Higher Education Branch Campuses in Washington State:
Interim Report

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Washington State Institute for Public Policy
110 Fifth Avenue SE, Suite 214
Post Office Box 40999
Olympia, WA 98504-0999
Telephone: (360) 586-2677
FAX: (360) 586-2793
URL: http://www.wsipp.wa.gov
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WASHINGTON STATE INSTITUTE FOR PUBLIC POLICY

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Technical Advisory Committee

Loretta Seppanen, State Board for Community and Technical Colleges
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Nina Oman, Higher Education Coordinating Board
Patty Mosqueda, Higher Education Coordinating Board

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EXECUTIVE SUMMARY

Study Direction

The 1989 Washington State Legislature created two University of Washington (UW) branch campuses and three Washington State University (WSU) branch campuses. To review the role branch campuses have played in Washington's higher education system, a bill before the 2002 Legislature[1] directed the Washington State Institute for Public Policy (Institute) to examine:

- The original mission of branch campuses;
- Whether branch campuses are meeting their original mission; and
- Whether key factors that led to the creation of branch campuses have changed, including student demographics, demand for and availability of upper division higher education, and local or state labor markets.

Although the language providing for the study was vetoed, the Institute's Board of Directors directed staff to examine these questions.

Why Were Branch Campuses Created?

When the Higher Education Coordinating Board (HECB) published its first master plan for higher education in 1987, it concluded that existing upper division and graduate higher education programs did not fully meet the needs of the state. Affirming these findings, the 1989 Legislature established five branch campuses in growing urban areas operated by the two public research universities. The UW campuses are located in Tacoma and Bothell; the WSU campuses are located in Vancouver, the Tri-Cities, and Spokane.

- To increase access to higher education, the branch campuses were directed to **focus on upper division and graduate** programs, **target placebound students**, and **rely on a two plus two model** in cooperation with local community colleges.
- To promote economic development, branch campuses were to **respond to demand for degrees** from local businesses and **support regional economies** through research activities.

[1] ESSB 6387, Section 608(11), Chapter 371, Laws of 2002 (partially vetoed).

Has Access to Upper Division and Graduate Education Increased?

Access Indicators. Expansion of upper division and graduate programs has not occurred as rapidly as the HECB's 1990 goals. Washington continues to rank relatively low in upper division and graduate participation (compared with other states). However, most indicators examined in this report suggest that access *has* expanded in Washington State. Between 1990 and 2001:

- Upper division enrollment increased by approximately 8,000 students, and graduate enrollment increased by 3,000 students.
- Participation rates have increased for younger age groups; this measure reveals that upper division and graduate enrollment increased faster than population growth for those most likely to attend college.
- Other indicators of access also increased, including degree attainment rates and the percentage of Washington's citizens who live near a public baccalaureate institution.

Role of Branch Campuses. Branch campuses have accounted for half the upper division and graduate enrollment growth since 1990. Within targeted urban areas, branch campuses accounted for 84 percent of this increase. Branch campus enrollments currently lag behind the HECB's 1990 plans, in part due to constraints related to implementing new degree programs and lower levels of funding.

Do Branch Campuses Target Placebound Students?

Available data indicate that branch campuses target placebound students:

- Branch campuses enroll proportionately more older and part-time students than the main campuses of UW and WSU.
- Increasing numbers and proportions of students from nearby counties attend the branch campuses.
- Students who transfer to branch campuses are slightly more likely to have been employed and twice as likely to be parents while attending community college than students who transfer to the main campuses.
- Branch campuses offer at least half their classes in the evening and on weekends, and one- to two-thirds of branch campus degree programs can be completed entirely on a non-traditional schedule.

Population Trends. Throughout Washington State, the traditional college-age population has grown faster than anticipated by forecasts from the late 1980s. Current population forecasts indicate that the traditional college-age group will continue to grow, by nearly 50,000 between 2002 and 2010. The number of people between the ages of 23 and 29 will increase by more than 100,000 during the same time period. The branch campuses likely will continue to enroll increasing numbers of both traditional college-age and older students.

Do Branch Campuses Respond to Degree Demand?

Demand for Baccalaureate and Graduate Degrees. Over the next five years, an estimated 19 percent of projected job openings in Washington State will require baccalaureate degrees or higher. The majority of new jobs will require less than a four-year degree, but the long-term trend is for increasing demand for employees with advanced degrees. Health care, education, and technology-related occupations are the most rapidly growing sectors.

Branch Campus Degree Programs. When branch campuses were created in 1989, plans developed by UW, WSU, and the HECB emphasized baccalaureate arts and sciences and applied master's degree programs. WSU Spokane was intended to be somewhat different from the other branch campuses; its degree programs were to focus on health sciences, engineering, and architecture at the graduate level. Degree programs at branch campuses have generally followed the original plans.

Comparison With Occupational Projections. Students' majors across the branch campuses are mostly concentrated in the business, education, and health fields, as well as liberal arts, which can be applied to a variety of occupational fields. Computer and social sciences are also frequent majors for branch campus students. Current occupational projections in branch campus target areas tend to be concentrated in the business, education, health, and engineering fields. With the exception of engineering, branch campus degree programs loosely mirror current occupational projections, though not uniformly.

Degree Production. Statewide degree production has increased over the last decade at the baccalaureate and master's levels, but not the doctoral level. Data regarding degrees awarded at the branch campuses since 1990 are limited, because WSU degrees do not indicate those completed at branch campuses. Available data based on 2000–2001 graduates indicate approximately 13 percent of baccalaureate degrees were granted at branch campuses.

How Do Branch Campuses Impact Regional Economies?

Regional Economic Impacts of Higher Education Institutions. Research has shown that higher education institutions have an overall positive impact on regional economies. Estimations of regional economic benefits are based on how higher education institutions attract students, faculty, and new sources of money. The impact of branch campuses is less than that of traditional higher education institutions because of the way they are structured. Available data do not allow us to estimate the extent of branch campus impacts on targeted regions.

Policy Tradeoff. *Statewide* net economic impacts are different from *regional* impacts because the majority of public higher education funding—a significant part of regional economic benefit—comes from the state's general fund. A tradeoff exists between supporting programs focused on long-term economic growth and expanding access to higher education in the short-term. A focus on economic development, which is generally

associated with higher cost research-oriented programs, can restrict the amount of state funding available for the expansion of access.

Doctoral Degree Policy History. This tradeoff is exemplified by the debate over whether to support doctoral degrees at branch campuses. Both the desire to foster economic development and concerns about the cost of graduate education have influenced policies regarding whether branch campuses are authorized to offer doctoral degree programs. Initial HECB policy prohibited doctoral programs at branch campuses, but this policy has become less prohibitive over time. Current HECB policy allows for doctoral programs at branch campuses, subject to HECB approval on a case-by-case basis. WSU Spokane is the only branch campus that currently offers a doctoral program.

Branch Campus Capital and Research Funding. Capital investments in branch campuses represent significant costs to the state, while research funding at branch campuses comes from non-state sources. As of the 2001–03 biennium, the state had invested over $600 million in branch campus capital facilities. Branch campuses generate funds for research from non-state grants and contracts, with totals for each campus ranging from $356,000 to over $3.6 million during the 2002 fiscal year.

Indicators of Economic Development. Indicators of economic development include per capita income, poverty, and unemployment rates. Data on these indicators suggest that economic disparities between the Puget Sound region and southwest and eastern Washington persist, although there have been increases in per capita income and declines in poverty rates in most of the branch campus target areas. The degree to which branch campuses have contributed to these improvements cannot be determined based on available data.

Are Branch Campuses Fulfilling Their Mission?

In 1989, the HECB and Legislature established a dual mission for branch campuses: to expand access to higher education and to foster economic development. Data analyzed for this report indicate that branch campuses are fulfilling these objectives. Since 1989, as the state's higher education and fiscal policy climates have changed, new policy issues have emerged:

- Is this branch campus mission still valid for Washington's higher education system?
- If so, what are possible alternatives to the current structure of branch campuses in meeting this dual mission?
- If the state decides to prioritize access or economic development, how would that change how branch campuses operate and are funded?

The Institute's final report on branch campuses, due in June 2003, will summarize potential advantages and disadvantages, including costs, of different models of providing upper division and graduate education. Policy options regarding the future of branch campuses will also be explored.

INTRODUCTION

In 1987, the Higher Education Coordinating Board (HECB) presented its first master plan for higher education in Washington State. One of the plan's components was to expand access to baccalaureate and graduate education in underserved urban areas by creating branch campuses of the state's two research universities, the University of Washington (UW) and Washington State University (WSU).

