 28.76.230) directs the Higher Education Coordinating Board to "develop a comprehensive and ongoing assessment process to analyze the need for additional degrees and programs, additional off-campus centers and locations for degree programs, and consolidation or elimination of programs by the four-year institutions;"

WHEREAS, The public colleges and universities have been actively involved in the development of revised policy and procedures;

WHEREAS, The board has reviewed the proposed changes in the policies, the areas of authority, and the *Program and Facility Approval Policies and Procedures;*

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board adopts the revised policies, areas of authority, and procedures contained in the *Program and Facility Approval Policies and Procedures;*

BE IT FURTHER RESOLVED, That the board delegates authority to the executive director to amend the procedures as needed to incorporate policy changes adopted by the board.

Adopted:

September 22, 2005

Attest:

_____

Bob Craves, Chair

_____

Jesus Hernandez, Secretary

WASHINGTON
HIGHER
EDUCATION
COORDINATING BOARD

DRAFT

Program and Facility Approval Policies and Procedures

Washington Higher Education Coordinating Board

September 2005

Program and Facility Approval Policies and Procedures

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Appendices:

OVERVIEW

The Higher Education Coordinating Board (HECB) is charged with overseeing state higher education resources. A key aspect of this role is the planning and coordination of academic programs and off-campus facilities, including teaching sites and centers.

The *2004 Strategic Master Plan for Higher Education* lays out two goals that guide the work of the HECB:

1) Increasing opportunities for students to earn degrees, and
2) Developing a higher education system responsive to the state's economic needs.

Key strategies in the master plan to assist in achieving these goals include the development of new planning tools and the integration of previously separate approval processes for new degree programs with the purchases and leases of major off-campus facilities.

The HECB is proposing revisions to its policy and procedures in *Program and Facility Approval Policy and Procedures* to reflect changes in the law (RCW 28B.76.230) and to implement the *2004 Strategic Master Plan for Higher Education.* This document integrates degree and program approval for the four-year public institutions with the planning process for centers and other off-campus facilities. The board last approved revisions to its *Guidelines for Program Planning, Approval and Review* in January 2001, (Resolution No. 01-02) and revisions to its *Off-campus Property Acquisition Policy* in April 1992, (Resolution No. 92-16). The *Program and Facility Approval Policy and Procedures* replaces these two documents.

The goal of these proposed revisions is to develop a process for program approval that provides clear criteria for program approval and offers ample opportunity for interested parties to provide feedback on program proposals. The proposed revised policies and procedures will provide institutions and the HECB with two new planning tools:

1) A statewide and regional assessment of student, employer, and community needs for degrees and education, and
2) A program and facility inventory that identifies academic degree program offerings and the facilities where programs are offered for both public and private institutions.

Policies reflect the board's vision of allowing off-campus programs to develop progressively from teaching sites to learning centers and, under certain circumstances, into new colleges or universities.

The proposed policy and procedures cover seven areas of authority assigned to the board. The Legislature revised the board's authority in 2004 under HB 3103, and again in 2005 under HB 1794, recently signed by Governor Gregoire.

The law gives the board authority for approving:

- New degree programs by a four-year institution;
- Creation of any off-campus programs by a four-year institution;
- Purchase or lease of major off-campus facilities by a four-year institution or a community or technical college;
- Creation of higher education centers and consortia;
- New degree programs and creation of off-campus programs by an independent college or university in collaboration with a community or technical college;
- Applied baccalaureate degree programs developed by a community or technical college under Section 6 of HB 1794 (Section 6 created a process for the State Board for Community and Technical Colleges to select four community or technical colleges to develop and offer applied baccalaureate degrees on a pilot basis); and
- Agreements between a community or technical college and one or more regional universities, branch campuses, or state colleges to offer baccalaureate degree programs under the pilot program established in Section 12 of HB 1794.

The following programs and facilities are *not* subject to the board's policies and procedures:

- Noncredit programs of the four-year institutions;
- Programs offered by independent colleges and universities and out-of-state institutions (these programs are subject to approval under the HECB's policies and procedures related to Degree Authorization available at: http://www.hecb.wa.gov/autheval);
- Programs offered by community or technical colleges that are fewer than 120 credits and do not involve collaboration with an independent college or university; and
- Lease and purchase of non-major off-campus facilities, agricultural research facilities, and marine vessels.

The board delegates to the executive director the authority to review and update the *Program and Facility Approval Policy and Procedures* document as needed to incorporate policy changes adopted by the board and Legislature.

POLICIES AND AREAS OF AUTHORITY

Policies

The governing boards of the public higher education institutions (e.g., Board of Regents, Board of Trustees) are charged with developing new degree programs and assessing the academic quality of the curriculum, evaluating the capacity of the institutions to offer programs efficiently, and using resources wisely.

The HECB has statutory responsibility for approving baccalaureate and graduate degree programs and off-campus facilities offered by the public four-year institutions (and, in instances where required by statutory authority, the public two-year institutions). The HECB implements its statutory authority by adopting policies and procedures contained in the document, *Program and Facility Approval Policy and Procedures.*

The HECB will approve new baccalaureate and graduate degree programs and off-campus facilities that align with and/or implement the statewide strategic master plan strategies to increase opportunities for students to earn degrees and respond to the state's economic needs. Board approval will be based on evidence that the program or off-campus facility is likely to:

- Support the unique role and mission of the institution(s);
- Foster high-quality programs that enable students to complete their studies in a reasonable amount of time;
- Meet state and/or regional student, employer, and community needs;
- Provide access for diverse student populations;
- Demonstrate that the need is commensurate with the costs to be incurred and represents an effective use of fiscal resources; and
- Be free from unnecessary program duplication.

Board policy and procedures address several areas of authority. The enabling authorization is Washington state statute and/or board policy necessary to implement the board's responsibilities.

Areas of Authority

A. New Degree Programs

A-1 **New Degree Program** – The HECB approves new baccalaureate and graduate programs offered by Washington public colleges or universities. *RCW 28B.76.230 (5)(a)*

A-2 **Program and Facility Inventory** – The HECB maintains a program and facility inventory. The inventory includes all postsecondary credit degree and certificate programs, including locations where programs are offered which are approved for planning or implementation in Washington. *RCW 28B.76.230 (2)(b)*

A-3 **State and Regional Needs Assessment** – On a biennial basis, the HECB will publish a state and regional needs assessment. The needs assessment includes projections of enrollments and degree programs at public and private institutions. The assessment will consider student, employer, and community demand for postsecondary enrollment and degrees. The assessment will be an integral part of the program planning and approval process. *RCW 28B.76.230 (1)(2)*

A-4 **Approval to Plan a New Degree Program** – The HECB approves initial plans for new baccalaureate and graduate degree programs. Planning authority will expire two years from approval. *RCW 28B.76.230 (5)(a)*

A-5 **New Degree Proposal** – Once institutional planning is complete, the HECB approves new baccalaureate and graduate degree programs proposals. The institution must enroll students within three years following approval or approval is rescinded. *RCW 28B.76.230 (5)(a)*

A-6 **Extension of an Existing Program to a New Location** – The HECB approves the extension of existing degree programs to new locations or via distance delivery. *RCW 28B.76.230 (5)(b)*

A-7 **Program Assignment** – The HECB determines whether certain major lines of study or types of degrees, including applied degrees or research-oriented degrees, are assigned uniquely to some institutions or institutional sectors in order to create centers of excellence that focus resources and expertise. *RCW 28B.76.230 (4)*

A-8 **Applied Baccalaureate Degrees of Two-Year Institutions –** The HECB approves applied baccalaureate degree programs offered by Washington community and technical colleges. *RCW 28B.76.230 (5)*

A-9 **Agreements Between Community or Technical Colleges and a Regional University, State College, or Branch Campus to Offer Baccalaureate Degree Programs** – The HECB approves agreements, as authorized under HB 1794 Section 12, between a community or technical college and a regional university, state college, or branch campus to offer baccalaureate degrees. *RCW 28B.50 (HB 1794 Section 12)*

A-10 **New Degree Programs and Creation of Off-campus Programs Established through Collaboration between a Community or Technical College and an Independent College or University** – The HECB approves new degree programs and creation of off-campus programs by an independent college/university in collaboration with a community or technical college. *RCW 28B.76.230 (5)(e)*

A-11 **Change in Title and/or Classification of Instructional (CIP) Code of Academic Program** – The HECB approves changes in the title and/or CIP code of a previously approved baccalaureate or graduate degree program. *RCW 28B.76.230 (2)(b)*

A-12 **Discontinuing a Program** – When discontinuing a program through suspension, termination, or merger of two or more academic degree programs, the institution must notify the HECB. *RCW 28B.76.230 (8)*

A-13 **Non-credit Program** – Non-credit programs delivered by the institutions on a self-supporting (fee) basis that do not require the expenditure or use of any state funds are *not* subject to board approval.

B. New Off-campus Facilities and Off-campus Property Acquisitions

B-1 **New Off-campus Instructional Facilities** – The HECB approves new off-campus instructional facilities whether through lease arrangement or purchase within the following categories: teaching site, center, system campus, or new four-year institution. *RCW 28B.76.230 (5)(b)(c)(d)*

B-2 **Change in Status of Off-campus Facilities –** The HECB approves changes in the classification of a previously approved off-campus teaching facility (or recommends legislation to implement a change when required). *RCW 28B.76.230 (5)(d)*

B-3 **Relocation or Renaming of Existing Off-campus Facility** – Institutions are required to notify the HECB of any change in address for an existing teaching site, center, or campus. *RCW 28B.76.230 (5)*

B-4 **Acquisition of Major Off-campus Facilities** – The HECB approves the acquisition of major off-campus facilities for the public universities and community and technical colleges. *RCW 28B.76.230 (5)(c)*

C. Continuing Degree Programs and Locations

C-1 **Biennial Review of Academic Enrollments, Programs, and Locations** – Biennially, the HECB reviews institutions' academic enrollments, programs, and locations where programs are offered. This review includes the status of new degree and certificate programs initiated within the previous five-year period, and current degree and certificate programs offered at off-campus locations. *RCW 28B.76.230 (2)(b)*

C-2 **Continuing Internal Academic Program Review** – The HECB requires the institutions to review each existing academic degree program on a cycle adopted by the institution (e.g., every five, seven, or 10 years). After completion of the internal program review, the institution submits a Continuing Program Review Report to the HECB. The HECB may request additional information about specific degree programs in order to carry out statewide planning and coordination functions. [1993 C 363 § 1]

C-3 **Status of Institutional Programs by Location** – The HECB periodically verifies and reports on the location and size of institutional programs. *RCW 28B.76.230 (2)(b)*

PROCEDURES BY AREA OF AUTHORITY

The following procedures contain the areas of HECB authority listed by letter and number (e.g., A-1) in bold followed by procedures for implementation. Forms to implement procedures are provided in Appendix B.

All correspondence and forms should be directed to: Higher Education Coordinating Board, Program and Facility Approval, PO Box 43430, Olympia, WA 98504-3430, or pfa@hecb.wa.gov

A. New Degree Programs:

A-1 **New Degree Program – The HECB approves new baccalaureate and graduate degree programs offered by a Washington public college or university.**
RCW 28B.76.230 (5)(a)

A new degree program application to the HECB includes a two-step process: 1) degree program planning pre-approval, and 2) a degree program proposal.

Definitions of the degree programs that fall under this policy are as follows:

- The ***degree or certificate program*** is a course of study with a prescribed set of requirements, which a student must complete. It is identified by a specific degree title and a specialized body of knowledge reflected normally as a major subject matter area. The name of the degree major or certificate must reflect accurately the skills, competencies, and knowledge to be attained in the course of study.
- A ***baccalaureate degree*** is an undergraduate degree normally representing about four years (120 semester or 180 quarter units) of college study or its equivalent in depth and quality of learning experience.
- A ***credit-based certificate program*** reviewed by the HECB is one year of study or more (45 quarter credits or 30 semester credits for baccalaureate level certificates, 30 quarter credits or 20 semester credits for graduate level certificates) containing a recognizable body of instruction for which a certificate is awarded and transcripted.
- A ***master's degree program*** normally represents about one year (30 semester or 45 quarter units) of post-baccalaureate study or its equivalent in depth and quality. Some degrees emphasize research while others emphasize practical application of knowledge in the field. A professional master's program normally requires up to two years or the equivalent of coursework beyond the baccalaureate level.
- A ***doctoral degree program*** normally requires three years or more of graduate level coursework. Some degrees emphasize research and require an original research thesis or project. A professional doctoral degree emphasizes application of knowledge in the field.

When there is doubt about whether a curriculum modification or group of courses should be classified as a new degree program, the HECB should be contacted for advice. For example, what may seem like a new program requiring a proposal based on these guidelines, may actually be a request to rename a program or to consolidate several existing programs. Cases such as these may be settled after an exchange of correspondence and a routine decision, rather than on the basis of a fully developed proposal. Conversely, a coherent series of courses offered on a regular schedule may constitute a new program, and result in an institution being asked for a degree program proposal.

A-2 **<u>Program and Facility Inventory</u> – The HECB maintains a Program and Facility Inventory (PFI). The inventory includes all postsecondary credit degree and certificate programs and the locations where programs are offered that are approved for planning or implementation in Washington.**
RCW 28B.76.230 (2)(b)

The HECB develops and maintains a public information and academic planning tool – the Washington Higher Education Program and Facility Inventory. The inventory is a statewide web-accessible inventory (database) of higher education programs. It includes the following: 1) all college-level programs approved for veteran's benefits at the two- and four-year institutions; 2) programs from the degree-authorized institutions; and 3) programs approved by the HECB and SBCTC for operation in Washington.

The HECB publishes the annual date for corrections to the inventory. Two-year institutions will annually review their program information and send corrections to the SBCTC, which will provide corrections to the HECB. The four-year institutions will annually review their program information and submit corrections to the HECB directly. The inventory will be available at the HECB Web site at www.hecb.wa.gov.

A-3 **<u>State and Regional Needs Assessment</u> – On a biennial basis, the HECB will publish a state and regional needs assessment. The needs assessment includes projections of enrollments and degree programs at public and private institutions. The assessment will consider student, employer, and community demand for postsecondary enrollment and degrees. The assessment will be an integral part of the program planning and approval process.**
RCW 28B.76.230 (1)(2)

New academic program proposals will reference the statewide and regional needs assessment developed by the HECB, in collaboration with other agencies and the public and private colleges and universities.

The HECB will evaluate programs submitted for approval on the basis of the degree to which they align with state needs outlined in the statewide needs assessment and the strategic master plan. Proposals must specifically address student, employer, and community demand for the program and demonstrate that projected capacity at public and private institutions is not sufficient to meet this demand.

The state and regional needs assessment will consist of a report published every two years in July, and will be supplemented by special reports providing greater detail on lines of study, occupations, or regions that exhibit exceptional need. The reports will be available on the HECB Web site at: www.hecb.wa.gov. *RCW 28B.76.230 (1) (2)*

A-4 Approval to Plan a New Degree Program – The HECB approves initial plans for new baccalaureate and graduate degree programs. Planning authority expires two years from approval. *RCW 28B.76.230 (5)(a)*

An institution will submit a Planning Notification of Intent (Planning NOI) to develop a new degree program at the beginning of the program development process. The Planning NOI will be submitted at least nine months prior to the proposed start date of the program.

The Planning NOI will be available electronically at: www.hecb.wa.gov/autheval/ and will include the following information (Appendices - Form 1):

- Institution name
- Degree title
- CIP number
- Delivery mechanism
- Location
- Implementation date
- Substantive statement of need. The statement of need must reference the most recent revision of the regional and statewide needs assessment conducted by the HECB every two years. The institution may also reference its own assessment of student, employer, and community needs.
- Source of funding
- Year one enrollment and full enrollment targets (FTE and headcount)

The HECB staff will post the institution's Planning NOI on its Web site generally within five business days of receipt and notify Washington public colleges and universities and other stakeholders. Stakeholders will have 30 days to review and comment on the Planning NOI.

The HECB review of a new program plan will focus on the degree to which the proposed program would support the unique role and mission of the institution(s); meet state and/or regional student, employer, and community needs; and be free from unnecessary program duplication.

Following the public comment period, the HECB will make one of the following determinations: 1) grant the institution permission to develop a full proposal; 2) return the program to the institution for further development; or 3) disapprove the program.

After a new degree program receives "permission to develop proposal status," the HECB will enter the program into the Program and Facility Inventory available at the HECB Web site as a "program in planning."

An institution must prepare and submit a program proposal to the HECB for review within two years of notification of approval by the HECB. If this does not occur, program approval will sunset and a new Planning NOI will be required prior to future program development.

At any point in the two-year period, the institution may notify the HECB that it wishes to withdraw permission to plan the new degree program. Following notification, the HECB will remove the degree program from the planning list in the Academic Program Inventory.

A-5 **New Degree Proposal – Once institutional planning is complete, a new degree proposal must be sent to the HECB for review and approval. The institution must enroll students within three years following initial approval or approval is automatically rescinded.** *RCW 28B.76.230 (5)(a)*

The board reviews new degree program proposals submitted to the HECB using criteria described in its policies and procedures document. Proposals are submitted no less than three months prior to the start date of the program. Approved programs must begin to enroll students within three years unless extended by the board. If this does not occur, program approval will sunset.

An institution will submit one electronic copy of its proposal to the HECB no less than three months prior to the anticipated start date of the program to allow sufficient time for staff review, consultation with the institution, and preparation of a report to the board.

The program proposal may be submitted by completing the electronic cover sheet available at: www.hecb.wa.gov/autheval/ with attached documents. The program proposal must contain the required elements reviewed below in two parts:

Part I: Forms (see Appendix B) will be posted to the Web site for public comment and will include the proposal and Form 4: Required Course Work; Form 5: Enrollment and Graduation Targets; and Form 8: Site Planning - Lease or Acquisition, if required.

Part II: Will include, Form 6: Program Personnel, and Form 7: Summary of Program Costs and Revenue.

The following groups will complete an external review of each program proposal:

Two external experts selected by the institution, with at least one recognized expert from outside Washington State. The institution will select reviewers in keeping with the following guidelines:

- Reviewer currently works (or has previously worked) at a higher education institution that awards degrees at the level of the proposed program or higher.
- Reviewer holds a degree at the level of the proposed program or higher in the same or closely related field of study.
- Reviewer has substantial experience in the field, either professional or academic, that is appropriate for the proposal.
- At least one reviewer has prior experience reviewing new programs and/or preparing for either national or regional accreditation reviews.
- There is no apparent conflict of interest. The following are examples of common conflicts of interest: candidate has a joint, adjunct or affiliate position with the unit; candidate was a mentor for or mentee of a faculty member in the unit; candidate was considered for a position in the unit within the last five years; candidate previously chaired a review committee in this unit; candidate served on a visiting committee in this unit; candidate has engaged in collaborative research with a member of the unit; candidate has been involved with a publication venture with unit faculty; candidate has a significant personal or professional relationship with a unit member; candidate received his/her academic degree(s) from this institution.

The HECB retains the option to request its own additional external review in circumstances that it deems unusual; (e.g., when an institution proposes a degree program outside the scope of its historical mission, or when the institution and HECB staff have unresolved disagreement about quality aspects of a proposed program).

The institution will pay all costs associated with the review.

The external review will be attached as an appendix to the program proposal submitted to the HECB, along with contact information and a short bio of the reviewer.

Washington public baccalaureate institutions: The HECB will post the institution's proposal (Part I) to its Web site for a 30-day comment period. HECB staff will notify the other Washington public institutions and other stakeholders, and invite comments related to the proposed program to be submitted directly to the HECB staff. Once the public comment period closes, the HECB will delete the institution's proposal from the Web site.

HECB staff will review all proposals to offer new degree programs and will prepare an executive summary for the board highlighting information about whether the program is likely to:

- Support the HECB strategic master plan goals of:
  - Increasing opportunities for students to earn degrees; and
  - Responding to the state's economic needs
- Support the unique role and mission of the institution(s)
- Foster high-quality programs that enable students to complete their studies in a reasonable amount of time
- Meet state and/or regional student, employer, and community needs
- Provide access for diverse student populations
- Demonstrate that the need is commensurate with the costs to be incurred and represents an effective use of fiscal resources
- Be free from unnecessary program duplication

HECB staff may request clarification of items included in the proposal during the review process. As part of its review process, staff may seek the advice of colleagues from educational institutions, public agencies, and private industry.

The HECB will share a draft of the executive summary with the institution before placing it on the board's regularly scheduled meeting agenda for review and approval. Once approved, the HECB will send a copy of the board's resolution and approval letter to the institution and enter the program into the HECB Program and Facility Inventory. The HECB will submit the program to the State Approving Agency for approval for veteran's benefits.

The institution should notify the HECB if the projected implementation date of an authorized program is changed and explain the reason for the delay. Approved programs that have not been implemented within three years after their projected starting date will automatically be reviewed by the HECB to determine their future status. In some cases, the institution will be required to submit a new program proposal for board review and approval prior to implementation of the program. In special circumstances, the institution may request an extension of the time limit by updating germane areas of the proposal in consultation with HECB staff.

The HECB may conditionally approve a program. Any such program will be considered conditional and subject to special review within a specified period of time. This review is the responsibility of the sponsoring institution and will comply with the conditions set forth by the HECB at the time of approval. The designation of "conditional" will imply that the progress of this program will be followed more closely than others and that proposals to offer similar programs at other locations will normally not be considered until an institutional evaluation of the conditionally approved program has been accepted by the HECB.

A proposal to establish a new degree program will include the following:

Relationship to Institutional Role, Mission, Program Priorities - Describe how the proposed program reflects and supports the role and mission of the institution, and reflects program priorities.

Documentation of Need for Program - Describe the relationship of the program to the regional and statewide needs assessment for higher education, including student, employer, and community demand for the program. An institution may also provide objective data, studies, or the results of institutional needs assessments conducted to document a special need that is not identified in the regional and statewide needs assessment.

Support of the Statewide Strategic Master Plan for Higher Education - Describe how the program will support HECB policies and goals for higher education as articulated in the Strategic Master Plan for Higher Education.

Relationship to Other Institutions - Reference the HECB Academic Degree Program and Facility Inventory and identify similar programs offered by public or independent institutions in the region. Describe unique aspects of the proposed program that differentiate it from similar programs and/or describe why expansion of an existing program would be desirable or necessary. Describe options for collaboration with other institutions, businesses, and/or community organizations considered in the development of the proposal.

Curriculum - Describe credit-hour requirements for the program, requirements for admission and degree completion, including prerequisite coursework and other special requirements. Describe the program plan for articulation with two-year college degree programs, including identification of major-ready pathways, if applicable (for bachelor's degree programs). Indicate when the program would be offered (day/evening/weekend), where the program would be offered (campus location(s) and/or distance learning), and the delivery mechanism (in-person classroom, online, other distance).

Infrastructure Requirements - Describe required infrastructure improvements, including the need for additional library or technology resources, special space requirements (laboratory space or special classrooms), and equipment needs. Costs and sources of funding associated with these improvements should be outlined in the budget section of the proposal.

Faculty - Provide a profile of the anticipated faculty (e.g., full-time, part-time, regular, continuing, adjunct) that will support the program and the total FTE allocated to the program. There should be a sufficient number of qualified faculty dedicated to a new program. This number will vary depending on the discipline, nature of the program, and anticipated number of students.

Administration - Describe the staffing plan for administrative and support services for the program.

Students - Describe the student population to be served. Provide projected enrollments for five years or until full enrollment is reached (whichever is longer). Detail efforts planned to recruit and retain a diverse student body.

Accreditation - Indicate whether the institution will seek specialized program accreditation. If so, discuss plans for accreditation and identify the appropriate accrediting body.

Program Assessment - Describe the institution's plan for assessing how well program objectives will be met. Describe how the assessment information will be gathered and used.

Student Assessment - Describe expected student learning outcomes of the program and how student learning outcomes will be measured and results used.

Budget - Describe program cost and impact on other programs or departments within the institution. Include information on headcount FTE; FTE funding from state or self-support; other funds requested/needed; if reallocation, impact on other programs (especially if moving FTE); and contingency, if FTE funding is not provided. Identify the amounts and sources of all program funding for year one of the program and the year it is expected to reach full enrollment. For programs that will rely on non-state funding, describe the sources of funding and minimum enrollment threshold to offer the program. For self-support programs, indicate any current plans to migrate to future state funding.

External Evaluation of Proposal - In an appendix to the proposal, provide copies of the external evaluators' reports or letters to the institution. Summarize the institution's responses and subsequent modifications to the proposal based on evaluators' recommendations. Attach a short bio of the evaluators.

Forms - Additional forms are available in Appendix B.

A-6 Location Notification of Intent – The HECB approves the extension of existing degree programs to new locations or via distance delivery.
RCW 28B.76.230 (5)(b)

An institution will submit a Location Notification of Intent (Location NOI – Appendix B - Form 3) for an existing program to be offered at an off-campus location, via distance learning, or a combination of delivery methods. The institution must submit a Location NOI at least 45 days prior to the proposed start date of the program.

If the program would be the first offered at a new location, the institution must also submit appropriate documentation for the creation of a new off-campus instructional site as outlined in section B-1 of this document (Form 8). An institution will submit the Location NOI and any attachments via the HECB Web site.

The Location NOI will include the following information:

- Institution name
- Degree title
- CIP number
- Delivery mechanisms (face-to-face, online, two-way video, one-way video, hybrid, other)
- Location
- Implementation date
- Substantive statement of need
- Source of funding
- Year one and full enrollment targets (FTE and headcount)

HECB staff will post the institution's Location NOI on its Web site within five business days of receipt and notify the other public four-year institutions. The other public four-year institutions and HECB staff will have 30 days to review and comment on the Location NOI. The Location NOI will be removed from the Web site after 30 days. The HECB will notify the campus of its decision, following a review of comments received and staff analysis. Evaluation criteria will be consistent with those outlined under new degree proposal (section A-5 of this document).

HECB staff will enter approved new locations for existing degree programs into the HECB Program and Facility Inventory.

A-7 **<u>Program Assignment</u> – The HECB determines whether certain major lines of study or types of degrees, including applied degrees or research-oriented degrees, are assigned uniquely to some institutions or institutional sectors in order to create centers of excellence that focus resources and expertise.**
RCW 28B.76.230 (4)

Based on the findings of the needs assessment, the HECB will periodically review the assignment of major lines and types of degrees to some institutions and make policy (or recommend legislation as necessary) to implement changes in the assignment of major lines of study or types of degrees approved by the board.

The following programs are currently assigned to a limited number of institutions:

- ***Courses exclusive to the University of Washington*:** law, medicine, forest products, logging engineering, library sciences, aeronautic and astronautic engineering, and fisheries. *RCW 28B.20.060*
- ***Courses exclusive to Washington State University*:** agriculture in all its branches and subdivisions, veterinary medicine, and economic science in its application to agriculture and rural life. *RCW 28B.30.060 / RCW 28B.30.065*
- ***Major lines common to the University of Washington and Washington State University*:** pharmacy, architecture, civil engineering, mechanical engineering, chemical engineering, and forest management (as distinguished from forest products and logging engineering which are exclusive to the University of Washington). *RCW 28B.10.115*
- ***Teachers' training courses*:** The University of Washington, Washington State University, Central Washington University, Eastern Washington University, Western Washington University, and The Evergreen State College are authorized to train teachers and other personnel for whom teaching certificates or special credentials prescribed by the State Board of Education are required, for any grade, level, department, or position of the public schools of the state. *RCW 28B.10.140*

A-8 <u>Applied Baccalaureate Degrees of Two-Year Institutions</u> – The HECB approves applied baccalaureate degree programs offered by Washington community and technical colleges. ***RCW 28B376.230 (5) (HB 1794)***

HB 1794 authorizes the State Board for Community and Technical Colleges to select four community or technical colleges to develop and offer programs of study leading to an applied baccalaureate degree.

A pilot college may develop curriculum, and design and deliver courses leading to an applied baccalaureate degree. Degree programs developed under this section are subject to approval by the SBCTC and by the HECB, following the policies and procedures outlined in sections A-4 and A-5 of this document.

An applied baccalaureate degree is an undergraduate degree offered in a field of study in an applied field that is designed to build upon an associate of applied science degree.

A-9 <u>Agreements between Community or Technical Colleges and a Regional University, State College, or Branch Campus to Offer Baccalaureate Degree Completion Programs</u> – The HECB approves agreements as authorized under HB1794 Section 12 between a community or technical college and a regional university, state college, or branch campus to offer baccalaureate degrees. *RCW 28B.50. (HB 1794 Section 12)*

A community or technical college selected by the State Board for Community and Technical Colleges may enter into an agreement with a regional university, state college, or university branch campus to offer a baccalaureate degree. The SBCTC will allocate funds to the community or technical college for the purpose of entering into such an agreement. Students enrolled in programs under the agreement will be considered students of the four-year college or university for all purposes, including tuition and reporting of state-funded enrollments.

The community college or technical college is responsible for submitting such agreements to the HECB for approval. A request for approval to the HECB must include a copy of the proposed agreement (contract or Memorandum of Understanding) and the following information about the program:

- Names of the institutions participating under the agreement
- Degree title
- CIP number
- Delivery mechanism
- Location
- Implementation date
- Student population to be served and size of the proposed program; year one enrollment and full enrollment targets (FTE and headcount)
- Rationale for the new degree program with the following considerations: alternative modes of delivery and institutional role and mission
- Substantive statement of need – the statement of need must reference the most recent revision of the regional and statewide needs assessment conducted by the HECB every two years. The institution may also reference its own assessment of student, employer, and community needs.
- Impact on other institutions and programs in the region and state
- Financial information (Appendix B - Form 7)

HECB staff will post the proposed agreement on its Web site generally within five business days of receipt and notify Washington public colleges and universities and other stakeholders. Stakeholders will have 30 days to review and comment on the proposed agreement.

Following the public comment period, the HECB will make a decision on the proposed agreement and notify the institutions and the SBCTC.

Programs offered by a regional university, state college, or university branch campus must be approved in accordance with the procedures outlined in sections A-5 and A-6 of this document Program applications and agreements under this section may be submitted jointly by the institutions entering into the agreement in order to minimize duplication of effort and documentation.

A-10 **<u>New Degree Programs and Creation of Off-campus Programs Established through Collaboration between a Community or Technical College and an Independent College or University</u> – The HECB approves new degree programs and creation of off-campus programs by an independent college or university in collaboration with a community or technical college**. *RCW 28B.76.230 (5)(e)*

A community or technical college may enter into a collaborative degree program arrangement with an independent college or university subject to board approval. The procedures under this section are for the approval of an agreement between the institutions. Collaborative programs may be offered through a multi-institutional education center or on a community college campus. Programs offered under such an agreement may require review and approval by the State Board for Community and Technical Colleges and/or the HECB Degree Authorization unit (see: www.hecb.wa.gov/autheval/daa/daaindex.asp). Prior to entering into such an agreement, the community or technical college must submit to the HECB board the following information about the collaboration for review and approval of the agreement:

- Names of the institutions participating in the collaborative degree program
- Degree title
- CIP number
- Delivery mechanism
- Location
- Implementation date
- Student population to be served and size of the proposed program – year one enrollment and full enrollment targets (FTE and headcount).
- Rationale for the new degree program with the following considerations: alternative modes of delivery, and institutional role and mission.
- Substantive statement of need: the statement of need must reference the most recent revision of the regional and statewide needs assessment conducted by the HECB every two years. The institution may also reference its own assessment of student, employer, and community needs.
- Impact on other institutions and programs in the region and state
- Financial information (Appendix B – Form 7)

The HECB staff will post the institution's proposed agreement on its Web site generally within five business days of receipt and notify Washington public colleges and universities and other stakeholders. Stakeholders will have 30 days to review and comment on the proposed agreement.

Review of a collaborative program between a community or technical college and an independent college or university will be coordinated with HECB staff responsible for degree authorization and with the SBCTC, to ensure all required approvals are in place prior to the HECB's approval of a collaborative agreement among institutions.

Following the public comment period, the HECB will decide to approve or disapprove the collaborative agreement and notify the institution.

A-11 <u>Change in Title and/or Classification of Instructional (CIP) Code of an Academic Program</u> – The HECB approves changes in the title and/or CIP code of a previously approved baccalaureate or graduate degree program. *RCW 28B.76.230 (2)(b)*

Four-year institutions are required to notify the board of a change in the title and/or CIP code of an academic degree program previously approved by the HECB.

The institution will submit a letter to the HECB indicating the current program name and CIP code of the program, the revised name and CIP code of the program, and the effective date of the change.

The HECB will review the change to ensure that it is of a routine nature and notify the institution and State Approving Agency that it has accepted the change and updated the Program and Facility Inventory accordingly.

A-12 <u>Discontinuing a Program</u> – When discontinuing a program through suspension, termination, or merger of two or more academic degree programs, the institution must notify the HECB. *RCW 28B.76.230 (8)*

A four-year institution must submit a letter to notify the HECB that it intends to discontinue or merge a program. The notification will include the following:

- Degree title
- CIP number
- Date of elimination, suspension, beginning of phase-out, termination
- Location
- Enrollments (FTE and headcount for past five years)
- Rationale for elimination
- Provisions for enabling enrolled students to graduate, including any plans for the program to be offered at another institution or for students to complete it elsewhere
- Disposition of the program's state resources

The Program and Facility Inventory will identify a program as discontinued when new students are no longer being admitted. The HECB will modify the Program and Facility Inventory to remove the program from the list of programs.

A-13 <u>Non-credit Program</u> – Non-credit programs delivered by the institutions on a self-supporting (fee basis) basis do not require the expenditure or use of any state funds.

The universities may offer non-credit courses at any appropriate location. Non-credit programs are not included in the HECB Program and Facility Inventory.

B. New Off-campus Facilities and Off-campus Property Acquisitions

B-1 **<u>New Off-campus Facilities</u> The HECB approves new off-campus instructional facilities whether through lease arrangement or purchase within the following categories: teaching site, center, system campus, or new four-year institution.** *RCW 28B.76.230 (5)(b)(c)(d)*

An off-campus program is a degree program conducted away from the main campus.

The board's policy recognizes that new instructional facilities (sites) may develop in various ways. Off-campus teaching facilities in the state may generally be classified as a teaching site, a center, a system campus, or a four-year institution. Development of a new teaching facility may begin at any of these points. For example, institutional planning may call for the institution to develop an off-campus center without beginning first as a teaching site. The institution may have no plans to grow the center into a system campus.

The establishment of new teaching sites, centers, or campuses requires HECB approval. Requests for board approval of a new instructional location are subject to the rules outlined below.

Establishing a Teaching Site: A teaching site may be a temporary teaching site dedicated to a limited number of degree or certificate program offerings and/or students. Typically, a teaching site would enroll fewer than 150 students in no more than three distinct degree programs.

An institution must make reasonable and appropriate provisions for student services to ensure that students have access to all resources and information required to support their academic program. In addition, students must have access to academic resources including faculty, library, technology resources, and laboratory space needed to meet program requirements.

A teaching site provides appropriate student services to support students in their academic program, as well as access to faculty, library technology, and laboratories needed to meet program requirements.

A new teaching site may be established concurrent with a new degree program proposal. In this instance, this information shall be added as a section within the degree proposal. A new teaching site may also be established as a degree program extension. In this instance, the institution shall include the required information below with the Location Notification of Intent (Location NOI).

A new teaching site must be approved by the board prior to the institution offering coursework at the facility and/or prior to entering into an agreement to lease major off-campus facilities, as defined in section B-4 of this document.

An institution may not acquire property by purchase or other means, including gift, for the purposes of establishing a teaching site.

To establish a new teaching site, the institution must submit the information outlined below:

- The institution will submit rationale for the new location addressing considerations of alternative modes of delivery; institutional role and mission; other local providers with similar programs; employer, student, and community needs as outlined in the statewide and regional needs assessment and/or an institutional needs assessment; and future expansion plans.

- Terms of the lease (Appendix B – Form 8)
  - Lease term
  - Annual leased cost
  - Square footage of unimproved and/or improved property
  - Cost of fixed equipment (note: purchase of fixed equipment for a teaching site is rarely approved)
  - Cost of improvements (if not included in lease cost)
  - Exact address of property (required prior to final approval of lease)

The HECB will notify other higher education institutions and post the institution's request on its Web site for a 30-day public comment period. Following the 30- day public comment period, the HECB will approve or reject the proposed expansion and notify the institution in writing of its decision. Once approved, the HECB will enter the teaching site into the Program and Facility Inventory.

Establishing a Center: Since the development of a higher education center or consortium represents a significant long-term investment of public resources, the board considers these developments to ensure that they are an efficient use of state resources; are appropriate to the role and mission of the institution(s); and provide for appropriate student, faculty, and staff support to ensure program quality.

A higher education center may be organized as a multi-institutional teaching entity or as a single university/college enterprise. Centers are often located on community college campuses. This may include agreements in which an institution brings in programs offered by another institution (e.g., public or independent Washington institution and/or institution outside Washington). Centers also may include co-location of two-year and four-year institutions or multiple four-year institutions sharing an off-campus site.

Typically, a higher education center will enroll students in multiple degree programs (two or more). Centers will vary in size, but will typically enroll between 150 and 1,500 students.

Centers, relative to teaching sites, provide more extensive on-site student services and resources appropriate for larger numbers of students. The governance structure of the center is at the discretion of the home institution and is consistent with policies at the "main" campus and other centers that are operated by the institution.

Centers must be approved by the board prior to the institution offering coursework at the facility and/or prior to entering into an agreement to lease or purchase major off-campus facilities as outlined in section B-4.

In order to establish a center, an institution or consortium of institutions, in consultation with the HECB, must conduct a regional needs and feasibility study to include the following elements:

- Rationale for the new location considering alternative modes of delivery: institutional role and mission; other local providers with similar programs; employer, student, and community needs as outlined in the statewide and regional needs assessment and/or an institutional needs assessment; and future expansion plans
- Planned program array and growth over the next five to 10 years
- Planned enrollment over the next five to 10 years
- Impact on other institutions and programs in the region and state
- Relationship to "home" campus:
  - How would the proposed expansion support the institutional mission?
  - Describe the proposed governance system
  - Discuss the level of support available for students, faculty, and staff to be provided at the center and at the home campus
- Budget projections for next 5-10 years

The feasibility study must include specific information about the site to include:

- Terms of the lease or acquisition
  - Lease term (if applicable)
  - Cost (annual lease cost or total cost if acquisition by purchase/other)
  - Square footage of unimproved and/or improved property
  - Cost of fixed equipment
  - Cost of improvements (if not included in lease cost)
  - Exact address of property (required prior to final approval of lease)
- If space is not available through a lease or acquisition, a Memorandum of Understanding (MOU) or other agreement, the institution shall describe the arrangement and submit a copy of the agreement when available.

The HECB will notify other higher education providers and post the institution's request on its Web site for a 30-day public comment period. Following the 30-day comment period, the HECB staff will prepare a report and recommendation for consideration by the board. Once approved, the HECB will enter the center into the Program and Facility Inventory.

Establishing a System Campus or New Four-year College or University: Establishing a new four-year college or university campus represents a substantial investment of state resources and requires significant planning. Prior to consideration for creation of, or transition to, a four-year college, an institution may first operate as a center or branch campus to ensure that student, employer, and community demand exists.

The Legislature has the sole authority to establish system campuses or new four-year colleges or universities. The branch campuses operated by University of Washington and Washington State University are classified as "system campuses" with the authority to offer major lines of study and types and levels of degrees authorized by law under RCW 28B.45.

The HECB may recommend to the Legislature the creation of a new four-year institution or a change in status of an existing institution in response to student, employer, and community demand. A study of the feasibility for such an institution may be initiated by the board, an institution wishing a review of its status, or at the request of the Legislature.

The HECB or an institution or consortium of institutions, in consultation with the HECB, must conduct a regional needs and feasibility study to determine the need for and scope of a proposed new four-year institution or campus. The study would include the following elements:

- Rationale for the new location, considering alternative modes of delivery; other local providers with similar programs; and employer, student, and community needs as outlined in the statewide and regional needs assessment and/or an institutional needs assessment
- Role and mission of the proposed institution or consortia
- Planned program array and growth over the next five to 10 years
- Planned enrollment over the next five to 10 years
- Impact on other institutions and programs in the region and state
- Relationship to "home" campus
    - How the proposed expansion would support the institutional mission
    - Describe the proposed governance system
    - Discuss the level of support available for students, faculty, and staff to be provided at the center and at the home campus
- Budget projections for the next five to 10 years

If the transition involves the lease or acquisition of new space or facilities, the study must also include specific information about the proposed site to include:

- Terms of the lease or acquisition (Appendix B - Form 8)
  - Lease term (if applicable)
  - Cost (annual lease cost or total cost if acquisition by purchase or other)
  - Square footage of unimproved and/or improved property
  - Cost of fixed equipment
  - Cost of improvements (if not included in lease cost)
  - Exact address of property (required prior to final approval of lease)

The HECB will notify other higher education providers and provide an opportunity for public comment. Following the 30-day public comment period, the HECB staff will prepare a report and recommendation for consideration by the HECB. If approved, the HECB staff will recommend submission of a bill to the Legislature to authorize the creation of the new institution as either an autonomous unit within the higher education system, or as a unit within a multi-campus system.