Because the state already had an extensive system of community and technical colleges offering lower division courses, the branch campuses were intended to focus on upper division and graduate courses using a "two plus two" educational model. Through this model, students take lower division courses at community colleges and then transfer to the branch campuses to complete a baccalaureate degree program.

The 1989 Legislature established branch campuses in five locations: Vancouver, the Tri-Cities, Spokane, Tacoma, and Bothell.[2] Since that time, enrollment across all five branch campuses has grown from 514 full-time equivalent (FTE) students in 1989 to 5,132 FTE students in 2001. The state has also made significant capital investments on each campus.

Study Direction

To review the role branch campuses have played in Washington's higher education system, a bill before the 2002 Legislature directed the Washington State Institute for Public Policy (Institute) to examine:

- The original mission of branch campuses;
- The extent branch campuses are meeting their original mission; and
- The extent key factors that led to the creation of branch campuses have changed, including student demographics, demand for and availability of upper division higher education, and local or state labor markets.[3]

Although the language providing for the study was vetoed, the Institute's Board of Directors directed staff to undertake the branch campus study.

The Institute was also asked to examine other models of providing access to higher education and their potential implications for higher education policy. A final report (due in June 2003) will investigate the experiences of other states with upper division branch campuses as well as other models to expand access to higher education. Policy options regarding the future of branch campuses will also be explored.

[2] RCW 28B.45.010.
[3] ESSB 6387, Section 608(11), Chapter 371, Laws of 2002 (partially vetoed).

Study Methods

This interim report primarily relies on existing data sources to address the questions posed. A variety of indicators are included to provide as comprehensive a portrait of branch campus development as possible. Data sources include the following:

- Higher Education Enrollment Reports (HEER) from the Office of Financial Management (OFM);
- Enrollment and transfer data from the State Board for Community and Technical Colleges (SBCTC);
- Comparative enrollment data from the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS);
- Information about degree programs, class schedules, budgets, and facilities from the HECB and branch campuses;
- Occupational projections data from the Employment Security Department (ESD), Labor Market Economic Analysis (LMEA); and
- Demographic data from the U.S. Census Bureau.

A technical advisory committee composed of representatives from OFM, SBCTC, the Workforce Training and Education Coordinating Board (WTECB), UW, WSU, and the HECB assisted with the selection of measures and data sources as well as the data analysis. The committee also reviewed a draft of this report. In addition, the deans and chancellors of the five branch campuses reviewed the study design and initial draft.

SECTION I. BACKGROUND

Access and *responsiveness to economic needs* are recurring, prominent themes in higher education and have influenced Washington State policies for decades.[4] The branch campuses of the UW and WSU were created largely in response to these two key issues and were initiated by the first master plan for higher education in Washington State.

Master Plan for Higher Education

The 1985 Legislature established the Higher Education Coordinating Board (HECB), which began operating in January 1986.[5] The HECB was intended to provide planning, coordination, monitoring, and policy analysis for higher education in Washington State.[6] A key first task was the preparation of a comprehensive master plan for higher education, including needs assessments, analysis of demographic, social, and economic trends, and recommendations on enrollment. The master plan was to be updated every four years and presented for adoption (through concurrent resolution) by the legislature.[7]

Although the Legislature directed the HECB to consider the needs of residents in all regions of the state, its "*initial priorities should be applied to heavily populated areas underserved by public institutions*."[8] From January 1986 through July 1987 (when a draft plan was broadly distributed for comment), the HECB held discussions and conducted research structured around 12 major policy questions. The following study question ultimately led to the creation of the branch campuses:

> To what extent should educational services be readily available to urban populations and how should these services be provided?[9]

In the first master plan, which was completed in December 1987, the HECB identified *access to higher education*, *economic development*, and the *existing configurations of programs* as problems that branch campuses could alleviate in urban areas. The following section will cover each of these topics.

Access to Higher Education

The HECB noted in its first master plan that the benefits of higher education can be "realized only when students have adequate and equitable access to quality institutions of

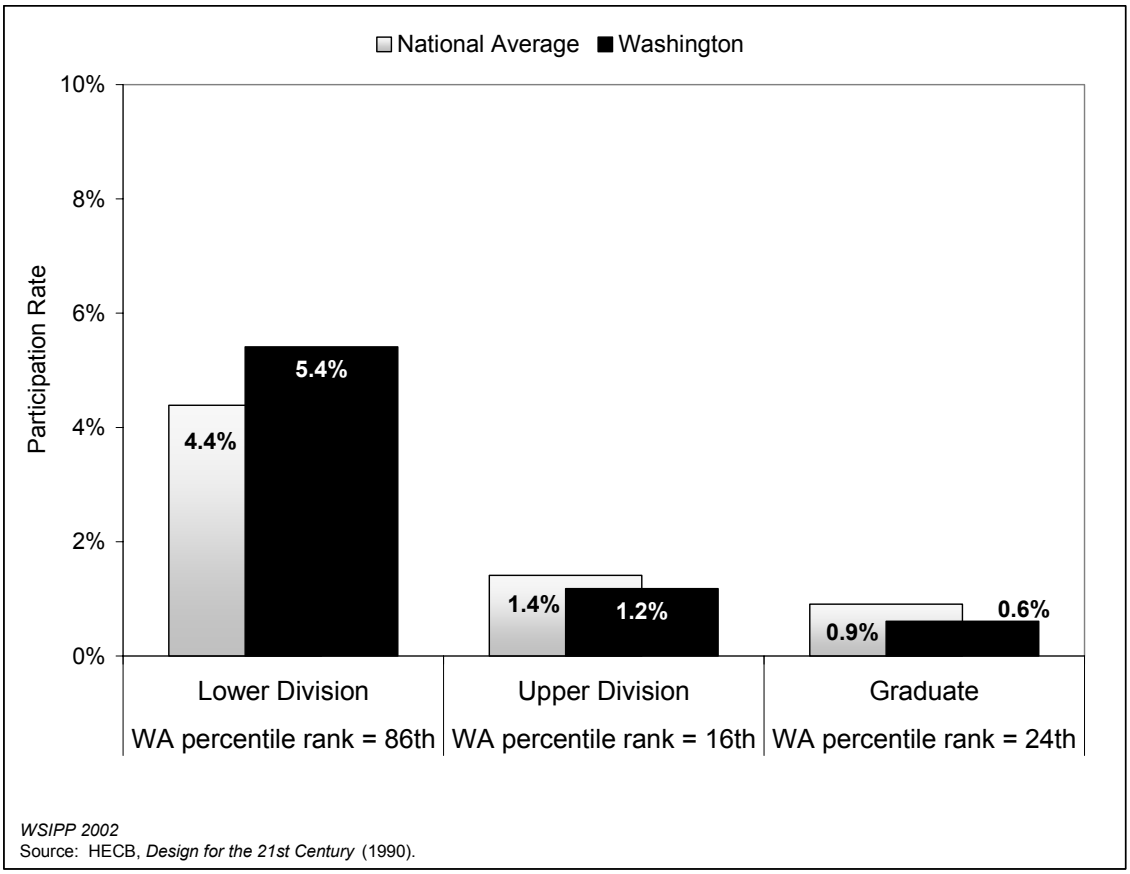
[4] See, for example, Washington State Council for Postsecondary Education, *Planning and Policy Recommendations for Washington Postsecondary Education, 1976–1982*, (Olympia, WA: Washington State Council for Postsecondary Education, 1976).
[5] RCW 28B.80.
[6] RCW 28B.80.320.
[7] RCW 28B.80.330.
[8] RCW 28B.80.330(3)(a). Emphasis added.
[9] HECB, *Building a System: Washington State Master Plan for Higher Education* (Olympia, WA: Higher Education Coordinating Board, December 1, 1987), A-3.

higher learning."[10] Through its examination of existing patterns of access, the HECB identified the following problems:

- Relatively low levels of participation in upper division and graduate education;
- Underserved urban areas;
- Lack of access for placebound students; and
- Impending population growth.

Upper Division and Graduate Participation. In 1987, Washington ranked low in participation in upper division (junior and senior years) and graduate[11] programs compared with other states (see Exhibit 1). At the same time, Washington ranked in the top 15 percent of states in lower division (freshman and sophomore years), due in part to its well-distributed public community and technical college system. Participation was defined as the percentage of people aged 17 and older who attend a higher education program each fall.