B-2 **<u>Change in Status of Off-campus Facility</u> The HECB approves changes in the classification of a previously approved off-campus facility (or recommends legislation to implement a change when required.)** *RCW 28B.76.230 (5)(d)*

In order to appropriately classify *existing* off-campus sites and centers, the four-year institutions are required to submit information outlining the off-campus sites and centers they currently operate; including degree program array, enrollment, staff and faculty FTE, and provisions for student services by January 2006. Institutions may include this information in their biennial program report. In subsequent years information about off-campus teaching facilities will follow the format in Appendix B – Form 9. This information will be used to ensure that the HECB Program and Facility Inventory is current and accurate.

A teaching site or center may remain in that status over the long-term; however, an institution (or consortium of institutions) may wish to request a change in status to better fit the role and mission of the institution or the off-campus facility.

Transition from a Teaching Site to a Center: Over time, as enrollments grow at the teaching site, the HECB or institution may request a review of the status for possible reclassification as a center. In such cases, the institution will follow the procedure for the establishment of a center as outlined in section B-1.

Transition from a Teaching Site or Center to a System Campus or Four-year Institution: An existing teaching site, center, or campus (including two-year colleges, four-year colleges or university campuses) may request that the board review its role and mission to recommend changes to its authority to offer major lines of study and types and levels of degrees. An institution wishing to review its status may, in consultation with the HECB, conduct a regional needs and feasibility study, as outlined in section B-1 of this document under "Establishing a System Campus or Four-year Institution."

B-3 **<u>Relocation or Renaming of Existing Off-campus Facility</u> Institutions are required to notify the HECB of any change in address for an existing teaching site, center, or campus.** *RCW 28B.76.230 (5)*

Public colleges and universities and community and technical colleges are required to notify the HECB of any change in the name or address of an existing off-campus facility, including an instructional site, center, or campus.

The institution will submit a letter to the HECB that includes the current name and address of the facility, the new name and address of the facility, and the effective date of the change.

The HECB reviews the change to ensure it is of a routine nature and notifies the institution and State Approving Agency that it has accepted the change. The HECB updates the Program and Facility Inventory accordingly.

B-4 **<u>Acquisition of Major Off-campus Facilities</u> Prior acquiring by lease, purchase or gift, the HECB approves the acquisition of major off-campus facilities for the public universities and community and technical colleges.**
RCW 28B.76.230 (5)(c)

The HECB is required under RCW 28B.76.230 to approve the acquisition of major off-campus facilities. HECB review of the proposed acquisition is based on an assessment of the degree to which the acquisition is consistent with the institutional role and mission in instructional, research, and public service areas. The HECB defers questions related to facilities specifications, lease or purchase terms, and determination of fair market prices to General Administration and the Office of Financial Management. HECB approval comes prior to an acquisition. Following an acquisition, the institution reports the information to the Office of Financial Management as part of its facility inventory.

The policy is applicable to any acquisition of major facilities located beyond the current campus boundaries of any public institution of higher education in Washington, regardless of the funding source or the purpose for which the facility is to be acquired.

"Major" facilities are defined as those in excess of 6,000 square feet and/or with an annual lease cost in excess of $60,000 and/or those with unimproved property of one-half acres or more.

"Beyond current campus boundaries" is an area "outside existing campus (location of central administration)," boundaries as defined in the campus master site plan.

HECB policies regarding off-campus instruction define "off-campus instruction" differently than "off-campus facility acquisitions." Off-campus facility acquisitions are defined as the acquisition of real property "beyond the boundaries of the existing main campus." "Off-campus instruction" is defined as "instruction conducted away from the main campus." Thus, not all off-campus facilities necessarily house off-campus programs/instruction.

The policy excludes certain specialized facilities from HECB review and approval, to include: acquisition of research facilities with non-state funds, hospital facilities, lease or purchase of agricultural research land, lease or purchase of marine vessels, and facility leases for less than a 30-day period.

The institution will submit an acquisition request to the HECB by submitting an Acquisition of Off-campus Property form (Appendix B - Form 8). The institution will be asked to describe the acquisition and how it meets the following conditions:

- The acquisition is consistent with the institution's role and mission.
- The activity to be housed/located does not duplicate services provided by other public, private, or non-profit organizations unnecessarily.
- The activity and/or its intended benefits cannot be accommodated or accomplished within the current campus boundaries.
- The nature of the facility being acquired is commensurate with the activity to be supported.
- The funding source to be used is appropriate for the intended use of the facility.
- There is demonstrated need and demand for any new or expanded programs to be housed in the facility.
- The acquisition is consistent with the institution's plan of development and service delivery.

If the above conditions are met, the HECB will approve the requested acquisition.

The HECB executive director approves acquisitions that fall within a campus master site acquisition plan adopted by the governing board of an institution.

Excluded from the review/approval criteria are considerations of the cost of an acquisition and its technical (facility) feasibility and desirability; since the board recognizes the role of the Office of Financial Management and General Administration in determining proper facility specifications, in reviewing specific lease or purchase terms, and in determining their market value. The board defers to these agencies all responsibility for determining fiscal and building management propriety.

C. Continuing Degree Programs and Locations

C-1 Biennial Review of Academic Enrollments, Programs, and Locations

Biennially, the HECB reviews institutions' academic enrollments, programs, and locations where programs are offered. This includes the status of new degree and certificate programs initiated within the previous five-year period, and current degree and certificate programs offered at off-campus locations. *RCW 28B.76.230 (2)(b)*

Enrollment Report: On a biennial basis beginning January 1, 2006, each institution will submit an Enrollment Report (Appendix B – Form 9) to the HECB on new degree and certificate programs it has initiated within the last five years and on current degree and certificate programs offered at off-campus teaching sites and centers. The institution will submit an electronic copy of the Enrollment Report.

For programs approved within the past five years and for all programs offered at an off-campus teaching site(s), center(s), or through distance education, institutions will report average annual headcount and FTE enrollments for each of the preceding two years compared to enrollment targets outlined in the program proposal (Appendix B - Form -9). For programs with a significant enrollment discrepancy (the larger of 10 percent of projected enrollment or five FTE students), the institution must include a statement explaining the discrepancy between planned enrollments and actual enrollments.

Program and Facility Inventory Report: On a biennial basis, beginning January 1, 2006, each four-year institution will submit to the HECB a Program and Facility Inventory Report for the past biennium. The HECB will use this information to maintain the currency and accuracy of the HECB Program and Facility Inventory. The institution will submit an electronic copy of its program report for HECB review and posting on the HECB Web site. Reports will be shared with public higher education institutions, independent institutions, and other educational sectors.

The report will contain:

- List of all renamed degree and certificate programs (current program title/new program title)
- List of all renamed off-campus centers, teaching sites, locations (current title/new title)
- List of new programs other than degrees and certificates to include options (also called specializations or concentrations), teacher endorsements, and minors (by title and CIP number)
- List of programs affected by the sunset provision:
  - Planned programs that were not proposed within two years of receiving "permission to develop status" officially sunset.
  - Approved degree programs which are not implemented (enrolling students) within three years of approval also sunset.
- List of degree programs, certificate programs, options in programs (also called specializations or concentrations), teacher endorsements, and minor programs that are being eliminated, suspended, phased-out, and/or terminated.

C-2 Continuing Internal Academic Program Review

The HECB requires the institutions to review each continuing degree program on a cycle adopted by the institution (e.g., every five, seven, or 10 years). After completion of the internal program review, the institution submits a Continuing Program Review Report to the HECB. The HECB may request additional information about specific degree programs in order to carry out statewide planning and coordination functions. [1993 C 363 § 1]

Each continuing degree program will be reviewed on a cycle adopted by the institution (typically, every five, seven or 10 years). After completion of the internal program review, the institution will submit a Continuing Program Review Summary (Appendix B – Form 10) to the HECB. After five years of operation, all new programs whether at branch or off-campus locations, new on the main campus, or delivered via distance learning technologies, will be incorporated into the institution's ongoing process of continuing program review.

HECB staff will review the report. At its discretion, the HECB may request additional information about specific degree programs. The institution is responsible for determining the appropriate process and criteria for continuing degree program review. For example, similar programs offered by a single academic unit (department) may be reviewed at the same time and incorporated into one program review. However, when an existing program has expanded to a new site or new distance learning modality since its last institutional review, the new site or distance delivery mode shall receive a separate focus within the single program review.

The Continuing Program Review Report will contain the following information:

- Degree program title and CIP number;
- Year of last program review;
- Documentation of continuing need, including reference to the statewide and regional needs assessment;
- Assessment information related to expected student learning outcomes and the achievement of the program's objectives;
- Plans to improve the quality and productivity of the program; and
- Data on number of majors and degrees granted in the last three academic years for each degree program incorporated in the review; number of FTE faculty and graduate assistants that teach in the department (Form 9).

Based on the information provided in the Continuing Program Review Report, additional information provided by the institution and/or the state and regional needs assessment; the HECB staff will determine whether there is reason for the board to consider making a recommendation to modify, consolidate, or eliminate the program. On a biennial basis, staff will report to the board on program reviews conducted during the previous biennium. The final decision about program elimination will be at the discretion of the institution.

C-3 <u>Status of Institutional Programs by Location</u> The HECB periodically verifies and reports on the location and size of institutional programs.
RCW 28B.76.230 (2)(b)

The HECB may request information on programs offered off-campus in a format in addition to that described in these policies and procedures and on a schedule approved by the HECB.

GLOSSARY

Applied Baccalaureate Degree: An applied baccalaureate degree is an undergraduate degree offered in a field of study in an applied field that is designed to build upon an associate of applied science degree.

Branch Campus: See System Campus.

Center: A higher education center may be organized as a multi-institution teaching entity or as a single university/college enterprise. A higher education center will enroll students in multiple degree programs (two or more). Centers will range in size, typically enrolling between 150 and 1,500 students.

Certificate: Certificate programs offered by the four-year public colleges and universities are programs of study that normally require less than one-quarter of the credits required for a degree program at a similar level. Successful completion of the program results in a certificate. Certificate programs may also be non-credit. The HECB reviews credit-based certificate programs at the undergraduate or graduate level of one year of study or more (45 quarter credits or 30 semester credits for baccalaureate level certificates, 30 quarter credits or 20 semester credits for graduate level certificates) containing a recognizable body of instruction for which a certificate is awarded and transcripted.

Degree: Degree is a title or rank awarded by a college or university to a student who has successfully completed a required course of study.

Degree Program: A degree program is a set of educational requirements, identified jointly by the department or other degree-granting unit and the college or university, which leads to a degree. Baccalaureate program requirements usually involve a combination of general education courses, courses in the major field of study, and elective courses. Graduate program requirements involve intensive study in the major field, preparation in the use and conduct of research, and/or a field or internship experience; professional programs generally prepare individuals for professional fields (e.g., law, medicine).

Degree Title: A degree title is a full designation of the degree including **level** (bachelor, master, doctor), **type** (e.g., arts, science, fine arts, business administration), and **major** (e.g., mathematics, civil engineering, history). These distinctions are illustrated below. Each institution may have a different taxonomy of degree titles. However, for the activities outlined in these policies and procedures, these definitions of a degree title will be used.

DEFINITION OF DEGREE TITLE

Degree Designation	Level	Type	Major
B.A. English	Bachelor	Arts	English
B.S. Chemistry	Bachelor	Science	Chemistry
B.F.A.	Bachelor	Fine Arts	Music
B.A.S.	Bachelor	Applied Science	Safety & Health Mngt.
M. Engineering	Master	Engineering	Electrical Engineering
M. Ed. Curriculum & Instr.	Master	Education	Curriculum & Instruction
M.B.A.	Master	Business Administration	Finance
Ph.D. Linguistics	Doctor	Philosophy	Linguistics

Major: A major is that part of the curriculum in which a student concentrates on one subject or group of subjects and which comprises the largest number of units in any given discipline. Its contents are usually defined by one academic department but also may be defined jointly by two or more departments, as in the case of an interdisciplinary major.

"Major" Facilities: Major facilities are defined as those in excess of 6,000 square feet and/or with an annual lease cost in excess of $60,000 and/or those with unimproved property of one-half acres or more.

New Degree: A new degree is any proposed degree that differs from any other offered by the proposing department or unit in one or more of the three degree title specifications (level, type, or major). A program leading to a new degree (as defined above), even if constituted entirely of existing courses, requires review and approval of the HECB. Though a program may not be new to the institution, if it is to be offered at a new location**,** it will be considered a new degree program to that location and will require HECB approval.

NOI – Notice of Intent: A Notice of Intent is a summary document used to describe an institution's intent to start or extend a program. A *Planning NOI* is used to alert the HECB and interested parties that an institution intends to begin planning a new degree program. A *Location NOI* is used to notify the HECB of an institution's intent to extend an existing degree program to another location. In either case, the NOI is subject to board approval.

Off-campus Degree Program: An off-campus degree program is a degree program offered away from the main or branch campus of the institution (in-state, out-of-state, or in another country) and may be in-person or telecommunicated instruction.

Off-campus Facility Acquisition: The acquisition of real property "beyond the boundaries of the existing main campus.

Off-campus Instruction: Instruction offered away from the main or branch campus of the institution (in-state, out-of-state, or in another country) and may be in-person or telecommunicated.

Option, Specialization, or Concentration: An option, specialization, or concentration within a degree program is an area of study that is generally less than one-half of the total credits needed for the upper-division major or graduate program. It may also be referred to as a concentration, specialization, area of emphasis, track, or minor. It can generally be distinguished from a new degree in that full designation of the degree title – including level, type, and major – does not change when a new option is added.

Program and Facility Inventory (PFI): The PFI is a statewide Web-accessible database of higher education programs. It includes all college-level programs approved for veteran's benefits from the two- and four-year institutions, programs from the degree-authorized institutions, and programs approved by the HECB and State Board for Community and Technical Colleges for operation in Washington.

State and Regional Needs Assessment: The State and Regional Needs Assessment is a publication produced every two years by the HECB in collaboration with other state agencies. It includes projections of public/private capacity for degrees and programs and student, employer, and community demand for postsecondary education and degrees in the state. The assessment considers overall system needs and regional and programmatic needs.

System Campus: A system campus or new four-year college or university must be authorized by the Legislature and would be authorized to offer major areas of study and levels and types of degrees as outlined in said legislation. The branch campuses of the research universities are classified by the HECB as system campuses.

Sunset Program Period: New degree planning authority sunsets two years from receiving "permission to develop" status. Once program planning authority sunsets, the institution must submit a new Planning NOI before developing a program proposal. Program approval authority sunsets three years after receiving approval from the board. Once program approval authority sunsets, an institution must submit a new Planning NOI for review and, if approved, may submit an updated program proposal for review by the board. If program implementation is delayed for only a short time, the institution may request an extension of program approval for up to one year.

Teaching Site: A teaching site may be a temporary or pilot instructional site, or an instructional site dedicated to a limited number of degree or certificate program offerings and/or students. Typically, a teaching site would enroll fewer than 150 students in less than three distinct degree programs.

DRAFT FORMS

Forms for the Submission of Requested Actions to the HECB

Form 1: New Degree Program Planning Notice of Intent (NOI)
Form 2: New Degree Program Proposal
Form 3: Location Notice of Intent (NOI)
Form 4: Required Course Work
Form 5: Enrollment and Graduation Targets
Form 6: Program Personnel
Form 7: Summary of Program Costs and Revenue
Form 8: Site Planning – Lease or Acquisition
Form 9: Enrollment Tables
Form 10: Program Review Summary

DRAFT FORM 1

COVER SHEET
NEW DEGREE PROGRAM PLANNING NOTICE OF INTENT
(PLANNING NOI)

Program Information

Program Name: _____

Institution Name: _____

Degree Granting Unit: _____
(e.g. College of Arts and Science)

Degree: _____ Level: _____ Type: _____
(e.g. B.S. Chemistry) *(e.g. Bachelor)* *(e.g. Science)*

Major: _____ CIP Code: _____
(e.g. Chemistry)

Minor: _____
(if required for major)

Concentration(s):
(if applicable)

Proposed Start Date: _____

Projected Enrollment (FTE) in Year One: _____ At Full Enrollment by Year: _____: _____
(# FTE) *(# FTE)*

Proposed New Funding: _____

Funding Source: ☐ State FTE ☐ Self Support ☐ Other

Mode of Delivery

☐ Single Campus Delivery _____
(enter location)

☐ Off-site _____
(enter location)

☐ Distance Learning _____
(enter location)

Substantive Statement of Need

Attach Sheet

Contact Information (Academic Department Representative)

Name:
Title:
Address:
Telephone:
Fax:
Email:

_____ _____
Endorsement by Chief Academic Officer Date

DRAFT FORM 2

COVER SHEET
NEW DEGREE PROGRAM PROPOSAL

Part I requires the completion of the following forms: Appendices B-4, B-5, and B-6.

Program Information

Program Name: _____

Institution Name: _____

Degree Granting Unit: _____
(e.g. College of Arts and Science)

Degree: _____ Level: _____ Type: _____
(e.g. B.S. Chemistry) *(e.g. Bachelor)* *(e.g. Science)*

Major: _____ CIP Code: _____
(e.g. Chemistry)

Minor: _____
(if required for major)

Concentration(s):
(if applicable)

Proposed Start Date: _____

Projected Enrollment (FTE) in Year One: _____ At Full Enrollment by Year: _____: _____
(# FTE) *(# FTE)*

Proposed New Funding: _____

Funding Source: ☐ State FTE ☐ Self Support ☐ Other

Mode of Delivery / Locations

☐ Single Campus Delivery _____
(enter location)

☐ Off-site_____
(enter location(s))

☐ Distance Learning _____
(enter formats)

☐ Other

Note: If the program is the first to be offered at a given site or location, the submission must also include the information required for the establishment of a new teaching site as outlined in section B.1 of the Program and Facility Approval Policy and Procedures.

Flexible Scheduling

☐ Evening Classes
☐ Weekend Classes
☐ Other *(describe)*

Attendance Options

☐ Full-Time
☐ Part-Time
Total Credits: ☐ Quarter ☐ Semester

Contact Information (Academic Department Representative)

Name:
Title:
Address:
Telephone:
Fax:
Email:

_____ _____
Endorsement by Chief Academic Officer Date

DRAFT FORM 3

COVER SHEET
EXTENSION OF AN EXISTING PROGRAM NOTICE OF INTENT
(LOCATION NOI)

Part I requires the completion of the following forms: Appendices B-4, B-5, and B-6.

Program Information

Program Name: _____

Institution Name: _____

Degree Granting Unit: _____
(e.g. College of Arts and Science)

Degree: _____ Level: _____ Type: _____
(e.g. B.S. Chemistry) *(e.g. Bachelor)* *(e.g. Science)*

Major: _____ CIP Code: _____
(e.g. Chemistry)

Minor: _____
(if required for major)

Concentration(s):
(if applicable)

Proposed Start Date: _____

Projected Enrollment (FTE) in Year One: _____ At Full Enrollment by Year: _____: _____
(# FTE) *(# FTE)*

Proposed New Funding: _____

Funding Source: ☐ State FTE ☐ Self Support ☐ Other:

Mode of Delivery / Locations

☐ Single Campus Delivery _____
(enter location)

☐ Off Site_____
(enter location(s))

☐ Distance Learning _____
(enter formats)

☐ Other

Note: If the program is the first to be offered at a given site or location, the submission must also include the information required for the establishment of a new teaching site as outlined in section B.1 of the Program and Facility Approval Policy and Procedures.

Flexible Scheduling

☐ Evening Classes
☐ Weekend Classes
☐ Other *(describe)*

Attendance Options

☐ Full-Time
☐ Part-Time

Substantive Statement of Need

Attach Sheet

Contact Information (Academic Department Representative)

Name:
Title:
Address:
Telephone:
Fax:
Email:

_____ _____

Endorsement by Chief Academic Officer Date

DRAFT FORM 4

REQUIRED COURSE WORK
Part I

Include this form with new degree program proposals. Staff will post this information and the program proposal on the HECB Web site during the public comment period.

Prerequisite Courses		
Course Number	**Course Title**	**Credits**
	Total Credits	
Program Requirements		
Course Number	**Course Title**	**Credits**
	Total Credits	

DRAFT FORM 5

ENROLLMENT AND GRADUATION TARGETS
Part I

Include this form with a new degree program proposal or a Notice of Intent to extend an existing program. Staff will post this information to the HECB Web site during the comment period.

Year	1	2	3	4	5
Headcount					
FTE					
Program Graduates					

DRAFT FORM 6

PROGRAM PERSONNEL
Part II

Include this form with a new degree program proposal. This information will not be posted to the HECB Web site during the public comment period, but it will be available upon request

Faculty				
Name	**Degree (e.g. M.A.; Ph.D.; J.D.)**	**Rank (if applicable)**	**Status (e.g. full-time, part-time)**	**% Effort in Program**
		Total Faculty FTE		

Administration and Staff			
Name	**Title**	**Responsibilities**	**% Effort in Program**
		Total Staff FTE	

DRAFT FORM 7

SUMMARY OF PROGRAM COSTS AND REVENUE
Part II

Include with a new program proposal or Notice of Intent to extend an existing program. This information will not be posted to the HECB Web site during the public comment period, but it will be available upon request.

Program Expenses

	Year 1	Year 2	Year 3	Year 4	Year *n* (full enrollment)
Administrative Salaries (# FTE) Benefits @ # %					
Faculty Salaries (# FTE) Benefits @ # %					
TA/RA Salaries (# FTE) Benefits @ # %					
Clerical Salaries (# FTE) Benefits @ # %					
Other Salaries (# FTE) Benefits @ # %					
Financial Aid specific to the program					
Contract Services					
Goods and Services					
Travel					
Equipment					
Lease or Acquisition (attach form iii.a)					
Other (itemize)					
Indirect (if applied to the program)					
Total Costs					

Program Revenue

	Year 1	Year 2	Year 3	Year 4	Year *n* (full enrollment)
General Fund: State Support					
Tuition and Fees (total)					
Corporate Grants / Donations					
Internal Reallocation*					
Other Fund Source (specify)					
Total Revenue					

*If revenues are projected through internal reallocation please attach an explanation of the impact the reallocation would have on other departments or programs.

DRAFT FORM 8

ACQUISITION OF OFF-CAMPUS PROPERTY
Part I

To be submitted by a public four-year institution or the State Board for Community and Technical Colleges prior to acquiring by lease, purchase, or gift a major off-campus facility. Please complete Parts I and II. If the acquisition is not a major off-campus facility but will be used for a new program or notice of intent to extend an existing program to a new site, please complete Part I only.

ACQUISITION OF OFF-CAMPUS PROPERTY – Part I			
Site Description (name)			
Size:			
Facilities (square feet)			
Property (acres)			
Age of Facilities:			
Exact Address:			
How the facility/property is to be acquired (circle):	**Lease**	**Purchase**	**Gift**
Lease:			
Lease Term			
Annual Lease Cost			
Acquisition Cost:			
Land			
Facility			
Personal Property/Other			
Total Cost			
Funding Source(s) and Amounts:			
Source A (specify)			$
Source B (specify)			$
Source C (specify)			$

DRAFT FORM 8

ACQUISITION OF OFF-CAMPUS PROPERTY
Part II

ACQUISITION OF OFF-CAMPUS PROPERTY – Part II
Intended use of property or facility:
A statement of need and/or demand for the new or expanded programs to be housed in the facility:
A statement of how the acquisition is consistent with the institution's strategic plan:
A statement as to how the acquisition is consistent with the institution's role and mission:
A statement as to how the activity to be housed or located at the site will not unnecessarily duplicate services being provided by other public, private, or non-profit organizations:
A statement as to how the activity and/or its intended benefits cannot be accommodated or accomplished within the current campus boundaries:
A statement as to how the nature of the facility being acquired is commensurate with the activity to be housed:

_____

Signature

_____

Date

DRAFT FORM 9

ENROLLMENT TABLES

Include this form with the biennial academic enrollment report.

Degree Title	Site	Approval Date	FTE Year 1 of biennium (specify year)	Projected FTE	FTE Year 2 of biennium (specify year)	Projected FTE

DRAFT FORM 10

PROGRAM REVIEW SUMMARY

Include this form with the biennial continuing academic program review.

Program Review Summary			
	Year 1 (specify)	**Year 2 (specify)**	**Year 3 (specify)**
Department Name			
Instructional Faculty FTE			
Graduate Assistant FTE			
Degree Program A			
Majors (Student Headcount)			
Degrees Granted			
Degree Program B			
Majors (Student Headcount)			
Degrees Granted			
Degree Program C			
Majors (Student Headcount)			
Degrees Granted			

WASHINGTON
HIGHER
EDUCATION
COORDINATING BOARD

DRAFT

State and Regional Needs Assessment

Higher Education Coordinating Board

September 2005

Workgroup Members

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State and Regional Needs Assessment

Introduction

In 2004, the Washington Legislature and governor enacted legislation (House Bill 3103) to revise and update the roles and responsibilities of the Higher Education Coordinating Board (HECB). The legislation marked the first substantive revision of HECB statutes since the board was created in the mid-1980s. Among other changes, HB 3103 directed the HECB to undertake a new responsibility to "develop a comprehensive and ongoing process to analyze the need for additional degrees and programs, additional off-campus centers and locations for degree programs, and consolidation or elimination of programs by the (public) four-year institutions."

In response to this charge, and consistent with the board's *2004 Strategic Master Plan for Higher Education*, the statewide and regional needs assessment provides a planning tool that, in conjunction with analysis of institutional roles and missions, will guide academic program and facility planning and approval.

The needs assessment will allow for data-driven decisions related to the allocation of student enrollments by providing a comprehensive assessment of regional higher education needs to meet student, employer, and community demand.

The needs assessment will be updated every other year to examine:

(1) Projections of student, employer, and community demand for higher education and academic degrees, including liberal arts degrees, on a regional and statewide basis;

(2) Current and projected degree programs and enrollment at public and private institutions of higher education, by location and mode of service delivery; and

(3) Data from the Workforce Training and Education Coordinating Board (WTECB) and the State Board for Community and Technical Colleges (SBCTC) on the supply and demand for work force education and certificates and associate degrees.

Description of Work by the HECB and Other Agencies

The needs assessment draws on a variety of reports and data sources produced by several agencies and represents the first comprehensive analysis that draws these resources together on a statewide basis for program and facility planning.

The assessment relies on work by the Higher Education Coordinating Board, the State Board for Community and Technical Colleges, the Workforce Training and Education Coordinating Board, and the Office of Financial Management (OFM). In addition, key projections and support also come from the Employment Security Department (ESD) and the Department of Community Trade and Economic Development (CTED). The approach used in the needs assessment was developed with input from representatives of these agencies and representatives from the four-year public universities and colleges and the private ("independent") colleges of Washington. Finally, included within the report are data on the supply of workers required to meet employer demand developed in collaboration with SBCTC and WTECB, as directed by HB 3103.

Background: Trends and Outcomes in Higher Education

Washington is a leader in innovation and technology-based industries, but that leadership position has been earned in large part through the recruitment of highly trained employees from outside the state, especially in fields of computer science, engineering, and health care. This trend is illustrated by the fact that the state ranks 10th in the nation in the percentage of adults who hold bachelor's degrees, while it ranks just 33rd among the states in the production of degrees at that level by state colleges.

The higher education system in Washington faces dual pressures to (1) increase enrollments in response to projected population growth and (2) increase participation so that more Washington residents have the opportunity to earn college degrees (and the benefits that derive from them) within the state.

Scope of Analysis

The needs assessment responds to a number of questions that will inform the growth and development of the higher education system in the state. Key among these is an estimate of the total size of the higher education system needed to respond to projected student demand, the number of graduates required to meet employer demand, and the broader community demand for higher education.

The assessment responds to these questions by examining the current and planned capacity of colleges and universities in Washington, the number of degrees awarded annually, and projections of student enrollments and occupational openings in the future. Community needs are identified though a variety of approaches, including interviews with community

representatives and data gleaned from a variety of reports from other agencies and groups, including local workforce development plans and reports in specialized areas such as healthcare and teaching.

Statewide Results

The statewide analysis of higher education needs indicates substantial growth in the state's higher education system will be required to keep pace with student demand. The analysis highlights several areas of special concern due to growth and/or declining numbers of graduates. Here are several statewide highlights:

- The number of graduate and professional degrees awarded over the past three years has increased overall, but the number of degrees awarded in math, physical science, health, and engineering has declined.

- Employment projections indicate approximately 123,000 job openings annually between 2007 and 2012. Of these, 25 percent would require an associate degree (or other mid-level training) and 19 percent would require a bachelor's degree or higher as the entry level requirement. When additional training needs are considered, 25 percent would require a baccalaureate or higher and an additional 6 percent would require an associate degree or other mid-level training.

- Student demand for education is increasing due to population growth and the determination of more students to seek a bachelor's degree. To meet demand based solely on population growth, the public higher education system would need to add approximately 21,000 full-time equivalent students by 2010 beyond 2004 enrollment levels. In order to continue to increase the number of degrees produced at a rate consistent with the growth over the past 14 years, the system would need to add approximately 45,000 public FTE students over 2004 enrollment levels. Private enrollments, which make up about one-third of baccalaureate and graduate enrollments, would need to continue to grow adding 8,200 private FTE students between 2004 and 2010.

- Data used in the community demand measures indicate that all fields are becoming more complex and require workers prepared with higher levels of education than in the past. As a result, workers would ideally develop a mix of technical skills and management, communication, and team work skills

Regional Results

The regional analyses divide the state into the 12 regional workforce development areas (WDAs, see Appendix C) with an additional area of special analysis that includes Snohomish, Island, and

Skagit Counties (SIS). The regional profiles include regional measures of student, community, and workforce needs for higher education.

- Students from each region of the state attend colleges and universities throughout the state, although most attend college relatively close to home.

- The regional analysis demonstrates a need for growth in higher education throughout the state, but there are important differences among the regions and gaps between local and statewide college participation rates.

- Regions facing the greatest enrollment pressure due to population growth include Southwest Washington and King, Snohomish, Island, and Skagit Counties.

- Regions facing the greatest disparity with the state average college participation rate include the Northwest region, Tri-County region, Eastern region, and the Southwest Washington region.

Analysis and Recommendations

Recommendations related to the overall size and shape of the state's public higher education system:

- Growth is required throughout the statewide higher education system.

- Growth at university main campuses may be supplemented by expansion of the research university branch campuses and regional university centers.

- Growth in the community and technical college system is required to address workforce training, basic skills education, and academic transfer needs.

- Alternative approaches to delivery of higher education may need to be considered, especially in rural communities.

Program recommendations:

- State, regional, and community assessments indicate a need for increased capacity in engineering, computer science, health care, and architecture.

- Demand for business, life and physical sciences, and social sciences were identified in at least two of the three measures of demand.

- The state should reverse the trend of the past three years, when the number of graduate degrees declined in math, physical science, health, and engineering, which are all important fields from the perspective of the state's employers.

The analysis highlights a need for better information about needs and/or options to better serve students and employers in several key areas. Additional study is recommended in the following areas:

- An examination of alternative approaches to meet employer and student demand for training in health related occupations.

- A better understating of specific needs in research and science occupations, and options to increase the number of degrees produced to meet those needs.

- An examination of employer and worker's needs for training in the occupations included in the mechanics and laborers and service industries groupings.

- In collaboration with SBCTC and local colleges and universities, assess the factors leading to lower participation in the public colleges and universities and, as necessary, develop or revise state policies and/or jointly prepare enrollment plans to the end of increasing the college participation rates of students in the region.

For the needs assessment to be an effective planning tool, it must continuously improve in its ability to identify student, employer, and community needs. Recommended areas of improvement include:

- Matching institutional data with employment security data to provide better information on student outcomes.

- Improved tracking of individual student enrollment through the use of national clearinghouse data.

- Refinement of the HECB approach to matching training levels with occupations may also be required.

- Improved data on capacity at off-site facilities.

- An examination of alternative approaches to estimate occupational growth and employer demand for degrees.

WASHINGTON
HIGHER
EDUCATION
COORDINATING BOARD

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DRAFT
State and Regional Needs Assessment

I. Introduction

The Higher Education Coordinating Board, in conjunction with other state agencies and institutions, is charged with stewardship of state higher education resources. A critical aspect of this role is planning and coordination of academic programs, teaching sites, and centers. Over the past several years, the state has faced increasing pressure for additional student enrollments at a time of diminishing fiscal resources. In this environment, it is increasingly important that future growth be planned and coordinated such that it will attend to the state economic development needs and the demands and preferences of students as well as the fiscal constraints now facing the state. The *2004 Strategic Master Plan for Higher Education* calls for data-driven decisions related to the allocation of student enrollments (master plan implementation strategy 2) and assessment of regional higher education needs to meet student, employer, and community demand. The needs assessment, in conjunction with analysis of institutional role and mission, will drive academic program and facility planning and approval (master plan implementation strategy 6).

Based on current college participation rates, the Office of Financial Management estimates an additional 18,000 students will enter the public higher education system by 2010[1]. The estimated growth in enrollment derives primarily from a projected increase in the number of high school graduates over the next several years. However, an estimate based on historic participation rates may significantly understate the demand for access to postsecondary education. In many parts of the state, we expect to see increasing participation in college due to increasing returns to additional years of schooling through higher lifetime earnings, higher education levels of parents, improvements in high school preparation and advising, and the success of a variety of programs such as GEAR UP designed to encourage students to pursue college enrollment. As a result, HECB enrollment estimates have been consistently higher than the OFM estimates. In the strategic master plan, the HECB departed from enrollment estimates based on participation rates in favor of an outcomes-based approach that estimates the growth in the number of degrees

[1] Washington State Office of Financial Management. Public Higher Education Enrollment Projections – Revised Table 1. November 2004. Estimate is based on 2004-2005 participation rates and enrollments.

produced then considers the enrollments required to meet that goal. Using this approach, the HECB estimates enrollment growth of 45,000 additional FTE students by 2010[2].

While overall estimates of the size of the system provide a broad overview of the needs in the state, they do not take into account areas of study, geography, or employer needs. With the passage of HB 3103 in 2004, the Legislature has asked the HECB to assess student, employer, and community demand for postsecondary education statewide and regionally. The report includes an assessment, conducted jointly with the State Board for Community and Technical Colleges and Technical Colleges and the Workforce Training and Education Coordinating Board, of the number of forecasted net job openings at each level of higher education and training and the number of credentials needed to match the forecast of net job openings. The needs assessment will play an important part in moving the higher education system in a direction that will help us meet the challenges ahead. In collaboration with WTECB, SBCTC, the public and private postsecondary institutions in Washington, and other key agencies, the HECB will assess the need for additional degrees and programs at all levels to meet the needs of employers, students, and communities. The needs assessment will become an essential part of the planning and approval process for the public baccalaureate degree granting institutions as we grow and adapt our system of higher education.

II. Legislative Direction and Related Policy Issues

The HECB is required to develop a comprehensive and ongoing needs assessment process to analyze the demand for additional degrees and programs, additional off-campus centers and sites for degree programs, and consolidation or elimination of programs by the four-year institutions [RCW 28B.76.230 (1)].

As part of the needs assessment process, the HECB will examine:

(1) Projections of student, employer, and community demand for higher education and academic degrees, including liberal arts degrees, on a regional and statewide basis.

(2) Current and projected degree programs and enrollment at public and private institutions of higher education, by location and mode of service delivery.

(3) Data from the Workforce Training and Education Coordinating Board and the State Board for Community and Technical Colleges on the supply and demand for workforce education and certificates and associate degrees.

The HECB is also required to determine whether certain major lines of study or types of degrees, including applied degrees or research-oriented degrees, shall be assigned uniquely to some

[2] The number of new FTEs reported in this section includes public two-year and four-year enrollments based on a comparison to 2003-2004 average annual enrollments.

institutions or institutional sectors in order to create centers of excellence that focus resources and expertise [RCW 28B.76.230 (4)]. This determination will rely on the needs assessment, the institutional program review process, and the fit between academic programs and institutional role and mission. Currently, a number of major lines of study are uniquely assigned to specific institutions. These are discussed later in this document.

III. Description of Work by the HECB and Other Agencies

This assessment draws on a variety of reports and data sources currently produced by different agencies within the state. Coordination, research, and planning for postsecondary education occur at the campus level for each institution and within four primary agencies: the Higher Education Coordinating Board, the State Board for Community and Technical Colleges, the Workforce Training and Education Coordinating Board, and the Office of Financial Management. In addition, key projections and support also come from the Department of Employment Security and the Department of Community Trade and Economic Development. These agencies provide data and reports on a regular basis and periodically produce special reports on a given topic of interest (see appendix E for a listing of selected reports and data sets). For example, the State Board for Community and Technical Colleges recently released a study of the need for additional capacity at baccalaureate institutions within the state to accommodate additional transfer students.

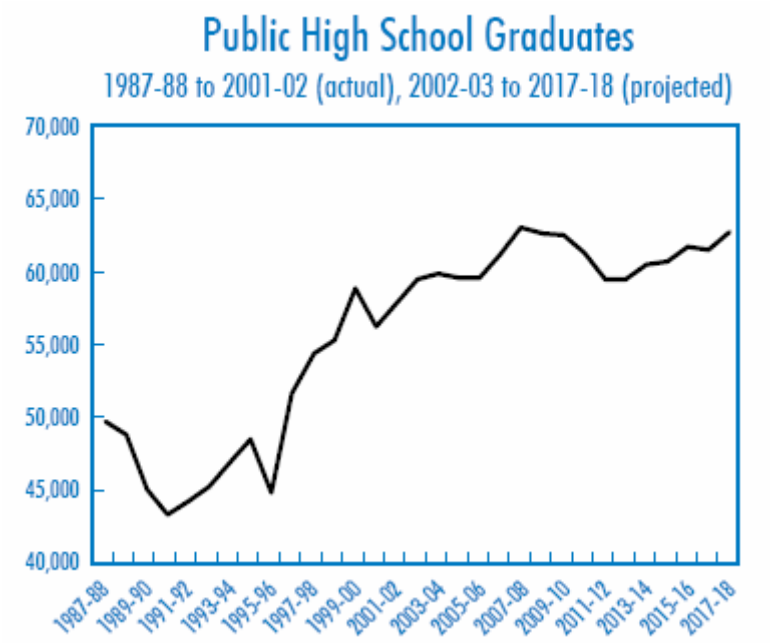
While much of the information presented in the statewide and regional needs assessment is available elsewhere, this report represents the first integrated analysis of statewide and regional supply and demand for postsecondary education in Washington. The assessment provides the HECB and other state policy makers with a critical tool to understand the current size and shape of higher education in the state, anticipated and current gaps in the supply of education programs and prepared workers, and recommendations for programmatic and facility growth to meet anticipated demand. Institutions will use the needs assessment in their academic program planning and facilities planning processes.

The assessment is an ongoing process and involves a workgroup made up of key stakeholders in higher education, including staff from the State Board for Community and Technical Colleges, the Workforce Training and Education Coordinating Board, the Office of Financial Management, the Employment Security Department, the Department of Community, Trade and Economic Development, representatives from the four-year public and private institutions, and HECB staff. The group was assembled to guide the development of an appropriate methodology, including identification of data sources and selection of analytical techniques, for the regional and state assessment of higher education needs and to provide feedback on the model as it is developed and implemented. Following the release of the interim report, the workgroup will continue to evaluate the assessment model and make recommendations for improvements in future editions of the report. The report will be produced on a biennial schedule, with report updates released in July of even-numbered years.

IV. Background: Trends and Outcomes in Higher Education

The need for additional capacity in higher education is not unique to Washington. National Center for Education Statistics (NCES) projections indicate that "changes in age-specific enrollment rates and college-age populations will affect enrollment levels between 2000 and 2013. The most important factor is the expected increase in the traditional college-age population of 18- to 24-year-olds" (NCES 2004-013, p. 8). The report projects that the rate of growth will be substantially higher for traditional age college students (22 percent) than for older students (two percent for students over the age of 35). The growth rate for full-time students (22 percent) is estimated to be almost twice that of part-time students (13 percent). Washington can expect an increase in the number of high school graduates of 8.3 percent between 2001-2002 and 2017-2018, with enrollment peaks in 2007-2008 and 2017-2018[3]. NCES estimates an increase of 12.5 percent in the number of graduates in Washington between 2000-01 and 2007-08, then a drop in the number of graduates of 5.7 percent between 2008-09 and 2012-13, for a net growth over the period of six percent.[4]

Figure 1
Washington Public High School Graduates



Source: Western Interstate Commission for Higher Education (WICHE), 2003.

[3] (2003) Knocking at the College Door – Washington Profile, Western Interstate Commission for Higher Education.
[4] (2004) Projections of Education Statistics, National Center for Education Statistics 2004-013, US Department of Education.

Access to postsecondary educational opportunities for this new wave of graduates is increasingly important. Washington is unique in that we are a leader in innovation and technology-based industries;[5] however, that leadership position has relied heavily on drawing highly trained workers from outside of Washington, especially in computer science, engineering, and health care occupations. As a result, we rank 10th in the nation in the portion of the population over age 25 who hold a bachelor's degree[6] despite the fact that we rank 33rd among the states in the production of degrees at that level.[7] Put simply, companies are forced to look outside the state to attract talented workers with the appropriate training to meet their needs, while many Washington residents are being left behind.