Exhibit 1
Washington Was Below National Average in Upper Division and Graduate Participation (1987)



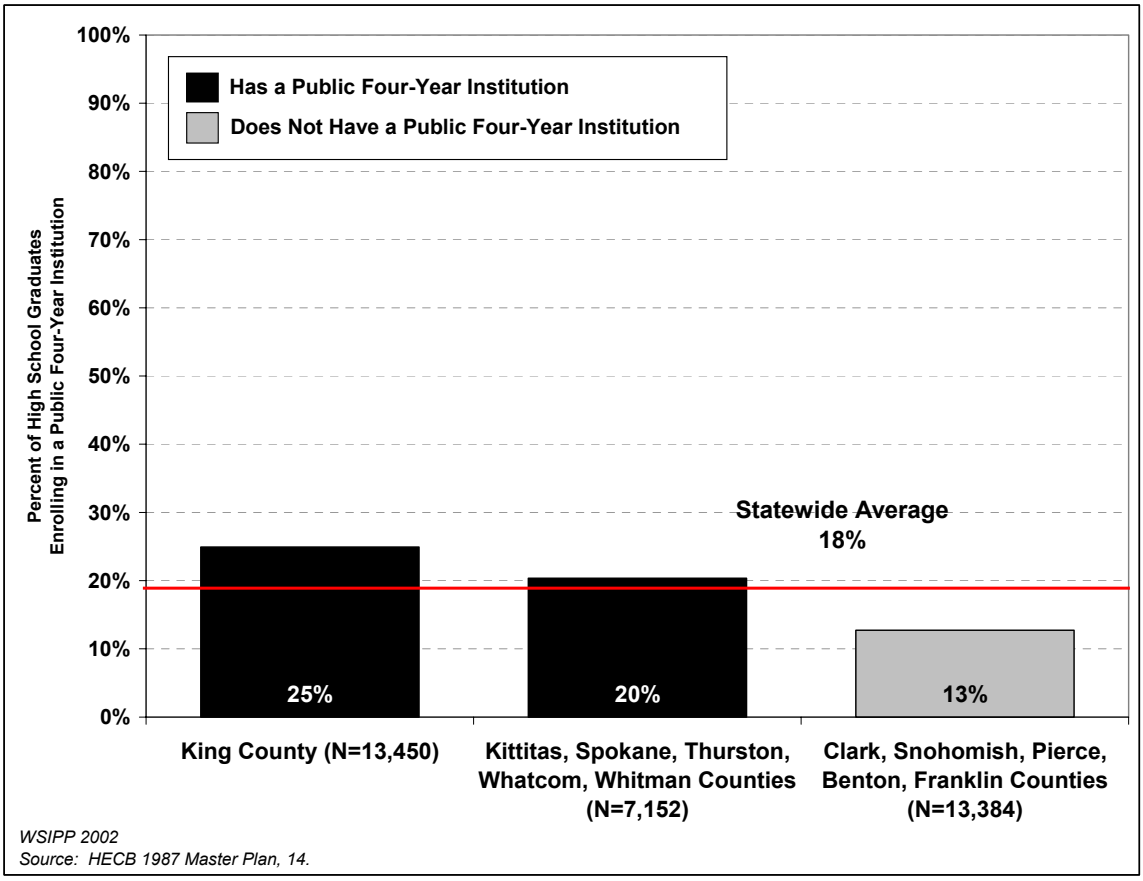
WSIPP 2002
Source: HECB, *Design for the 21st Century* (1990).

[10] HECB, *Building a System* (1987), 10.
[11] Graduate education refers to *research-oriented* master's and doctoral degree programs as well as *practice-oriented* post-baccalaureate professional certification and degree programs.

Washington's low rankings, relative to other states, were attributed to enrollment caps placed on public four-year institutions during the 1980s and geographic inequities in the distribution of public higher education.[12]

Underserved Urban Areas. In the first master plan, the HECB compared college attendance of recent high school graduates from urban counties with and without a public four-year institution. Proportionately fewer recent graduates from counties that did not have a public four-year institution enrolled in public baccalaureate programs (see Exhibit 2). Many rural areas without public baccalaureate institutions also had relatively low participation rates but represented substantially fewer potential students.

Exhibit 2
Urban Counties Without a Public Four-Year Institution Had Lower Participation (1986)



WSIPP 2002
Source: HECB 1987 Master Plan, 14.

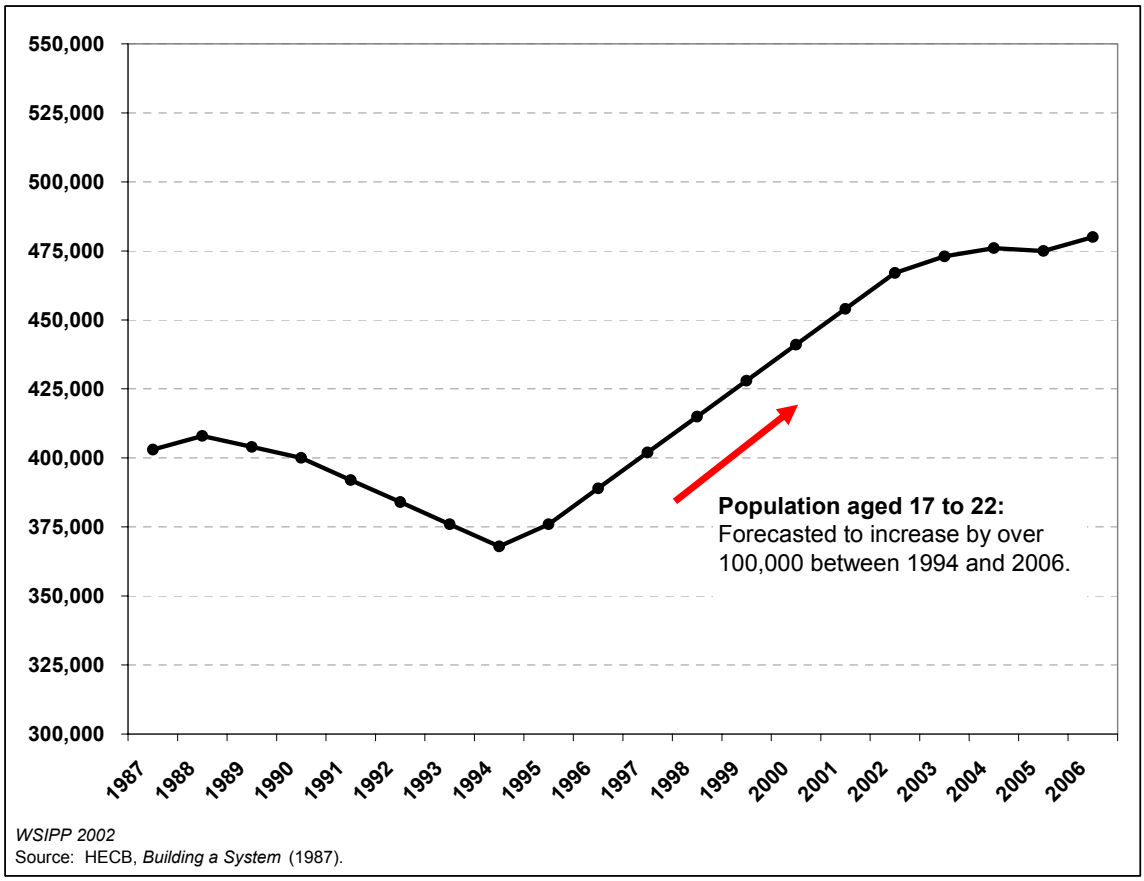
Placebound Students. The master plan suggested that urban areas have particularly high concentrations of placebound adults: individuals unable or unwilling to relocate to attend a four-year institution due to family, employment, or financial constraints. Although no evidence of the prevalence of placebound adults was provided, the HECB was concerned

[12] Marilyn de Give, *The Influence of Special Interests on Branch Campus Policy Formation* (Seattle: University of Washington, Ph.D. dissertation, 1995), 100.

that four of the six public baccalaureate degree-granting institutions were located in rural areas, restricting access for urban, potentially placebound populations.[13]

Anticipated Population Growth. The master plan recognized that declining numbers of individuals aged 17 to 22 (the traditional college-age group) in the late 1980s and early 1990s would likely flatten demand for higher education. However, this age group was forecasted to expand rapidly by the late 1990s (see Exhibit 3), and the HECB predicted that demand for higher education would increase substantially after 1995. The HECB also predicted growth after 2000 in the 23 to 29 age group, an indicator of demand for potentially placebound individuals who were assumed to be older than traditional students. Nearly two-thirds of population growth was expected to occur in urban areas without a four-year institution.[14]

Exhibit 3
Age Group Most Likely to Participate in Higher Education Was Predicted to Grow Substantially After 1994



WSIPP 2002
Source: HECB, *Building a System* (1987).

[13] HECB, *Building a System* (1987), 13.
[14] HECB, *Building a System* (1987), Appendix D, A-7–8.

The HECB concluded that inadequate access to baccalaureate-level education was a "major and urgent problem," particularly in urban areas.[15] Expanded capacity in the state's higher education system was seen as necessary to meet the increased demand from a growing population, as well as to alleviate existing inequities in access.

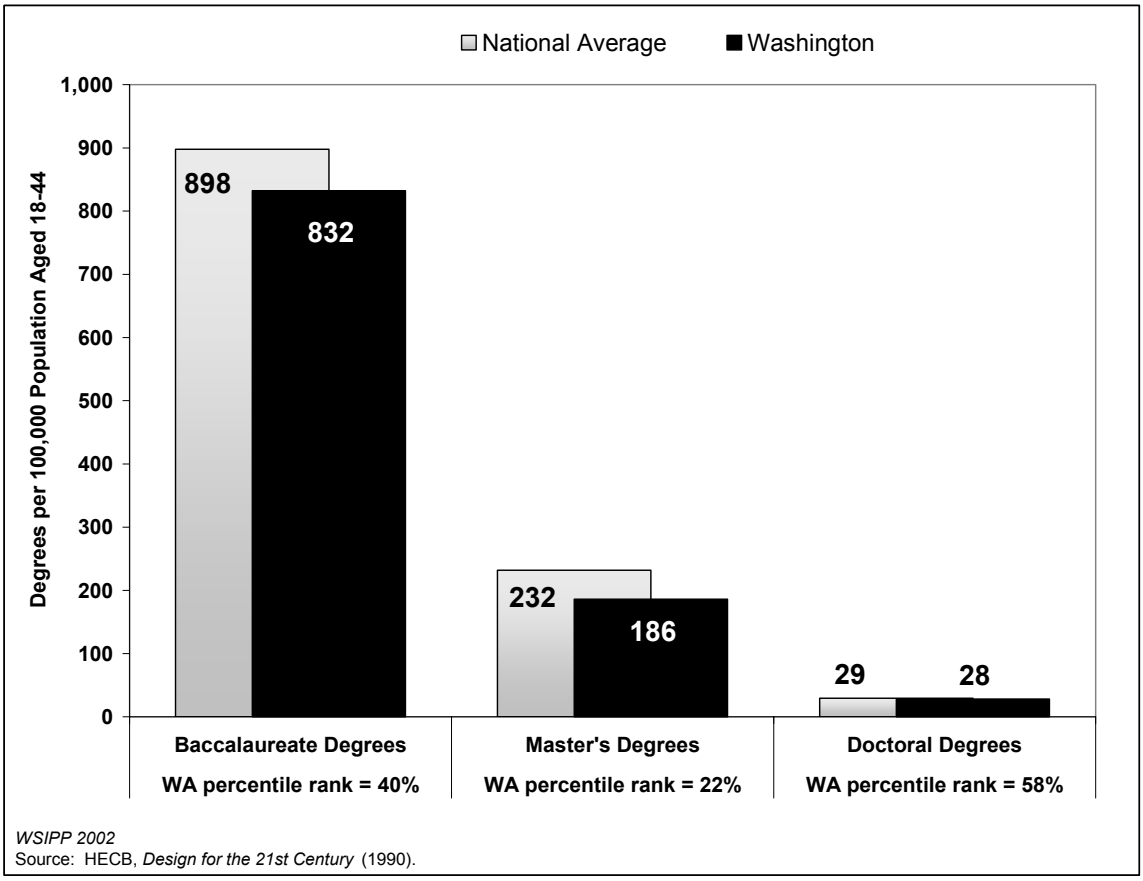
Economic Development

In the first master plan, the HECB also drew attention to perceived economic development needs, sparked in part by Washington's declining per capita income relative to other states. Within the state, concerns were raised regarding economic disparities between largely rural (and relatively poorer) eastern Washington and increasingly urban western Washington.[16] It was believed that local economies surrounding urban centers on both sides of the Cascades would benefit from access to degree programs and research associated with a public university.

Degree Programs. The 1987 master plan stated that "[h]igher education's greatest impact on the economic development of our state is in education of the workforce."[17] Washington was below the national average in baccalaureate and graduate degree production, particularly in "important scientific and technical fields essential for economic growth," according to the HECB's 1990 analysis of 1987 data.[18] In 1987, Washington ranked in the bottom half of states in baccalaureate degree production and in the bottom quarter for master's degrees. Washington ranked in the top half for doctoral degrees (see Exhibit 4). These rankings were based on the number of degrees granted per 100,000 people between the ages of 18 and 44. Exhibit 4 compares Washington with the national average in degree production.

[15] HECB, *Building a System* (1987), iv.
[16] de Give, *The Influence of Special Interests*, 82-83.
[17] HECB, *Building a System* (1987), 5.
[18] HECB, *Design for the 21st Century: Expanding Higher Education Opportunity in Washington* (Olympia, WA: Higher Education Coordinating Board, July 1, 1990), 5.

Exhibit 4
Washington's Degree Production Was Below National Average (1987)



WSIPP 2002
Source: HECB, *Design for the 21st Century* (1990).

In absolute terms, Washington was not that far from the national average: in 1987, the state needed approximately 1,300 more baccalaureate degrees (out of approximately 16,700) and 900 more graduate degrees (out of 3,700) to reach the average. However, because Washington was below average in both participation rates and degree production, the HECB argued that "these deficiencies cannot continue at a time when our economy is transitioning to a reliance on service/knowledge-based/high technology industries.... In order to compete effectively in the new economy, Washington's industries will require employees who are highly educated."[19]

Research. In the first master plan, the HECB stated that research universities "play a special and vitally important role in economic development."[20] Institutions were encouraged to forge "stronger partnerships" between higher education and industry to promote economic development "through such means as training, research, and the effective transfer of scientific and technological advances."[21] Vancouver, Spokane, the Tri-Cities, and Puget Sound were all identified as growing areas that stood to benefit from such research, in addition to expanded opportunities for baccalaureate and graduate degree programs.

[19] HECB, *Design for the 21st Century*, ii.
[20] HECB, *Building a System* (1987), 5.
[21] HECB, *Building a System* (1987), 6.

Existing Configurations of Programs

The HECB examined existing higher education programs in urban areas for the first master plan. Exhibit 5 summarizes programs located in these areas in 1987.

In the Vancouver area, the SW Washington Joint Center for Education offered a handful of degree programs to southwest Washington residents. WSU and Eastern Washington University (EWU) both operated degree programs through the Joint Center for Higher Education in Spokane, which was also served by two private institutions. The Tri-Cities were served by multiple public institutions, many of which operated degree programs related to the U.S. Department of Energy's Hanford site. The Puget Sound area was served by numerous public and private institutions, including the main campus of the UW in Seattle.

Exhibit 5
Higher Education Services in Targeted Urban Areas Varied (1987)

Area	Education Programs Available in 1987
Vancouver	SW Washington Joint Center for Education • Clark and Lower Columbia Community Colleges • WSU: 1 undergraduate, 9 graduate programs • TESC: Small program since 1975
Spokane	Joint Center for Higher Education • Spokane and Spokane Falls Community Colleges • EWU in Cheney and downtown Spokane • 2 private colleges (Gonzaga, Whitworth) • WSU: 7 graduate programs
Tri-Cities	Tri-Cities University Center • Columbia Basin Community College • CWU, EWU, WSU, UW, OSU • 8 undergraduate, 13 graduate programs (largely engineering)
Puget Sound	• Served to varying degrees by UW, TESC, CWU, WWU • Multiple private institutions • Multiple community colleges

Sources: HECB, Building a System (1987), 15; WSU, Development Plan for Campuses, 53.

The HECB found that, due to disparities in services available and program duplication, a single institution within each urban area should be primarily responsible for operating higher education programs.