Postsecondary education benefits students directly on an individual basis as well as benefiting employers and communities. Additional years of education yield a clear and well-documented benefit to students. As the HECB outlined in the *2005 Strategic Master Plan for Higher Education*, on average, students who complete a postsecondary degree earn more and are less likely to be unemployed than a high school graduate who does not continue his or her education.

Communities also benefit from higher education through a better educated citizenry. Higher levels of education are associated with greater participation in civic life, including voting and community volunteerism. In addition, higher education institutions bring important economic benefits to their communities through direct employment, spending by students and employees, and the development of additional resources through grants and contracts that bring money into the local economy from state, federal, and private sources.

Employers consistently demonstrate a preference for better educated workers and, in many cases, the education level of the workforce in a given region and proximity to a higher education institution are critical factors a firm considers when deciding where to start or expand operations. However, despite increases in the number of students completing postsecondary training, employers continue to report difficulty hiring trained workers at all levels of education. The Washington State Workforce Training and Education Coordinating Board conducts a survey of employers every two years. With results that are generally consistent with prior years, the 2004 survey finds that "employers believed skill shortages were hurting their business by limiting output or sales, lowering productivity, and reducing product quality."[8]

For the assessment to provide effective guidance in the development of new academic programs and teaching sites, it is critical to build some understanding around the relationship between academic field and occupation. Although graduates from the same academic field tend to

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[5] (July 2005) Innovation and R&D Spillovers by Industry: The Importance of Geographic Proximity and Innovation, Giovanni Peri, Presentation at the University of Washington Economic Policy Research Center conference on Education and Productivity [http://depts.washington.edu/eprc/education/].

[6] (December 2004) Higher Education Trends and Highlights, Washington State Office of Financial Management.

[7] (December 2004) Interim Strategic Master Plan, Higher Education Coordinating Board. Ranking is based on the number of baccalaureate degrees awarded per 1,000 residents age 20-29 in the year 2000.

[8] (2004) Washington State Employers' Workforce Training Needs and Practices, Workforce Training and Education Coordinating Board.

gravitate toward one or two occupational areas, in most academic fields a substantial portion of graduates are distributed across a broad range of occupations. For this reason, it would be unwise to make 1:1 assessments of supply and demand based on field of study and occupation in most disciplines. Therefore, this report will, instead, focus on aggregate measures of supply and demand, with a more detailed examination of selected high-demand occupations where clear training pathways can be readily identified.

V. Scope of Analysis

This report will include analysis of student enrollment behavior, employment outlook and training needs, and community needs in an effort to understand the supply and demand for postsecondary education in Washington state. Specifically, the assessment will respond to the criteria laid out in legislation as follows:

(1) Projections of student, employer, and community demand for education and degrees, including liberal arts degrees, on a regional and statewide basis.

- How many state funded FTEs and how many opportunities for enrollment in private for-profit and not-for-profit colleges and universities must be available in the higher education system in order to respond to student demand?

  Student demand is defined as the need for degrees and programs expressed by students. The student demand estimates are based on historic participation rates and population projections using the HECB simulation model. In addition, the HECB projection of degrees awarded will be used to estimate an alternative projection of student demand. Finally, several campuses have provided information to identify programs and major lines of study that experience especially high demand from qualified students for possible inclusion as high-demand programs.

- How many trained workers (by level and field of study) are required to meet employer demand for prepared workers?

  Employer demand is defined as the annual number of net job openings by occupation. The analysis relies on the Department of Employment Security's long-term occupational projections. Training levels are assigned based on two measures: (1) the collapsed Bureau of Labor Statistics training codes for occupations used in previous reports by WTECB and SBCTC will act as a proxy measure of the minimum qualification to enter an occupation and (2) training requirements of the actual workforce based on HECB analysis of the training level of workers by occupation (based on 2000 census data). Using these measures, HECB staff project the aggregate number and level (e.g., bachelor's, master's, doctorate) of degrees required to meet employer demand.

- What are the community needs for higher education and how can the state be responsive to these needs?

  Community demand is the demand for institutions, degrees, or programs expressed by communities. Assessment of community demand will allow for consideration of elements not included in the above projections, such as economic development plans in a given region or community, arrival or departure of major industry or employer, new technology, or other developments that may not be readily picked up in the projections described above.

(2) Current and projected degree programs and enrollment at public and private institutions of higher education, by location and mode of service delivery.

- What is current and planned capacity in Washington postsecondary institutions?

  Education supply is defined as the capacity for postsecondary enrollment. Using available data, a finer level of analysis is possible for the public institutions than for the privates. Three measures of supply will be used for different aspects of the analysis. For the system as a whole, an aggregate estimate of capacity will be based on current enrollments in public and private institutions. Second, the HECB will analyze data on planned capacity at public and private four-year institutions. Finally, program level supply will be measured by analyzing the number of degrees produced in major fields of study.

- How many degrees are produced annually in Washington (by field of study, region, and educational sector)?

  Workforce supply is defined as the number of prepared workers available to take positions in the workforce. The workforce supply is based on the number of graduates with degrees as reported in Integrated Postsecondary Education Data System (IPEDS), less students who are enrolled full time in graduate school or are not in the labor force (estimate based on National Center for Education Statistics "Baccalaureate and Beyond" findings).

(3) Data from the Workforce Training and Education Coordinating Board and the State Board for Community and Technical Colleges on the supply and demand for workforce education and certificates and associate degrees.

- How many FTE student spaces must be available in educational programs less than a bachelor's degree but greater than one year to meet employer demand for prepared workers at this level?

  Estimates will be incorporated in measures described above.

Analytical Approach

Analysis will occur in four parts:

1. First aggregate estimates of the supply and demand of education will be provided. Based on expected student enrollments, the number of graduates will be compared to the number of degrees needed to meet employer demand. Finally, projected enrollments will be compared to planned capacity for the system.

2. The nature of baccalaureate and graduate study often does not allow for one-to-one comparisons between major lines of study and occupations. Rather than produce tables that create a false sense of precision, the analysis of major lines of study and occupations will consist of a matrix that shows the distribution of graduates from given majors in occupational groups. The matrix will be based on data from the "Baccalaureate and Beyond" study; however, with additional data gathering, future reports will use data from Washington graduates.

3. High-demand fields will be identified. Occupational areas that face the greatest challenges in attracting qualified workers will be considered for inclusion as high-demand occupations. These occupations will be identified as those with significant gaps in the supply of workers and the demand for workers with a given level of training.

4. Regional profiles will provide detailed information on postsecondary participation and rapidly growing occupational areas by region of the state.

VI. Statewide Results

The measures of supply and demand provide a valuable picture of the higher education system in Washington as it exists today and critical areas for growth to meet student, employer, and community demand for postsecondary education into the future.

Education Supply

The current budgeted and actual enrollments for the public colleges and universities and the current enrollments for the private universities are reported in Table 6.1. The table also includes an estimate of the capacity for additional students at public and private colleges and universities. The FTE capacity estimates at the four-year public institutions used in this report are based on the HECB de facto enrollment capacity estimates. These estimates consider existing or planned classrooms, class labs, and faculty offices, and constraints in enrollment growth due to regulatory, geophysical, or cultural factors.

The higher education system in Washington currently serves 273,942 FTE students (2003-2004 FTE enrollments[9]). Roughly one-third of these students attend the public four-year institutions in Washington and about half of the total enrollment is accounted for by enrollments in the public community and technical college system. Just under 12 percent of the total enrollment in the public colleges and universities is nonresident. Out-of-state enrollment is highest at the graduate level with 47 percent of graduate and professional students coming from out-of-state. The four-year public colleges and universities attract 13 percent of their undergraduate students from out-of-state, while the two-year public colleges attract less than five percent of students from out-of-state.

The figures for the public four-year colleges and universities indicate that all institutions have some capacity for additional FTEs, provided appropriate operating and capital funding is allocated. However, the regional colleges and universities are more limited in the number of students they would be able to add than are the research universities and branch campuses. The regional four-year institutions could add a combine total of 7,422 FTEs, or 24 percent, at their main campuses if they grow to full capacity. The research universities could add an additional 11,473, or 23 percent, at their main campuses and 12,821, or 283 percent, at the branch campuses, for a total possible growth in existing four-year institutions of 31,716 FTE, or 37 percent. While the HECB does not have an estimated growth limit for the community and technical college system, the data suggest that the system has been operating well beyond current capacity. For example, based on HECB utilization standards, the community and technical college system currently has classroom space to accommodate 84,122 students, yet the system enrolled 138,241 students in 2003-2004. Throughout the system, additional growth could be accommodated through expansion of off campus centers and teaching sites and increased delivery of coursework and programs through distance education.

Two estimates of possible growth are shown for the subset of private institutions that are members of the Independent Colleges of Washington (ICW). The first estimate is based on responses to a capacity survey conducted by the HECB. The second estimate is possible growth in targeted academic areas at ICW schools, provided state financial aid grows proportionally to fund the additional students. The growth estimates for the remaining private institutions are based on responses to the HECB survey. In total, the private colleges and universities could add between 10,948 to 16,626 additional FTEs (a growth of 26-39 percent) to the state's higher education capacity.

[9] Enrollments reported do not include self-support and contract enrollments at the public colleges and universities.

Table 1
Institutional Funding, Enrollments, and Capacity

Institution	State Funded FTE (2003–2004)	Actual FTE (2003-2004)*	Capacity (Planned Growth and/or Institutional Growth Limits)
Central Washington University	7,809	U Grad 8,289 Grad 362 Total 8,657	9,819
Eastern Washington University	8,150	U Grad 7,604 Grad 999 Total 8,603	11,175
The Evergreen State College	3,871	U Grad 3,717 Grad 239 Total 3,957	5,000
University of Washington	32,458	U Grad 22,482 Grad 9347 Total 31,829	38,410
University of Washington, Bothell	1,235	U Grad 1,097 Grad 162 Total 1,259	6,000
University of Washington, Tacoma	1,494	U Grad 1,258 Grad 258 Total 1,516	5,901
Washington State University	17,479	U Grad 13,905 Grad 3,437 Total 17,342	23,000
Washington State University, Spokane	616	U Grad 107 Grad 489 Total 597	n/a
Washington State University, Tri-Cities	633	U Grad 426 Grad 224 Total 649	1,799
Washington State University, Vancouver	1,162	U Grad 946 Grad 311 Total 1,257	3,645
Western Washington University	11,242	U Grad 10,312 Grad 587 Total 10,899	12,500
Private Not for Profit (ICW)**	n/a	29,977	33,299** – 38,977***
Private Not for Profit (Other)**	n/a	5,752	8,432
Private For Profit**	n/a	6,597	11,543
Community & Technical Colleges		138,241	n/a
Private Two-Year or Less	n/a	8,001	n/a

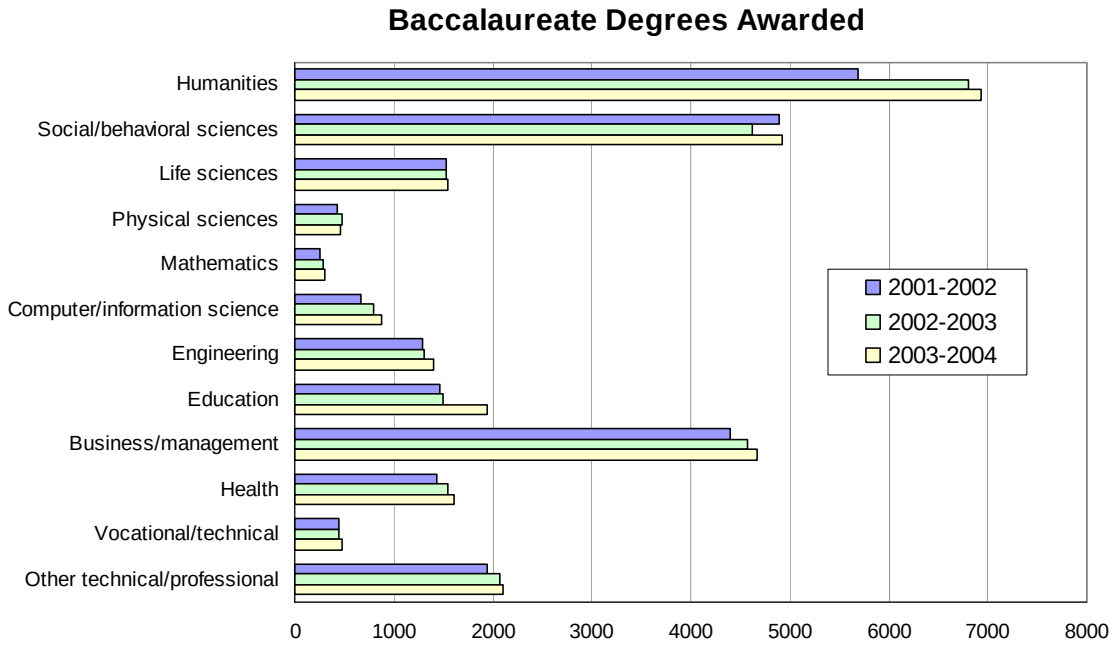
*Enrollments reported do not include self-support and contract enrollments at the public colleges and universities.

**Estimates based on Spring 2004 HECB Survey of Private Institutions in Washington State. FTE Enrollment Estimates for 2002-2003 academic year. Capacity based on Projected FTE in 2009-2010 academic year.

***Possible growth in ICW schools between 2004-05 and 2012-13 given increases in state financial aid to fund additional students. Based on ICW Capacity Survey 2004.

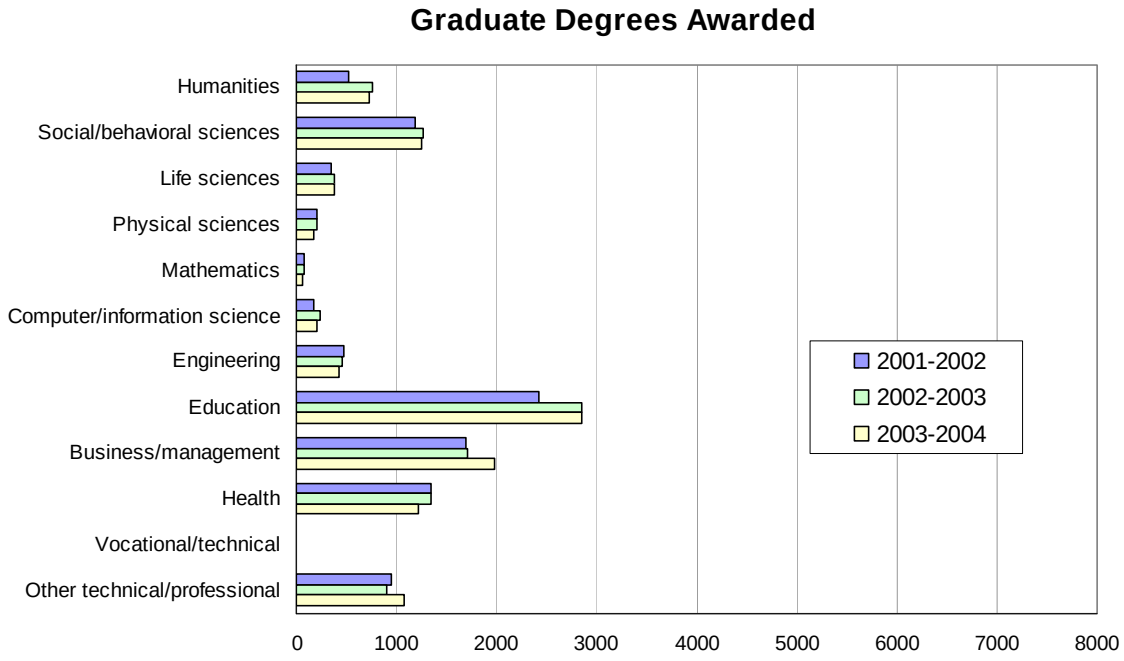
The total number of bachelor's degrees produced in Washington has increased in the past three years, from 24,457 in 2002 to 27,240 in 2004. At the baccalaureate level, the most notable increases occur in the humanities (which includes liberal arts and sciences), education, and computer science, with growth of 18 percent, 25 percent, and 23 percent respectively. Math and health majors also saw double digit increases in the number of degrees awarded over the past three years. Life sciences and social/behavioral sciences were relatively flat; all other majors grew between six percent and eight percent over the three year period, from 2002 to 2004 (see Figure 2 below).

Figure 2
Degrees Awarded by Broad Academic Area
(See Appendix B-1 for a listing of academic programs included under each heading)



Graduate degrees exhibited greater variation over the three year period. Overall, 981 additional graduate and professional degrees were awarded in 2004 over the 2002 level, an increase of nine percent. Growth was especially robust in humanities (27 percent), computer science (18 percent), education (15 percent), and business (14 percent). Graduate and professional degrees classified in "other technical/professional degrees" increased by 12 percent, which was accounted for primarily by 116 additional professional and masters degrees in law. The number of graduate degrees produced in math, physical science, health, and engineering declined by 21 percent, 15 percent, 10 percent, and 8 percent respectively (see Figure 3).

Figure 3

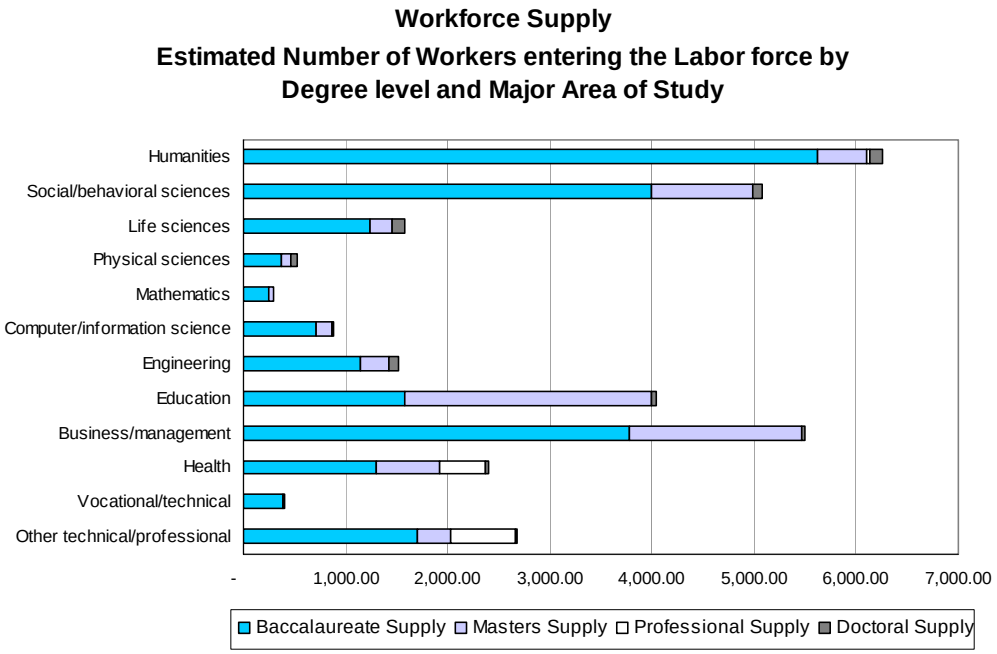


Workforce Supply

Workforce supply is a measure of the number of prepared workers available to take positions in the workforce. Because not all graduates enter the labor force immediately, the workforce supply in less than the annual number of degrees produced in a given academic field. Baccalaureate graduates who do not enter the workforce and those who enroll in graduate school full time are excluded from the estimate of workforce supply; the remaining 81 percent of baccalaureate graduates are included in the baccalaureate workforce supply estimate. The number of graduate degree recipients is reduced based on labor force participation rates by degree level. On average, 87 percent of graduate degree recipients are estimated to enter the workforce. The supply of workers does include graduates of Washington institutions who are not residents of Washington, including international students. International students account for 3.1 percent of undergraduate degrees awarded in Washington and 9.3 percent of graduate degrees (see Figure 3).

Workforce supply estimates are summarized by major field of study and degree level in Figure 4. The figure shows that professional degrees are concentrated in health fields and "other technical/professional." All of the professional degrees in the "other" category are due to the inclusion of law degrees in this category. The majority of master's degrees (56 percent) are produced in education and business.

Figure 4



Demand

Three estimates of demand are used in the assessment. Student demand is an estimate of the number of students who are expected to enter the higher education system. Employer demand is the number of workers, including the training level and major area of study, required to meet employers' demand for workers. Finally, community demand brings in additional information from a variety of sources to assess the demand for education expressed by community constituents.

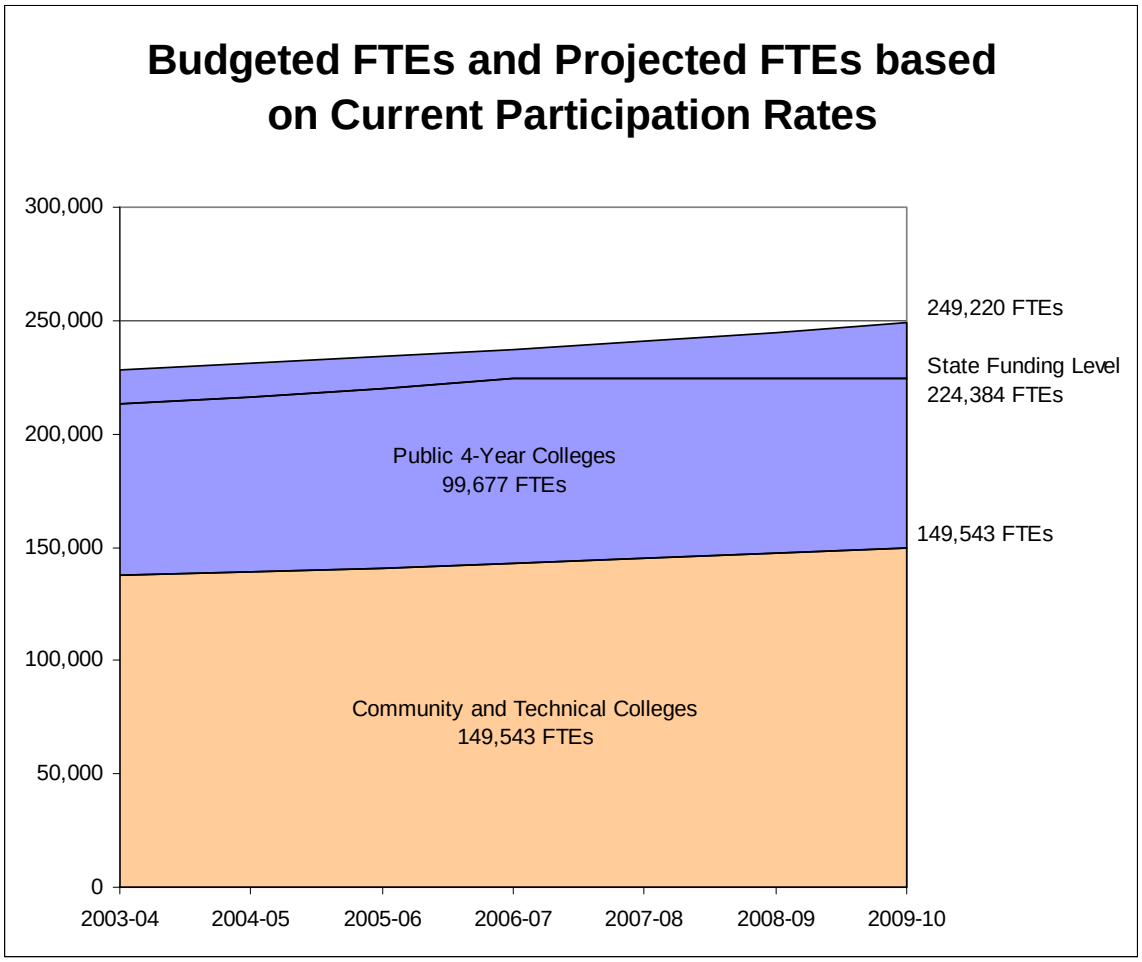
Student Demand

Two approaches to estimating student demand are used in the statewide estimates. First is the traditional approach used in Washington which is to estimate the total number of FTEs in the system at a future year based on the current level of service. This is done by applying the current college participation rate to state population projections in order to estimate the size of the system if current participation rates were carried forward into the future.

In the *2004 Strategic Master Plan for Higher Education*, the HECB took a new approach to project student enrollments. Rather than base projections on historic participation, the HECB approach is to project the number of degrees awarded based on historic trends then back into an estimate of enrollments based on historic FTE/degree ratios. Finally, the report will include a discussion of impacted majors where projections may underestimate actual demand due to

limited participation resulting from enrollment caps or other structural impediments to student enrollment.

Figure 5

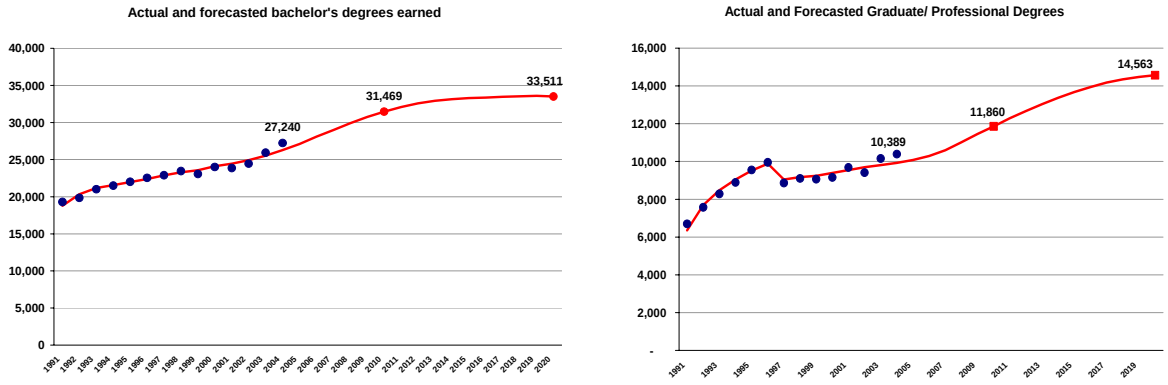


Based on current participation rates, enrollments would be expected to grow to 99,677 FTE in the public four-year system and 149,543 in the public two-year system, for a total of 249,220 students in 2010, an increase of 21,041 students over 2004 actual enrollment levels[10] and 24,836 over 2006-2007 budgeted enrollment levels.

[10] Note: Estimates based on current participation rates are higher than the latest OFM estimates (May 2005) due primarily in a difference in the base year. (HECB estimate uses 2003-2004 while the most recent OFM estimate uses 2004-2005 estimate.) Because enrollment in the community and technical colleges was significantly lower in 2004-2005, the total estimate is also reduced. The enrollment drop was driven in large part by limits in adult basic education; however, the need has not degreased so the higher estimate based on 2003-2004 service levels is the preferred estimate. Enrollment figures include only state funded FTEs.

The number of degrees awarded has shown an upward trend over the past 14 years. Based on this trend, the HECB projects student demand for degrees of 31,469 by 2010 and 33,511 by 2020. Graduate degree awards have shown a similar upward trend; HECB estimates 11,860 graduate and professional degree awards in 2010 (see Figure 6).

Figure 6



Estimates of the number of degree awards are used to estimate the system FTE required to produce those degrees (see Figure 7). The analysis yields an estimated total system size of 326,692 FTE by 2010, an increase of 52,750 over 2004 enrollment levels. Of this total, 44,562 additional FTEs would be in the public sector[11] with 26,889 in the two-year colleges and 17,672 in the four-year colleges[12]. The projected increase over current enrollment would be 8,188 in the private sector. While there is sufficient capacity in the public and private four-year colleges and universities to accommodate estimated demand (provided appropriate capital and operating funding is provided for the four-year public institutions and proportional growth in state financial aid programs for the privates), expansion in the two-year sector is a greater concern as the 2004 enrollment levels were already well beyond capacity. While a portion of the expected growth may be met with greater expansion of the four-year public institutions and/or private institutions, it is important to note that the community and technical colleges provide a range of education and training programs, only about 40 percent of the enrollments are in the "academic transfer" programs with curricula similar to that offered in lower-division coursework at the four-year public institutions. Additionally, statewide capacity does not translate into capacity in the right place so the regional profiles included in the next section will be important in understanding access in regions of the state.

[11] Based on results of the HECB survey of expected growth of the private colleges, the growth in enrollments at the private institutions is expected to keep pace with growth in the public sector; therefore, the ratio of enrollments in public and private institutions is assumed to remain constant over the period of the projections.

[12] Due to over enrollments in the public colleges and universities, the actual increase over 2006-2007 budgeted enrollments would be 48,481.

Figure 7

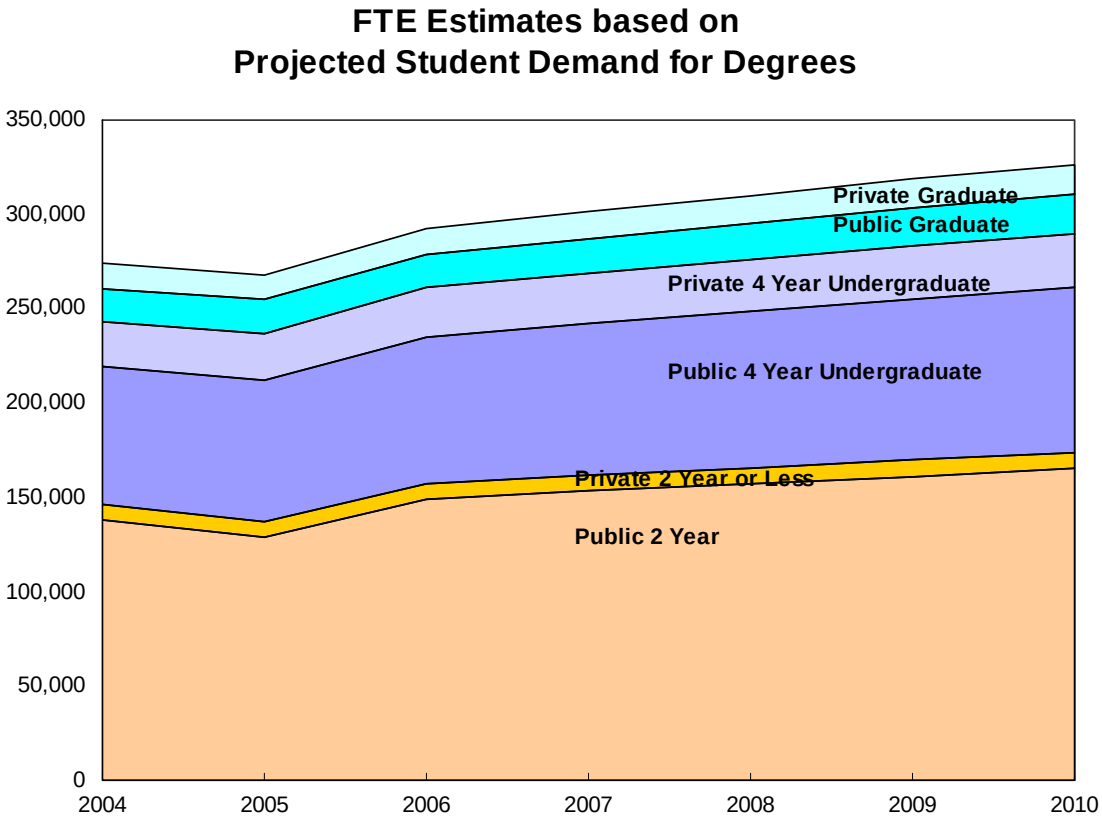
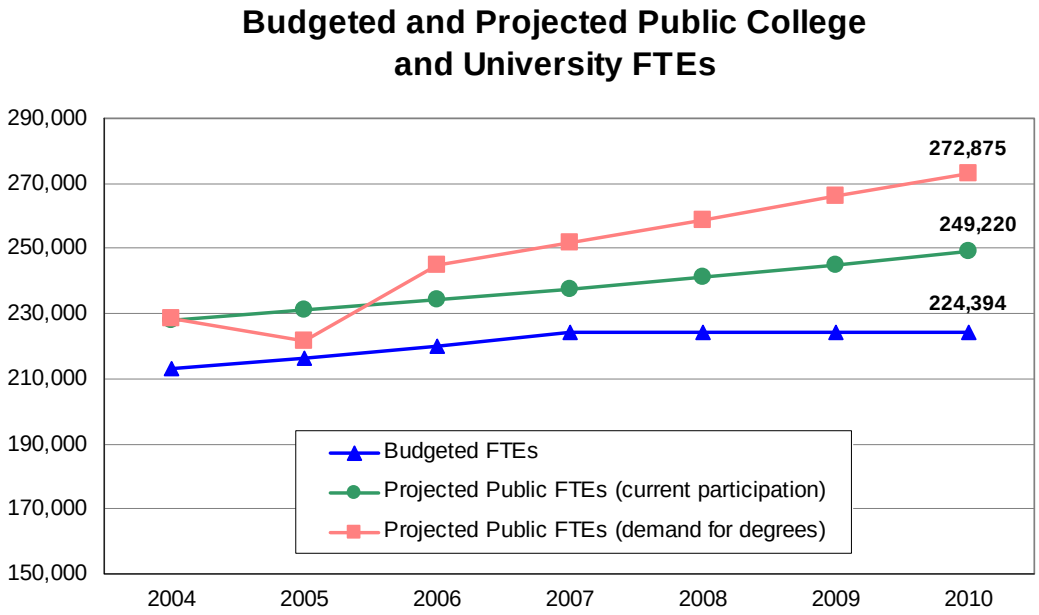

FTE Estimates based on
Projected Student Demand for Degrees
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
2004
2005
2006
2007
2008
2009
2010
Private Graduate
Public Graduate
Private 4 Year Undergraduate
Public 4 Year Undergraduate
Private 2 Year or Less
Public 2 Year

Figure 8



While budgeted FTEs have been increasing, they are not growing fast enough to catch up with projected enrollments based on the current level of and population growth or demand for degrees (see Figure 8).

Specific majors identified by institutions as "impacted" or "competitive" are those majors in which student demand is consistently greater than space available in the programs. Often these programs have specific pre-requisite coursework required for admission and, in some cases, entry to a major will be based on a competitive admission process. Majors identified by institutions include architecture, business, communications, computer science and informatics, engineering, elementary education, nursing, and psychology.

Employer Demand

Employer demand is defined as the annual number of net job openings by occupation. Two measures of demand are reported. Entry level demand is based on the standard Bureau of Labor Statistics (BLS) training levels assigned to all occupations. Ultimate demand is based on HECB analysis of the training levels of the existing workforce (based on 2000 census data). The HECB approach assumes the BLS level is the minimum training level for entry to an occupation and census data is used to assess the degree to which workers in a given occupation hold a degree at a level higher than the minimum. To simplify the discussion, this will be referred to as additional training. However, it is important to note that for many occupations there is not a neat progression or sequence to training. In fact, there are several training pathways for entry into occupations, and/or varying incentives and pathways to receive additional training once

employed in the occupation. The analysis can provide a range of training needs for an occupation, but it cannot distinguish between training before entry and training received while working in the profession. An additional complexity is that in some instances additional training may move a worker from one occupation to another, especially in occupations requiring less training. The HECB analysis accounts for this by assuming a ceiling for the training level of those occupations requiring short-term or little formal training (see appendix A for a more detailed discussion of the HECB analysis).

As shown in Figure 9, the HECB approach estimates fewer workers with lower training levels and more workers with higher levels of training. These differences are a reflection of the factors discussed above. While the BLS estimates assume all positions in a given occupation require a single training level, the HECB approach reflects the actual workforce. Workers may enter with a higher level of training than assigned by BLS or they may gain additional training. For example, a worker may enter with short-term training then move to mid-level over time by completing an associate degree. At the same time, workers with an associate degree may complete a bachelor's and thus move up a category.

Figure 9

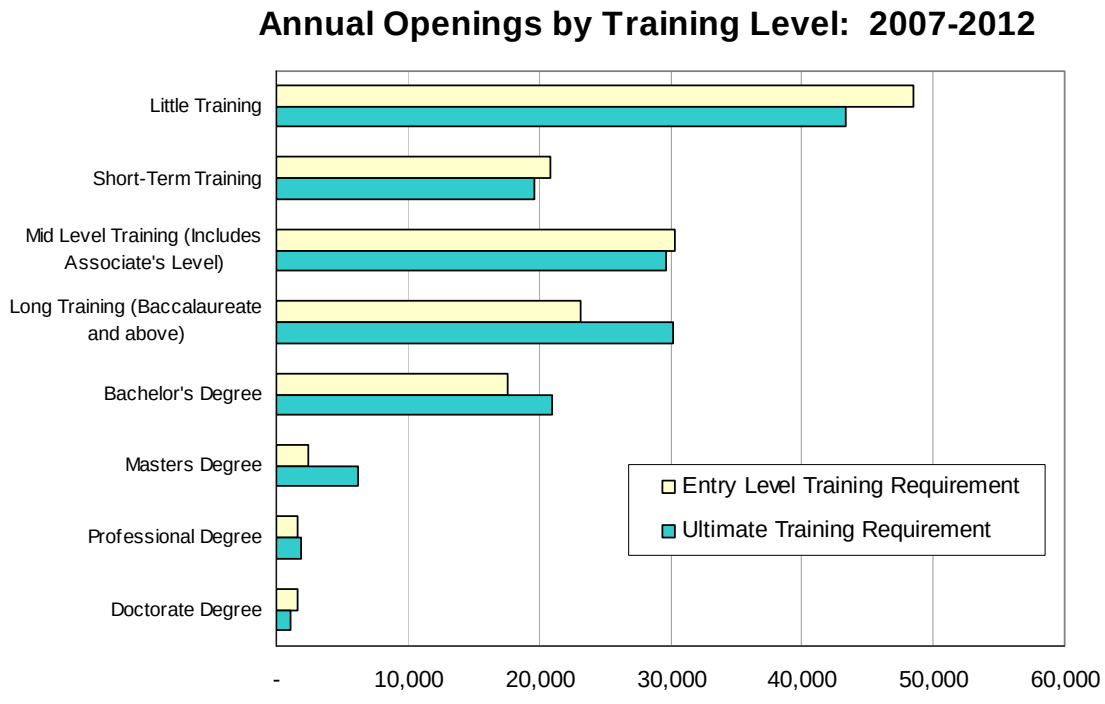


Figure 10 shows the number of workers requiring a bachelor's degree for entry to occupations and as an ultimate training requirement. A number of occupations have substantial additional training requirements as measured by the gap between entry requirement and ultimate training

requirement. In many cases, workers will enter the occupation with the higher level of training; in other cases, the workers will need to seek additional education. Healthcare practitioners and technical occupations stand out as an area where a substantial number of workers enter the occupation with a bachelor's or complete a bachelor's while working when less than a bachelor's is required using the BLS training level. Baccalaureate training for nurses accounts for 47 percent of the difference between entry and ultimate training requirements. The training requirement for nursing, according to BLS, is an associate degree; however, a substantial number of nurses go on to receive a bachelor's degree (and in many cases higher degrees) while working and a significant portion of new nurses receive their training and licensure through a baccalaureate level program rather than an associate level program.

Also within the broad area of healthcare practitioners and technical occupations, 79 percent of clinical and medical lab technologists and technicians enter with a bachelor's degree or higher or earn a degree and continue employment in the occupation.