> *It is unclear what the assignments of responsibility are for meeting the present and future needs of Washington's major urban areas. Responsibilities overlap. Consortial arrangements diffuse responsibility ... it is essential to fix responsibility for baccalaureate and graduate programming within each urban area.... One institution can respond more rapidly, provide greater continuity, and increase accountability by making it clear to each community which institution is assigned to serve it.*[22]

[22] HECB, *Building a System* (1987), 15.

Competition between institutions—over who should offer which degree programs in certain locations and potentially receive funding for additional enrollment—contributed to the perception that higher education programs needed to be better coordinated.[23]

Branch Campuses Are Created

Mission. Given disparities in access to higher education, projected population growth, a desire to foster economic development, and problems with existing service delivery, the HECB recommended creating branch campuses of the UW and WSU to expand both access and potential for economic development. The master plan findings led the HECB to establish unique roles and structures for the branch campuses (see Exhibit 6). The Legislature formally enacted these recommendations in 1989.[24]

Exhibit 6
Branch Campus Mission Focused on Expanding Access and Promoting Economic Development in Urban Areas

Objective	Strategy
Expand Access to Higher Education	• Focus on upper division and graduate programs • Target placebound students • Rely on a two plus two model
Foster Regional Economic Development	• Respond to demand for degrees • Support local economies through research activities

The branch campuses were established as upper-level institutions, providing the last two years of baccalaureate degree programs as well as graduate and professional programs. Community colleges were to provide the first two years, a concept labeled a "two plus two" model. The branch campuses were located in urban areas to improve access for placebound students and foster regional economic development. The UW and WSU, as research universities, were directed to operate the campuses rather than one or more of the regional universities.

[23] William Zumeta, *Where to Put All the Students? Dilemmas of Higher Education Access and Finance in the State of Washington* (Seattle: University of Washington, Working Papers in Public Policy Analysis and Management, Graduate School of Public Affairs, January 1996), 5.
[24] RCW 28B.45.010–070. Appendix A contains the full text of the legislative findings.

This approach was reflected in the original mission statement for the branch campuses:

> *The primary mission of the branch campuses is to provide instruction in degree-granting programs at the upper division and master's levels. Placebound individuals in the area surrounding each branch campus will be the primary participants. As part of this mission, branch campuses also are expected to support scholarly activity by faculty and students, ensure the intellectual vitality of the institution, maintain high quality instruction, and provide opportunities for professional growth. Finally, branch campuses are expected to encourage and support public service activities which strengthen the local community and enhance the educational experience of students.*[25]

With the exception of Spokane, the HECB recommended assigning primary responsibility to a single institution within each urban service area to reduce program duplication and competition between institutions:

Puget Sound:	UW (specific locations later established in Tacoma and Bothell)
Vancouver:	WSU (replaced the SW Washington Joint Center for Education)
Tri-Cities:	WSU (replaced the Tri-Cities University Center)
Spokane:	WSU (in coordination with EWU, with service guidelines developed by the HECB)[26]

Other off-campus programs were subject to approval by the HECB, based on the criteria that programs are not duplicative and cannot be provided by the institution already designated as the service provider for the area.[27] The policy of assigning institutions to certain service areas was rescinded in 1995, but the HECB continues to require institutions to seek HECB approval before initiating new programs.[28]

Locations. The HECB and Legislature chose to locate the branch campuses in the Puget Sound region, Vancouver, and the Tri-Cities because these areas were identified as population centers underserved by the current configuration of higher education programs. Spokane was chosen primarily to improve coordination of services. Local community pressures and desires for balancing eastern and western Washington interests in the legislature also played a role in establishing the branch campus locations.[29]

- **Puget Sound.** The Puget Sound's exploding population growth and its rapidly expanding economy were frequently cited as reasons that additional institutions

[25] HECB, *Design for the 21st Century*, 15.
[26] HECB, *Building a System* (1987), A-5. Institutions in the Spokane area had already started developing inter-institutional agreements to improve service delivery. In 1987, WSU and EWU were directed to coordinate degree programs to avoid duplication at the Joint Center for Higher Education. WSU Spokane was intended to focus primarily on graduate programs. EWU's degree programs in Spokane are not considered a branch campus.
[27] HECB, *Design for the 21st Century*, F-1. In addition, Central Washington University (CWU) was directed by the Legislature to be the primary provider of upper division and graduate programs in the Yakima area, but as a "center" rather than a branch campus. RCW 28B.45.060.
[28] HECB memo, "Service Area Policy Provision," September 20, 1995.
[29] Zumeta, *Where to Put All the Students?* 10.

needed to be created.[30] While the University of Washington and multiple private institutions were located in Seattle, there was evidence that potential students living outside of Seattle were placebound and needed a public institution closer to home to be able to attend college.[31]

Community groups in Pierce County lobbied for locating a campus in Tacoma to revitalize the local economy[32] and because there were no public institutions nearby, which led to relatively low participation rates.[33] Community groups in north King County emphasized the area's "rapidly expanding high technology base" in their lobbying efforts to locate a branch campus on the eastside.[34] The UW's study of the region ultimately led to siting the campuses in Tacoma and Bothell, largely based on population projections. In 1993, studies of the educational needs of north King County and south Snohomish County led the Legislature to direct the UW to move the Bothell branch to a permanent location in Bothell, co-located with a new community college.[35]

- **Vancouver.** Since the 1970s, Clark County business interests had advocated for the expansion of higher education programs in the area to enhance local economic development.[36] The programs housed at the SW Washington Joint Center for Education were relatively small and, coupled with ongoing population growth, were not expected to provide adequate access to higher education in coming years. Vancouver had below average participation rates and was identified early in the planning process as a potential site for branch campus development.[37]

- **Tri-Cities.** Economic development was also the primary driver for locating a branch campus in the Tri-Cities area. Especially when faced with the possibility of closure of the Hanford site, the local community lobbied for the creation of a branch campus to help diversify the region's economy.[38] Additionally, the 1987 master plan found that participation rates in this region were below the statewide average, providing further impetus for locating a branch campus in the Tri-Cities.

- **Spokane.** Like most of the other branch campus locations, the perceived need for economic development—Spokane was in the middle of the long-term recession—was frequently cited as a reason for locating a branch campus in Spokane.[39] However, the Spokane area was somewhat different from the other branch campus

[30] de Give, *The Influence of Special Interests*, 87-89.
[31] University of Washington, *Plan to Expand Upper-Division and Graduate Programs in the Puget Sound Region: A Report to the Higher Education Coordinating Board* (Seattle: UW, 1988), 5.
[32] de Give, *The Influence of Special Interests*, 205.
[33] Richard Morrill and William Beyers, "Locating Branch Campuses for the University of Washington," *Journal of Geography in Higher Education* 15, no. 2 (1991): 162.
[34] Marilyn de Give, "The Making of a Branch Campus System: A Statewide Strategy of Coalition Building," *The Review of Higher Education* 22, no. 3 (1999): 295.
[35] RCW 28B.45.020. Studies of the north King/south Snohomish region's educational needs were completed by both the HECB and the SBCTC. UW Bothell is currently co-located with Cascadia Community College.
[36] de Give, *The Influence of Special Interests*, 133-34.
[37] Washington State University, *Development Plan for Campuses in Spokane, Tri-Cities, Vancouver* (Pullman, WA: Washington State University, May 15, 1988), 76.
[38] de Give, "The Making of a Branch Campus System" 293-94.
[39] de Give, *The Influence of Special Interests*, 134.

sites. Spokane County had above average participation rates due to having multiple higher education institutions, public and private, serving the local population. Difficulty managing competition between institutions was the primary driver for creating a branch campus in Spokane.[40] Because adequate capacity in upper division already existed, WSU Spokane was intended to primarily provide graduate and research programs.[41]

Initial Branch Campus Plans

In 1990, as directed by the Legislature, the HECB (in conjunction with the UW and WSU) made specific recommendations for enrollment, degree programs, and capital and operating costs for the branch campuses. Decisions regarding branch campus governance were left up to the UW and WSU.