Figure 10

Projected Annual Openings for Workers with Baccalaureate Degree or Higher, by Occupation: 2007-2012

Source: HECB Estimate Based on May 2005 Employment Security Projections

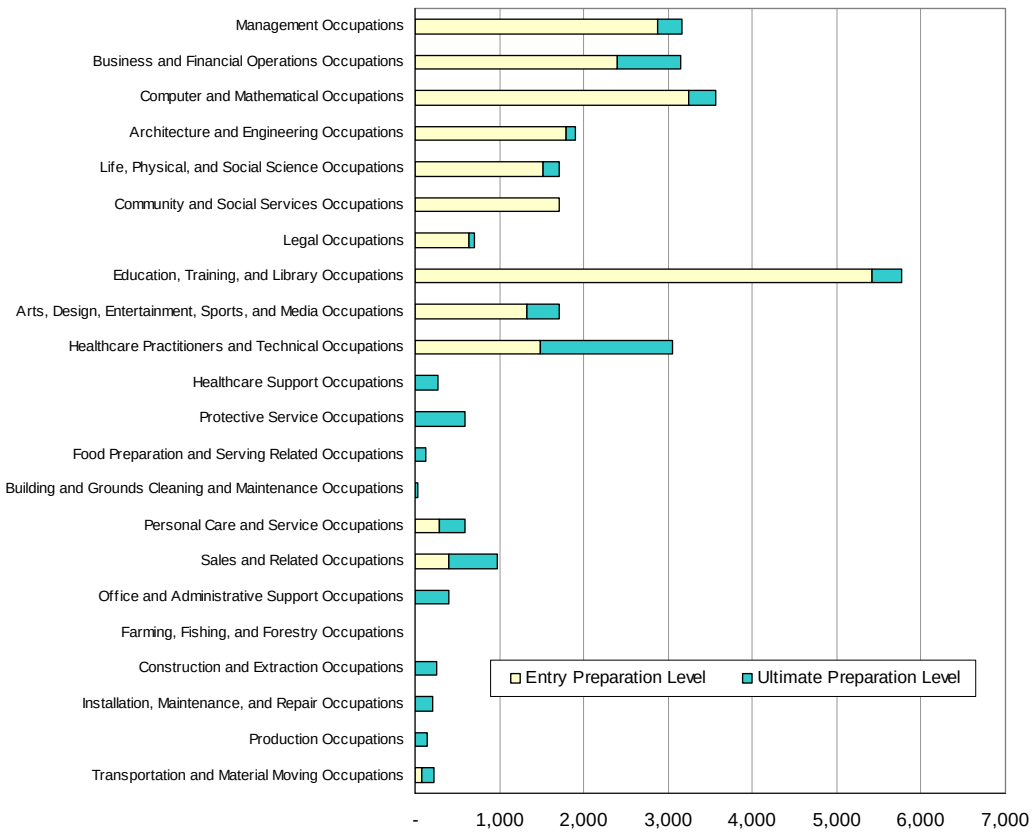
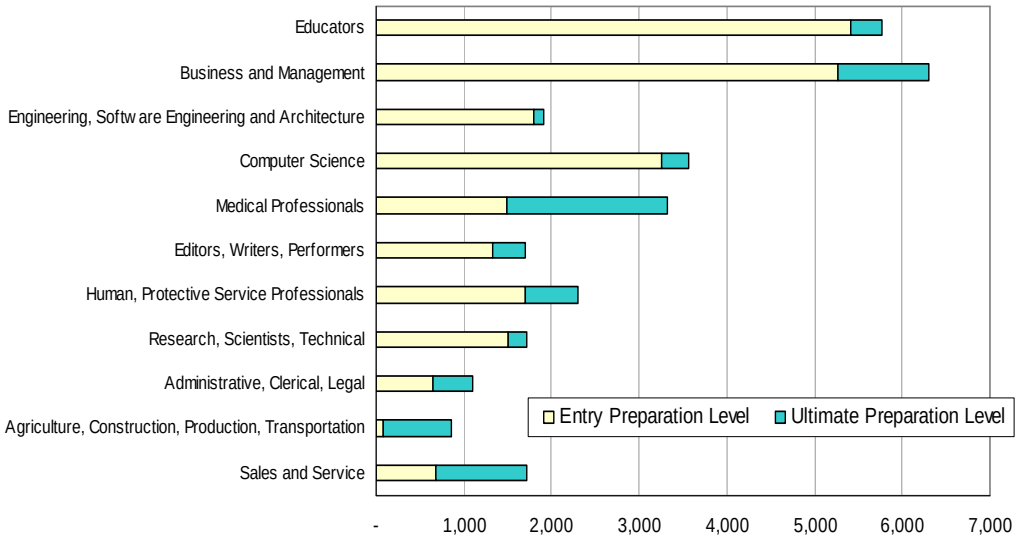


Figure 11 provides the same information aggregated in to the groupings used in later analysis. Medical professions again stand out as an area with significant need for higher levels of training. Also evident is a high proportion of openings in agriculture, construction, production, transportation, and sales and service occupations requiring higher levels of training. While these are dispersed across a variety of industries and occupations, most of the positions that require higher levels of training are supervisory and/or highly technical (e.g., pilots, air-traffic controllers, insurance, securities, commodities, and financial services sales agents).

Figure 11

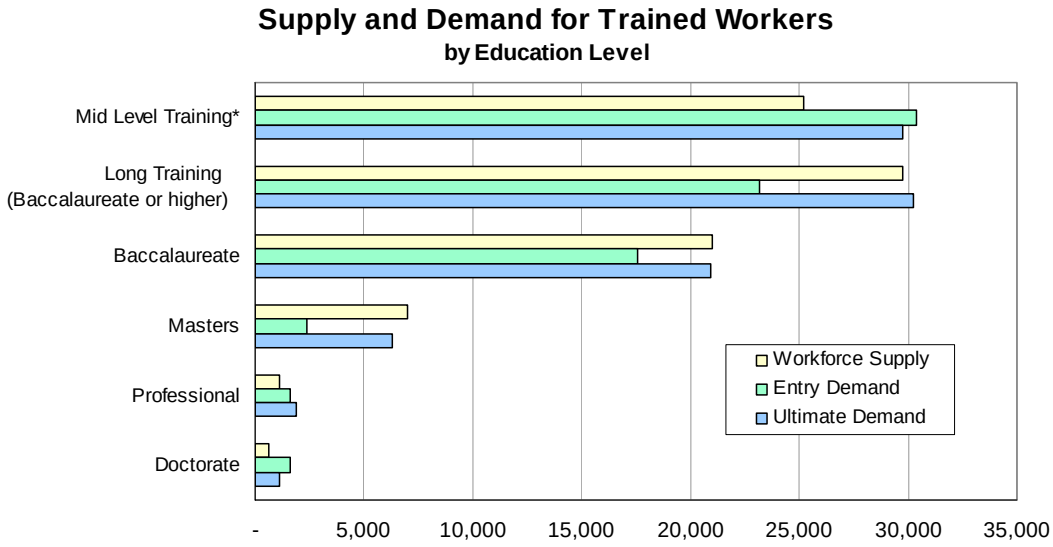
Projected Annual Openings for Workers with a Baccalaureate Degree or Higher, by Occupation: 2007-2012



Matching Workforce Supply and Employer Demand

An aggregate match of workforce supply and employer demand shows that total workforce supply (annual graduates entering the workforce) is roughly equal to employer demand for 2007-2012, at least at the baccalaureate and masters level. However, the aggregate estimate is sensitive to changes in the overall employment forecast and masks shortages in particular occupational areas that will be the focus of this section.

Figure 12



* Mid-level supply is based on 2002-2003 data.

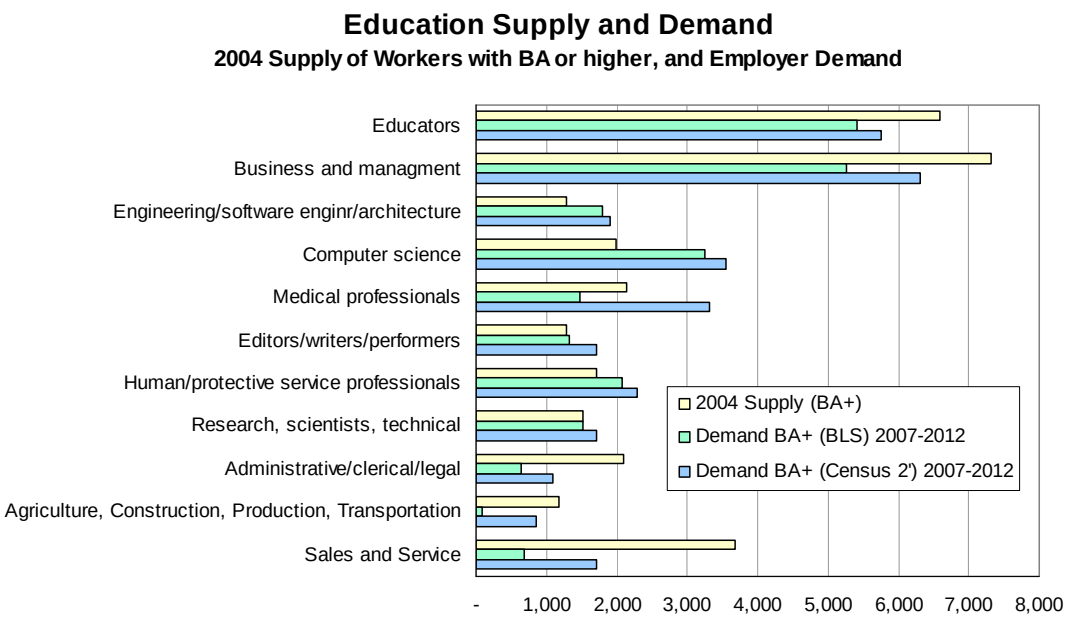
The supply of workers with a BA or higher in 2004 was 31,163 and estimated demand in 2007-2012 is 30,242. Demand in specific occupations, however, is not met by current supply. Matching with the ultimate demand measure, current degree production only meets 67 percent of the need in engineering, software engineering, and architecture and 56 percent of the need in computer science. Current degree production is sufficient to meet 65 percent of the need for additional training in the medical professions, 75 percent of the need in editing, writing and performing occupations, and protective service occupations, and 89 percent of the need in research, scientific, and technical occupations. Demand for degrees is being met (or exceeded) in administrative, clerical, and legal occupations, agriculture, construction, production, and transportation occupations, and sales and service occupations. It is important to note, however, that these are broad occupational groupings with a range of training needs within each group.

A review of the degree/occupation matrix (see Appendix G) shows the association between academic programs and employment in occupations. Based on the matrix data, demand in engineering, software engineering and architecture would best be met through increased enrollments in engineering. Demand in computer science would best be met through increased enrollments in computer and information systems. Close to half of the need in medical professions was due to training needs for nurses, so increases in nursing programs would be recommended, as would increases in other health related programs. Humanities is the most common area of study of workers entering occupations classified in the editing, writing, and performing category. Humanities graduates are well represented across a number of other occupational areas as well, an indication that these students are well prepared for a range of occupational paths and a reflection of the fact that humanities is the largest of the academic areas included in this analysis. Human and protective service occupations rely most heavily on

graduates of social science programs. Finally, preparation for the research and science occupations is generally met through programs in life sciences, physical sciences, and social sciences. The gap in research and science occupations may be exacerbated over time by flat growth in baccalaureate degrees in life sciences and social sciences and declines in graduate degrees in math, physical science, health, and engineering.

It is important to note that each occupational area may have specific training needs. The analysis above indicates the most common academic training area for occupations that exhibit a gap between the supply and demand for trained workers. However, up to half the training needs for positions in these occupations may occur in academic programs other than those listed. For example, while 58 percent of computer/information systems graduates entering the workforce find employment in computer science, they make up only 26 percent of the entering workforce in that field. At the same time, nine percent of business/management graduates take jobs in computer science and make up 24 percent of the entering workforce (see Appendix G).

Figure 13



Community Demand

Community demand is the demand for institutions, degrees, or programs expressed by communities. Assessment of community demand allows for consideration of elements not included in the above projections, such as economic development plans in a given region or community, arrival, or departure of major industry or employer, new technology, or other developments that may not be readily picked up in the projections described above.

The Department of Community Trade and Economic Development (CTED) identifies strategic economic development goals for the state. The selection process involves analysis of research on industry developments in Washington, local economic development goals, and an assessment of where CTED resources would be most effective. Local workforce development areas also set goals for economic development within the region. These are discussed in the regional profile section of this report.

The industries identified as the focus of statewide economic development activities include value added agriculture, wood products, technology, aerospace, tourism, biotechnology, and marine services.

The occupations associated with growth in a number of these industries would require training through programs that are in many cases in very short supply. Specifically, the need for workers with training in engineering and computer science would be essential for growth in aerospace and technology occupations. Biotechnology relies heavily on the strength of the research infrastructure which would include research universities and other publicly and privately funded research centers for basic research. In addition, the industry relies heavily on significant numbers of workers with strong background in math and science.

It is important to note that all fields are becoming more complex and require workers prepared with higher levels of education than in the past. For example, in the wood products industry, a key area for growth is in engineered wood products. Development of these products and manufacturing processes requires higher levels of education than traditionally associated with the industry. In addition, there is a continuing trend toward the development of new harvesting techniques to comply with regulatory issues. This, too, has an impact on training needs.

A similar trend exists in value added agriculture where additional training is required to efficiently produce the raw materials for production and to develop ways to add value and effectively market products. A key example in Washington is the development of wineries throughout the state that rely on Washington-grown grapes. The wineries not only add value by providing a much higher economic benefit to the state than would be realized by simply producing and exporting grapes, but wineries also have a spin-off benefit through increased tourism.

While health care is not included as an area of focus for economic development, it is cited as a key area of growth.[13] As discussed in earlier sections, training needs in health care are significant at all levels. For example, nursing education is in high demand at the entry level (predominately provided at the associate degree level, but also substantial numbers of new nurses receive initial training at the baccalaureate level) but there is also need for students to continue on for master's and doctorate degrees in nursing to train the next generation of nurses. A recent

[13] Cluster Strategies for Washington: Report for the Office of Trade and Economic Development. Paul Sommers, December 2001. A detailed analysis of needs in health care is provided in "Progress 2004: A Report of the Health Care Personnel Shortage Task Force."

report from the health care personnel shortage task force indicates high levels of need and difficulty hiring qualified workers in a wide range of health care occupations at all educational levels.[14]

The University of Washington, with funding from the Sloan Foundation, conducted a series of surveys and interviews to assess the demand for degrees and programs in Washington state.[15] As part of the study, researchers interviewed community and business leaders around the state about economic development and educational opportunities for Washington colleges and universities. The interviews were designed to provide information on new and emerging areas of statewide economic development, determine the level of education and skills required to support this development, and assess the scope of new employment opportunities that might result.

The interviews indicated a concern that the market is becoming increasingly competitive, resulting in consolidation and increased attention to efficiency. In response, employers report that they have become more selective in the hiring process. Workers with a deeper and more sophisticated skill set are at a distinct advantage in this environment. Ideally, workers would develop a mix of technical skills and management, communication, and team work skills. This is consistent with findings reported in the 2004 employer survey conducted by the Workforce Training and Education Coordinating Board which finds that employers reporting difficulty finding qualified applicants most often cite lack of occupation specific skills and/or lack of problem-solving and communication skills or positive work habits and attitudes.

According to UW study participants, a number of occupational areas are also facing significant retirements in the coming years. This is a special concern in government, education, health care, and engineering professions.

The study identifies health care and education as two key areas that will experience significant levels of new hiring due to a combination of growth and replacement of departing workers. In education, the need is most pronounced in special education, speech pathology, and school psychologists. Retirements will also significantly increase the need for administrators in the K-12 system.[16]

Real estate, construction, and related finance occupations were also identified as key growth industries. This growth will primarily affect higher education in the need for additional training in architecture, engineering, construction management, economics, and finance. An additional

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[14] Progress 2004: A Report of the Health Care Personnel Shortage Task Force. Workforce Training and Education Coordinating Board.

[15] Private and Public Leader Interviews On Economic Development and Education Opportunities for Washington State Universities and Colleges. Draft report prepared by Ryan Landtroop, University of Washington. July 2005.

[16] The data are consistent with a more complete set of findings related to needs in the K-12 system identified in the "2004 Report on Educator Supply and Demand in Washington State" released by the Office of the Superintendent of Public Instruction which indicates considerable shortage in special education and in a range of administrative positions, including speech pathology, occupational and physical therapy, and school psychology. Some shortage is indicated in 21/36 teaching areas and most administrative areas.

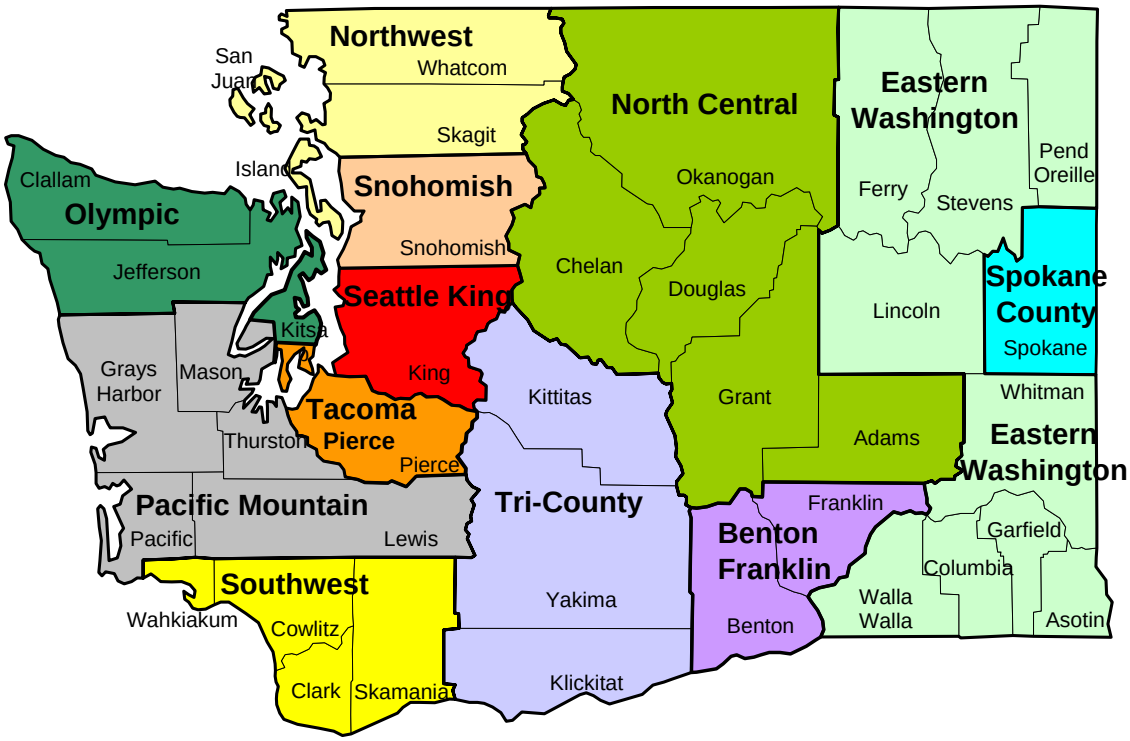
impact on many of these programs will come from continuing population growth and economic development which will drive additional needs in transportation and urban planning.

Other areas that will impact higher education training needs would be an increased need for training in accounting, resulting from new reporting regulations. Developments in high technology will focus primarily in computer security and technology commercialization, requiring additional training in computer science and business.

VII. Regional Needs

Regional analysis is based on Workforce Development Areas (WDA) (see appendix C) with an additional area of special analysis which includes the Snohomish WDA and part of the Northwest Washington WDA to include Snohomish, Island, and Skagit counties (SIS). The thirteen regional profiles included in this section provide regional measures of student, community, and workforce needs for higher education.

Figure 14
Workforce Development Areas



Regional Student Demand

Regional education supply will focus on two aspects of supply. First, institutions located within a region are identified. Second, institutions serving an area based on student enrollment patterns are described.

Regional student demand is assessed based on a measure of access to higher education. For this purpose, the participation rate for the region will be compared with the state average participation rate (taking differences in distribution of age by region into account).

Workforce Needs

Workforce supply is not regionalized because a number of programs are limited to only one or a few institutions in the state; however, because there are significant regional differences in the growth and need for specific occupations by region, the analysis will include data on key occupations in the region requiring mid-term and long-term training.

Regional Community Needs

Each region has unique needs and developmental goals. The community needs analyses will consider regional development goals for region, industry, or demographic changes not accounted for in other estimates or other information about the region that may impact academic planning.

Statewide Programs

Certain programs and major lines of study are uniquely assigned to one institution or offered by a limited number of institutions in the state (RCW 28B.10.100, RCW 28B.10.120). See Appendix D for a listing of current statewide programs. The HECB may recommend changes to these designations as part of the needs assessment process (RCW 28B.76.230) and its review of institutional role and mission (RCW 28B.76.200).

Regional Needs Assessment Summary

Student Demand: Growth "Pressure Points"

Regions in which we anticipate the greatest enrollment pressure due to population increases include Southwest Washington, Skagit, Island, and Snohomish (SIS) Counties, and King County. The first two regions are projected to need at least a 15 percent increase over current enrollments to accommodate greater numbers of students due to population growth. Growth in the SIS region is primarily driven by projected population increases in Snohomish County. It is also of note that there will be a significant need for enrollment increases in King County. Though the percentage increase is only nine percent, the total FTE increase is 3,651, the largest anticipated

increase in the state. In total, projected FTE growth from these three regions resulting from anticipated population growth accounts for roughly 54 percent of total state growth projections.

The Southwest region is already served by a branch campus of WSU and recommended growth in enrollment follows with previous recommendations made by the HECB to expand the WSU-Vancouver campus to include lower-division students. The HECB, NBBJ of Seattle, and MGT of Olympia are currently conducting additional analyses to identify both the unmet higher education needs in Snohomish, Island, and Skagit Counties as well as the most appropriate and cost-effective delivery methods. King County has solid institutional infrastructure in place that will likely need to be expanded to accommodate increased enrollments before 2010. The state's community and technical colleges continue to provide roughly 67 percent of all state funded public enrollments and 84 percent of lower-division enrollments in Southwest Washington, King County, and SIS. Given the high percentage of students who enroll in community and technical colleges, capacity at these institutions must increase to meet future demand.

Student Demand: Room for Growth

There are several regions that have large disparity between their region's participation in higher education and the state average, including Southwest, Northwest, Tri-County, and Eastern. Each of these areas would need to increase their current enrollments by 30 percent over current levels to match the average participation rate for Washington.

Enrollment patterns from each region suggest that a large percentage of students stay within the region to attend college. For instance, 34 percent of students who call the Tri-County region home attend Central Washington University, 44 percent of students who attend a four-year institution from the Northwest region go the WWU, and over 60 percent of four-year students from the Eastern region attend either WSU or EWU (see appendices for further details). It is also of note that the Eastern and Tri-County regions are the only two in the state in which the majority of students who attend college do so at a four-year school.

The four regions are good targets for increasing the college participation rate and, subsequently, the number of degrees Washington produces. Not only does each of the regions exhibit the greatest gap between regional participation rates and the state average, each is already served by a public four-year institution that attracts high percentages of students from the region. As the state looks for different strategies for increasing the number of four-year degrees produced, both two- and four-year schools in each region could play active roles in encouraging more of their citizens to choose higher education.

Workforce Supply Trends

As is true with the rest of the nation, most regions within Washington are experiencing a shift away from manufacturing and toward service, technology, and other related industries. In several less densely populated regions of the state, this trend has had an especially large impact on agribusiness and natural resource extraction industries (see regional reports for Olympic

Consortium, Pacific Mountain Consortium, Tri-County, and Eastern). This trend has significant consequences for both two- and four-year higher education institutions.

First, the number of occupations which pay a "family wage" with no postsecondary education is decreasing; production and manufacturing jobs available to citizens with a high school degree are more scarce than they were in 1980 (Employment Security Department, 2005). Many of the jobs in the new regional economies require varying levels of college education and an increased number of people are projected to enter the system. Growth in health care occupations, including nurses and medical technicians (both require either Associate or Baccalaureate training), top almost every region's list of key growth occupations. Expansion in the government sector is also common to almost every region. Key growth occupations in this category include teachers and educational support personnel as well as social workers and counselors. As the state continues to expand, many regions across the state also project growth in the construction sector and anticipate increased need for carpenters, electricians, and managers for construction trades. This trend is true for both urban and rural areas.

Although counties along the I-5 corridor match the rest of the state regarding projected increases in construction as well as in health care related fields, they differ from most other areas of the state due to the "clustering" of information and biomedical technology occupations. Each of the latter two categories is slated for increased growth, especially in King and Snohomish Counties. Two areas in Eastern Washington, the Tri-Cities area of the Benton-Franklin region and Spokane, also have technology clusters and anticipate significant growth in this sector.

Shifts in industrial patterns combined with the incorporation of high-tech operations into businesses in any sector increase the need for incumbent and displaced worker retraining. Employers in the majority of regions across the state are working with institutions, predominantly community colleges and technical schools, to help workers update their skills to remain competitive. Additionally, workforce boards have identified worker retraining as a key to their regions' economic stability. In rural areas, planners are targeting distance education (via the World Wide Web or interactive television) to meet the postsecondary training needs of their citizens.

Olympic Consortium Regional Needs Assessment

Regional Student Demand

The Olympic Consortium includes Clallum, Jefferson, and Kitsap Counties and has a population of 335,327, roughly 71 percent of which lives in Kitsap County. The region has three colleges that provide regional enrollment data; one private-non-profit four-year and two public-two-year institutions providing 7,519 full time equivalent (FTE) enrollments (see Figure 15). Several other institutions operate programs within the region but report enrollment data at a state-level rather than by region; they are included in the "other" category.

Table 15
Colleges or Universities Located in the Olympic Consortium

Institution Sector	Name	Location	Size (FTE)
Private Non-Profit Four-Year	Northwest College of Art	Poulsbo	324
Public Two-Year	Olympic College	Bremerton	4,724
Public Two-Year	Peninsula College	Port Angeles	2,471
Public and Private Four-Year	Other[17]	Various	***
		subtotal	7,519

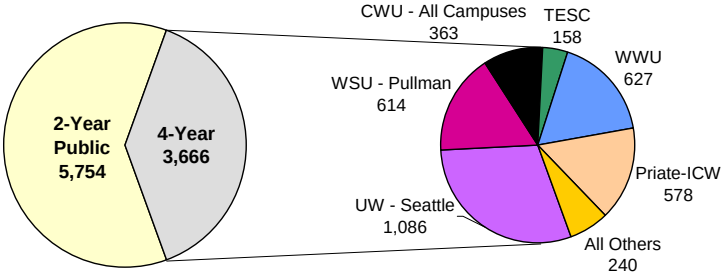
Source: Integrated Postsecondary Education Data System, Peer Analysis System

Student Preference

Approximately 9,420 people in the region attend college, 61 percent of whom attend a two-year school while the remaining 39 percent attend a four-year institution. The University of Washington's Seattle campus is the most popular choice, with nearly one third of students in the region enrolled. Washington State University and Western Washington University are second, attracting roughly the same percentage of students from the region (see Figure 16).

Figure 16

Olympic Consortium
Total Enrollments by Home Region of Student
2-Year: Public Community/Technical Colleges
4-Year: Public and ICW

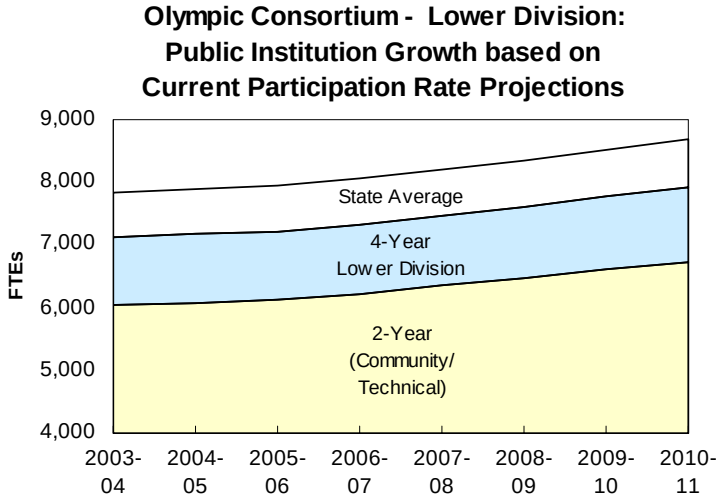


Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

[17] The "other" category includes City University, Northwest Indian College, Southern Illinois University, as well as limited degree programs from UW, WSU, and WWU.

The population in the region is projected to continue its growth and, as a result, the number of enrollments from the region is also projected to increase if the same proportion of the population chooses to attend college. Based on the HECB simulation model, enrollments in the lower-division are projected to increase from 7,122 FTE in 2003-04 to 7,921 FTE in 2010-11, just to maintain the current regional participation rate. However, if participation rates in the region increased to meet the state average, then lower-division enrollments would reach 8698 FTE by 2010 (see Figure 17).

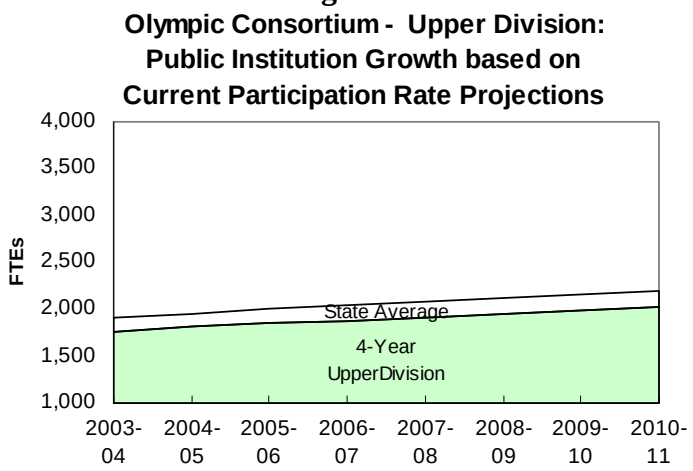
Figure 17



Source: Higher Education Simulation Model, Version 1.15, Higher Education Coordinating Board, June 2005

The same trend is true for upper-division enrollments. Based on population growth, enrollments would increase from 1,766 FTE in 2003-04 to 2025 FTE in 2010-11. However, if a higher percentage of the population decided to go to college and, for instance, if preference matched the state average, enrollments would increase to 2,192 by 2010 (see Figure 18).

Figure 18



Source: Higher Education Simulation Model, Version 1.15, Higher Education Coordinating Board, June 2005

Regional Workforce Demand

One of the key challenges facing the region is the decline of the timber, fishing, and military-related industries and the transition to service and construction. Many of the high-wage jobs in the first group of industries, which required little formal education, are being replaced with either low-wage/low-skill jobs in service or construction sectors or high-wage/high-skill openings in government or health care related industries. The latter will require college training and local planners are working with businesses, citizens, and higher education to make sure that tomorrow's workforce is aware of this need.

Between 2002 and 2012, the counties of the Olympic Consortium are expected to have a diverse set of openings in key fields in the region. As mentioned above, occupations in the government sector, especially as they relate to education and the defense industry, will all be in high demand. Occupations related to health care are also projected to grow rapidly. The following tables produced by the Labor Market and Economic Analysis branch of the Employment Security Department list middle-level and long preparation occupations that they estimate will have the highest number of openings between now and 2012 (see Figures 19 and 20).

Figure 19
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation
(One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Registered Nurses	77	1.1%	$54,250
Supervisors/Managers of Retail Sales Workers	69	1.3%	$36,280
Carpenters	62	12.1%	$35,040
Plumbers, Pipefitters, and Steamfitters	43	4.9%	$49,990
Electricians	43	10.8%	$46,780
Supervisors/Managers of Office and Administrative Support Workers	43	1.2%	$48,440
Installation, Maintenance, and Repair Workers, All Other	41	0.3%	$46,710
Supervisors/Managers of Construction Trades and Extraction Workers	39	1.2%	$60,510
Cooks, Restaurant	39	6.9%	$20,850
Maintenance and Repair Workers, General	30	2.2%	$33,540
Automotive Service Technicians and Mechanics	30	5.8%	$43,440
Welders, Cutters, Solderers, and Brazers	29	6.5%	$45,330
Supervisors/Managers of Mechanics, Installers, and Repairers	27	2.3%	$59,440
Supervisors/Managers of Food Preparation and Serving Workers	26	1.2%	$31,800
Drafters, Engineering, and Mapping Technicians, All Other	26	*N/A	$63,580

Source: Occupational Outlook published by the Employment Security Department, Labor Market and Economic Analysis Branch, 2005. Available at www.workforceexplorer.com.

Figure 20
Key Occupations Requiring Long Preparation

Long Preparation
(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Elementary School Teachers, Except Special Education	65	2.0%	$43,930
Secondary School Teachers, Except Special and Vocational Education	49	2.0%	$42,460
Teachers, Primary, Secondary, and Adult, All Other	40	1.9%	$28,260
Middle School Teachers, Except Special and Vocational Education	37	2.0%	$44,060
General and Operations Managers	31	1.6%	$97,890
Accountants and Auditors	22	1.4%	$53,240
Management Analysts	20	1.6%	$60,740
Recreation Workers	19	1.4%	$23,380
Rehabilitation Counselors	18	1.3%	$30,660
Nuclear Engineers	18	0.7%	$66,720
Mechanical Engineers	17	1.0%	$69,790
Insurance Sales Agents	15	2.3%	$34,860
Electronics Engineers, Except Computer	15	1.1%	$73,320
Computer Programmers	13	1.7%	$66,000
Dentists	13	2.3%	$197,190

** - Mean Annual Wages are unavailable for occupation*

Source: Occupational Outlook published by the Employment Security Department, Labor Market and Economic Analysis Branch, 2005. Available at www.workforceexplorer.com.

Regional Community Demand

As noted earlier in the analysis, the Olympic Consortium is going through some transition in their industry patterns. Decline in the timber, lumber, and fishing industries has been replaced with growth in service and construction. The federal government remains a significant employer (the largest in Kitsap County) which stimulates "spill-over" expansion in the retail and service sectors as well as in engineering and management. Thus, it appears that both workforce preparatory and baccalaureate education will continue to be required by local employers. However, it is also of note that many youth in the region are migrating to the I-5 corridor for education and employment opportunities. Regional planners have therefore made it a goal in their strategic plan to work with employers and higher education institutions to increase access and make youth aware of opportunities within the region.

Pacific Mountain Consortium Needs Assessment

Regional Student Demand

The Pacific Mountain Consortium includes the five counties of Grays Harbor, Thurston, Mason, Pacific, and Lewis with a population of 434,992. The region has five colleges: one public four-year, one private four-year, and three public two-year institutions that provide 11,909 full-time equivalent (FTE) enrollments (see Figure 21).

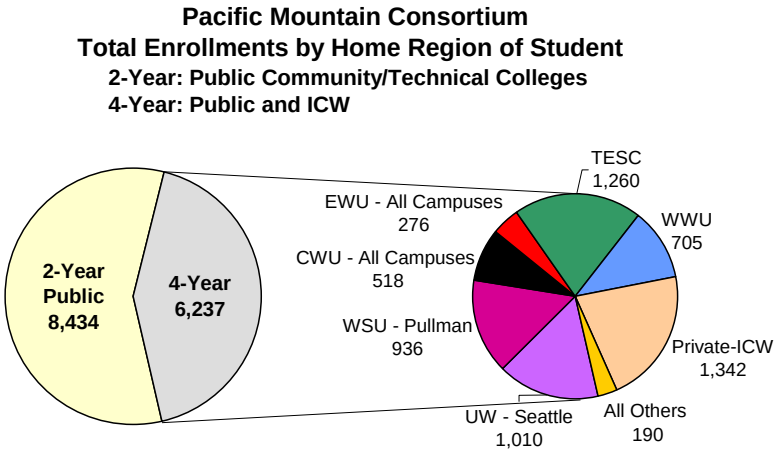
Figure 21
Colleges or Universities Located in the Pacific Mountain Consortium

Institution Sector	Name	Location	Size (FTE)
Public Four-Year	The Evergreen State College	Olympia	3,957
Private Non-Profit Four-Year	Saint Martins College	Lacey	581
Public Two-Year	Centralia College	Centralia	2,129
Public Two-Year	Grays Harbor College	Aberdeen	1,647
Public Two-Year	South Puget Sound Community College	Olympia	3,595
		subtotal	11,909

Student Preference

Roughly 14,671 students from the region attend college and almost 43 percent of them do so at a four-year institution. Of those students, 22 percent prefer to attend private four-year schools, while The Evergreen State College draws the largest number of students who attend a public university. Evergreen is closely followed by the UW and WSU in the number of enrollments from the region (see Figure 22).

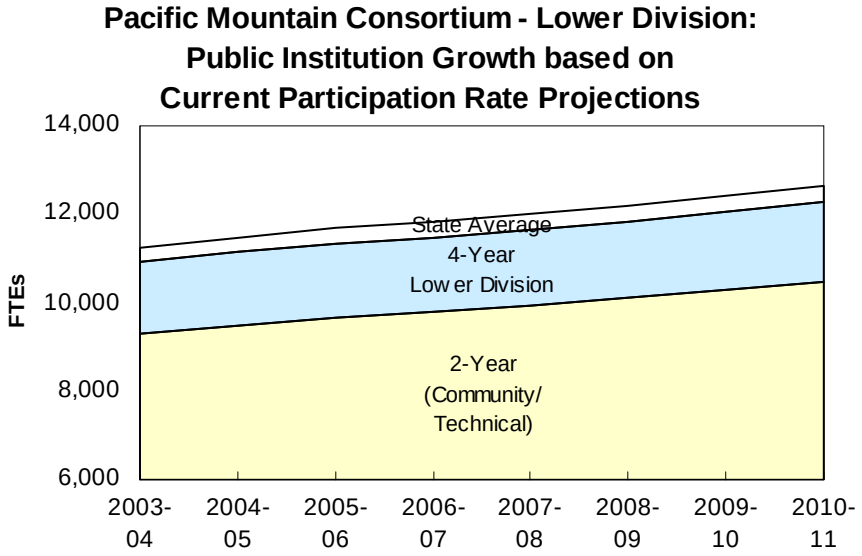
Figure 22



Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

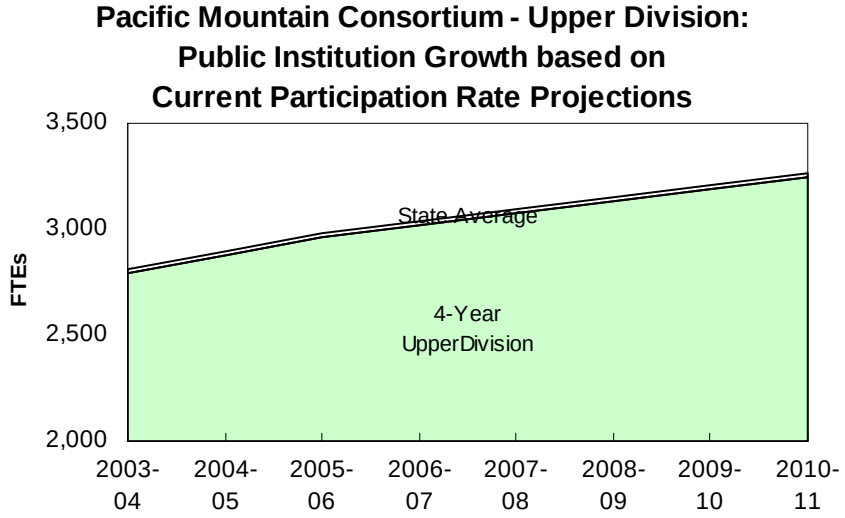
The Pacific Mountain region continues to experience population growth and the state will need to increase capacity to achieve the current level of service for Pacific Mountain students. Based on HECB lower-division enrollment projections, FTEs will increase from 10,914 in 2003-04 to 12,284 in 2010-11, provided that the same percentage of the population opts to attend college. This percentage, or participation rate, is very close to the state average. However, if the rate were to match the state average in the region, an additional 371 FTEs would be needed, bringing the enrollment projection to 12,655 in 2010-11 (see Figure 23).

Figure 23



The same trend is true for upper-division students, in which enrollments would need to increase from 2,795 FTE in 2003-04 to 3,242 FTE in 2010-11. However, the upper-division participation essentially matches the state average, requiring only 20 additional FTE to exactly match (see Figure 24).

Figure 24



Regional Workforce Demand

The five counties that make up the Pacific Mountain region, with the exception of Thurston, have been dependent on the foresting and lumber products industries for the highest share of employment. Despite continued importance, this sector has been in decline for the past several years and new areas of growth have begun to replace some of the timber sector jobs. Above average growth projections in the health care, service, wholesale/retail trade, and tourism sectors have created new jobs, many of which require college education. Government has also provided a high percentage of employment, especially in Thurston County, and need for educational professionals, technology staff, and finance specialists is also projected to grow. Information regarding key middle-level and long preparation occupations is summarized in Tables 2 and 3 below.

Table 2
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation
(One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Registered Nurses	100	0.9%	*N/A
Supervisors/Managers of Retail Sales Workers	80	2.5%	$41,440
Carpenters	79	15.8%	$39,110
Supervisors/Managers of Office and Administrative Support Workers	58	1.3%	$42,400
Maintenance and Repair Workers, General	50	2.6%	$35,740
Cooks, Restaurant	44	7.3%	$21,200
Automotive Service Technicians and Mechanics	38	7.3%	$35,010
Supervisors/Managers of Food Preparation and Serving Workers	37	1.2%	$30,540
Police and Sheriff's Patrol Officers	37	2.3%	$48,840
Computer Support Specialists	36	3.1%	$45,920
Electricians	35	14.3%	$54,900
Cooks, Institution and Cafeteria	34	6.0%	$23,960
Supervisors/Managers of Construction Trades and Extraction Workers	33	2.5%	$53,530
Licensed Practical and Licensed Vocational Nurses	30	2.5%	$32,450
Medical Secretaries	27	1.7%	$27,820

Table 3
Key Occupations Requiring Long Preparation

Long Preparation

(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Elementary School Teachers, Except Special Education	81	0.4%	$43,290
Secondary School Teachers, Except Special and Voc. Education	75	*N/A	$42,250
Accountants and Auditors	73	1.9%	$50,440
Teachers, Primary, Secondary, and Adult, All Other	54	*N/A	$31,430
General and Operations Managers	49	1.1%	$100,470
Computer Programmers	45	1.0%	$55,820
Rehabilitation Counselors	42	0.6%	$29,140
Middle School Teachers, Except Special and Voc. Education	37	0.9%	$42,760
Civil Engineers	28	0.6%	$62,010
Recreation Workers	25	1.0%	$22,420
Administrative Law Judges, Adjudicators, and Hearing Officers	24	0.2%	*N/A
Lawyers	23	0.4%	$78,010
Special Ed. Teachers, Preschool, Kindergarten, and Elementary School	20	0.8%	$43,450
Construction Managers	19	6.5%	$74,130
Counselors, Social, and Religious Workers, All Other	19	*N/A	$46,540

** - Mean Annual Wages are unavailable for occupation*

Regional Community Demand

The Pacific Mountain region has completed significant analysis in identifying current and future labor market and skill needs. Planners are focused on attracting and retaining highly-skilled workers, especially in the health care, boat building, technology support, corrections, retail, and aquaculture industries. As mentioned above, the region has also long been dependent on the foresting and timber-related industries for its economic strength. However, due to its cyclical nature, technological advances, and the overall decline of the industry in the past decades, workers in the area are being forced to gain new training to fill gaps in emerging industries. Thus, an additional focus of regional planners has been training/upgrading for incumbent or displaced workers in partnership with the areas community colleges.