Expand Access Through Targeted Enrollment Increases

Systemwide Goals. The HECB's goal was to reach the 70th percentile (relative to other states) in upper division and graduate participation (the percentage of the population enrolled) by 2010. To reach this goal, Washington would have to increase public upper division and graduate enrollments by 36,400 students (22,750 in upper division and 13,650 in graduate), based on 1990 enrollment figures and population projections. The HECB also estimated that approximately 4,500 additional upper division and 3,000 additional graduate students would attend private institutions, contributing to an overall increase in participation.[42]

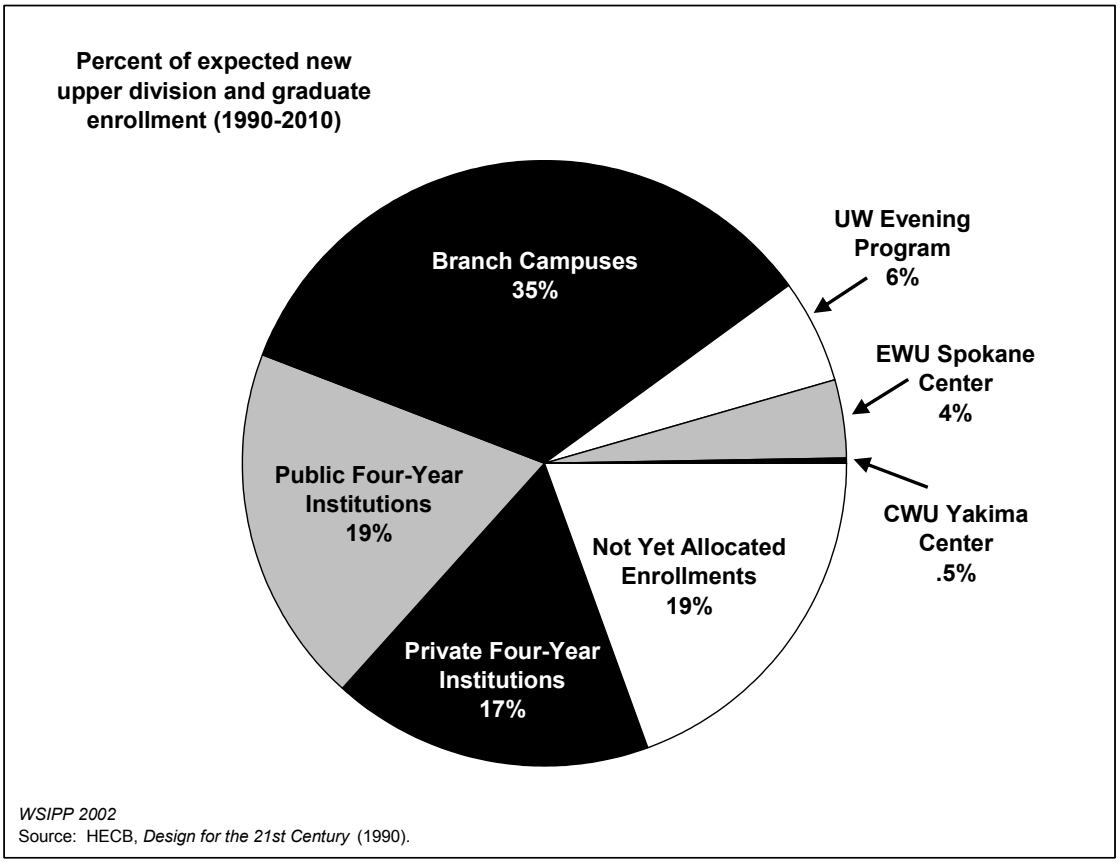
Branch Campus Goals. In 1990, the HECB estimated that 2,000 students were already attending branch campus programs. The HECB's goals called for branch campus enrollment to increase steadily, by an average of 750 additional students each year among the five campuses. For UW Bothell, UW Tacoma, and WSU Vancouver, about 75 percent of enrollment was planned for upper division. At WSU Tri-Cities, nearly half of planned enrollment was in graduate programs. WSU Spokane's planned enrollment was exclusively in graduate programs.

The HECB intended for branch campuses to account for half of new upper division enrollment and about one-quarter of additional graduate students in the public higher education system. By 2010, the five campuses together were expected to enroll 17,000 students.[43]

[40] The need for improved coordination, rather than increased capacity, has been noted in a number of studies regarding higher education in Spokane throughout the 1980s and 1990s. MGT of America, *Postsecondary Program Needs and Opportunities in the Spokane Area: Final Report* (Olympia, WA: HECB, June 1999), 2-2.
[41] WSU, *Development Plan*, 15.
[42] HECB, *Design for the 21st Century*, 12.
[43] HECB, *Design for the 21st Century*, 12. See Appendix B for specific branch campus enrollment plans.

Other Enrollment Goals. Additional expansion was expected to occur by lifting enrollment lids at all the public four-year institutions, as well as through private institutional growth, creation of the UW Evening Program, and continuation of off-campus programs operated by Central Washington University (CWU) and EWU (see Exhibit 7).[44]

Exhibit 7
Branch Campuses Were Part of the HECB's Systemwide Strategy for Expanding Access



WSIPP 2002
Source: HECB, *Design for the 21st Century* (1990).

Foster Regional Economic Development Through Degree Production

In 1988, both the UW and WSU conducted studies to determine what degree programs should be offered at each of the branch campuses.

University of Washington. The UW surveyed prospective students and employers in the Puget Sound region. Based on these surveys, the UW recommended baccalaureate programs primarily in the arts and sciences (over half of anticipated enrollments), business (growing to about 20 percent), engineering (growing to about 12 percent), and nursing (about 2 percent) for the two branch campuses. The UW also recommended applied

[44] HECB, *Design for the 21st Century*, 12. Institutional growth would be encouraged by the creation of the Educational Opportunity Grant (EOG) in 1990. The grant (capped at $2,500 per student annually) is available to students who attend either public or private institutions.

master's programs in engineering (one-fourth of graduate enrollments), business (about 20 percent), nursing (about 12 percent), and teaching (roughly 33 percent). The UW presented the same recommendations for both UW Tacoma and UW Bothell.[45]

Washington State University. Because they were more widely dispersed throughout the state than the UW branch locations, WSU studied each locality's needs for degree programs separately. For all the WSU campuses, including Pullman, distance learning was to be an integral part of program growth.

- **WSU Vancouver:** When the SW Washington Joint Center for Education was established in 1983, a task force identified a need for master's degree programs in engineering, sciences, and business administration to support new industries in the Clark County area. A survey in the fall of 1987 revealed more than 40 percent of respondents interested in a business degree, 18 percent in arts and sciences, and 14 percent in education. WSU therefore recommended the following programs for Vancouver: liberal arts (expand undergraduate), business (expand undergraduate and graduate), education (develop certification program), nursing (develop undergraduate, study feasibility for graduate), and engineering (continue graduate, explore options for undergraduate).[46]

- **WSU Tri-Cities:** WSU's plan for the Tri-Cities evolved from the programs already offered by multiple institutions through the Tri-Cities University Center, assuming transfer of program responsibilities to WSU. Previous program offerings had been heavily influenced by the presence of Hanford Laboratories and the U.S. Department of Energy, as well as community concerns about economic diversification. Needs assessments indicated a desire to continue and expand programs in science and engineering, business, and education. New programs, such as nursing, agriculture, psychology, accounting, communications, and health physics, were also suggested. Research would continue to focus on the sciences and engineering.[47]

- **WSU Spokane:** The Spokane plan built on the cumulative findings of seven studies of higher education needs conducted in the previous five years. These studies concluded that the Spokane area lacked graduate courses in engineering and research (causing a perception that local economic development was affected by this gap) and needed improved cooperation among institutions. An advisory council convened by WSU recommended the branch campus focus on graduate activity in engineering, health sciences, and architecture and design.[48] WSU also incorporated into its branch campus plans continued development of a "Spokane Intercollegiate Research and Technology Institute" (SIRTI).[49]

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[45] UW, *Plan to Expand*, 23.
[46] WSU, *Development Plan*, 76–90.
[47] Ibid., 52–63.
[48] Ibid., 13–14.
[49] Ibid., 36–40. The 1987 Legislature had appropriated $160,000 to develop an advanced studies center for Spokane intended to combine research, technology, and economic development. At the time of the branch campus proposal, planning by EWU, Gonzaga, WSU, and the Spokane community colleges was already underway, including selection of a proposed site adjacent to the downtown Riverpoint Park and preparation of a capital and operating budget request for the 1989 legislative session.

Higher Education Coordinating Board. The HECB reviewed and approved the degree program plans, generally encouraging the branch campuses to provide baccalaureate and master's degree programs in the liberal arts and professional fields (see Exhibit 8). Research activities—because of their heavy associated costs—were to be limited to projects that were directly related to instructional programs.[50]

Exhibit 8
HECB Recommends Branches Focus on Liberal Arts and Applied Degrees

Baccalaureate Degrees	Master's Degrees
Business	Business
Computer Science	Computer Science
Engineering	Engineering
Arts & Letters	Arts & Letters
Nursing	Education
Sciences	Health
Social Sciences	Social Sciences

Source: HECB, Design for the 21st Century, p. 16

Costs

The creation of branch campuses entailed significant capital outlays and additional operating costs. The Legislature appropriated approximately $45 million during the 1989–91 biennium for land acquisition and site planning (including EWU's Spokane programs).[51] In addition to this initial outlay, the HECB prepared cost estimates for branch campus development, as summarized in Exhibit 9. Over $200 million was projected for branch campus capital facility development, with increases in operating costs estimated at $34.6 million by 2001.

[50] HECB, *Design for the 21st Century*, 18.
[51] HECB, *Report to the House Capital Facilities & Financing Committee: Report on Branch Campus Planning* (Olympia, WA: Higher Education Coordinating Board, March 6, 1991), 7.

Exhibit 9
HECB 1990 Branch Campus Cost Estimates

Campus	Capital Outlays (1991–93 to 1997–99 Biennia Total)	New FTE Capacity (by 2000)	Operating Cost Impacts of Increased Enrollments by 2001
UW Bothell	$70,829,000	3,120	$13,600,000
UW Tacoma	$85,539,000	3,900	$13,800,000
WSU Vancouver	$46,149,000	2,500	$4,400,000
WSU Spokane	$10,987,000	400	$1,800,000
WSU Tri-Cities	*	*	$1,000,000
Branch Campus Total	**$213,504,000**	**9,920**	**$34,600,000**

**No estimates for capital outlays for WSU Tri-Cities were provided.*
Source: HECB, Design for the 21st Century.

At the time, the HECB noted that the assumptions from which the estimates were derived could change over time and suggested that these projected costs serve as a reference and not as a concrete plan.[52] Site selections had not yet been completed and specific capital plans, and corresponding operating cost estimates, still needed to be developed.

A review of branch campus costs will be included in the final report due in June 2003. This review will rely primarily on the latest HECB Education Cost Study, which was forthcoming at the time of this writing.

Governance

Noting that there are a variety of models for governing multi-campus systems, the HECB left decisions regarding governance of branch campuses to the UW and WSU.[53] Each developed its own approach to governance (see Exhibit 10).

[52] HECB, *Design for the 21st Century*, 23.
[53] HECB, *Review of Branch Campus Proposals*, Revised (Olympia, WA: Higher Education Coordinating Board, October 1988), 14.

Exhibit 10
Two Models of Branch Campus Governance

	University of Washington	Washington State University
Administration	Campus level	Centralized at main campus, with some functions delegated to campuses
Faculty Appointment and Tenure	Campus level	Centralized, with faculty assigned to specific campuses
Degree Program Planning	Campus level, subject to university approval	Centralized, with input from campuses
Degrees	Distinguish among campuses	Do not distinguish among campuses

University of Washington. The UW anticipated that while enrollments were small and branch campuses were in a start-up phase (through 1995), the branches would act as "centers" and the governance model would be similar to WSU's—centered at the main campus. The UW Provost planned to oversee administration and faculty appointments. Degree programs and curricula were to be developed through a steering committee chaired by faculty from the main campus.[54]

Eventually, however, the UW planned for the branch campuses to evolve into more separate entities, with local administration, control over faculty appointment and tenure, and degree programs functioning largely independently of the main campus, though subject to university approval.[55]

Washington State University. WSU envisioned a "multi-campus system" where academic departments and degree programming are administered systemwide with input from campus-based advisory councils. Faculty are assigned to a particular campus, but appointment and tenure decisions are made within the systemwide academic unit to which they belong.[56] Degrees awarded do not specify which campus students attended.

Summary

In its 1987 master plan, the HECB identified **inadequate access to higher education** and the **need for economic development** as issues that should be addressed by the public higher education system. The HECB recommended that the branch campuses be created in order to expand both access and economic opportunity in underserved urban areas. The Legislature established the branch campuses in 1989.

[54] UW, *Plan to Expand*, 16.
[55] UW, *Plan to Expand*, 15.
[56] WSU, *Development Plan*, 4.

Access to Higher Education. The HECB found that, despite high levels of participation in lower division education, Washington had low rates of participation in upper division and graduate programs (compared with other states). The HECB noted that urban areas without a public four-year institution had below-average participation rates. Concern was also raised about access for "placebound" individuals, those who could not relocate to attend a public four-year institution due to work, family, or financial constraints.

In addition to existing access issues, population growth projected for the late 1990s and early 2000s, particularly in the traditional college-age group (17 to 22), was expected to increase demand for higher education in Washington State.

Economic Development. The HECB found that Washington was slightly below average in degree production at the baccalaureate and master's degree levels compared with other states and noted that employers increasingly require a well-educated workforce. In addition, the HECB stated that research programs could enhance the local economies of urban areas not currently served by a public four-year institution.

Recommendations. The HECB concluded that existing arrangements, including off-campus programs in urban areas operated by various public institutions, were not well coordinated enough to meet the higher education needs of the state. The 1987 master plan recommended the establishment of branch campuses as part of a systemwide strategy to expand the capacity of the higher education system. Affirming these findings and the HECB's recommendations, the 1989 Legislature established five branch campuses, operated by the two public research universities, in growing urban areas:

- Tacoma (UW)
- Bothell (UW)
- Vancouver (WSU)
- Tri-Cities (WSU)
- Spokane (WSU, in coordination with EWU)

To increase access to higher education, branch campuses were to **focus on upper division and graduate** programs, **target placebound students**, and **rely on a two plus two model** in cooperation with local community colleges.

To promote economic development, branch campuses were to **respond to demand for degrees** from local businesses and **support local economies through research** activities.

Plans. The HECB aimed to reach the 70th percentile (compared with other states) in upper division and graduate participation by 2010. To reach this goal, public higher education enrollment would have to increase by over 36,000 upper division and graduate students between 1990 and 2010. According to HECB plans, the branch campuses were to account for approximately one-half of expanded capacity in upper division and one-quarter in graduate in Washington's public higher education system. Degree programs at each branch campus were intended to respond to the local community's needs.

Initial plans included estimates of over $200 million in capital outlays and over $34 million in increased operating costs for the branch campuses. The UW and WSU each developed their own approach to governing branch campuses. The UW intended for the branches to have local control over administration, degree program planning, and faculty appointment and tenure, while WSU adopted a more centralized approach.

The following sections describe branch campus developments since 1990, focusing on the objectives and strategies established in the original branch campus mission.

SECTION II. FOCUS ON UPPER DIVISION AND GRADUATE PROGRAMS

Increasing access to upper division and graduate programs was a principle justification for creating branch campuses of the University of Washington (UW) and Washington State University (WSU). While "access" can be defined and measured in a variety of ways, the most basic definition (and the approach used in the HECB's master plan and campus planning documents) is based on enrollment. This section summarizes:

- Factors that influence enrollment;
- Changes in access as measured by enrollment and corresponding participation rates;
- The role of the branch campuses in expanding access; and
- Changes indicated by other measures of access.

Factors That Influence Higher Education Enrollment

Access is commonly measured as the proportion of the population that enrolls in higher education programs. Thus, greater access to higher education has been achieved when a larger proportion of the population is enrolled. A number of additional policy-relevant factors,[57] however, influence enrollment levels and are not captured in this measure:

- State funding policies;
- Demographic trends;
- Economic trends; and
- Welfare reform.

State Funding Policies

In Washington, a majority of funding for public higher education institutions comes from the state. Higher education funding is driven in large part by the number of FTE (full-time equivalent)[58] students the state decides to support in its general fund budget. Enrollment levels are therefore strongly influenced by the amount of state funding provided. State FTE funding also impacts how institutions determine tuition. Tuition levels and the availability of

[57] Personal, social, and cultural factors—such as academic ability and preparedness, parents' level of education, and expectations for educational achievement—also influence whether people enroll in higher education. Karen Akerhielm et al., *Factors Related to College Enrollment: Final Report* (Washington D.C.: Mathtech, Inc., Prepared for the Office of the Under Secretary, U.S. Department of Education, 1998), 4.