Northwest Regional Needs Assessment

Regional Student Demand

The Northwest region includes Whatcom, Skagit, Island, and San Juan Counties and has a population of 376,950, nearly 76 percent of which resides in Whatcom or Skagit counties. The region has five colleges: one public four-year college (WWU) and four public two-year institutions. In combination, the five institutions provide 19,980 full time equivalent (FTE) enrollments (see Table 4).

Table 4
Colleges or Universities located in the Northwest Region

Institution Sector	Name	Location	Size (FTE)
Public Four-Year	Western Washington University	Bellingham	10,899
Public Two-Year	Bellingham Technical College	Bellingham	1,710
Public Two-Year	Northwest Indian College	Bellingham	254
Public Two-Year	Skagit Valley College	Mt Vernon	4,059
Public Two-Year	Whatcom Community College	Bellingham	3,058
		subtotal	19,980

Source: Integrated Postsecondary Education Data System, Peer Analysis System

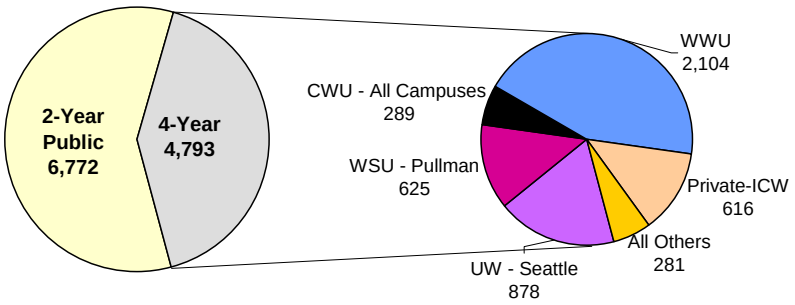
Student Preference

The region is home to 11,565 students who are currently enrolled in college. Roughly 59 percent of these students attend community or technical colleges. One of the region's greatest strengths is the number of two-year and certificate programs being offered. Under the auspices of the Northwest Partnership for Workforce Development, business leaders, educators, and community leaders have worked together to examine how colleges and business can partner to educate and train the future workforce. This initiative includes a special focus on "lifelong learning" for working adults, who need flexible access to retraining, especially given the region's substantial reduction in the aerospace, pulp/paper, and aluminum manufacturing industries.

The remaining 41 percent of students in the region go to four-year institutions (see Figure 25). Of those students who attend four-year schools, 44 percent attend nearby Western Washington University. This percentage is nearly two and a half times the enrollment of the nearest competitor, the University of Washington's Seattle campus.

Figure 25

Northwest Washington
Total Enrollments by Home Region of Student
2-Year: Public Community/Technical Colleges
4-Year: Public and ICW

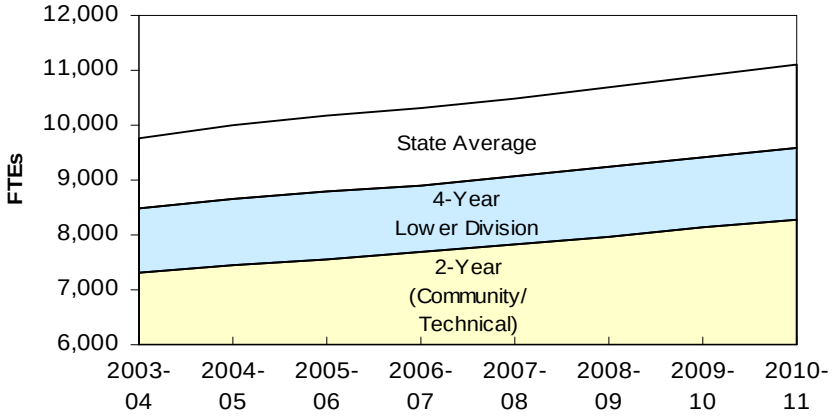


Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

The Northwest region continues to experience population growth and the state will need to increase capacity to provide the same level of access to Northwest students. Based on HECB lower-division enrollment projections, FTEs will need to increase from 8,492 in 2003-04 to 9,600 in 2010-11. Despite the presence of five higher education institutions, participation rates in the region remain lower than the state average. However, if participation rates in the region were to match the state average, lower-division enrollments would increase to 11,106 FTE by 2010-11. The same trend is true of upper-division, in which enrollments would need to increase from 2,540 FTE in 2003-04 to 2,933 in 2010-11. If upper-division participation rates were to match the state average, enrollments would increase to 3,297 FTE (see Figures 26 and 27).

Figure 26

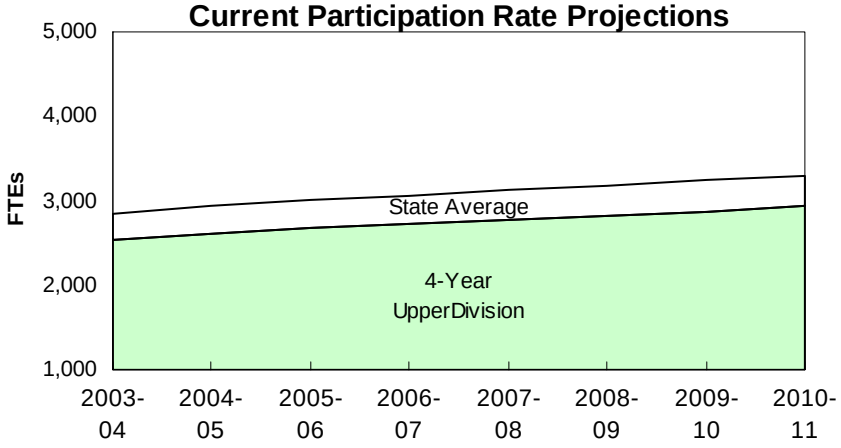
North West Washington - Lower Division: Public Institution Growth based on Current Participation Rate Projections



Source: Higher Education Simulation Model, Version 1.15, Higher Education Coordinating Board, June 2005.

Figure 27

Northwest Washington - Upper Division: Public Institution Growth based on Current Participation Rate Projections



Source: Higher Education Simulation Model, Version 1.15, Higher Education Coordinating Board, June 2005.

Regional Workforce Demand

Between 2002 and 2012, the counties of the Northwest region are expected to have approximately 1,332 annual job openings in middle-level and long preparation occupations. Occupations in government and educational fields continue to be in high demand, while the region is experiencing rapid expansion in health care related occupations, especially for registered nurses (see Tables 5 and 6).

Table 5
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation

(One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Carpenters	119	10.3%	$41,260
Supervisors/Managers of Retail Sales Workers	95	1.5%	$39,140
Registered Nurses	91	0.9%	$45,410
Electricians	62	11.5%	$48,710
Cooks, Restaurant	60	4.7%	$19,830
Maintenance and Repair Workers, General	58	2.2%	$33,400
Supervisors/Managers of Construction Trades and Extraction Workers	52	2.0%	$59,930
Supervisors/Managers of Office and Administrative Support Workers	51	1.7%	$42,180
Supervisors/Managers of Food Preparation and Serving Workers	40	0.8%	$29,290
Automotive Service Technicians and Mechanics	38	6.2%	$38,040
Licensed Practical and Licensed Vocational Nurses	31	1.6%	$31,130
Supervisors/Managers of Personal Service Workers	30	0.3%	$37,220
Cooks, Institution and Cafeteria	30	5.5%	$21,350
Plumbers, Pipefitters, and Steamfitters	29	21.5%	$51,640
Police and Sheriff's Patrol Officers	27	1.7%	$51,050

Source: Occupational Outlook published by the Employment Security Department, Labor Market and Economic Analysis Branch, 2005. Available at www.workforceexplorer.com.

Table 6
Key Occupations Requiring Long Preparation

Long Preparation

(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Elementary School Teachers, Except Special Education	83	0.3%	$43,430
Secondary School Teachers, Except Special and Voc. Education	55	*N/A	$43,800
Teachers, Primary, Secondary, and Adult, All Other	52	*N/A	$27,600
Accountants and Auditors	52	3.0%	$50,440
General and Operations Managers	46	0.9%	$101,640
Construction Managers	35	4.4%	$75,990
Recreation Workers	35	0.7%	$18,250
Middle School Teachers, Except Special and Voc. Education	34	1.4%	$42,440
Graphic Designers	26	1.8%	$28,850
Rehabilitation Counselors	23	0.4%	$32,590
Lawyers	18	0.4%	$70,760
Insurance Sales Agents	17	1.9%	$56,510
Special Ed. Teachers, Preschool, Kindergarten, and Elementary School	15	1.7%	$41,960
Counselors, Social, and Religious Workers, All Other	14	*N/A	$35,160
Child, Family, and School Social Workers	14	3.7%	$33,920

** - Mean Annual Wages are unavailable for occupation*

Source: Occupational Outlook published by the Employment Security Department, Labor Market and Economic Analysis Branch, 2005. Available at www.workforceexplorer.com.

Regional Community Demand

Strategic regional planning by local stakeholders utilizes a compilation of information sources to assess the need for a highly qualified workforce. As with any region, the need for higher education is driven by their specific industry patterns. The Northwest region has completed significant analysis in identifying current and future labor market and skills needs. Regional planners indicate that development in important regional industries like boat building, health care, and manufacturing are important to the continued vitality of the economic climate. Regional planners also note that small and medium size firms dominate the business environment and that the diversity provided by the small firms contributes to regional stability through economic recession. Planners also highlight incumbent worker training/upgrading and recruitment/training for construction and manufacturing occupations as workforce development priorities.

Snohomish County Needs Assessment

Regional Student Demand

Snohomish County is located on the northern part of the Puget Sound and has a population of 639,409. The area has grown roughly 5.5 percent since 2000 and that trend is projected to continue through 2010. The county has five colleges or universities; three private four-year, one private, for-profit four-year, and two public two-year institutions. In combination, the five institutions provide 12,061 full time equivalent (FTE) enrollments (see Table 7).

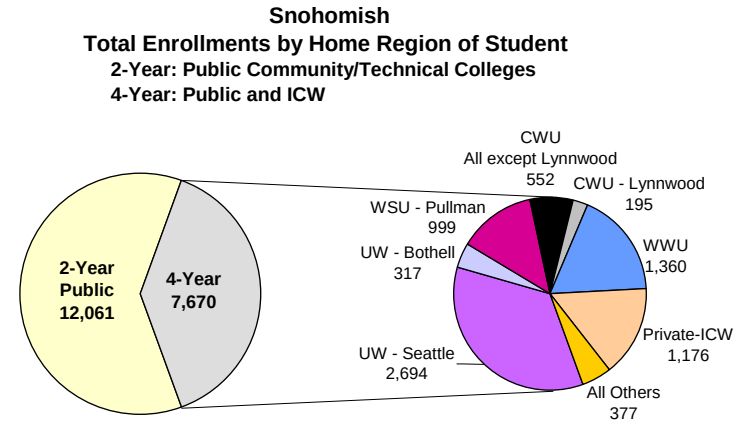
Table 7
Colleges or Universities Located in the Snohomish County Region

Type of Institution	Number in Region	Size (FTEs)
Private Non-Profit Four-Year	3	484
Private For-Profit	1	1,172
Public Two-Year	2	10,405
total		12,061

Student Preference

The county is home to 19,731 students who are currently enrolled in college. Roughly 61 percent of these students attend community or technical colleges, while the remaining 39 percent go to four-year institutions (see Figure 28). Of those students who attend four-year schools, 35 percent attend the University of Washington at the main campus in Seattle. Another 317 students also attend UW, but at the Bothell campus. It is of note that this institution is located just outside the county border, but does include Snohomish County in its primary service area. The Lynnwood branch of Central Washington University, another four-year branch campus, serves 195 students from the region.

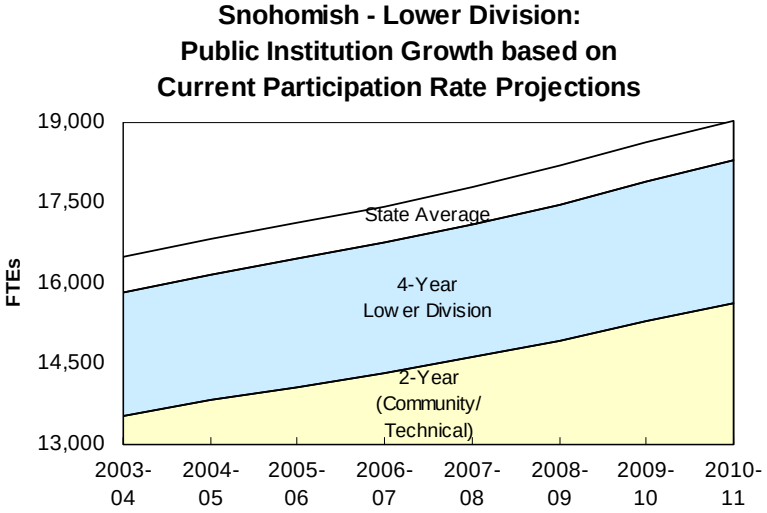
Figure 28



Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

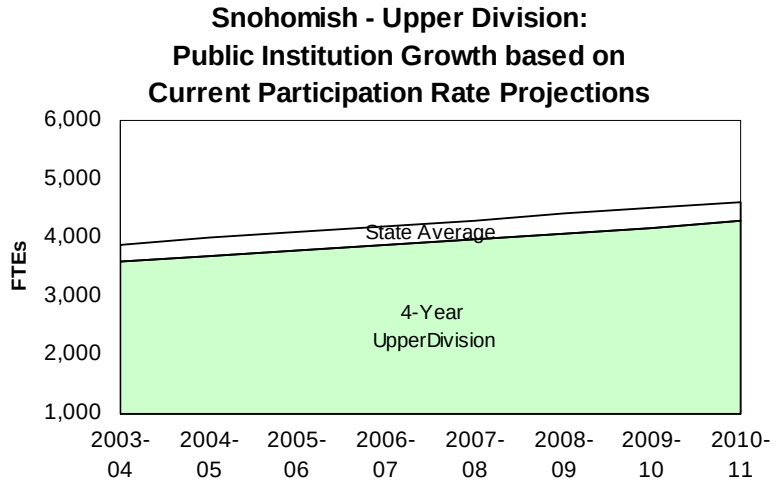
Snohomish County has experienced significant population growth in the last decade and that trend is projected to continue. Based on this growth, lower-division enrollments will increase if the same percentage of the population continues to go to college. Based on HECB projections, enrollments would increase from 15,829 FTE in 2003-04 to 18,310 in 2010-11 (see Figure 29). However, if a higher percentage of people in the region elected to pursue higher education, an even larger increase in FTE is anticipated. For instance, if the regional participation rate matched the state average, lower-division enrollments would increase to 19,041 FTE in 2010-11.

Figure 29



The same trend is true for enrollments in the upper-division. If the participation rate in the county remains the same, enrollments would increase from 3,590 FTE in 2003-04 to 4,276 in 2010-11. If the participation rate increased to match the state average, an additional 338 FTE would be projected for 2010-11 (see Figure 30).

Figure 30



Regional Workforce Demand

The economy of Snohomish County is diverse and requires a highly skilled workforce. The "backbone" of the regional economy continues to be manufacturing, predominantly in the aerospace sector. Roughly 25 percent of jobs in the county are in this sector, compared with five percent for adjacent King County and six percent for the rest of the state. Consequently, growth in several middle-level and long preparation key regional occupations are clustered in this area (see Table 8 and 9). Additionally, the county anticipates growth in the tourism, health care, biotechnology/bio-medical device, and education sectors – employment trends that are also reflected in the figures on the following page.

Table 8
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation

(One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Carpenters	138	12.4%	$46,260
Registered Nurses	119	1.2%	$58,900
Supervisors/Managers of Retail Sales Workers	89	2.8%	$46,810
Supervisors/Managers of Office and Administrative Support Workers	82	2.7%	$49,480
Maintenance and Repair Workers, General	69	3.4%	$36,690
Supervisors/Managers of Construction Trades and Extraction Workers	67	3.0%	$69,390
Supervisors/Managers of Food Preparation and Serving Workers	56	1.9%	$38,100
Automotive Service Technicians and Mechanics	54	7.9%	$38,590
Supervisors/Managers of Production and Operating Workers	53	4.9%	$54,540
Cooks, Restaurant	53	6.0%	$23,630
Electricians	46	29.5%	$59,950
Aircraft Mechanics and Service Technicians	44	8.6%	$45,960
Machinists	34	21.2%	$42,830
Police and Sheriff's Patrol Officers	33	1.4%	$57,000
Supervisors/Managers of Mechanics, Installers, and Repairers	33	6.2%	$56,670

Table 9
Key Occupations Requiring Long Preparation

Long Preparation

(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Aerospace Engineers	138 ***	1.7%	*N/A
Elementary School Teachers, Except Special Education	128	0.2%	$41,400
Secondary School Teachers, Except Special and Voc. Ed.	75	*N/A	$43,740
Teachers, Primary, Secondary, and Adult, All Other	66	*N/A	$35,820
General and Operations Managers	63	1.8%	$129,410
Commercial and Industrial Designers	60	0.1%	*N/A
Accountants and Auditors	57	8.8%	$63,310
Middle School Teachers, Except Special and Voc. Ed.	50	0.6%	$42,390
Management Analysts	46	0.6%	$72,080
Purchasing Agents, Except Wholesale, Retail, and Farm Products	42	5.0%	$54,960
Construction Managers	42	7.8%	$82,360
Rehabilitation Counselors	38	0.2%	$29,850
Counselors, Social, and Religious Workers, All Other	34	*N/A	$40,440
Medical Scientists, Except Epidemiologists	28	3.1%	$77,710
Industrial Engineers	27	10.7%	$69,230

** - Mean Annual Wages are unavailable for occupation*

**** - Openings are due to replacements*

Community Demand

Strategic planning by local stakeholders leverages a number of different information sources to assess the need for a highly qualified workforce. The need for higher education in Snohomish County is especially strong, given the focus the county has on their "Innovation Economy." Though this type of economy includes high-tech industries like biotechnology, medical devices, telecommunications, high-tech manufacturing, and software; it also refers to new ways of doing business in traditional sectors with rapidly changing technology, processes, and information. Thus, local planners point out that college access is increasingly important, not only to traditional age-college students, but for older incumbent and dislocated workers as well. Planners are also focused on the continued development of economic infrastructure, especially in the areas of education, construction, public service, and health care; all of which will require some college-level training.

Seattle-King County Needs Assessment

Regional Student Demand

King County includes the urban center of Seattle, has a population of 1.7 million, and is home to one-third of the state's workforce. The county has 27 colleges or universities, including one public research extensive university, one public university branch campus, eight private non-profit colleges, six for-profit institutions, and eleven community and technical schools. In combination, the institutions provide 103,661 full time equivalent enrollments (see Table 10).

Table 10
Colleges or Universities Located in the Seattle-King County Region

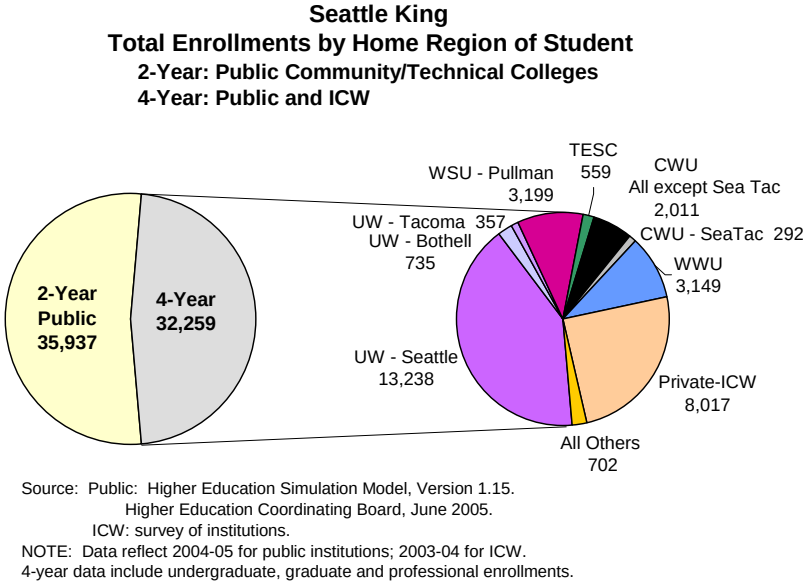
Type of Institution	Number in Region	Size (FTEs)
Public Four-Year	1	31,829
Public Four-Year Branch Campus	1	1,259
Private Non-Profit Four-Year	8	16,828
Private For-Profit	6	6,843
Public Two-Year	11	46,902
		103,661

Regional Student Preference

King County is home to 68,196 students who attend college, more than 2.5 times as many students as the next largest region of Pierce County. Of those students who attend college, nearly 53 percent go to a community or technical college (see Figure 31). The remaining 47 percent of students go to four-year schools and enrollments are heavily concentrated at the University of Washington. Between the three UW campuses of Seattle, Bothell, and Tacoma, UW accounts for 44 percent of King County's four-year enrollments. The second most popular choice for baccalaureate education is private, non-profit institutions which account for 25 percent

of enrollments; followed by an almost equal split between Washington State University and Western Washington University at 10 percent respectively.

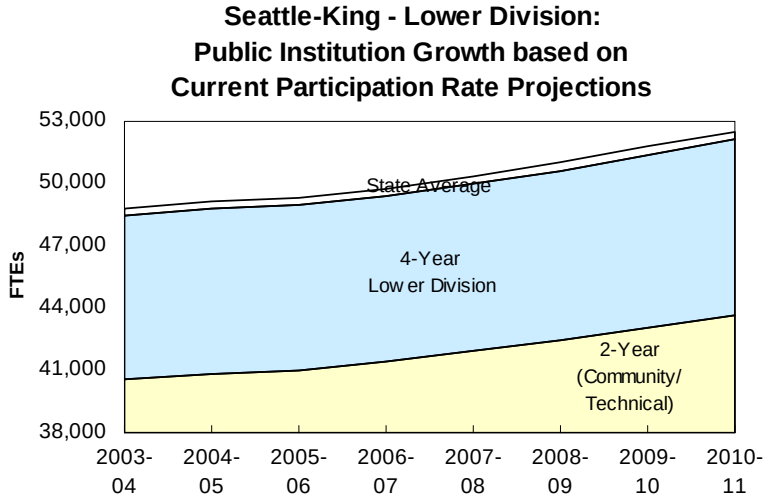
Figure 31



Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

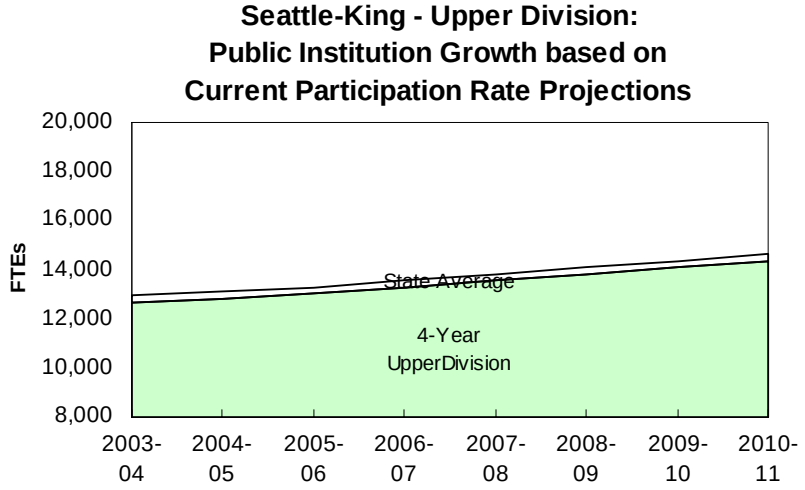
The population in King County is projected to grow rapidly for the next ten years in all regions of the county. Between 1990 and 2000, Seattle grew 9.1 percent, while North King grew at 9.4 percent, East King at 19.4 percent, and South King grew at 20 percent. As the population continues to increase, so will the demand for higher education. According to HECB projections based on population growth, lower-division enrollments would increase from 48,451 FTE in 2003-04 to 52,102 FTE in 2010-11, if the same percentage of the population choose to go to college (see Figure 32). Given that King County contains a large proportion of the state population, the county's participation rates weigh heavily in establishing the state average. However, King County does fall slightly short of the average and, if a higher percent of residents choose higher education to match the state average, then an additional 401 enrollments are projected, bringing the total 2010-11 projection to 52,503 FTE.

Figure 32



The same trend is true for upper-division enrollments, which are projected to increase from 12,950 FTE in 2003-04 to 14,360 FTE in 2010-11, based on population growth. Again, King County closely matches the state average in terms of the percent of people who attend college. Thus, an additional 292 enrollments would be anticipated if the county matched the average state participation rate (see Figure 33). It is of note that this analysis does not include data from private schools (ICW, private for-profits, etc.). Thus, the actual projections regarding participation rate may be higher than those included in this report, pushing the region's participation rate above the state average.

Figure 33



Regional Workforce Demand

As mentioned above, roughly one-third of the state's workforce is employed in King County and the past couple of years have been marked by slow but steady economic recovery (except in the manufacturing sector). Growth in key industries like construction and health care services, signals demand for middle-level preparation occupations, while growth in many technology-related industries and education will require baccalaureate preparation (see Tables 11 and 12).

Table 11
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation
(One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Registered Nurses	786	0.5%	$58,900
Carpenters	455	5.6%	$46,260
Supervisors/Managers of Office and Administrative Support Workers	446	1.4%	$49,480
Supervisors/Managers of Retail Sales Workers	434	1.5%	$46,810
Cooks, Restaurant	324	3.0%	$23,630
Computer Support Specialists	270	6.1%	$50,010
Maintenance and Repair Workers, General	267	1.2%	$36,690
Supervisors/Managers of Food Preparation and Serving Workers	258	1.4%	$38,100
Supervisors/Managers of Non-Retail Sales Workers	220	0.6%	$77,550
Computer Specialists, All Other	201	7.0%	$66,410
Automotive Service Technicians and Mechanics	196	3.9%	$38,590
Supervisors/Managers of Construction Trades and Extraction Workers	176	1.3%	$69,390
Electricians	156	10.3%	$59,950
Real Estate Sales Agents	143	0.5%	$47,840
Supervisors/Managers of Mechanics, Installers, and Repairers	131	2.6%	$56,670

Table 12
Key Occupations Requiring Long Preparation

Long Preparation
(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Computer Software Engineers, Applications	603	*N/A	$81,280
Computer Programmers	484	3.5%	$80,230
Computer Software Engineers, Systems Software	459	*N/A	$81,750
Accountants and Auditors	407	4.1%	$63,310
Elementary School Teachers, Except Special Education	373	0.3%	$41,400
General and Operations Managers	323	1.2%	$129,410
Management Analysts	262	0.5%	$72,080
Civil Engineers	251	0.8%	$74,940
Market Research Analysts	216	1.2%	$78,420
Computer Systems Analysts	214	3.1%	$69,200
Secondary School Teachers, Except Special and Voc. Ed.	196	*N/A	$43,740
Teachers, Primary, Secondary, and Adult, All Others	190	*N/A	$35,820
Lawyers	177	1.4%	$100,980
Financial Managers	175	4.2%	$98,640
Engineers, All Other	165	0.0%	$75,010

** - Mean Annual Wages are unavailable for occupation*

Regional Community Demand

Seattle/King County is a hub for technological and scientific development. Though the county continues to rely on the Boeing Company for a large share of direct or related employment, planners point out that the local economy is diversifying. Growth in the research base as well as in health care services and construction offers proof of this diversity and requisite resiliency in times of economic downturn. Despite roughly 40 percent of the local population holding a baccalaureate degree or higher, employers report difficulty in finding qualified applicants, especially in health care and high-tech occupations. This is especially problematic for health-related services as future demand greatly outpaces current training capabilities. Local stakeholders are therefore concentrating their economic and educational development efforts in the information technology, health care, manufacturing, construction, and biotechnology/life sciences sectors to help get ahead of workforce demand shortages.

Pierce County Needs Assessment

Regional Student Demand

Pierce County is located at the southern end of the Puget Sound and has a population of 740,957 (2003 U.S. Census estimate). he county has eleven colleges or universities; one branch campus of a public four-year research institution, four private four-year, one private for-profit, and five

public two-year institutions (see Table 13)[18]. In combination, these colleges provide 34,124 full time equivalent (FTE) enrollments.

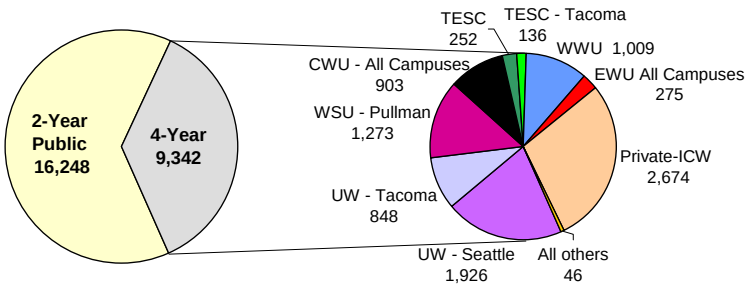
Table 13
Colleges or Universities Located in the Pierce County Region

Type of Institution	Number in Region	Size (FTEs)
Public Four-Year (Branch Campus)	1	1,516
Private Non-Profit Four-Year	4	6,581
Private For-Profit	1	904
Public Two-Year	5	25,123
		34,124

Student Preference

The region is home to 25,590 students who are currently enrolled in college. Just over 63 percent of these students attend community or technical schools, while the remaining 37 percent attend four-year institutions. Of those students who attend four-year schools, the largest percentage (29 percent) attend private four-year colleges. However, when both the Tacoma and Seattle campuses of the University of Washington are combined, UW attracts the highest percentage of Pierce County students with 30 percent (see Figure 34).

Figure 34
Tacoma Pierce
Total Enrollments by Home Region of Student
2-Year: Public Community/Technical Colleges
4-Year: Public and ICW

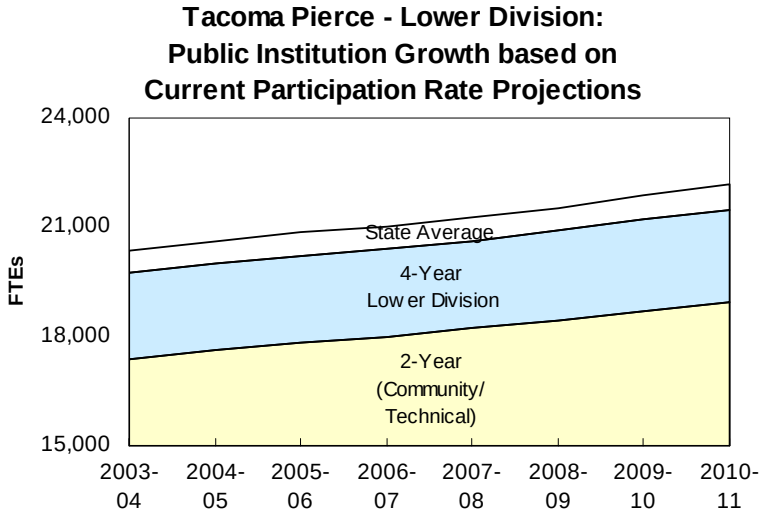


Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

[18] The colleges in the county include Bates Technical College, Clover Park Technical College, Pierce College District, Tacoma Community College, University of Washington-Tacoma, Pacific Lutheran University, University of Puget Sound, The Evergreen State College in Tacoma.

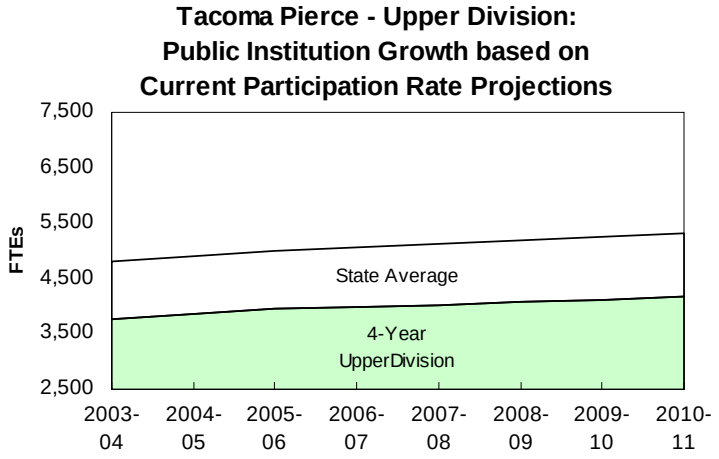
Similar to the rest of Washington, the population of Pierce County is projected to continue its growth between now and 2010. If the same percentage of people elect to go to college, projected enrollments will increase with the population. Based on HECB projections, lower-division enrollments would grow from 19,736 in 2003-04 to 21,492 in 2010-11. However, if participation rates in the county increased, then additional enrollments would be anticipated. For instance, if Pierce County's participation rate matched the state average, enrollments would increase by 675 FTE, bringing total enrollments to 22,167 FTE in 2010 (see Figure 35).

Figure 35



The same trend is expected for enrollments in the upper-division. Enrollments are projected to increase from 3,776 FTE in 2003-04 to 4,164 in 2010-11, if the same percentage of the population continues to choose to go to college. Unlike the lower-division, Pierce County is significantly below state average upper-division participation rates. Thus, if the rate were to increase to meet the average, an additional 1,115 enrollments are projected for 2010 (see Figure 36). It is of note that there is some disparity between the region's current participation rate and the state average. However, this analysis does not include data from private schools (ICW, private for-profit, etc.). Thus, the actual projections regarding participation rate may be higher than those included in this report.

Figure 36



Regional Workforce Supply

Health care and social assistance occupations have historically provided the largest number of jobs and highest wages in the county and this trend is projected to continue. Despite the prevalence of this industry, analysts have predicted critical shortage areas (especially for nursing and other medical technicians), many of which will require middle-level and long preparation (see Table 14). In total, 380,000 jobs will be created for health care personnel, finance personnel, paralegals, educators, and salespeople in Pierce County in the next decade (see Table 15). Again, growth in these positions will most likely require some postsecondary training.

Table 14
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation

(One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Registered Nurses	185	0.8%	$57,170
Carpenters	122	13.0%	$40,690
Supervisors/Managers of Office and Administrative Support Workers	110	2.3%	$45,300
Supervisors/Managers of Retail Sales Workers	105	2.9%	$41,270
Cooks, Restaurant	103	4.3%	$22,050
Maintenance and Repair Workers, General	80	1.9%	$36,130
Licensed Practical and Licensed Vocational Nurses	79	1.9%	$35,660
Supervisors/Managers of Food Preparation and Serving Workers	65	1.8%	$31,970
Supervisors/Managers of Construction Trades and Extraction Workers	56	3.3%	$61,940
Gaming Dealers	51	3.3%	$14,910
Plumbers, Pipefitters, and Steamfitters	51	9.9%	$47,210
Automotive Service Technicians and Mechanics	49	10.1%	$36,600
Cooks, Institution and Cafeteria	45	5.8%	$24,430
Medical Secretaries	45	1.6%	$32,450
Fire Fighters	42	1.0%	$53,750

Table 15
Key Occupations Requiring Long Preparation

Long Preparation
(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Elementary School Teachers, Except Special Education	141	0.3%	$44,630
Secondary School Teachers, Except Special and Voc. Education	93	0.0%	$45,730
Teachers, Primary, Secondary, and Adult, All Other	85	*N/A	$31,290
General and Operations Managers	71	1.9%	$111,770
Middle School Teachers, Except Special and Voc. Education	65	0.8%	$43,790
Accountants and Auditors	58	5.9%	$61,260
Rehabilitation Counselors	53	0.4%	$30,940
Counselors, Social, and Religious Workers, All Other	45	*N/A	$38,010
Construction Managers	29	6.6%	$101,390
Lawyers	28	1.1%	$74,920
Insurance Sales Agents	26	2.9%	$49,230
Multi-Media Artists and Animators	25	*N/A	*N/A
Mental Health and Substance Abuse Social Workers	24	0.6%	$46,060
Financial Managers	23	8.9%	$78,150
Educational, Vocational, and School Counselors	22	3.7%	$45,510

** - Mean Annual Wages are unavailable for occupation*

Regional Community Demand

Pierce County is the second largest county in state containing one-tenth of the population, labor force and job-base. Growth in the labor force is projected to continue over the next decade and shifts in industrial patterns will accompany this growth. Like other areas of the state, Pierce County will continue to experience a shift away from manufacturing to the service industry. The area has experienced layoffs in the aerospace and technology sectors, though the presence of government institutions like the Port of Tacoma, McChord Airforce Base, and Fort Lewis have stabilized the regional economy. Local planners and stakeholders are focusing strategic planning efforts on attracting high-technology firms, providing training for incumbent workers, and increasing access to job training for youth, low-income individuals, and individuals with limited English proficiency so that the region can meet the increased demand for highly-skilled workers.

Southwest Regional Needs Assessment

Regional Student Demand

The Southwest region includes the four counties of Clark, Skamania, Cowiltz, and Wahkiakum. The total population for the region is 501,600, though roughly 78 percent of the population resides in Clark County (part of the Portland, Oregon metropolitan statistical area (MSA)). The region has four colleges/universities, including a public research university branch campus, two public community colleges and a private institution; providing a combined 10,435 FTE

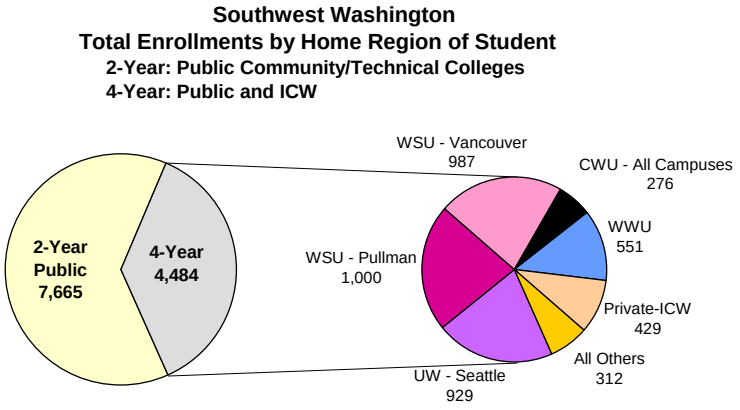
enrollment (see Table 16). In addition, there are three four-year colleges and one two-year institution located just across the state border in Portland. They include Portland State University, the Oregon Institute of Technology's metro campus, Oregon Health and Science University, and Portland Community College.

Table 16
Colleges or Universities Located in the Southwest Region

Institution Sector	Name	Location	Size (FTE)
Public Four-Year	Washington State University - Vancouver	Vancouver	1,257
Private Non-Profit Four-Year	Golden Gate Baptist Theological Seminary - Northwest	Vancouver	60
Public Two-Year	Clark College	Vancouver	6,639
Public Two-Year	Lower Columbia College	Longview	2,479
			10,435

One of the most prevalent higher education issues facing the region, as identified by regional planners, is that it is below the state average in the number of residents currently enrolled in college. Regional stakeholders have developed strategic plans to target youth and education to encourage enrollment in college to meet the needs of employers in the region. In the 2004-05 school-year, the Southwest region was home to 12,149 students enrolled in college, 37 percent of whom attend a four-year institution. Roughly 60 percent of these students are equally divided among the campuses of WSU (Pullman and Vancouver) and the UW (see Figure 37).

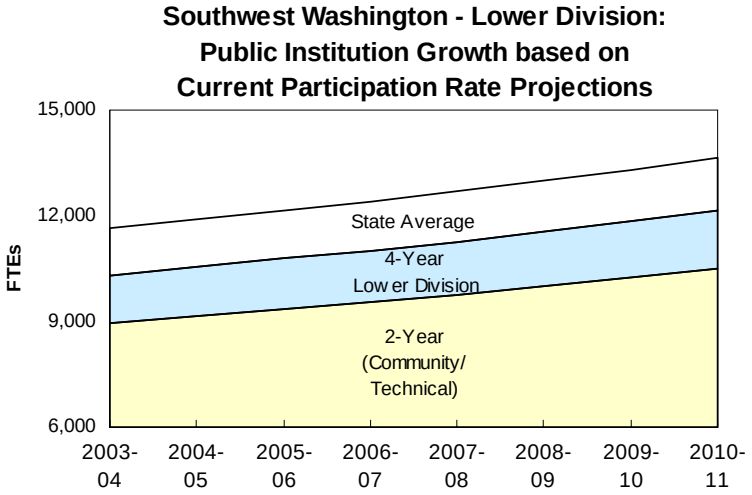
Figure 37



Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

As mentioned earlier, student demand in the region falls below the Washington state average as well as that in the Portland statistical area. Roughly 3.6 percent of the total population is currently enrolled in college, though 12.2 percent of 17-19 year olds and 17.3 percent of 20-24 year olds are enrolled in higher education in the state.[19] But despite below average participation rates, the region is increasing in total population and will need to expand lower-division enrollments from 10,316 FTE in 2003-04 to 12,128 FTE in 2010 to maintain the current level of service. If participation rates in the region were to increase (using the state average as an example), then total enrollments would need to increase to 13,645 FTE in 2010-11 to meet student demand (see Figure 38).

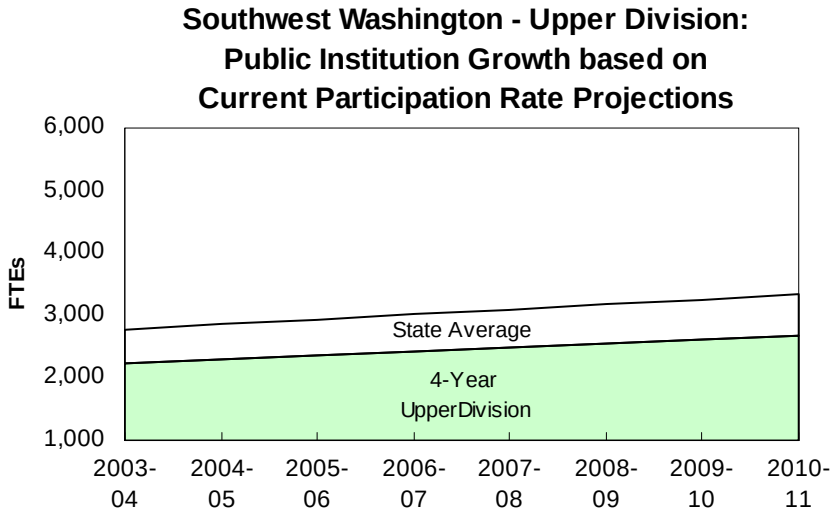
Figure 38



Enrollment increases of roughly 17 percent can also be expected for upper-division students between 2003-04 and 2010-11. If participation rates remain the same, enrollments will expand from 2,230 to 2,684 during that time period. However, if rates grow to meet state averages, enrollments would increase to 3,342 in 2010-11 (see Figure 39). It is of note that projected lower- and upper-division increases, based both on population increases and increases in the regional participation rate, would require a 35 percent expansion in enrollments over current levels. This percentage of growth is the highest in the state.

[19] Estimates from the Southwest Washington Workforce Development Council (SWWDC) indicate that approximately 21 percent of residents between the ages of 18-15 are currently enrolled in college. The difference between HECB analysis and that of the SWWDC are likely due to the large out-of-state enrollments at Oregon colleges that are not captured in the HECB analysis.

Figure 39



Regional Workforce Demands

Between 2002 and 2012, the counties of the Southwest region are expected to have approximately 13,660 job openings in middle-level and long preparation occupations. Despite having above average labor force participation rates, the per capita income for the region is below the state average, which suggests that many of the jobs in the region are in lower preparation, lower-paying fields such as manufacturing, service, and retail. However, occupations in health care, construction, finance and insurance, and education are growing most quickly, many of which require baccalaureate education. This trend is reflected in Tables 17 and 18 which list high demand for registered nurses (training needs could be met with either a two-year or four-year degree), teachers, various types of managers, and accountants/auditors.

Table 17
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation

(One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Registered Nurses	103	1.1%	$55,170
Supervisors/Managers of Retail Sales Workers	95	2.1%	$38,180
Carpenters	75	12.6%	$39,060
Cooks, Restaurant	65	4.6%	$20,130
Supervisors/Managers of Office and Administrative Support Workers	57	1.9%	$43,190
Maintenance and Repair Workers, General	56	2.7%	$33,150
Semiconductor Processors	54	12.9%	$29,840
Electricians	54	16.1%	$58,770
Supervisors/Managers of Construction Trades and Extraction Workers	39	2.1%	$61,400
Automotive Service Technicians and Mechanics	38	8.1%	$36,850
Supervisors/Managers of Food Preparation and Serving Workers	37	1.7%	$28,230
Supervisors/Managers of Production and Operating Workers	36	4.2%	$50,080
Plumbers, Pipefitters, and Steamfitters	33	22.2%	$55,800
Welders, Cutters, Solderers, and Brazers	30	19.0%	$34,690
Barbers	27	0.2%	$21,840

Table 18
Key Occupations Requiring Long Preparation

Long Preparation

(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Elementary School Teachers, Except Special Education	108	0.5%	$44,720
Secondary School Teachers, Except Special and Voc. Education	65	*N/A	$45,820
Teachers, Primary, Secondary, and Adult, All Other	64	*N/A	$32,150
General and Operations Managers	54	1.1%	$97,400
Middle School Teachers, Except Special and Voc. Education	50	0.7%	$43,720
Accountants and Auditors	34	5.9%	$55,630
Rehabilitation Counselors	29	0.2%	$27,370
Construction Managers	28	3.6%	$75,220
Dentists	25	*N/A	$177,690
Civil Engineers	18	1.2%	$62,630
Insurance Sales Agents	18	2.3%	$60,790
Writers and Authors	17	0.8%	$49,040
Education Administrators, Elementary and Secondary School	17	*N/A	$79,490
Lawyers	17	0.7%	$86,970
Loan Officers	17	2.7%	$57,270

** - Mean Annual Wages are unavailable for occupation*

Community Demand

Strategic regional planning by local stakeholders is divided into two sub-areas (Wahkiakum and Cowlitz counties and Clark and Skamania counties) and employs a compilation of information sources to assess the need for a highly qualified workforce. Compared to Washington and the Portland region, workers in Southwest Washington are more likely to be in construction, production, or service jobs and less likely to be in professional, technical, management or sales positions. Thus, regional planners are actively focused on providing workforce preparation education.

However, it is also of note that the Southwest region is actually a net exporter of jobs, meaning that there are more people than there are job openings. Many residents commute outside their region for employment or higher paying positions. Local planners are therefore working to enhance the region's competitiveness by increasing collaborative efforts with baccalaureate institutions, community colleges, technical schools, and local employers to identify key industrial clusters and gear educational efforts toward meeting employer demands in an effort to retain highly qualified workers. Target clusters like health care, professional and technical, as well as finance and insurance already have a significant presence in the region, often require college preparation and offer high-paying wages.

North Central Regional Needs Assessment

Regional Student Demand

The North Central region includes the counties of Okanogan, Chelan, Douglas, Grant, and Adams. The total population of the region based on 2003 Census estimates is 236,153. The region has two colleges, both public community colleges, that serve 4,122 full-time equivalent students (see Table 19).

Table 19
Colleges or Universities Located in the North Central Region

Institution Sector	Name	Location	Size (FTE)
Public Two-Year	Big Bend Community College	Moses Lake	1,649
Public Two-Year	Wenatchee Valley College	Wenatchee	2,472
		subtotal	4,122

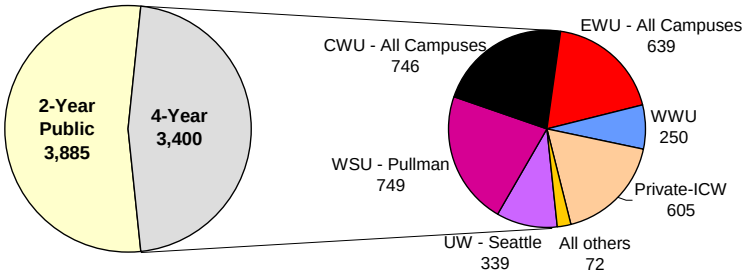
Student Preference

The region is home to 7,285 students who currently attend college, slightly under half of whom attend a four-year institution. Roughly 63 percent of these students are equally divided among

Washington State University, Central Washington University, and Eastern Washington University (see Figure 40).

Figure 40

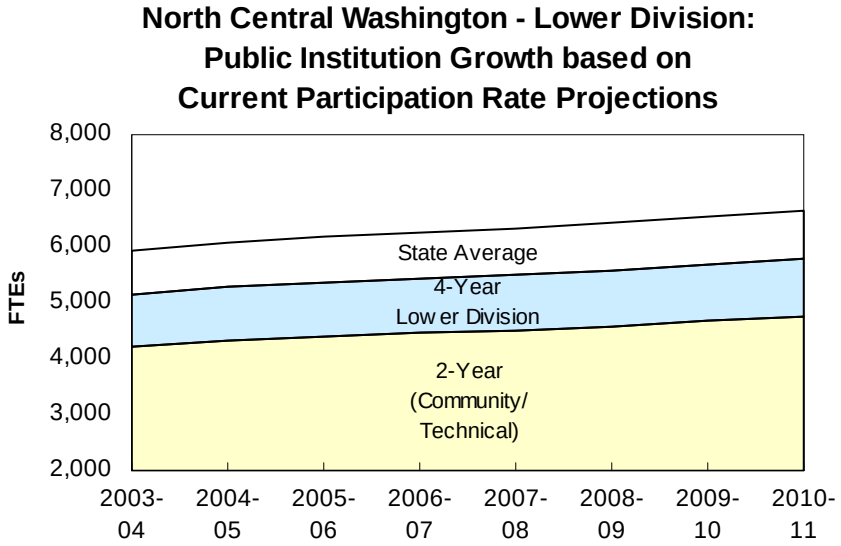
North Central Washington
Total Enrollments by Home Region of Student
2-Year: Public Community/Technical Colleges
4-Year: Public and ICW



Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

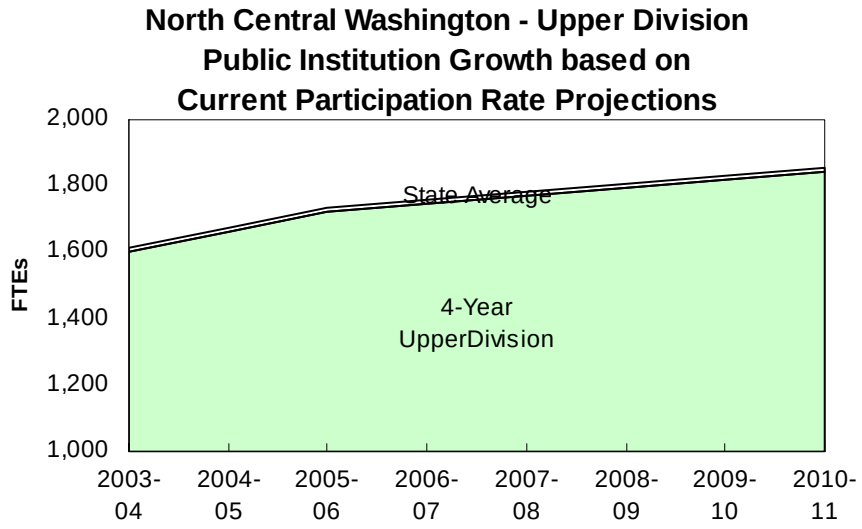
Student demand for higher education in the region is slightly below the state average for younger students (17-24 year olds). However, the region has experienced population growth over the past decade and that trend is expected to continue. Despite lower than average participation for traditional-age college students, enrollment capacity must be increased from 5,161 FTE in 2003-04 to 5,777 FTE in 2010-11 for the lower-division, if the same percentage of students from the region continue to attend college (see Figure 41). If the percentage of student attending college increased to the state average, especially enrollments for the 17-19 year old age group, then enrollment capacity would need to expand to accommodate 6642 FTE.

Figure 41



Enrollments increases of roughly 13 percent can also be expected for upper-division students between 2003-04 and 2010-11 based on population increases. If participation rates remain the same, enrollments will expand from 1,605 FTE to 1,842 FTE in 2010-11. Unlike lower-division, the region's participation rates for the upper-division are only slightly below the state average, making FTE increases to match the average negligible (see Figure 42).

Figure 42



Regional Workforce Demand

Between 2002 and 2012, the counties of the North Central region are expected to have steady growth in annual job openings in middle-level and long preparation occupations. Like many other regions in Washington, demand for registered nurses, who can be trained either in two-year or four-year settings, continues to grow. Growth in the retail and service industries is also reflected in the middle-level preparation group, with openings for cooks and retail managers/workers on the rise. Increasing demand in the government sector, especially in educationally-related fields is demonstrated in the number of openings for elementary, middle-school, and secondary teachers (see Table 20).

Table 20
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation

(One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Registered Nurses	78	0.9%	$49,140
Graders and Sorters, Agricultural Products	72	16.0%	$16,970
Cooks, Restaurant	37	6.9%	$20,060
Supervisors/Managers of Retail Sales Workers	36	3.1%	$38,210
Carpenters	33	20.6%	$41,140
Maintenance and Repair Workers, General	30	1.6%	$32,510
Supervisors/Managers of Office and Administrative Support Workers	26	1.2%	$41,660
Supervisors/Managers of Farming, Fishing, and Forestry Workers	24	4.4%	$40,340
Electricians	24	11.6%	$49,320
Supervisors/Managers of Construction Trades and Extraction Workers	23	1.7%	$49,140
Supervisors/Managers of Food Preparation and Serving Workers	20	1.2%	$29,120
Cooks, Institution and Cafeteria	20	7.2%	$22,280
Licensed Practical and Licensed Vocational Nurses	20	0.6%	$32,350
Automotive Service Technicians and Mechanics	19	8.0%	$31,020
Farm Equipment Mechanics	17	2.1%	$30,030

*** - The percentage of people in the occupation that sought unemployment insurance benefits***

Long Preparation

(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Elementary School Teachers, Except Special Education	46	0.4%	$43,550
Accountants and Auditors	37	2.3%	$53,730
Teachers, Primary, Secondary, and Adult, All Other	37	*N/A	$28,820
Secondary School Teachers, Except Special and Voc. Education	33	*N/A	$44,060
Middle School Teachers, Except Special and Voc. Education	26	0.7%	$43,330
General and Operations Managers	21	1.4%	$92,820
Recreation Workers	13	1.9%	$21,420
Construction Managers	12	6.6%	$63,850
Medical and Clinical Laboratory Technologists	11	0.7%	*N/A
Preschool Teachers, Except Special Education	10	9.0%	$23,600
Educational, Vocational, and School Counselors	10	2.7%	$46,160
Insurance Sales Agents	9	2.5%	$44,980
Education Administrators, Elementary and Secondary School	9	*N/A	$76,460
Lawyers	9	0.4%	$83,750
Rehabilitation Counselors	8	0.9%	$25,440

*** - Mean Annual Wages are unavailable for occupation***

Regional Community Demand

The North Central region is in many ways recovering from several years of difficult economic times. Given the cyclical nature of the agricultural economic base, local planners are intent to diversify the business environment to help prevent extended periods of economic downturn. Part of this strategy is ensuring that local employers are readily able to access qualified workers by

closing skill gaps in the incumbent population. Thus, regional higher education priorities include increasing postsecondary education and training capacity by strengthening partnerships with business and government. Though nearly one-third of the workforce will remain in agriculture, significant growth is forecasted in "white collar" occupations that are predicted to outpace "blue collar" growth and will require more education. These fields include government and education (as reflected in the tables above), health care, and technical services. The population in the region is also aging, as younger, working-age adults move to different areas of the state for employment opportunities and older adults in retirement or semi-retirement return to the area for its rural geography and decreased cost of living. This demographic shift also impacts job growth in sectors outside agriculture (construction, medical and government services, and retail), and has higher education implications, either at the two-year or four-year level.

Tri-County Regional Needs Assessment

Regional Student Demand

The Tri-County region consists of the three counties of Kittitas, Yakima, and Klickitat and has a population of 281,480, nearly 81 percent of which resides in Yakima County. The region has four colleges; one public four-year, one private four-year, one public two-year, and one technical institution. The four institutions provide a combined 14,631 full time equivalent (FTE) enrollments (see Table 21).

Table 21
Colleges or Universities Located in the Tri-County Region

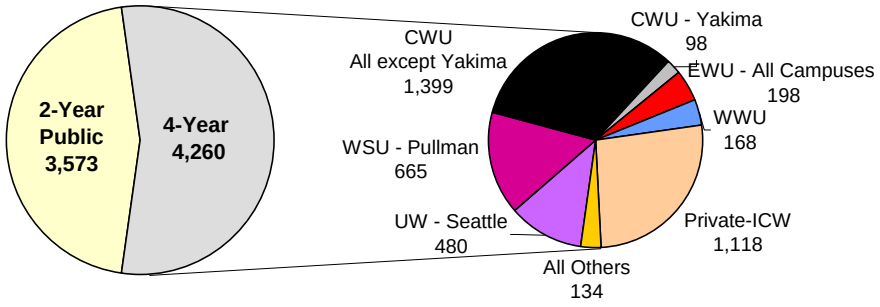
Institution Sector	Name	Location	Size (FTE)
Public Four-Year	Central Washington University	Ellensburg	8,657
Private Non-Profit Four-Year	Heritage University	Toppenish	985
Public Two-Year	Yakima Valley Community College	Yakima	3,846
other	Perry Technical Institute	Yakima	1,143
			14,631

Student Preference

The Tri-County region is home to 7,833 students who are currently enrolled in college, 54 percent of whom attend a four-year institution. The Tri-County and Eastern regions are the only two in the state that have more students attending four-year colleges than two-year. Of the 54 percent who attend four-year colleges, roughly 34 percent attend nearby Central Washington University while 26 percent attend a variety of private institutions including Heritage University. The state's two public research institutions, Washington State University and the University of Washington, draw 15 percent and 11 percent respectively (see Figure 43).

Figure 43

Tri-County
Total Enrollments by Home Region of Student
2-Year: Public Community/Technical Colleges
4-Year: Public and ICW



Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

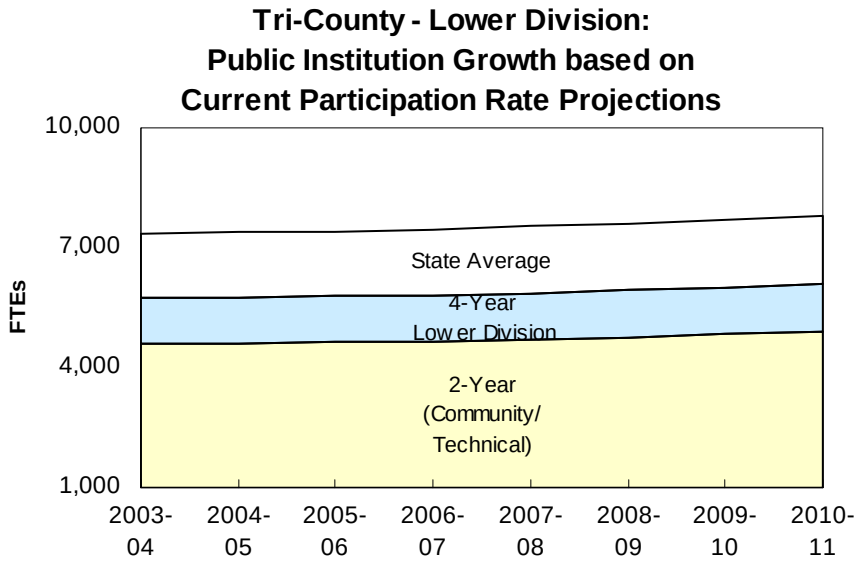
According to the regional Workforce Development Council's Updated Strategic Plan, a key issue facing the region is increasing access to colleges and universities. The Tri-County region has the highest high school dropout rate of any region in the state and keeping students engaged in high school so that they may make the transition to higher education is a priority for local education and workforce development planners. The region is experiencing demographic shifts as increased numbers of Hispanic residents move to the region. Yakima County has the highest proportion of Hispanic residents and the greatest percent increase between 1990 and 1999. According to data from the Office of the Superintendent for Public Instruction, Hispanic students fare worse than their Caucasian counterparts regarding issues of English proficiency and high school completion. Further, Census data indicate that a higher proportion of Hispanics live at or below the poverty line when compared with Caucasians. Workforce development staff indicate that these factors are certainly barriers to getting livable-wage jobs and are therefore actively working to increase economic and educational parity for all citizens in the region. The authors of the region's workforce development strategic plan may have summed up these issues best when they state, "Today's challenges that are being faced in the educational system have a direct impact on the quality and strength of the future workforce development system."[20]

Based on HECB projections, the Tri-County region is expected to gain approximately 16,647 people in the next seven years. If the same percentage of that population continues to choose to attend college, there will be an increase in student demand and enrollments. In 2003-2004, roughly 5,757 FTE lower-division students enrolled in college from the region. That number

[20] Quote taken from the Tri-County Workforce Development Council's 2005-2007 Strategic Plan, p. 3.

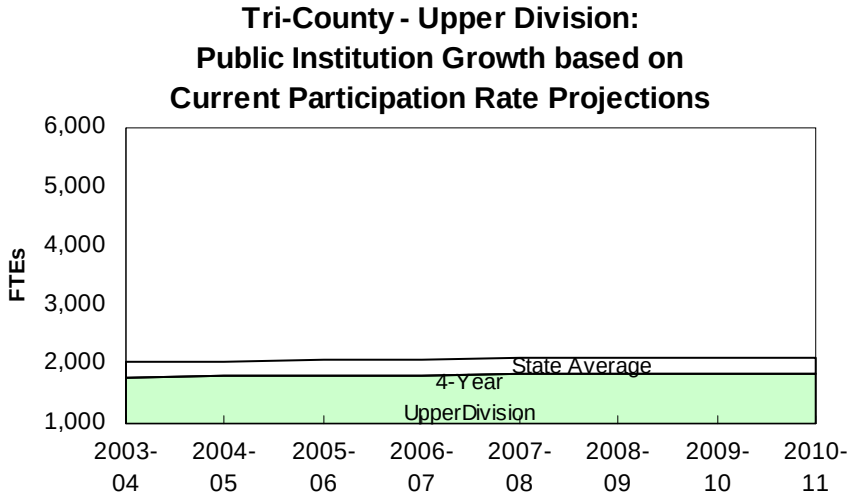
would increase to 6,090 FTE in 2010-11. However, if a greater percentage of the population elected to go to a college or university, an even larger increase in enrollments is anticipated. For instance, if the regional participation rate matched the state average, lower-division enrollments would increase to 7,803 FTE in 2010-11 (see Figure 44).

Figure 44



The same trend is anticipated at the upper-division. Enrollments are projected to increase from 1,775 FTE in 2003-04 to 1,854 FTE in 2010-11, based on population growth. If the regional participation rate increased to match the state average, an additional 272 enrollments are anticipated; bringing the 2010 enrollment total to 2,126 FTE (see Figure 45). It is of note that there is a fairly large disparity between the region's current participation rate and the state average. However, this analysis does not include data from private ICW schools. Thus, the actual projections regarding participation rate may be higher than those included in this report.

Figure 45



Regional Workforce Demand

The key occupational growth in the region is projected in the government, health care, and agribusiness sectors, most of which could require some college-level training. The key occupations in the middle-level preparation category focus on health care and service industries (see Table 22). The long preparation category is heavily concentrated in government; particularly education with 47 percent of the total key occupations grouped in this category and 40 percent in social service (see Table 23).

Table 22
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation

(One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Registered Nurses	78	0.6%	$51,320
Graders and Sorters, Agricultural Products	74	25.9%	$18,120
Carpenters	48	16.4%	$37,190
Supervisors/Managers of Retail Sales Workers	47	2.4%	$39,250
Maintenance and Repair Workers, General	41	1.5%	$30,690
Cooks, Institution and Cafeteria	32	5.4%	$23,080
Supervisors/Managers of Office and Administrative Support Workers	32	1.4%	$43,240
Computer Support Specialists	26	4.2%	$32,140
Cooks, Restaurant	24	9.4%	$19,380
Supervisors/Managers of Food Preparation and Serving Workers	24	1.1%	$31,190
Gaming Dealers	23	2.6%	*N/A
Licensed Practical and Licensed Vocational Nurses	22	1.1%	$32,410
Automotive Service Technicians and Mechanics	21	8.1%	$29,160
Police and Sheriff's Patrol Officers	20	1.6%	$47,850
Supervisors/Managers of Farming, Fishing, and Forestry Workers	20	3.8%	$36,270

Table 23
Key Occupations Requiring Long Preparation

Long Preparation

(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Elementary School Teachers, Except Special Education	61	0.1%	$41,500
Teachers, Primary, Secondary, and Adult, All Other	39	*N/A	$33,820
Secondary School Teachers, Except Special and Voc. Ed.	39	*N/A	$43,610
General and Operations Managers	31	0.8%	$100,140
Rehabilitation Counselors	31	0.7%	$29,580
Middle School Teachers, Except Special and Vocational Education	29	1.8%	$42,210
Accountants and Auditors	22	3.3%	$67,590
Computer Programmers	21	2.7%	$49,710
Educational, Vocational, and School Counselors	14	2.0%	$46,750
Education Administrators, Elementary and Secondary School	12	*N/A	$78,600
Recreation Workers	11	1.2%	$24,170
Mental Health and Substance Abuse Social Workers	11	1.4%	$43,680
Child, Family, and School Social Workers	11	5.3%	$30,300
Preschool Teachers, Except Special Education	10	14.2%	$22,550
Mental Health Counselors	10	0.1%	$32,630

** - Mean Annual Wages are unavailable for occupation*

Regional Community Demand

The Tri-County region continues to rely on agribusiness-related industry for roughly 48 percent of employment in the region. However, the seasonal nature of agriculture work factors into the region's lower than average wages and salaries. Thus, regional stakeholders have actively engaged in partnerships with local business, education, and labor to develop plans to address the region's current and future workforce needs and create livable wage jobs. Key among the drivers for future economic development in the region are agriculture/food processing, manufacturing (petroleum, coal, & agricultural products), healthcare, and construction. Many occupations in each of these industries will require some post-secondary training, both in terms of new workers entering the workforce and training for incumbent and dislocated employees who are being encouraged to stay.

Eastern Washington Regional Needs Assessment

Regional Student Demand

The Eastern region includes nine counties on the eastern border of the state: Ferry, Stevens, Pend Oreille, Lincoln, Whitman, Walla Walla, Columbia, Garfield and Asotin. The region is largely rural and contains a sparsely dispersed population of approximately 195,700 (2000 Census) and four colleges or universities. One of the state's two public research institutions, Washington State University, is located in Pullman and provides 72 percent of the region's 23, 815 full-time equivalent enrollments (see Table 24).

Table 24
Colleges or Universities Located in the Eastern Region

Institution Sector	Name	Location	Size (FTE)
Public Four-Year	WSU-Pullman	Pullman	17,342
Private Non-Profit Four-Year	Walla Walla College	College Place	1,800
Private Non-Profit Four-Year	Whitman College	Walla Walla	1,512
Public Two-Year	Walla Walla Community College	Walla Walla	3,161
		subtotal	23,815

Source: Integrated Postsecondary Education Data System, Peer Analysis System.

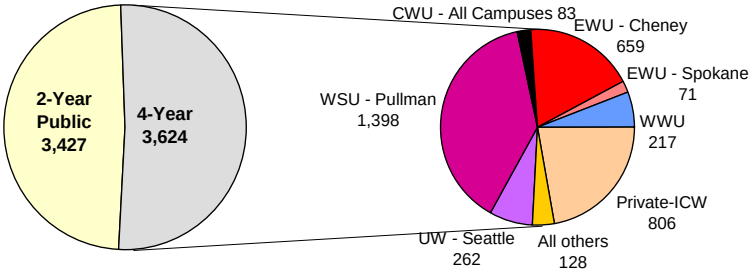
Student Preference

The Eastern region is home to 7,051 students currently attending college, over half of whom attend a four-year institution.[21] The Eastern and Tri-County regions are the only two in the state with over half of their postsecondary enrollments at four-year institutions. Nearly 60 percent of students who attend a four-year college do so in the region (WSU) or in nearby Spokane County at Eastern Washington University (see Figure 46).

[21] This figure does not include students who attend college out-of-state or are categorized as "unknown."

Figure 46

Eastern Washington
Total Enrollments by Home Region of Student
2-Year: Public Community/Technical Colleges
4-Year: Public and ICW

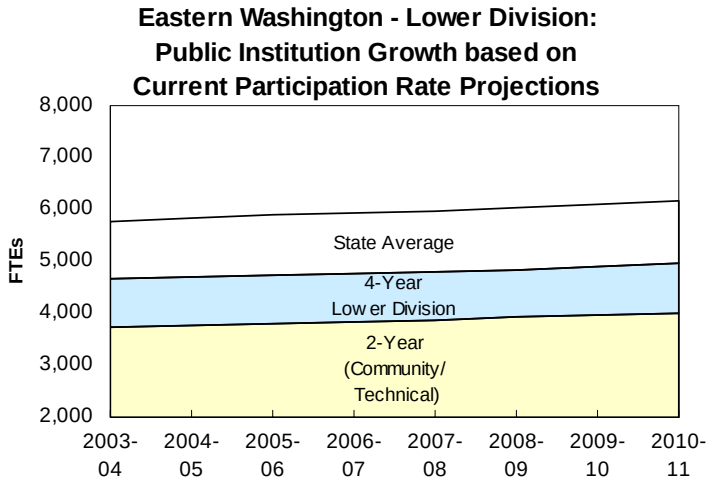


Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

Roughly 4.5 percent of adults living in the Eastern region currently attend a college or university, which matches the state average. Within the total population, about 13 percent of 17-19 year olds and 14 percent of 20-24 year olds attend college. Both of these figures fall below average participation rates for the rest of the state.

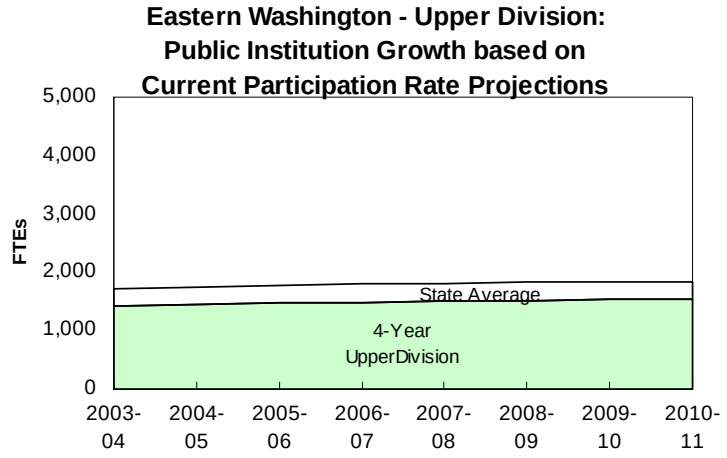
Despite lower than average enrollments for traditional-age college students, the region would still need to increase lower-division enrollments from 4,660 FTE in 2003-04 to 4,963 FTE in 2010-11 to accommodate anticipated increases in the population and maintain current levels of service (see Figure 47). Upper-division enrollments would need to increase from 1,421 in 2003-04 to 1,538 in 2010-11 (see Figure 48). Neither of these estimates account for any increase in the percentage of the population who decide to attend college. For instance, if participation rates for lower-division enrollment in the region were to increase to the state average, enrollments in 2010-11 would increase to 6,169 FTE in the lower-division alone.

Figure 47



Source: Higher Education Simulation Model, Version 1.15, Higher Education Coordinating Board, June 2005.

Figure 48



Source: Higher Education Simulation Model, Version 1.15, Higher Education Coordinating Board, June 2005.

Regional Workforce Needs

A key higher education issue facing the region is how to create a supply of workers for occupations in the large agricultural and service industries, which require little higher education training, while at the same time producing and retaining highly skilled workers to fill positions in teaching, engineering, or health care related occupations. This is especially difficult for the latter group since wages in the region are typically lower than wages for similar positions in urban

areas. Due to the sparse population distribution, easy access to colleges or universities is often difficult, especially for working adults.

Between 2002 and 2012, the Eastern region is expected to have approximately 604 annual job openings in middle-level and long preparation categories. The key occupations in the region requiring at least a BA (long preparation) cluster in education fields. Demand for registered nursing positions will also be high and could be met either by middle-level preparation or long preparation. Anticipated openings for nurses are more than double the number of openings for the second highest-demand occupation (see Tables 25 and 26).

Table 25
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation (One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.) Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Registered Nurses	70	1.8%	$44,020
Supervisors/Managers of Retail Sales Workers	30	1.3%	$35,990
Maintenance and Repair Workers, General	29	1.2%	$31,020
Carpenters	25	1.4%	$30,390
Cooks, Institution and Cafeteria	24	1.5%	$22,340
Supervisors/Managers of Office and Administrative Support Workers	22	1.4%	$39,060
Biological Technicians	18	1.7%	$32,200
Graders and Sorters, Agricultural Products	18	2.0%	$18,210
Fire Fighters	17	1.1%	$19,250
Supervisors of Food Preparation and Serving Workers	17	1.6%	$31,760
Supervisors of Construction Trades and Extraction Workers	16	1.4%	$51,840
Cooks, Restaurant	15	1.5%	$19,200
Licensed Practical and Licensed Vocational Nurses	14	1.5%	$30,810
Electricians	14	1.2%	$52,510
Automotive Service Technicians and Mechanics	13	1.5%	$37,270

Table 26
Key Occupations Requiring Middle-Level Preparation

Long Preparation
(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Elementary School Teachers, Except Special Education	36	1.9%	$45,710
Secondary School Teachers, Except Special and Voc. Education	32	1.9%	$45,430
Teachers, Primary, Secondary, and Adult, All Other	32	1.9%	$25,870
Graduate Teaching Assistants	32	1.9%	*N/A
Business Teachers, Postsecondary	24	1.9%	*N/A
Middle School Teachers, Except Special and Voc. Education	20	1.9%	$45,330
Recreation Workers	16	1.3%	$33,370
Education Administrators, Postsecondary	15	1.9%	*N/A
Accountants and Auditors	15	1.3%	$50,320
General and Operations Managers	15	1.1%	$88,280
Educational, Vocational, and School Counselors	14	1.8%	$44,210
Health Specialties Teachers, Postsecondary	13	1.9%	*N/A
Librarians	12	1.5%	$45,810
Construction Managers	9	1.7%	$63,130
Agricultural and Food Scientists	9	1.6%	*N/A

** - Mean Annual Wages are unavailable for occupation*

Source: Occupational Outlook published by the Employment Security Department, Labor Market and Economic Analysis Branch, 2005. Available at www.workforceexplorer.com.

Regional Community Needs

The nine counties of the Eastern region account for 21 percent of the total square mileage in Washington state and are sparsely populated, offering a "rural lifestyle" to their residents. Regional economic development efforts linked with education must be geared specifically to the region, as it contains a series of assets and challenges that differ from more densely populated regions like the Puget Sound. Planners in the region point out that "there is a significant difference between what is occurring on the I-5 corridor and the rural counties of the state."[22] Employers in the region would like students to be encouraged to explore both workforce preparation and baccalaureate education in an effort to meet the demand for the numerous jobs in the service, agriculture, and natural resource based industries. However, the trend away from the latter two industries has created a greater demand for postsecondary education, especially as it relates to non-traditional, working students. Anticipated growth in health care related fields as well as government occupations like teaching and engineering will require advanced education. The counties are working together to provide or improve the communications systems in the region to provide high-speed internet to facilitate greater access to distance learning and job retraining.

[22] Quotation is from the Eastern Washington Partnership Workforce Development Council's Strategic Five-Year Plan.

Benton-Franklin Regional Assessment

Regional Student Demand

The Benton-Franklin region includes Benton and Franklin Counties in southeastern Washington. The population in the region is approximately 145,000 and the region includes two postsecondary institutions: a public two-year community college and a public research university branch campus which currently provide a combined 5,062 FTE enrollment (see Table 27).

Table 27
Colleges or Universities Located in the Benton-Franklin Region

Institution Sector	Name	Location	Size (FTE)
Public Four-Year	WSU-Tri-Cities (upper division only)	Richland	649
Public Two-Year	Columbia Basin College	Pasco	4,413
		regional total	5,062

Source: Integrated Postsecondary Education Data System, Peer Analysis System.

One of the key higher education issues in the region regards creating a four-year, residential institution. With the exception of authorization for lower-division enrollments in the biotechnology program at WSU Tri-Cities, the region does not currently have a four-year college. Community leaders are currently "compiling a more compelling case" regarding Benton-Franklin's higher education needs and are expected to bring that proposal to the HECB for further consideration later in 2005.[23]

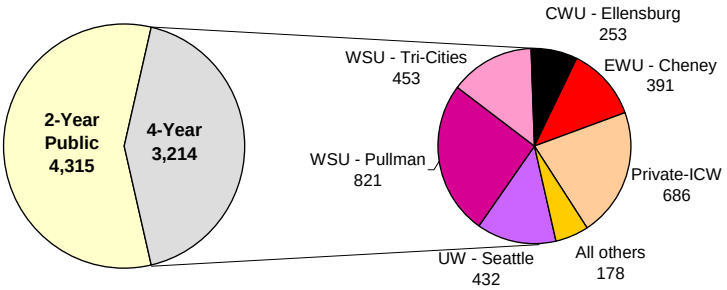
Student Preference

The Benton-Franklin region is home to 7,529 students currently attending college, roughly 43 percent of whom attend a four-year institution.[24] Students who call the region home and attend a four-year institution are quite mobile and attend public and private institutions across the state. Students most frequently attend Washington State University, with more than one-third of four-year enrollees attending either the Pullman or Tri-Cities campus (see Figure 49).

[23] The quote is taken from the "Background Information on Higher Education Issue" brief produced by the Tri-City Industrial Development Council.
[24] This figure does not include students who attend college out of state or are categorized as 'unknown'.

Figure 49

Benton-Franklin
Total Enrollments by Home Region of Student
2-Year: Public Community/Technical Colleges
4-Year: Public and ICW

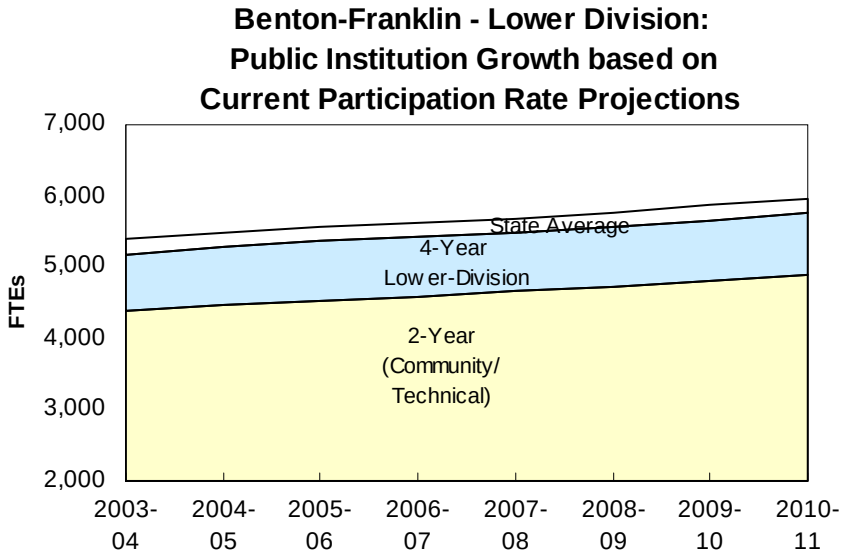


Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

Student demand estimates in the region based on historic participations rates indicate that roughly five percent of the total population in the region currently attends a college or university, slightly above the state average. However, the region falls below the state average among traditional college-age students (age 17-19) at 14 percent, compared with the state average of 17 percent.

Despite lower than average participation in the lower-division (based on current participation rates), the population in the region will continue to grow and impact higher education. HECB projections indicate that combined community and technical and four-year enrollments will need to expand from 5,184 FTE in 2003-04 to 5,755 FTE in 2010-11 to maintain the current level of participation. If a higher proportion of the population chooses to attend college, for instance to match the state average, an additional 200 FTE enrollments would be necessary (see Figure 50).

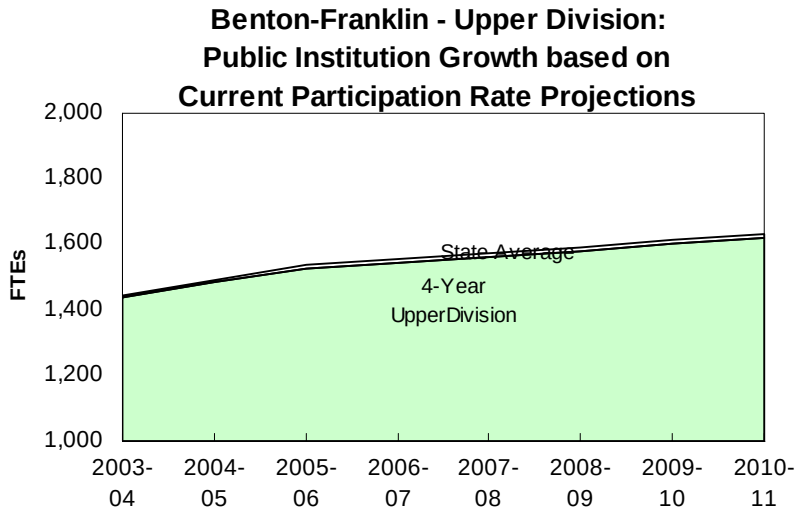
Figure 50



Source: Higher Education Simulation Model, Version 1.15, Higher Education Coordinating Board, June 2005.

Increases in anticipated enrollments are also projected for upper-division students. The region will need to accommodate an increase in upper-division enrollments of approximately 12 percent, from 1,436 FTE in 2003 to 1,618 FTE in 2011 to maintain the same service level. This increase matches the state average almost exactly with a difference of only 13 FTEs in 2011 (Figure 51).

Figure 51



Source: Higher Education Simulation Model, Version 1.15, Higher Education Coordinating Board, June 2005.

Regional Workforce Needs

Between 2002 and 2012, Benton and Franklin Counties are expected to have approximately 828 annual job openings in middle-level and long preparation categories. The key occupations in the region requiring at least a BA cluster in education and engineering fields, while the mid-level preparation (one to four years of training) are scattered across various domains. Demand for nurses tops the list of mid-level preparation occupations, a trend that is echoed across Washington state. The occupations in key industries are summarized in Tables 28 and 29 below.

Table 28
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation (One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.) Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Registered Nurses	63	1.1%	$54,310
Supervisors/Managers of Retail Sales Workers	44	2.0%	$35,900
Graders and Sorters, Agricultural Products	37	9.0%	$17,790
Supervisors/Managers of Office and Administrative Support Workers	34	0.8%	$49,200
Maintenance and Repair Workers, General	33	2.1%	$31,690
Carpenters	32	9.8%	$45,300
Cooks, Restaurant	23	5.9%	$20,180
Nuclear Technicians	23	2.4%	*N/A
Supervisors/Managers of Construction Trades and Extraction Workers	22	2.5%	$55,920
Automotive Service Technicians and Mechanics	21	6.5%	$33,630
Electricians	21	23.7%	$50,720
Plumbers, Pipefitters, and Steamfitters	20	16.0%	$50,320
Cooks, Institution and Cafeteria	17	3.7%	$21,560
Supervisors/Managers of Food Preparation and Serving Workers	17	1.2%	$32,440
Licensed Practical and Licensed Vocational Nurses	14	1.2%	$33,540

Source: Occupational Outlook published by the Employment Security Department, Labor Market and Economic Analysis Branch, 2005. Available at www.workforceexplorer.com.

Table 29
Key Occupations Requiring Long Preparation

Long Preparation
(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Elementary School Teachers, Except Special Education	50	0.3%	$44,690
Engineering Managers	38	1.5%	$111,110
Mechanical Engineers	35	5.8%	$84,860
Secondary School Teachers, Except Special and Vocational Education	32	*N/A	$44,170
General and Operations Managers	30	0.9%	$114,240
Electrical Engineers	29	2.3%	$78,870
Industrial Engineers	26	2.2%	$79,680
Middle School Teachers, Except Special and Vocational Education	25	0.4%	$44,870
Teachers, Primary, Secondary, and Adult, All Other	23	*N/A	$32,690
Civil Engineers	22	1.4%	$69,070
Management Analysts	22	1.2%	$85,400
Accountants and Auditors	22	3.7%	$57,840
Environmental Scientists and Specialists, Including Health	21	*N/A	$71,550
Chemical Engineers	17	3.8%	$79,800
Cost Estimators	15	1.4%	$56,930

** - Mean Annual Wages are unavailable for occupation*

Source: Occupational Outlook published by the Employment Security Department, Labor Market and Economic Analysis Branch, 2005. Available at www.workforceexplorer.com.

Regional Community Needs

The future demand for higher education varies depending on each region's specific industry patterns in relation to the community's efforts to direct its local economy. The Benton-Franklin region is home to a dense concentration of highly educated citizens, including those based at Hanford and the Department of Energy's Pacific Northwest National Laboratory (PNNL). Thus, local business leaders, educators, and economic development specialists are working to expand postsecondary capacity in the region. Specifically, development specialists are working to grow the high-technology skill base necessary to meet anticipated employer demands in years to come. This strategy is not only geared toward Hanford and PNNL, but also toward enhancing the leading private sector business in the region – agribusiness. Planners indicate that high technology training has applications in value-added processing – bi-engineering – and new crop development as well as in the ancillary manufacturing industries associated with agricultural business.

Spokane County Needs Assessment

Regional Student Demand

Spokane County spans 1,764 square miles on the state's eastern border and has a population of 431,027 (2003 U.S. Census estimate). The county has seven colleges or universities including two public four-year schools (one is branch campus), two private four-year institutions, one

for-profit college, and two community colleges (see Table 30). In combination, these schools provide 29,799 full-time equivalent (FTE) enrollments.[25]

Table 30
Colleges or Universities Located in the Spokane County Region

Institution Sector	Name	Location	Size (FTE)
Public Four-Year	Eastern Washington University	Cheney	8,603
Public Four-Year	Washington State University-Spokane	Spokane	597
Private Non-Profit Four-Year	Gonzaga University	Spokane	5,172
Private Non-Profit Four-Year	Whitworth College	Spokane	2,321
Private For-Profit	University of Phoenix-Spokane Campus	Spokane	Blank
Public Two-Year	Spokane Community College	Spokane	6,631
Public Two-Year	Spokane Falls Community College	Spokane	6,475
			29,799

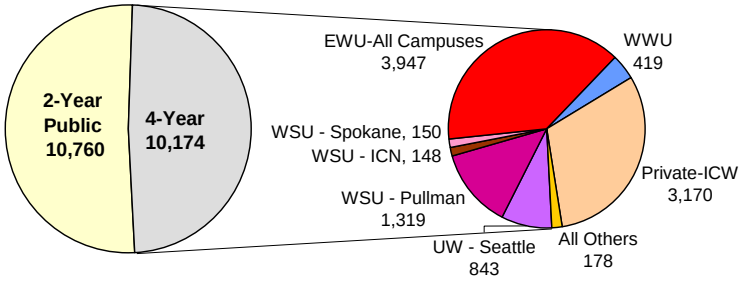
Student Preference

Spokane County is home to 20,934 students who are currently enrolled in college, split almost equally between two-year and four-year institutions. Nearly 39 percent of students who attend four-year schools go to nearby Eastern Washington University located in Cheney. EWU is followed in total enrollments by private, four-year institutions who garner 31 percent of students in the county. The combined campuses of Washington State University (Pullman, Spokane, and ICN) attract the third largest number of students with 1,617 FTE or 16 percent of total four-year enrollments (see Figure 52).

[25] Enrollment statistics for the University of Phoenix are only available at the state level and cannot by broken out by region. Thus, the enrollment figure for Spokane County does not include students from this institution.

Figure 52

Spokane County
Total Enrollments by Home Region of Student
2-Year: Public Community/Technical Colleges
4-Year: Public and ICW

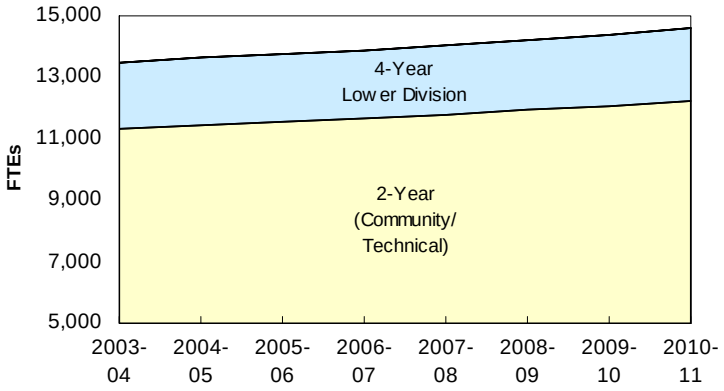


Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

Population growth is projected for Spokane County between now and 2010-11. If the same percentage of the population chooses to attend college as they do today, enrollments at higher education institutions will also increase. Accordingly, the state will need to increase capacity in future years to achieve the current level of service for Spokane County students. For instance, lower-division enrollments are projected to increase from 2003-04 levels of 13,501 FTE to 14,586 FTE in 2010-11 (see Figure 53). It also is noted that Spokane is the only region in the state that is currently exceeding the state average college participation rate. In most areas, additional capacity would be needed if the regional participation rate were to match state average, the opposite is true of Spokane.

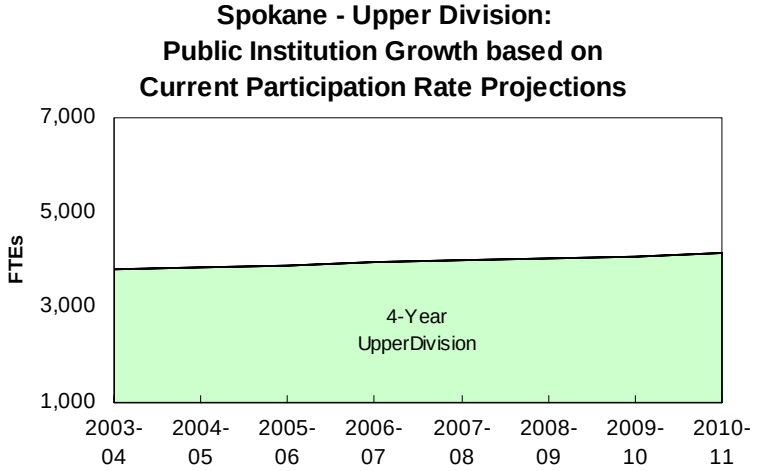
Figure 53

Spokane - Lower Division:
Public Institution Growth based on
Current Participation Rate Projections



Increases in upper-division enrollments are also expected based on population growth. Enrollments would increase from 3,805 FTE in 2003-04 to 4,140 FTE in 2010-11 (see Figure 54). Again, this estimate is based on the regional participation rate, which also exceeds the state's participation rate.

Figure 54



Regional Workforce Demand

State projections indicate that significant growth will take place in the health care, construction, and service industries. Many of the occupations in these categories will require middle-level preparation (see Table 31). State and federal governments, specifically K-12 school districts, continue to be the dominant employers in the region. As such, long-preparation jobs are concentrated in educational arenas. Projected growth in engineering and computing industries will also create increased demand for long preparation occupations as reflected in Table 32.

Table 31
Key Occupations Requiring Middle-Level Preparation

Middle-Level Preparation

(One to four years of training on the job, through an employer or institutional instruction, or a combination, including apprenticeships, certificates, diplomas, or associate degrees.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Registered Nurses	199	0.6%	$49,310
Supervisors/Managers of Retail Sales Workers	93	1.7%	$41,020
Supervisors/Managers of Office and Admin. Support Workers	75	1.8%	$41,970
Carpenters	70	9.4%	$38,240
Cooks, Restaurant	50	6.9%	$19,490
Computer Support Specialists	50	7.7%	$35,700
Maintenance and Repair Workers, General	48	2.2%	$31,570
Cooks, Institution and Cafeteria	46	4.2%	$22,270
Licensed Practical and Licensed Vocational Nurses	46	1.0%	$35,890
Electricians	44	13.7%	$42,770
Automotive Service Technicians and Mechanics	44	6.6%	$35,330
Supervisors/Managers of Food Preparation and Serving Workers	41	2.1%	$30,860
Supervisors/Managers of Non-Retail Sales Workers	37	1.2%	$67,050
Supervisors of Construction Trades and Extraction Workers	35	1.9%	$56,820
Claims Adjusters, Examiners, and Investigators	33	2.0%	$42,130

Table 32
Key Occupations Requiring Long Preparation

Long Preparation

(Four years or more of academic work, bachelor's degree or higher; may require additional work experience.)

Occupational Titles	Average Annual Total Openings 2002-2012	Unemployment ** Insurance Ratio 2003	Estimated Mean Wage 2003
Elementary School Teachers, Except Special Education	93	0.3%	$44,330
Teachers, Primary, Secondary, and Adult, All Other	66	*N/A	$28,910
General and Operations Managers	65	1.1%	$105,510
Secondary School Teachers, Except Special and Voc. Ed.	62	0.0%	$44,320
Middle School Teachers, Except Special and Voc. Ed.	52	1.2%	$43,610
Accountants and Auditors	47	3.0%	$52,410
Counselors, Social, and Religious Workers, All Other	44	*N/A	$40,590
Rehabilitation Counselors	42	0.2%	$30,410
Lawyers	37	0.6%	$72,370
Network Systems and Data Communications Analysts	31	1.1%	$45,690
Insurance Sales Agents	30	4.5%	$64,280
Construction Managers	29	4.8%	$68,250
Computer Systems Analysts	29	2.6%	$54,460
Family and General Practitioners	27	0.1%	$113,080
Recreation Workers	27	1.0%	*N/A

** - Mean Annual Wages are unavailable for occupation*

Regional Community Demand

The Spokane area economy is unique in that, with the exception of government, the county does not have one dominant employer. Unlike Snohomish County that relies on the Boeing Company for a significant percentage of employment, nearly 57 percent of firms in Spokane County have 1-4 employees. Local stakeholders point out that diversity of small business is an asset for the region in that it provides a buffer and long-term resiliency from times of economic downtown (especially those that are industry-specific). Planners have therefore focused their workforce and economic development efforts on continued diversification through "small business cluster formation." Local groups, working in partnership with business, labor, and education have identified five primary areas for growth – health care services, construction, wholesale trade, metal fabrication/machine building, and business services. Within this context, stakeholders are focusing on recruiting and retaining firms that provide increased wages or "family wage" jobs. This strategy is especially relevant to incumbent workers displaced based on shifts in the regional economy (from extraction industry to technology based) and for young people who have historically left the county to pursue higher wage jobs elsewhere in the state.

Snohomish-Island-Skagit (SIS) Regional Needs Assessment

Regional Student Demand

The Snohomish-Island-Skagit (SIS) region has a population of 825,027 (2003 U.S. Census estimate). The area has seven colleges or universities, including three private non-profit schools, one for-profit college, and three community or technical colleges (see Table 33). It is of note that the only public four-year institution in the region is WWU located in Bellingham, a significant distance away from the region's population center of Everett. The Everett area is served by the Bothell campus of the UW; however, this institution was just recently given the authority to add lower-division capacity, which will begin with a small group in fall 2005.

Table 33
Colleges or Universities Located in the SIS Region

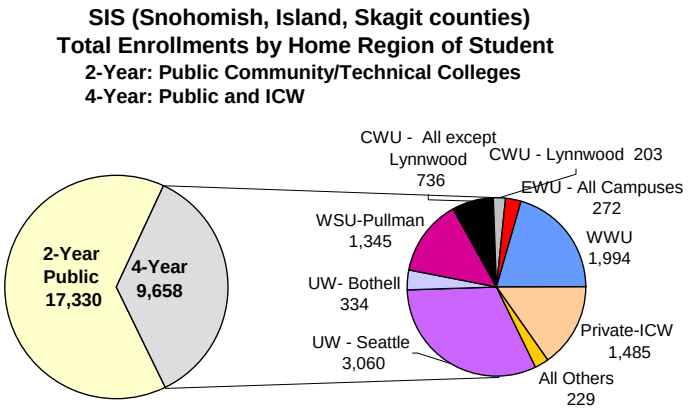
Type of Institution	Number in Region	Size (FTEs)
Private Non-Profit Four-Year	3	484
Private For-Profit	1	1,172
Public Two-Year	3	14,646
total		16,302

Student Preference

SIS is home to 26,988 students who attend college, 64 percent of whom go to a community or technical college. The remaining 36 percent of students enroll at four-year institutions and

nearly one-third of those students attend the University of Washington's Seattle campus, with an additional 334 students at the UW's Bothell campus (three percent). Western Washington University draws the second largest proportion of students with 21 percent, while private four-year colleges and Washington State University draw roughly 13 percent of total four-year college students each (see Figure 55).

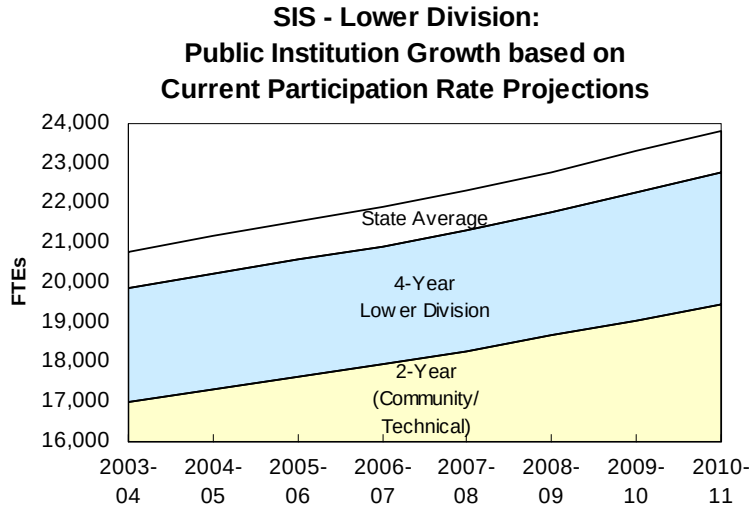
Figure 55



Source: Public: Higher Education Simulation Model, Version 1.15.
Higher Education Coordinating Board, June 2005.
ICW: survey of institutions.
NOTE: Data reflect 2004-05 for public institutions; 2003-04 for ICW.
4-year data include undergraduate, graduate and professional enrollments.

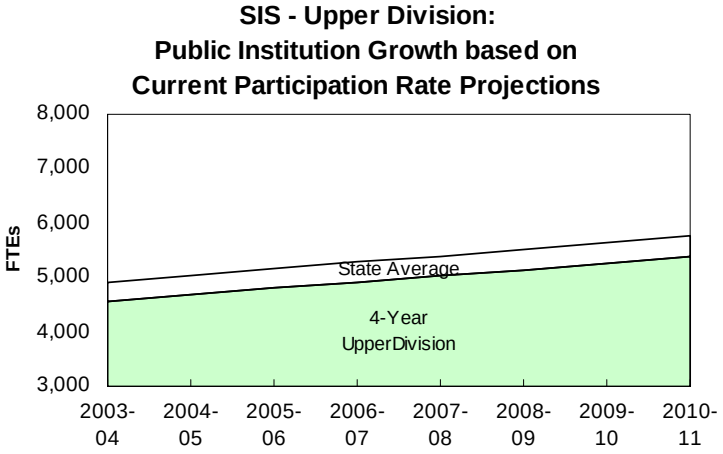
The population within SIS is projected to grow sharply over the next decade, outpacing growth in the rest of the state by 1.5 percent. If the same percentage of citizens in the region continues to enroll in college, then anticipated enrollments will grow as the population does. Based on HECB calculations, lower-division enrollments are projected to increase from 19,841 FTE in 2003-04 to 22,757 FTE in 2010-11. However, if a higher percentage of people choose to go to college, then enrollments would increase further. For instance, if the regional participation rate increased to match the state average, then an additional 1,053 FTE are projected in addition to those projected based on population increase (see Figure 56).

Figure 56



The same trend is projected for upper-division students. Based on population growth, enrollment capacity would need to increase from 4,567 FTE in 2003-04 to 5,374 FTE in 2010-11 to maintain current levels of service for students from SIS. If a higher percentage of citizens opt for higher education, then enrollments would increase an additional 384 FTE by 2010-11, bringing the total to 5,758 FTE (see Figure 57).

Figure 57



Regional Workforce and Community Demand

According to U.S. Census data, the region is home to 20,276 private, non-farm businesses, over 75 percent of which are located in Snohomish County. As such, much of the region's employer demand is driven by the key industries in Snohomish; namely aerospace manufacturing, tourism,

health care, biotechnology/bio-medical device, and information technology sectors. However, in contrast to Snohomish County's reliance on the Boeing Corporation for a large share of direct or related employment, the regional economy in Island and Skagit Counties is characterized by a great diversity of small businesses and large government-sector presence. Thus, occupations in service and retail, manufacturing, and education are key to SIS' continued economic prosperity.

VIII. Analysis and Recommendations

Analysis of the statewide and regional data described in the report will allow HECB staff to make recommendations in four key areas:

The public colleges and universities must grow to accommodate additional student demand resulting from population pressure and the HECB, in collaboration with local colleges, must assess and, as necessary, develop policies and plans to increase participation among students in selected regions of the state.

A recommendation on the total size of the system relies on the assessment of statewide capacity as well as employer, student, and community demand for education. The areas in the state with the greatest need for growth and recommendations on the size and shape of the higher education system are dependent on the statewide assessment and on the data from the regional profiles and must be used in conjunction with a review of institutional role and mission before specific recommendations on changes of the "shape" of higher education can be made.

In order to accommodate population growth and provide the same level of access as 2003-2004, the system will need to add 21,041 FTEs by 2010. Due to over-enrollments at the public two-year and four-year institutions, this translates to an increase of 24,836 students over 2006-2007 budgeted enrollment levels. The HECB estimate of demand, based on population growth and student demand for degrees, places the need at 44,562 over 2003-2004 enrollment levels or 48,481 over 2006-2007 budgeted enrollment levels.

The state may accommodate growth through expansion of a number of current strategies. Each college and university serves students from throughout the state; however, a greater proportion of students who reside in a given region tend to enroll in institutions in their region than in any one school in another region. Given this relationship, we might expect growth in the number of students from a region resulting from population growth to follow a pattern of enrollment similar to that of the current population. However, in a number of regions, growth due to population increase is expected to be especially high, while in other regions participation in postsecondary education falls well below the state average. To increase participation in these regions may require a variety of strategies that could include adding additional enrollment capacity to institutions within or near the regions. If it is not possible to add enough additional enrollment capacity to existing institutions to respond to growth associated with either population increases or increased higher education participation, then the creation of new higher education institutions and/or alternative delivery approaches must also be considered.

Based on the statewide and regional results, growth is required throughout the higher education system. Growth at the main campuses may be supplemented by growth of system campuses and university centers. The assessment supports the need for significant expansion of a number of existing campuses in response to pressure from population growth. The greatest impact from growth will occur in Southwest Washington, Snohomish, Island and Skagit Counties (SIS), and King County. While this growth places pressure on institutions throughout the state, it will disproportionately impact community colleges in those regions and University of Washington's Seattle and Bothell campuses, Western Washington University, and Washington State University in Pullman and Vancouver. The anticipated enrollment growth in the SIS region will likely outpace the growth of UW Bothell and other institutions that serve students from the region. The needs assessment data support the work already underway to more closely examine the feasibility of creating a new institution to serve Snohomish, Island, and Skagit Counties.

In addition to enrollment pressure resulting from population growth, a number of regions are faced with college participation rates well below the state average. This disparity is greatest in the Northwest, Tri-County, Eastern and Southwest Washington regions of the state. The challenges associated with increasing enrollment in these areas are great. Increasing participation will require more than simply increasing enrollment capacity in the region. It may entail the creation of new delivery approaches and/or making available different types of degrees or programs to potential students in the area. Therefore, in addition to recommending additional enrollments to serve potential students in these regions, HECB staff recommend that the institutions in the region, in collaboration with the HECB and SBCTC, assess the factors leading to lower participation in the public colleges and universities and, as necessary, develop or revise state policies and/or jointly prepare enrolment plans to the end of increasing the college participation rates of students in the region.

The higher education system in Washington is not graduating enough students with the skills required to meet the employer needs in a number of key occupational areas. Institutions should develop strategies to increase the numbers of students prepared to fill positions in the high-demand areas of computer science, engineering, software engineering and architecture, and health care occupations. In addition, institutions in the state need to increase the numbers of students enrolled in graduate and professional programs to meet employer needs.

The needs assessment provides a number of sources to determine demand for programs. An important element that emerged from the community demand data was an indication that the skill set demanded by employers goes beyond technical ability in a particular field. Rather, employers have become increasingly selective and are choosing to hire those workers who present a mix of deep technical knowledge in a given area and a set of more general or transferable skills in the areas of management, communication, and teamwork. The responses are consistent with literature on the demands of the changing economy.[26]

[26] (2001) The Future of Success. Robert Reich.

All three approaches to assessing demand indicate a need for increased capacity in architecture and engineering, computer science, and health care. Demand for business, education, life and physical sciences, and social sciences were identified in two of the three measures of demand.

High-demand occupations are those in which the greatest gap exists between the number of prepared workers graduating from Washington institutions and the demand for workers expressed by employers. At the macro level, Washington appears to produce too few professional and doctorate degrees. These degrees are essential in many industries, not the least which is the need for higher education institutions to attract and retain qualified research and teaching faculty in a broad range of areas. Specific fields in which we are under-producing at the baccalaureate level and above are architecture and engineering, computer science, and health care.

The health care industry faces critical shortages of qualified workers in a number of occupational areas. The largest number of openings are in nursing, but shortages are apparent in a wide range of fields. Expansion of existing strategies in health care and the development of new programs and/or delivery mechanisms is recommended to meet employer and student demand.

Health professions include a wide range of training needs at all levels. Substantial work has been done through the Health Care Personnel Shortage Task Force. This group has identified critical need for additional workers in a variety of health related occupations. Institutions should seek ways to expand existing programs and develop new programs and delivery mechanisms that will enable them to prepare more graduates with the requisite skills and qualifications to meet the demand for health care workers.

Key occupational areas exhibit a significant mismatch between supply and demand for trained workers. In order for the needs assessment to be an effective planning tool for higher education, it is critical that the relationship between training and hiring practices in these occupations is well understood.

Research and science occupations show significant need for higher levels of training, yet many of the key degree programs are flat or declining in the number of graduates. Further analysis of the training needs of employers and issues limiting growth in the number of degrees in this area is recommended.

The supply and demand match approach used with the occupational projections indicates the supply of graduates with a baccalaureate or above is well above the demand in occupations classified under “agriculture, construction, production, and transportation” and “sales and service” occupations. Further analysis of employer needs in these occupational groups is recommended to determine whether employment trends in these occupations are the result of employer preferences and changing expectations or other factors.

Participation rates in public higher education in a number of regions falls well below the state average. It is important to ensure the higher education system in the state serves all its residents and therefore further analysis of college participation in these regions and, as necessary, plans to improve participation will be important tools in planning the future growth of the public higher education system.

In addition, staff recommend that the HECB, in collaboration with the State Board for Community and Technical Colleges and institutions in regions identified with low college participation, assess the factors leading to lower participation in the public colleges and universities and, as necessary, develop or revise state policies and/or jointly prepare enrollment plans for increasing the college participation rates of students in the region.

A number of improvements to the methodology and data elements used in the needs assessment are recommended to ensure that the needs assessment is an effective tool to guide the growth of the higher education system in the state.

The needs assessment model faces a number of limitations, some of which could be mitigated through access to better information.

By matching institutional data with employment security data, HECB staff can assess workforce outcomes of resident and nonresident graduates of Washington institutions, including information on wages and the industry in which the student is employed. The process would allow for matching of graduates and students who drop-out, allowing for an analysis of returns to enrollment as well as completion.

Improved tracking of individual student enrollment through the use of national clearinghouse data to identify system drop-outs and add information on out-of-state enrollments in the OFM application match would greatly improve our understanding of student enrollment and persistence in Washington.

Further refinement of the HECB approach to matching training levels with occupations may also be required. This may entail the inclusion of multiple years of data and/or using more recent survey data through the state population survey as well as better data on the alignment of skills and abilities developed in education programs and workforce needs.

Additional data is needed on enrollments in private institutions. The private colleges and universities in Washington have been responsive to HECB requests for information. However, through the development of the need assessment, staff have identified additional data elements that would improve the assessment; specifically, regional enrollment data of by class level from all private colleges in Washington (the current analysis includes regional enrollment data provided by the ICW schools).

Improved data on capacity at off-site facilities should be available though the program and facility inventory currently in development.

Finally, an examination of alternatives approaches to estimate occupational growth and employer demand for degrees is recommended. Dr. Sommers, Seattle University, has proposed the use of industry cluster analysis as part of the community demand estimate in order to provide an alternative approach to understanding changes in employer and community needs.

Appendix A: Data and Variables

Data and Variables

The needs assessment will rely on five primary measures to assess supply and demand for education. Supply will be addressed using a series of measures termed "workforce supply" which will approximate the annual number of graduates entering the workforce by degree level and major field of study. "Education supply" consists of a series of measures to describe the current and planned capacity of the higher education system in the state to respond to student demand and to prepare students for work.

Three measures of demand will be used in the assessment. "Employer demand" is a measure of the number of net annual job openings projected through 2012 by education level. "Student demand" is a projection of the number of students seeking enrollments in the higher education system. Finally, "community demand" will be assessed through an examination of data not reflected in the aforementioned projections. This will include community development plans, emerging industries, or other factors that may impact the higher education needs of a community.

What follows is a more detailed discussion of the measures and the data sources and methods used in their development.

Workforce Supply

The assessment of workforce supply will rely on IPEDS data on degree production; however, we cannot assume that all graduates are entering the workforce. Some care must be taken to assess how many graduates are entering the workforce and what proportion of students will not enter the workforce due to continued enrollment or other factors. Therefore, the total degrees awarded must be adjusted to account for graduates who do not choose to enter the workforce either to continue their studies or for other reasons before we can arrive at the number of graduates available to meet employer demand. The net effect of migration into and out of the state will be considered in the final analysis. In general, migration would be expected to fill the gap between supply and demand for educated workers. Because SBCTC has access to student-level enrollment and outcome data, they are able to more precisely track continuing enrollments of associate degree holders and other transfer students and do not count those students who continue to enroll as entering the workforce. Workforce supply for baccalaureate degree holders will be calculated as follows:

Workforce Supply = IPEDS Baccalaureate Degrees – less graduates who do not enter the workforce

IPEDS Degrees - C - (L*(1-LE))
IPEDS Degrees - 14.1% - (6.4% * (1-23.9%)).

IPEDS Degrees - 19.035%

Included Variables:

IPEDS Degrees: Degrees awarded in Washington in 2003 (IPEDS).

Benchmark Data from Baccalaureate and Beyond 1999-2000, Spring 2001 (one year after graduation)[27]

C = Currently Enrolled in Grad School Full-Time 14.1%
L = Not in Labor force 6.4%
LE = 23.9% of L Enrolled Full Time

The number of graduate degrees awarded will be adjusted to account for graduates who do not enter the labor force based on benchmark data provided through the NCES National Household Education Survey of 1995 Adult Education that indicates the number of degree holders age (24-39) who report they are "not in the labor force".

IPEDS Masters Degrees - L_m
IPEDS Professional Degrees - L_p
IPEDS Doctorate Degrees - L_d

L_m = Master Degree Holders not in Labor Force 13.6%
L_p = Professional Degree Holders not in Labor Force 6.2%
L_d = Doctorate Degree Holders not in Labor Force 9.9%

Education Supply

Education supply may be estimated a number of ways. The most readily available approach is to estimate current enrollment capacity within the system based on current enrollments (funded or actual) and the distribution of students by major, course taking patterns, or degrees earned. Estimates based on current enrollments may mask differences by field of study whereby some programs may be over-subscribed while others may be under-enrolled. Therefore, the public four-year campuses have been asked to provide additional information about impacted programs that will be discussed in the student demand section of the report.

Total enrollments will be based on enrollment data available from the Office of Financial Management for the public institutions and IPEDS enrollment data will be used for the private enrollments. In addition, planned capacity of the four-year public colleges will be used to estimate the maximum size of the existing institutions. The Independent Colleges of Washington (ICW) has provided information on planned growth of their member institutions as well (see

[27] (2003) A Descriptive Summary of 1999-2000 Bachelor's Degree Recipients 1 Year Later, National Center for Education Statistics 2003-165.

Appendix F for a listing of ICW schools). Capacity by major field of study will be examined based on current degree production and enrollments, but will not be projected forward. Instead, the needs assessment will identify the gaps with the expectation that institutions would provide resources where needed to meet student, employer, and community demand. Both enrollment and degree data will be aggregated based on the groupings used in the NCES Baccalaureate and Beyond Studies, in addition specific fields of study may be pulled out and examined individually. The categories are provided in Appendix B.

Data

IPEDS enrollment data: Enrollments reported to IPEDS for fall 2003 (the most recent year with complete data).

ICW member enrollments: The independent colleges of Washington have provided data from member institutions on enrollments and growth plans through 2012.

HECB data on capacity: The HECB maintains data on the student capacity at public intuitions in the state. For purposes of the needs assessment, the lesser of either physical capacity or capacity limit (due to zoning or other restrictions) will be used.

Education Supply = current enrollment (using OFM for public and IPEDS or ICW for privates).

Planned Capacity = (the lesser of physical capacity or capacity limit for publics and planned growth for ICW). Other privates will be excluded from this measure with the presumption that they would grow to meet a portion of demand not met by other sectors.

Employer Demand

Several approaches may be used to understand employer demand.

The first is to look at the aggregate demand by level of training as is currently done in the WTECB gap analysis (see Appendix E). The gap analysis estimates additional FTE needed in postsecondary training programs greater than one year but less than a bachelor's degree. This is done by matching the number of "prepared workers" at that education level to the number of anticipated annual openings projected for the period of the assessment. The gap is the number of additional workers multiplied by the average FTE/completion ratio of programs that fit the profile described above.

There are a number of critical decision points in this type of analysis which can impact the estimates of need. First is how we assign the level of training required for a given occupation is critical. BLS uses 11 standard training categories outlined in the BLS Occupational Outlook Handbook. These categories are assigned by BLS staff based on an assessment of the predominate level of training for new entrants into the occupation. This approach does not

necessarily identify the minimum qualification for a given occupation, although it may serve as an adequate proxy for most occupations. More importantly, the training categories do not differentiate training requirements within occupations nor do they allow for an analysis of continuing training needs within the occupation. In 2004, BLS proposed an alternate approach which is described in the Occupational Projections and Training Data, 2004-05 Edition http://www.bls.gov/emp/optd/home.htm. The new approach groups occupations into educational clusters that better reflect the diversity of training paths one might take to enter the occupation and the ultimate educational attainment of workers in that occupation. While neither of these approaches provides a perfect picture of the training needed for a given occupation, they do provide a starting point to develop a matching strategy that can provide useful summary information on minimum requirements and continuing education needs.

An important limitation with the long-term occupational projections is that they are based on historical employment data and are limited in the degree to which they can account for structural changes in industries or occupations. A further complicating factor is that the net openings due to growth and replacement relies on national BLS data to calculate attrition in occupations which may or may not accurately reflect the numbers of departures expected in Washington.

After considerable consultation with staff at the Workforce Training and Education Coordinating Board and the State Board for Community and Technical Colleges, the determination was made to include two estimates of employer demand. Employer demand will be estimated based on the training and education required to meet projected employment based on employment security long-term employment outlook projections. The outlook projections will be matched with two estimates of training levels for occupational groups, a minimum training requirement based on BLS training codes and an ultimate training level based on HECB analysis of census data – an approach similar to that used in the educational cluster approach described above.

Data

Data: May 2005 Long-term occupational projection published by the Washington State Employment Security Division.

2000 Census PUMS 5% File: Education levels and occupations of adults residing in Washington ages 25-64 who worked during the previous year.

Dependent Variables

Employer Demand - Average Annual Openings 2007 -2012. Statewide Total Net openings are adjusted based on total employment projection (May 2005 Long-term employment projection – Washington State Employment Security) to arrive at a total number of workers required by occupational area.

High Growth –High Wage Occupations. For each region high growth/high wage occupations are identified as those occupations with wages and growth in the highest quartile (e.g., of occupations in highest wage quartile those occupations with the highest growth).

Independent Variables

SOC Code: the standard Occupational code is used to classify occupations and to match data sets used in the analysis. SOC code also provides for aggregation of occupations with the first two digits of the code identifying a major grouping and the remaining four digits providing for increasingly specific occupational titles.

2007-2012 Net Job Openings: Employment Security May 2005 long-term occupational projections.

Entry Level Training Requirement: The Workforce Training and Education Coordinating Board uses collapsed (WTECB Training Code) categories to describe the training levels required for occupations. In addition, WTECB and SBCTC re-classify some occupations to better reflect training requirements in Washington.

BLS Training Category	WTECB Training Code	WTECB Training Category
First professional degree	1	Long Preparation
Doctoral degree	1	Long Preparation
Master's degree	1	Long Preparation
Bachelor's plus experience	1	Long Preparation
Bachelor's degree	1	Long Preparation
Associate degree	2	Mid Level Preparation
Postsecondary vocational award	2	Mid Level Preparation
Work experience in a related occupation	2	Mid Level Preparation
Long-term on-the-job training	2	Mid Level Preparation
Moderate-term on-the-job training	3	Short Preparation
Short-term on-the-job training	4	Little Preparation

Ultimate Training Level: Data collected in the 2000 Census are used to measure the actual training level for workers by occupation. The distribution of training levels in occupations is used to estimate the training needs to meet the projected openings for an occupation. The approach builds on the assumption that the BLS code is a proxy for the entry level training requirement for an occupation and that additional training beyond the minimum level may be required for some portion of the workers within that occupation. With these assumptions, the Ultimate Training Level is calculated based on the distribution of workers in the population at or above the entry level training requirement as follows:

Entry Level Training Requirement (WTECB Training Code) is set as minimum for a given occupation.

For Level 4 occupations:
Level 4 projection = projected openings - portion of openings (based on census) at level 3.
Level 3 projection = projected openings - level 4 projection.

For Level 3 occupations:
Level 3 projection = projected openings - portion of openings (based on census) at level 2.
Level 2 projection = projected openings - level 3 projection.

For Level 2 occupations:
Level 2 projection = projected openings - portion of openings (based on census) at level 1.
Level 1 projection = projected openings - level 2 projection. (distributed across BA - Doc proportionally based on census proportions).

For Level 1 occupations:
BA Projection = projected openings - portion of openings (based on census) at graduate level.
Grad Projection = projected openings - BA projection. (distributed across MA-Doc proportionally based on census proportions).

Student Demand

Typically, student demand has been projected based on historic participation rates plus enhancements based on historic trends and/or policy goals (such as increasing participation of underrepresented minorities, rural students, etc.). This approach is a good starting point; however, it has some important limitations in assessing actual demand when access to educational sectors and majors is limited by structural factors such as enrollment caps. To measure demand for enrollment at four-year colleges and universities, a better measure would be unduplicated (qualified) applicants rather than current enrollments. Similarly, to measure demand for a given program, it would be preferable to measure unduplicated qualified applications to majors rather than the number of students enrolled in a given major or in coursework offered by a given department. OFM conducts an application match study that provides an unduplicated count of applications, admissions, and enrollment to the public institutions within Washington. While this study provides an important starting point in understanding access to the sector students prefer, it does not get us closer on access to specific fields of study nor does it take into account out-of-state enrollments or discouraged students who fail to apply.

In the *2004 Strategic Master Plan for Higher Education*, the HECB took a new approach to project student enrollments. Rather than base projections on historic participation, the HECB approach is to project the number of degrees awarded based on historic trends then back into an estimate of enrollments based on historic FTE/degree ratios. The needs assessment will employ

both approaches. Student demand will be projected based on historic participation rates to arrive at a "status quo" estimate of enrollment demand. The report will also include a forecast of degrees awarded based on historic rates. Finally, the report will include a discussion of impacted majors where projections may underestimate actual demand due to limited participation resulting from enrollment caps or other structural impediments to student enrollment.

Data

HECB projection of enrollments based on current (2003-2004) participation rates using HECB's Enrollment Simulation Model (version 1.15).

Degree Projections = HECB analysis of Bachelor degrees earned per 20-29 year-old.
HECB analysis of Graduate and Professional degrees earned per 25-34 year olds.

Historic Enrollment / Degree ratio = the number of FTEs required to produce one degree.

Current Demand = projection of student demand based on current participation rates.

Degree Demand = the total number of projected degrees (For bachelor's degrees the number of 20-29 year olds based on population forecast * Degrees per 20-29 year old, for graduate and professional degrees the number of 25-34 year olds based on population forecast * Degrees per 25-34 year old).

Student Demand = Enrollment projection based on FTE required to produce the projected number of degrees (degree demand).

Statewide Average Participation: The regional reports will compare the current regional participation rate with the statewide average rate by age.

Public / Private attendance ratio = ratio of enrollments in public and private institutions as reported to IPEDS for the 2003 academic year.

Community Demand

Community demand will include factors that are not readily picked up in the projections discussed above. We have identified a number of sources for information about community plans and goals for future development. These elements will be largely qualitative in nature. Community demand will include factors such as the seven areas of growth identified by CTED for statewide development. These include value added agriculture, wood products, technology, aerospace, tourism, bio-technology, and marine services. In addition, we have gathered information from the regional development councils and other community groups on regional development goals.

The regional analysis will also consider any additional information about specific trends in the area that may affect higher education needs. These include key industry developments, emerging technologies, or other factors.

Finally, we have partnered with UW on a series of surveys and interviews sponsored by the Sloan foundation that will gather information from business leaders, students, and the community members at large. The questionnaires center on aspirations of these constituents for future economic development and how higher education can support those goals.

Data

Workforce Development Plans: Statewide development goals provided by CTED, regional development plans based on consultation with workforce development councils and other community groups.[28]

State and Regional Economic profiles: Employment security develops regional profiles that include summary information on industries, education, and occupations by region of the state.

UW / Sloan research project. Data from the UW employer interviews and community needs survey will be incorporated in the analysis of community demand.

[28] 2005 Miller, J. Sommers, P. Assessing Community Demand: Insights from Washington's Regional Workforce Development Councils. Seattle University Center on Metropolitan Development.

Appendix B: Academic and Occupational Categories

Table B-1 Crosswalk of Major Academic Fields of study and CIP titles

Humanities	05	Area, Ethnic, Cultural, and Gender Studies.
	16	Foreign languages, literatures, and Linguistics.
	23	English Language and Literature/Letters.
	24	Liberal Arts and Sciences, General Studies and Humanities.
	30	Multi/Interdisciplinary Studies.
	38	Philosophy and Religious Studies.
	39	Theology and Religious Vocations.
	50	Visual and Performing Arts.
	54	History
Social/behavioral sciences	42	Psychology.
	44	Public Administration and Social Service Professions.
	45	Social Sciences.
Life sciences	03	Natural Resources and Conservation.
	26	Biological and Biomedical Sciences.
Physical sciences	40	Physical Sciences.
	41	Science Technologies/Technicians.
Math	27	Mathematics and Statistics.
Computer/information science	11	Computer and Information Sciences and Support Services.
Engineering	14	Engineering.
	15	Engineering Technologies/Technicians.
Education	13	Education.
	25	Library Science.
Business/management	52	Business, Management, Marketing, and Related Support Services.
Health	31	Parks, Recreation, Leisure, and Fitness Studies.
	51	Health Professions and Related Clinical Sciences.
Vocational/technical	43	Security and Protective Services.
	46	Construction Trades.
	47	Mechanic and Repair Technologies/Technicians.
	48	Precision Production.
	49	Transportation and Materials Moving.
Other Professional or Technical	01	Agriculture, Agriculture Operations, and Related Sciences.
	02	Agricultural Sciences.
	04	Architecture and Related Services.
	08	Area, Ethnic, Cultural, and Gender Studies.
	09	Communication, Journalism, and Related Programs.
	10	Communications Technologies/Technicians and Support Services.
	12	Personal and Culinary Services.
	19	Family and Consumer Sciences/Human Sciences.
	20	Family and Consumer Sciences/Human Sciences.
	22	Legal Professions and Studies.
	29	Military Technologies.

Table B-2 Occupational Categories and SOC Titles

Occupational Category	SOC	SOC Title
Business and Management	11	Management Occupations
	13	Business and Financial Operations Occupations
Computer Science	15	Computer and Mathematical Occupations
Engineering/software engineering / architecture	17	Architecture and Engineering Occupations
Research, scientists, technical	19	Life, Physical, and Social Science Occupations
Human/protective service professionals	21	Community and Social Services Occupations
	33	Protective Service Occupations
Administrative/clerical/legal	23	Legal Occupations
	43	Office and Administrative Support Occupations
Educators	25	Education, Training, and Library Occupations
Editors/writers/performers	27	Arts, Design, Entertainment, Sports, and Media Occupations
Medical professionals	29	Healthcare Practitioners and Technical Occupations
	31	Healthcare Support Occupations
Sales and Service Occupations	35	Food Preparation and Serving Related Occupations
	37	Building and Grounds Cleaning and Maintenance Occupations
	39	Personal Care and Service Occupations
	41	Sales and Related Occupations
Agriculture and Trades	45	Farming, Fishing, and Forestry Occupations
	47	Construction and Extraction Occupations
	49	Installation, Maintenance, and Repair Occupations
	51	Production Occupations
	53	Transportation and Material Moving Occupations

Appendix C: Region Definitions

Regional Analysis is based on Workforce Development Areas (see table) with an additional area of special analysis which includes the Snohomish WDA and part of the Northwest Washington WDA to include Snohomish, Island and Skagit counties (SIS).

WDA Number	WDA Name	Counties in WDA
I	Olympic Consortium	Clallam, Jefferson and Kitsap
II	Pacific Mountain Consortium	Grays Harbor, Lewis, Mason, Pacific and Thurston
III	Northwest Washington	Island, San Juan, Skagit and Whatcom
IV	Snohomish County	Snohomish
V	Seattle-King County	King
VI	Pierce County	Pierce
VII	Southwest Washington	Clark, Cowlitz, Skamania and Wahkiakum
VIII	North Central Washington	Adams, Chelan, Douglas, Grant and Okanogan
IX	Tri-County	Kittitas, Klickitat and Yakima
X	Eastern Washington	Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman
XI	Benton Franklin	Benton and Franklin
XII	Spokane County	Spokane

Appendix D: Statewide Programs

Courses exclusive to University of Washington (RCW 28B.20.060):

- law
- medicine
- forest products
- logging engineering
- library sciences
- aeronautic and astronautic engineering
- fisheries

Courses exclusive to Washington State University (RCW 28B.30.060/RCW 28B.30.065):

- agriculture in all its branches and subdivisions
- veterinary medicine
- economic science in its application to agriculture and rural life

Major lines common to University of Washington and Washington State University (RCW 28B.10.115):

- pharmacy
- architecture
- civil engineering
- mechanical engineering
- chemical engineering
- forest management (as distinguished from forest products and logging engineering which are exclusive to the University of Washington)

Teachers' training courses (RCW 28B.10.140):

The University of Washington, Washington State University, Central Washington University, Eastern Washington University, Western Washington University, and The Evergreen State College are each authorized to train teachers and other personnel for whom teaching certificates or special credentials prescribed by the State Board of Education are required, for any grade, level, department, or position of the public schools of the state.

Appendix E: Related Reports and Data Sources

Report/ Data Source	Agency	Description
Enrollment Simulation Model	HECB	The HECB enrollment simulation model is a tool that can be used to estimate enrollment demand and budgets based on a variety of factors, including historic or desired participation rates, degree goals, and other factors. The model allows for regional differences as well as differences by age, gender, race, or a host of other variables.
Strategic Master Plan	HECB	The HECB includes enrollment goals for the two year and four year sectors in the 2004 strategic master plan. These goals area based on an estimate of historic participation, student, and employer demand and analysis of net migration of educated workers to the state.
Baccalaureate Capacity Study	HECB	The HECB is developing a study of upper-division capacity within the state. The report is expected to be completed Fall 2005. A study on the same topic, conducted jointly by COP and SBCTC, was released in December 2004.
HECB Branch Campus Report	HECB	The HECB report on the Branch campus self studies provides analysis of statewide and regional participation rates in higher education and estimates of enrollment growth.
Higher Education Cost Study	HECB	The Cost study, conducted every [two years?] provides important information about enrollments, class size, teaching loads, and cost of delivery for public colleges and universities in the state.
Employer Survey	Workforce Board	The State Workforce and Training coordinating Board conducts a bi-annual survey of employers in the state to determine the degree to which they are being served by the state higher education system (primarily the two-year system). The survey provides important information on the degree to which employers are able to recruit and retain workers with the appropriate level of training to fill openings within the organization. In addition, the survey collects data on employer need for training of current workers and any support employers provide for that purpose. WTECB is making changes in the survey to collect data on baccalaureate and graduate educational needs as well.

Gap Analysis	Workforce Board	State Workforce and Training coordinating Board produces an annual report to analyze the need for additional postsecondary degrees and training programs greater than one year but less than a bachelor's degree. This analysis relies on employment security projections and bureau of labor statistics training codes to arrive at the number of trained workers needed to fill projected openings, and from that WTECB staff estimate the number of FTE students needed in worker training programs.
Workforce Training Results	WTECB	The Workforce Board and State Board for Community and Technical Colleges collaborate to produce an annual report that assesses employment outcomes of students who exit the two year system. The report is used to estimate the return to schooling in terms of increased wages. http://www.wtb.wa.gov/jtr
Baccalaureate Capacity Study	SBCTC	The State Board for Community and Technical Colleges released in December 2004 a study of the need for increased capacity at the upper division undergraduate level to meet projected student demand.
Enrollment Data	OFM	OFM collects data from all the public colleges and universities on current enrollments and makes enrollment projections based on current participation rates and an alternative projection based on 1993 participation rates.
Application Match Study	OFM	OFM conducts an annual study of applications to postsecondary institutions in the state to determine the degree to which students are being served by the system. The study looks at unduplicated applications and enrollments to determine whether students who applied to colleges and universities were offered admission to at least one institution in the state. Students who were qualified (based on AI) but were not offered enrollment within Washington are considered not be served by the system.
Education Highlights Report	OFM	Includes historic and projected data on enrollments, participation rates and costs.
Industry and Occupational Projections	Employment Security Department	Every two years the Employment Security Department produces a set of statewide and regional Short-Term and Long-Term projections of Industry growth which in turn are used to estimate the need for workers by occupation. Current Long-term projections estimate net job openings by occupation through 2012.

Educator Supply and Demand in Washington 2004 Report	Superintendent of Public Instruction	Provides detailed estimates of the supply and demand for teachers at different levels and in different disciplines in Washington State.
IPEDS	NCES	All title IV eligible institutions report enrollments and degrees completed by CIP code to NCES annually. This data is collected by the HECB as part of the IPEDS reporting process.
Measuring Up 2004	National Center for Public Policy and Higher Education	
Net Migration	National Center for Public Policy and Higher Education	
Other Reports:		
	NCES	Variety of reports based on current data though IPEDS as well as longitudinal studies such as Baccalaureate and Beyond
	Washington State Public Policy Institute	Various – including Branch Campus Report
	MGT	NSIS and other regional reports

Appendix F: Included Colleges and Universities

Public Four-Year
Central Washington University
Eastern Washington University
Evergreen State College
University Of Washington-Bothell Campus
University Of Washington-Seattle Campus
University Of Washington-Tacoma Campus
Washington State University
Washington State University-Tri Cities
Washington State University-Vancouver
Western Washington University

Private (Independent Colleges of Washington)
Gonzaga University
Heritage University
Pacific Lutheran University
Saint Martins College
Seattle Pacific University
Seattle University
University Of Puget Sound
Walla Walla College
Whitman College
Whitworth College

Private/Degree Authorized (Other)
Antioch University-Seattle Branch
Argosy University- Seattle Campus
Art Institute Of Seattle
Bastyr University
City University
Cornish College of The Arts
Crown College
Devry University-Washington
Digipen Institute Of Technology
Faith Evangelical Lutheran Seminary
Golden Gate Baptist Theological Seminary-Northwest
Henry Cogswell College
ITT Technical Institute
Mars Hill Graduate School
Northwest Baptist Seminary
Northwest College Of Art
Northwest College Of The Assemblies Of God
Puget Sound Christian College
Seattle Institute Of Oriental Medicine
Trinity Lutheran College
University Of Phoenix-Spokane Campus
University Of Phoenix-Washington Campus

Appendix G: Compendium of Tables

Table G.1 Degrees Awarded (IPEDS)

Category	2001-2002	2002-2003	2003-2004	Three-Year Average	Total Change	Percent Change
Baccalaureate						
Humanities	5,683	6,802	6,932	6,472	1249	18%
Social/behavioral sciences	4,898	4,618	4,931	4,816	33	1%
Life sciences	1,530	1,528	1,538	1,532	8	1%
Physical sciences	431	477	458	455	27	6%
Math	258	289	299	282	41	14%
Computer/information science	676	804	877	786	201	23%
Engineering	1,297	1,304	1,405	1,335	108	8%
Education	1,462	1,493	1,946	1,634	484	25%
Business/management	4,391	4,579	4,663	4,544	272	6%
Health	1,438	1,540	1,608	1,529	170	11%
Vocational/technical	443	440	484	456	41	8%
Other technical/professional	1,950	2,068	2,099	2,039	149	7%
Total Baccalaureate	**24,457**	**25,942**	**27,240**	**25,880**	**2,783**	**10%**
Masters						
Humanities	432	607	555	531	123	22%
Social/behavioral sciences	1,084	1,173	1,145	1,134	61	5%
Life sciences	240	263	247	250	7	3%
Physical sciences	150	133	103	129	-47	-46%
Math	62	60	53	58	-9	-17%
Computer/information science	155	216	189	187	34	18%
Engineering	367	366	327	353	-40	-12%
Education	2,360	2,764	2,793	2,639	433	16%
Business/management	1,683	1,695	1,963	1,780	280	14%
Health	680	703	714	699	34	5%
Vocational/technical	17	16	10	14	-7	-70%
Other technical/professional	321	317	383	340	62	16%
Total Masters	**7,551**	**8,313**	**8,482**	**8,115**	**931**	**11%**

Table G.1 Degrees Awarded (IPEDS)
(continued)

Professional / Doctorate						
Humanities	94	157	169	140	75	44%
Social/behavioral sciences	105	98	106	103	1	1%
Life sciences	114	120	138	124	24	17%
Physical sciences	55	69	76	67	21	28%
Math	18	15	13	15	-5	-38%
Computer/information science	12	18	14	15	2	14%
Engineering	104	89	108	100	4	4%
Education	56	80	64	67	8	13%
Business/management	16	20	23	20	7	30%
Health	661	646	509	605	-152	-30%
Vocational/technical	0	0	0	-	n/a	n/a
Other technical/professional	622	585	687	631	65	9%
Total Professional / Doctorate	**1,857**	**1,897**	**1,907**	**1,887**	**50**	**3%**

Table G.2 Degrees and Workforce Supply

2004 Degrees Awarded and Baccalaureate Supply				
Major Area of Study	**Bachelor's Degrees**	**Baccalaureate Supply**	**Graduate and Professional Degrees**	**Graduate and Professional Supply**
Humanities	6,932	5,616.97	724	633
Social/behavioral sciences	4,931	3,995.57	1,251	1,085
Life sciences	1,538	1,246.24	385	338
Physical sciences	458	371.12	179	157
Math	299	242.28	66	58
Computer/information science	877	710.63	203	176
Engineering	1,405	1,138.47	435	380
Education	1,946	1,576.84	2,857	2,471
Business/management	4,663	3,778.41	1,986	1,717
Health	1,608	1,302.96	1,223	1,093
Vocational/technical	484	392.18	10	9
Other technical/professional	2,099	1,700.81	1,070	975
Total	**27,240**	**22,072.46**	**10,389**	**9,090**

Table G-3 Degrees Awarded to Non-Resident Aliens

	2003-04 BACHELORS		2003-04 Grad/Pro		2003-04 MASTERS		2003-04 DOCTORATE		2003-04 PROF.	
	TOTAL	**NONRES**	**TOTAL**	**NONRES**	**TOTAL**	**NONRES**	**TOTAL**	**NONRES**	**TOTAL**	**NONRES**
PUBLIC FOUR-YEAR TOTAL										
2001-02	18635	583	5540	681	4285	504	613	167	642	10
2002-03	19661	552	5896	724	4628	570	619	148	649	6
2003-04	20456	538	6003	759	4685	572	670	179	648	8
Average Percentage of degrees awarded to Non-resident Aliens (Public Colleges)		2.8%		12.4%		12.1%		26.0%		1.2%
PRIVATE FOUR-YEAR TOTAL										
2001-02	5827	276	3868	198	3266	188	41	2	561	8
2002-03	6281	246	4314	280	3685	259	44	1	585	20
2003-04	6784	220	4386	139	3797	128	59	6	530	5
Average Percentage of degrees awarded to Non-resident Aliens (Private Colleges)		3.9%		4.9%		5.3%		6.3%		2.0%
Average Percentage of degrees awarded to non-resident aliens (all colleges)		**3.1%**		**9.3%**		**9.1%**		**24.6%**		**1.6%**

Table G.4 Budget and Projected Enrollments (based on 2003-2004 participation)

Year	Budget	All	CTC	4-Year
2003-04	213338	228,179	137,621	90,558
2004-05	216,469	231,361	139,362	91,999
2005-06	220,162	234,290	140,917	93,373
2006-07	224,394	237,252	142,723	94,528
2007-08	224,394	241,040	144,855	96,184
2008-09	224,394	244,962	147,108	97,854
2009-10	224,394	249,220	149,543	99,677

Table G.5 Budget and Projected Enrollments (2003-2004 participation and HECB degree forecast)

	Budgeted FTEs	Projected Public FTEs (current participation)	Projected Public FTEs (demand for degrees)
2004	213,338	228,179	228,313
2005	216,469	231,361	221,489
2006	220,162	234,290	244,779
2007	224,394	237,252	251,811
2008	224,394	241,040	258,921
2009	224,394	244,962	266,094
2010	224,394	249,220	272,875

Table G.6 Projected Enrollments by sector (HECB degree forecast)

Year	Two-Year Public FTEs	Two- Year Private FTEs	Undergraduate FTEs Public Four-Year	Undergraduate FTEs Private Four-Year	Graduate FTEs Public Four-Year	Graduate FTEs Private Four-Year	Total
2004	138,241	8,001	72,841	24,164	17,232	13,464	273,942
2005	128,885	8,119	75,122	24,920	17,482	13,660	268,188
2006	149,092	8,232	77,833	25,820	17,854	13,950	292,781
2007	153,126	8,372	80,295	26,636	18,390	14,369	301,189
2008	156,960	8,520	82,839	27,480	19,121	14,941	309,862
2009	161,045	8,670	85,163	28,251	19,886	15,538	318,553
2010	165,130	8,824	87,170	28,917	20,575	16,076	326,692

Table G.7 Training Requirements to Meet Projected Annual Openings 2007-2012

Summary Training Requirements to meet Annual Openings 2007-2012				
DRAFT 6-22-2005 using May 05 Employment Projections and 2000 Census 5% data for Washington				
	Entry Level Training Requirement		Ultimate Training Level	
Little Training	48,517	39%	43,356	35%
Short-Term Training	20,838	17%	19,580	16%
Mid Level Training (Includes AA)	30,391	25%	29,729	24%
Long Training (BA+)	23,161	19%	30,242	25%
Bachelor's Degree	17,593	14%	20,947	14%
Masters Degree	2,376	2%	6,295	5%
Professional Degree	1,580	1%	1,878	2%
Doctorate Degree	1,612	1%	1,122	1%

Table G.8 Annual Demand for workers with a BA or Higher by Occupation 2007-2012

Demand for Workers with BA or Higher		
Occupation	**Entry Demand**	**Ultimate Demand**
Educators	5,411	5,762
Business and Management	5,270	6,311
Engineering, Software Engineering and Architecture	1,791	1,908
Computer Science	3,251	3,558
Medical Professionals	1,485	3,322
Editors, Writers, Performers	1,323	1,702
Human, Protective Service Professionals	1,704	2,299
Research, Scientists, Technical	1,513	1,715
Administrative, Clerical, Legal	643	1,095
Mechanics, Laborers	82	851
Service Industries	688	1,719
Total	23,161	30,242

Table G.9 Demand for Workers with a BA or Higher by SOC category 2007-2012

Demand for Workers with BA or Higher		
SOC Major Group	**Entry Demand**	**Ultimate Demand**
Management Occupations	2,880	3,161
Business and Financial Operations Occupations	2,390	3,150
Computer and Mathematical Occupations	3,251	3,558
Architecture and Engineering Occupations	1,791	1,908
Life, Physical, and Social Science Occupations	1,513	1,715
Community and Social Services Occupations	1,704	1,704
Legal Occupations	643	699
Education, Training, and Library Occupations	5,411	5,762
Arts, Design, Entertainment, Sports, and Media Occupations	1,323	1,702
Healthcare Practitioners and Technical Occupations	1,485	3,056
Healthcare Support Occupations	-	266
Protective Service Occupations	-	595
Food Preparation and Serving Related Occupations	-	125
Building and Grounds Cleaning and Maintenance Occupations	-	31
Personal Care and Service Occupations	294	589
Sales and Related Occupations	394	975
Office and Administrative Support Occupations	-	396
Farming, Fishing, and Forestry Occupations	-	24
Construction and Extraction Occupations	-	256
Installation, Maintenance, and Repair Occupations	-	212
Production Occupations	-	140
Transportation and Material Moving Occupations	82	220
	23,161	30,242

Table G.10 Demand for Workers by Occupation and Education Level

	Entry Training Level				Ultimate Training Level			
	BA	**MA**	**Pro**	**Doc**	**BA**	**MA**	**Pro**	**Doc**
Educators	3,917	280	-	1,214	3,273	1,995	81	414
Business and Management	5,270	-	-	-	5,095	1,022	89	105
Engineering, Software Engineering and Architecture	1,791	-	-	-	1,496	337	35	39
Computer Science	3,144	84	-	23	2,795	625	26	112
Medical Professionals	349	233	903	-	1,845	485	891	100
Editors, Writers, Performers	1,323	-	-	-	1,402	237	33	31
Human, Protective Service Professionals	531	1,035	138	-	1,445	754	67	33
Research, Scientists, Technical	394	744	-	375	943	475	60	237
Administrative, Clerical, Legal	104	-	539	-	481	78	509	27
Mechanics, Laborers	82	-	-	-	699	103	35	15
Service Industries	688	-	-	-	1,474	184	52	10

Table G.11 Occupation and Education Matrix. Workforce supply based on BA or higher degrees awarded in 2004 (percentages in rows)

Major Course of Study	Educators	Business and management	Engineering / software engineering / architecture	Computer science	Medical professionals	Editors / writers / performers	Human / protective service professionals	Research, scientists, technical	Administrative / clerical / legal	Mechanics, laborers	Service industries	Other, uncodeable
Humanities	24%	19%	1%	6%	2%	13%	5%	2%	10%	4%	14%	1%
Social/behavioral sciences	18%	25%	1%	3%	3%	2%	17%	4%	10%	3%	13%	2%
Life sciences	16%	15%	1%	3%	10%	1%	3%	26%	5%	9%	9%	3%
Physical sciences	17%	11%	2%	6%	6%	1%	3%	44%	2%	2%	4%	4%
Math	43%	23%	4%	8%	0%	0%	2%	7%	3%	2%	6%	2%
Computer/information science	1%	14%	15%	58%	1%	0%	0%	3%	4%	2%	3%	1%
Engineering	3%	11%	51%	11%	1%	1%	0%	13%	2%	4%	3%	1%
Education	75%	6%	1%	2%	1%	0%	3%	0%	3%	2%	7%	0%
Business/management	4%	54%	1%	9%	1%	1%	1%	2%	7%	4%	16%	1%
Health	8%	11%	1%	1%	57%	1%	5%	3%	3%	2%	9%	1%
Vocational/technical	9%	25%	2%	2%	3%	0%	33%	4%	9%	4%	7%	1%
Other technical/professional	8%	22%	5%	4%	6%	10%	4%	5%	9%	7%	19%	1%
Total	21%	23%	4%	6%	7%	4%	6%	5%	7%	4%	12%	1%

Table G.12 Occupation and Education Matrix. Workforce supply based on BA or higher degrees awarded in 2004 (percentages in rows)

Major Course of Study	Educators	Business and management	Engineering / software	Engineering / architecture	Computer science	Medical professionals	Editors / writers / performers	Human / protective service professionals	Research, Scientists; technical	Administrative / clerical / legal	Mechanics, laborers	Service industries	Other, uncodeable
Humanities	22%	16%	4%	18%	6%	64%	16%	8%	29%	22%	23%	18%	
Social/behavioral sciences	14%	18%	2%	8%	8%	6%	49%	14%	24%	13%	17%	21%	
Life sciences	4%	3%	1%	2%	7%	1%	3%	27%	4%	12%	4%	11%	
Physical sciences	1%	1%	1%	2%	1%	0%	1%	15%	0%	1%	1%	6%	
Math	2%	1%	1%	1%	0%	0%	0%	1%	0%	1%	0%	2%	
Computer/information science	0%	2%	10%	26%	0%	0%	0%	2%	2%	1%	1%	2%	
Engineering	1%	2%	61%	8%	1%	1%	0%	13%	1%	5%	1%	4%	
Education	46%	3%	3%	3%	2%	1%	6%	1%	7%	6%	8%	3%	
Business/management	3%	41%	5%	24%	2%	4%	4%	5%	17%	19%	24%	17%	
Health	3%	4%	1%	1%	64%	1%	7%	4%	3%	4%	6%	5%	
Vocational/technical	1%	1%	1%	0%	1%	0%	8%	1%	2%	1%	1%	1%	
Other technical/professional	3%	8%	11%	6%	8%	21%	6%	8%	11%	16%	14%	9%	
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Table G-13 Public Higher Education Participation by Age and Region

Participation by Age Group

All Public Colleges and Universities (CTC + Public Four-Year)

	Age Group					
Region	17-19	20-24	25-29	30-34	35-49	50+
Washington State Total	**14.3%**	**19.0%**	**6.6%**	**3.9%**	**2.2%**	**0.6%**
Olympic	13.2%	17.5%	5.7%	3.9%	1.9%	0.5%
Pacific Mountain	13.7%	21.0%	7.2%	4.4%	2.2%	0.5%
Northwest	12.3%	15.7%	7.1%	3.8%	2.0%	0.5%
Snohomish	15.0%	19.9%	5.4%	3.0%	1.9%	0.7%
Seattle-King	17.5%	20.4%	6.9%	3.8%	2.2%	0.6%
Pierce	12.5%	17.4%	6.2%	4.1%	2.6%	0.7%
Southwest	12.2%	17.3%	5.5%	3.1%	1.8%	0.5%
North Central	12.5%	20.1%	5.9%	3.5%	1.9%	0.3%
Tri-County	11.0%	14.7%	5.5%	3.7%	2.1%	0.4%
Eastern	12.7%	13.9%	7.1%	4.7%	2.4%	0.5%
Benton-Franklin	13.7%	22.6%	6.9%	4.1%	2.1%	0.5%
Spokane	15.5%	22.6%	9.5%	5.8%	2.8%	0.7%
SIS*	14.5%	19.3%	5.5%	3.1%	2.0%	0.6%

*SIS includes data from Snohomish and Northwest regions.

Table G-14 Higher Education Growth Estimates by Region

Higher Education Participation by Region Growth Estimate to meet student demand in 2010 All Public Colleges and Universities			
	Total 2003 Enrollment FTE	Percent Increase to meet pop. growth in 2010	Percent Increase to Meet State Average in 2010
State Total	207,051	13%	19%
Olympic	8,888	12%	23%
Pacific Mountain	13,709	13%	16%
Northwest	12,546	18%	35%
Snohomish	11,032	14%	31%
Seattle-King	31,658	16%	20%
Pierce	61,401	8%	9%
Southwest	23,512	9%	17%
North Central	6,766	13%	26%
Tri-County	7,532	5%	32%
Eastern	6,620	11%	15%
Benton-Franklin	6,081	7%	32%
Spokane	17,306	8%	n/a
SIS*	24,408	15%	21%

*SIS includes data from Snohomish and Northwest regions.

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Articulation and Transfer Update

Higher Education Coordinating Board

September 22, 2005

Overview of presentation

- **Best practices in transfer**
- **Update on transfer initiatives in Washington**
  - **How does Washington compare on 'best practices'?**
  - **Other initiatives**
- **Conclusion**
- **Advisory Council discussion**

Best practices in transfer

- **Students can easily recognize course content and equivalencies between two-year and four-year schools**
- **'Packages' of transferable courses are developed for specific majors**
- **Oversight groups are formed to resolve transfer challenges between institutions**
- **On-line information facilitates communication to students about course equivalencies and degree pathways**

How does Washington compare on 'best practices'?

- **All baccalaureate institutions have developed course equivalencies for two-year colleges**

- **'Major-ready pathways' have been developed for liberal arts, secondary math and science education, business, sciences, and nursing**
  - **Required by House Bill 2382, enacted in 2004**
  - **Work is continuing on engineering and elementary education**

Where are we on "best practices"?

- **Two oversight groups have been formed by two-year and four-year colleges and include participation by HECB staff**
- **Communication with students is the weak link in Washington's transfer system**
  - **HB 2382 required the HECB to report on options and costs of developing a system to help students transfer more easily**
  - **HECB is requesting supplemental funding in 2006 for an on-line advising system**

Other transfer initiatives: proportionality

Each main campus agreed to maintain the proportion of transfer students enrolled in 1992-93

HB 1794, enacted in 2005, required branch campuses to develop similar agreements. UW Tacoma has agreed to maintain its proportion of transfer students at 72%

Institution	1992-93 %	2003-04 %
Central	30%	44%
Eastern	29%	30%
Evergreen	29%	46%
UW	30%	32%
WSU	27%	30%
Western	32%	35%

CWU includes centers. UW and WSU include Running Start. WSU includes Spokane nursing students.

Other transfer initiatives
New policies on acceptance of credit

Central	No more than 105 lower division credits may be transferred.
Eastern	No more than 90 lower division credits may be transferred at admission. (Up to 120 lower division credits may be transferred if they conform to major-ready pathway requirements.) Students can appeal to transfer up to 120 at graduation.
Evergreen	No more than 90 lower division credits may be transferred.
UW	No more than 90 lower division credits may be transferred at admission. Students can appeal at graduation for additional transfer credits.
WSU	No more than 73 lower division semester hours (equivalent to about 110 quarter credits) may be transferred.
Western	No more than 105 lower division credits may be transferred.

Other transfer initiatives
Competency-based transfer pilot required by HB 1909 (2003)

- **Eastern Washington University, Spokane Falls CC and Spokane CC agreed to participate**
- **Criminal justice faculty identified skills and knowledge gained by students in statistics and research methods courses**
- **Computer science faculty at EWU rewrote course descriptions based on national standards**
- **Skills and knowledge related to education courses will be identified through the Elementary Education pathway**

Conclusion

- **Best practices are in place – although communication with students should be improved**
  - HECB will request funding for an on-line transfer advising system
- **Some institutions are allowing more flexibility for transferring credit; all remain within their agreed proportions of transfer student enrollment**
- **Faculty conversations are taking place regarding 'major-ready pathways' and the skills and knowledge that best prepare transfer students for a baccalaureate major**

Question for discussion

Should standards be developed to determine whether transfer students are ready for a specific major?

- The right question is ‘What do students need to know to enter a major?’ – not – ‘What courses do students need to take?’
- Funding would be required to develop standards and evaluate students’ level of preparation

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September 2005

Degree-Granting Institutions Act: Overview

HECB Information Item

This is an informational report to the members of the Higher Education Coordinating Board at its September 22 meeting. No board action is necessary at this time.

Overview

Under the state's Degree-granting Institutions Act (RCW 28B.85), the HECB is charged with protecting Washington consumers from substandard, fraudulent and deceptive activities at degree-granting colleges and universities in Washington.

The law offers four primary benefits:

1) Students attending post-secondary schools with the intention of earning a degree in Washington are guaranteed consumer protection under state law.

2) Employers who use academic credentials as part of the hiring process are able to rely on the credibility of the state's degree programs.

3) In the case of a school's closure, the state is able to intervene to preserve student records and offer some compensation for lost tuition and fees.

4) Information collected through the authorization process assists HECB staff in determining educational need within the state.

In Washington state, the HECB oversees all institutions that offer degrees unless they are considered "exempt" from board authorization.

In general, the exempt schools include all public colleges and universities, long-standing private institutions (such as Pacific Lutheran University), and schools that primarily offer religious training. All exempt schools are listed on the attached appendix.

All other schools that meet at least one of the following criteria must be authorized by the HECB under the terms of the Degree-granting Institutions Act:

- Offer degree programs or for-credit courses at or from a physical location in the state;
- Recruit or advertise specifically to Washington state residents;
- Offer distance-learning programs from within the state; and/or
- Maintain any type of physical presence in the state.

Institutions interested in offering degrees in Washington state must apply to the HECB for authorization. HECB staff review includes such areas as the institution's financial stability, business practices, academic programs, and faculty qualifications. However, the 50 schools that have been authorized cannot operate at will in the state. Authorization is program and site specific, and each program, as well as each teaching site, must be reviewed and authorized. Once authorized, schools are reviewed every two years.

In addition to the Degree-granting Institutions Act, the HECB is also responsible for implementing the Foreign Degree-granting Branch Campus Act (RCW 28B.90). That law applies to foreign colleges or universities that bring students enrolled in programs in the country of origin to Washington for brief periods of study.

Authorized Schools

- Authorized schools include new private schools beginning operation in Washington, as well as out-of-state schools that want to operate in the state.

There are currently 50 institutions authorized to operate in Washington, including 22 non-profit schools, 19 for-profit schools, and nine out-of-state public schools.

In total, these schools offer 346 programs of study, ranging from associate degrees through doctoral degrees. By type of study, the largest number of programs offered are in business (101 programs), followed by computer science (52 programs), social science (48 programs), and education (35 programs).

More than one-third of the programs (35 percent) are at the baccalaureate degree level, and another one-third (29 percent) are master's degree programs. Twenty-one percent of the programs are associate degree level, and the remaining 15 percent are either doctoral level or certificate programs offering college-level credit.

Most of the programs (63 percent) are offered exclusively from a physical location in Washington, and about a quarter are offered only through distance learning. The remaining 11 percent are offered as both site-based and distance-learning programs.

Enrollments at authorized schools range from a high of approximately 1,700 full-time equivalent students for University of Phoenix, to a low of three FTEs for Oregon Health and Science University.

The number of schools seeking authorization in Washington has grown steadily over the past few years – increasing from six schools between 1994 and 1998, to 23 schools between 1999 and 2004.

In addition, the number of requests by currently authorized institutions to offer additional programs is increasing.

Exempt Schools

- Certain schools are exempt from authorization under the Degree-granting Institutions Act.

Exemptions apply to all Washington public colleges and universities (40 schools); Washington-based independent schools that have been operating in the state and are accredited for a minimum of 15 years (20 schools); schools that offer programs that are strictly religious in nature (48 schools); tribally-controlled Native American schools (2); and schools that offer programs exclusively to federal employees and their dependents on a federal site (1).

The 48 schools currently offering programs that are religious in nature are reviewed every two years to ensure that they continue to qualify for exempt status.

As with authorization, no exemption is permanent, and all conditions under which the exemption was granted must remain in effect for the exemption to continue.

The number of schools seeking religious exemption has grown over the past few years – increasing from nine schools between 1994 and 1998, to 26 schools between 1999 and 2004.

Waived Schools

- The law also allows the HECB to waive authorization requirements in unique circumstances.

In general, these cases apply to those schools that offer limited courses to a select group of students. For example, the Oregon Institute of Technology offers courses exclusively to Boeing employees, at the company's request. The state currently has waived authorization requirements for four schools that operate in the state.

Future Activity

HECB staff are currently analyzing needed changes to the rules governing degree authorization. A notification of intent to change will be submitted to the board during the October 27 meeting.

Appendix

Authorized Institutions:

Antioch University
Apollo College
Argosy University Seattle
Aviation and Electronic Schools of America
Bainbridge Graduate Institute
Brigham Young University-Idaho
Capella University
Central Michigan University
Central Texas College
Chapman University
Collins College
Columbia College
DeVry University
DigiPen Institute of Technology
Embry-Riddle Aeronautical University
Fred Hutchison Cancer Research Center
Goddard College
Golden Gate Baptist Theological Seminary
Golden Gate University
Grand Canyon University
Henry Cogswell College
Interface Computer School
International Academy of Design & Technology
ITT Technical Institute-Everett
ITT Technical Institute-Indianapolis
Kepler College
Lesley University
Lewis and Clark College
Mars Hill Graduate School
Moody Bible Institute
Northwest Aviation College
Nova Southeastern University
Old Dominion University
Oregon Health and Science University
Park University
Portland State University
Seattle Institute of Oriental Medicine
Southern Illinois University
Troy University
Universal Technical Institute
University of Phoenix
University of Portland
Vincennes University
Walden University
Webster University
Western Business College
Western Culinary Institute
Western Oregon University
Whidbey Writers Workshop
Wyoming Technical Institute

Exempt Institutions:

Art Institute of Seattle
Bastyr University
City University
Cornish College of the Arts
Crown College
Gonzaga University
Heritage University
ITT Technical Institute-Seattle
ITT Technical Institute-Spokane
Northwest College of Art
Northwest Indian College
Northwest University
Pacific Lutheran University
Puget Sound Christian College
Saint Martin's University
Salish Kootenai College
Seattle Pacific University
Seattle University
Trinity Lutheran College
Tulane University
University of Puget Sound
Walla Walla College
Whitman College
Whitworth College

Religious Exempt Institutions:

A.L. Hardy Academy of Theology
Armour Bible College and Armour Seminary
Bakke Graduate University of Ministry
Calvary Chapel Bible College
Calvary Spokane Bible College
Calvary Lighthouse Bible Institute
Center for Ministry Preparation
Christian Life School of Theology
College for Global Deployment
Columbia Evangelical Seminary
Communion of Saints Seminary
Covenant Bible Seminary
Crossroads Bible College
Destiny Ministry Training Center
Dominion College
Faith Evangelical Lutheran Seminary
Full Gospel Northwest Bible College and Seminary
Heart 4 the Nations Bible School and Ministry Training Center
imago Dei institute/Cascade Bible College
The Institute for Biblical Studies
Institute for Christian Works
International Graduate School of Ministry
KAES Bible College & Seminary
Keys Bible College
Kristos Theological Seminary
Living Faith Fellowship College of Ministry
Lorian Association, The
North Park Theological Seminary
Northwest Baptist Seminary
Northwest Theological Seminary
Oklahoma Baptist University
Pacific Seminary
Pacific Theological Seminary
Portland Bible College
Renewed Life Seminary
School of Ministry Arts
Seattle Bible College
Shepherds Bible College
Sound Baptist Bible College
$ucces$ Seminary
Tacoma Bible College
Triune Biblical University
The Washington Bible Institute
Washington College and International Seminary
Western Reformed Seminary
Wisdom for Life School of Ministries
Woolston-Steen Theological Seminary
The Worship Arts Conservatory

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September 2005

Status Report on Previously Approved Degrees

HECB Information Item

This is an informational report to the members of the Higher Education Coordinating Board at its September 22 meeting. No board action is necessary at this time.

Background

The current Higher Education Coordinating Board's *Guidelines for Program Planning, Approval and Review* authorize the executive director to approve proposals by public four-year institutions to extend existing degree programs to branch campuses or new off-campus locations, or to offer them via distance learning technologies or through a combination of delivery methods.

The process requires an institution to notify the HECB at least 45 days before the proposed start date of the program. This "notification of intent" (NOI) includes the following information:

- Degree title
- Delivery mechanism
- Location
- Proposed program start date
- Statement of need for the program
- Source(s) of funding
- Enrollment targets

HECB staff post the information on the HECB Web site within five business days after receiving the proposal and notify the provosts of the other public four-year institutions, the Independent Colleges of Washington, the Council of Presidents, and the four-year universities' Committee on Academic Program Planning. Interested parties have 30 days to review and comment, and if there are no objections, the HECB executive director will approve the proposal.

Status Report

From June 2005 through August 2005, the HECB executive director approved the expansion of two degree programs. Central Washington University received approval to expand the BA in Mathematics: Teaching Secondary Major to students at the Lynnwood Center, effective June 21, 2005. Eastern Washington University received approval to offer the BA in Children's Studies: Early Childhood Learning Environments program to students at Bellevue Community College, effective July 12, 2005. Both programs are described below.

BA in Mathematics: Teaching Secondary Major – Approved June 2005

CWU received approval to build on current coursework offered at the Lynnwood Center in support of the secondary mathematics certificate and the BA in Education by adding a BA in Mathematics: Teaching Secondary Major.

The Office of the Superintendent of Public Instruction reports that there is a "some shortage" of secondary math teachers in Washington, and eight out of nine educational service districts report a shortage of math instructors. Graduates of this program will be qualified to teach math in public high schools in Washington state.

Beginning fall of 2005, the program will accommodate eight students in the first year, and 15 students at full enrollment. It will be offered as a self-supporting degree program, but may transition to a state-supported program if funding is available.

Three of the surrounding community colleges Cascadia, Edmonds, and Shoreline provided letters of support for the program. In accordance with HECB Board Policies and Procedures, the program proposal was circulated among the public baccalaureate institutions for comment. No institutions raised concerns about the proposed expansion of the program.

BA in Children's Studies: Early Childhood Learning Environments – Approved July 2005

Approval has been granted for the BA in Children's Studies at EWU to extend its existing program offered in Cheney to students in the Bellevue area. Beginning in the fall of 2005, the program will be offered through in-person instruction by EWU faculty and qualified part-time instructors in the evening and on weekends at Bellevue Community College. Students would enter the program as juniors, transferring approximately 90 credits. They would then be required to complete an additional 90 credits -- including 46 required for the major and 44 credits in other university requirements.

Early childhood education is undergoing changes that are pressing for higher levels of education for educators and other providers. The US Department of Education is recommending that all teachers of early childhood education obtain a four-year degree. In addition, there is pressure at the state and federal levels to expand access to pre-school to more students.

The program will enroll cohorts of 25 students and is designed to appeal to working early childhood providers, educators and other early childhood personnel, as well as full-time students seeking a career in early childhood education.

In Accordance with HECB Board Policies and Procedures, the program proposal was circulated among the public baccalaureate institutions for comment. No institutions raised concerns about the proposed expansion of the Children's Studies program.