[58] One FTE is defined as a student enrolled for 15 credits (10 credits at the graduate level). Because some students enroll part-time, FTE estimates are less than total student headcounts. FTEs are used for budget and capacity estimates because they account for instructional time in the form of credit hours enrolled.

financial aid both affect the cost of higher education for students and families, thus influencing enrollment, especially for low-income students and families.[59]

A 1999 Office of Financial Management (OFM) report on enrollment projections noted that "a policy goal does not automatically translate into demand – i.e., meeting the goal may require ... financial aid, additional spending, additional capacity...."[60] The HECB's goal of improving upper division and graduate participation rates necessitates that enrollment increases outpace population growth. Whether the HECB's goal is achieved depends in large part on whether funding increases proportionately.

Demographic Trends

Higher education enrollment policies rely on a calculation called the *participation rate* to measure how many citizens are enrolled in higher education. This rate is calculated as the percentage of the population enrolled in higher education each fall. Changes in the size of the traditional college-age group (ages 17 to 22), which has the highest undergraduate participation rates, correlate strongly with overall trends in enrollment. Certain additional demographic trends—including proportions of women and minorities enrolling in college as well as poverty rates, which can negatively affect enrollment—influence higher education enrollment but are not captured in this measure.[61]

The participation rate measure does not exclude individuals who have already earned baccalaureate and graduate degrees. This limitation makes it difficult to fully distinguish the effects of state policy, particularly for states like Washington where large numbers of in-migrants have college degrees.

Economic Trends

Changes in the supply and demand of labor, and the subsequent effects on wages, impact enrollment. Economic theory predicts that people will be less likely to enroll in college when the higher education payoff—degree holders' earnings relative to non-college graduates—declines.[62] Additionally, economic growth and decline impact state revenues and the availability of public dollars for higher education.[63] However, as the 1999 OFM report noted, the state's method for setting participation rate goals does not take "economic, labor market, or social conditions specific to Washington" into account.[64]

Economic trends can have mixed effects on enrollment. In a growing economy, high demand for workers can improve wages for non-degree holders; individuals may then be less likely to enroll in college even if additional state funding is provided. In a contracting

[59] Akerhielm et al., *Factors Related to College Enrollment*, 7-8.
[60] Office of Financial Management, *Evaluation of Long-Term Higher Education Enrollment Forecasting*, (Olympia, WA: OFM, January 1999), 6.
[61] OFM, *Evaluation of Long-Term Higher Education Enrollment*, Tab 3, 2.
[62] Diane J. Macunovich, "Will There Be a Boom in the Demand for U.S. Higher Education Among 18- to 24-Year-Olds?" *Change* (May/June 1997): 38.
[63] W. Lee Hansen and Jacob O. Stampen, "The Financial Squeeze on Higher Education Institutions and Students: Balancing Quality and Access in the Financing of Higher Education," *Journal of Education Finance* 15 (Summer 1989): 9.
[64] OFM, *Evaluation of Long-Term Higher Education Enrollment*, 6.

economy, state funds available to expand enrollment may be limited, while at the same time an excess supply of workers could develop. Excess supply can have the effect of decreasing wages, especially for non-degree holders, thereby increasing the relative payoff for obtaining a degree, leading to heightened demand for higher education.[65]

Welfare Reform

After the passage of the federal Personal Responsibility and Work Opportunity Reconciliation Act of 1996, welfare recipients could no longer attend academic programs and continue to receive benefits unless they worked over 20 hours a week. In 1998, the State Board for Community and Technical Colleges (SBCTC) estimated this policy change would reduce transfers from community colleges to four-year institutions by about 500 students annually.[66] This estimate probably slightly understates the total impact on enrollment because it excludes students who begin their studies at four-year institutions.

Even with these limitations, the participation rate is a useful statistic because this measure addresses whether the public higher education system is achieving the HECB's goals set in the 1990 branch campus plans.

Has Access to Upper Division and Graduate Programs Increased?

Branch campuses were created to expand both *total* upper division and graduate enrollment as well as the *proportion* of the population enrolled. This section presents upper division and graduate enrollment and corresponding participation rates in Washington State since 1990.

The following data are based on OFM's Higher Education Enrollment Reports (HEER) and include state-supported enrollments for Fall 1990 through Fall 2002.[67] The majority of the following exhibits do not cover students who attend private or out-of-state institutions. Because the data for public and private institutions are not collected in comparable ways, private school enrollment is summarized separately.

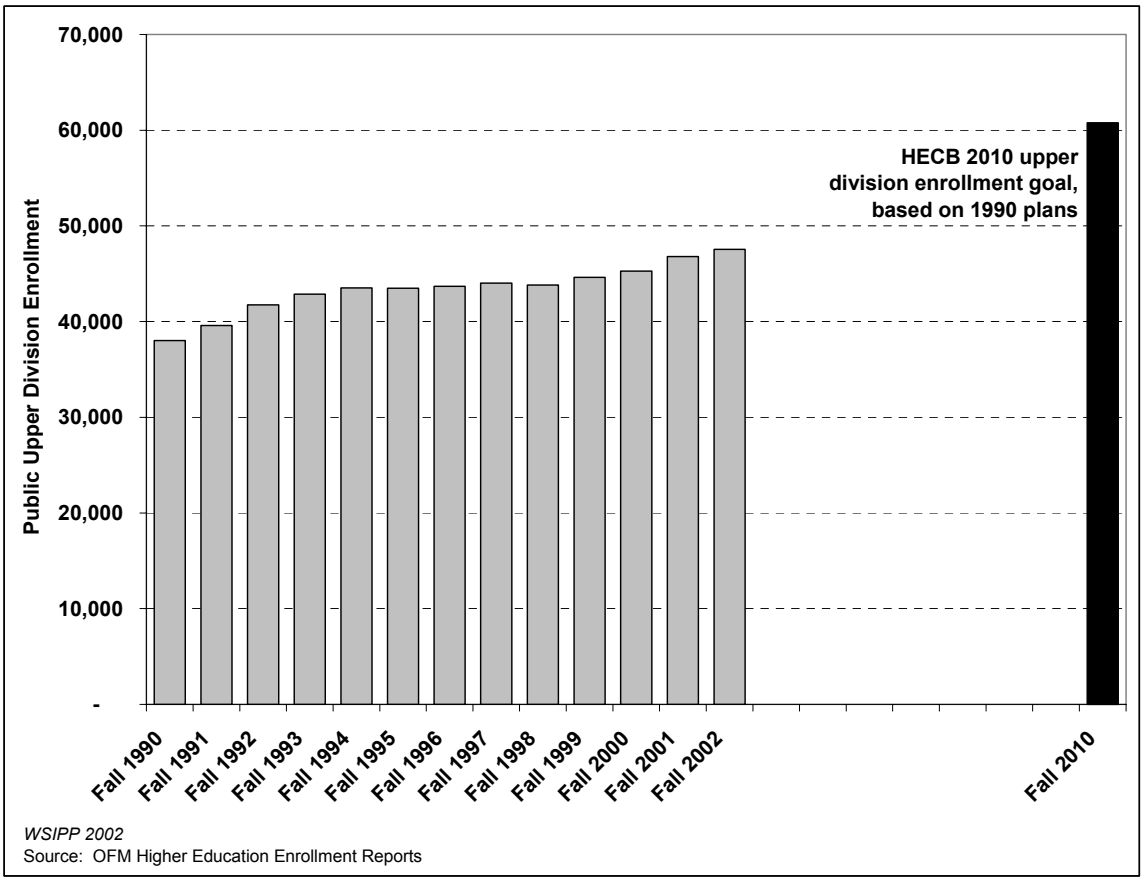
[65] Macunovich, "Will There Be a Boom," 39.
[66] State Board for Community and Technical Colleges, *Patterns Underlying the Current and Future Trends in Transfers from Community Colleges to Four-Year Independent Institutions* (Olympia, WA: SBCTC, September 1998), 4.
[67] Non-state-supported enrollments are funded through contracts or are self-sustaining, i.e., supported entirely through student-paid tuition and fees. Approximately 1 percent of enrollment in public baccalaureate institutions is non-state-supported, most of which is in off-campus programs.

Participation in Public Upper Division Programs

Since 1990, the number of upper division students in Washington's public institutions has increased by about 8,000, from around 38,000 to over 46,000 (see Exhibit 11). The 1990 HECB goals called for upper division enrollment to increase to over 60,000 students by 2010, an average of over 1,100 students per year. Since 1990, upper division enrollment has increased by an average of nearly 800 students per year.

Exhibit 11

Public Upper Division Enrollment Has Grown by About 8,000 Students Since 1990: Growth Is Lagging Slightly Behind the HECB's 1990 Goals

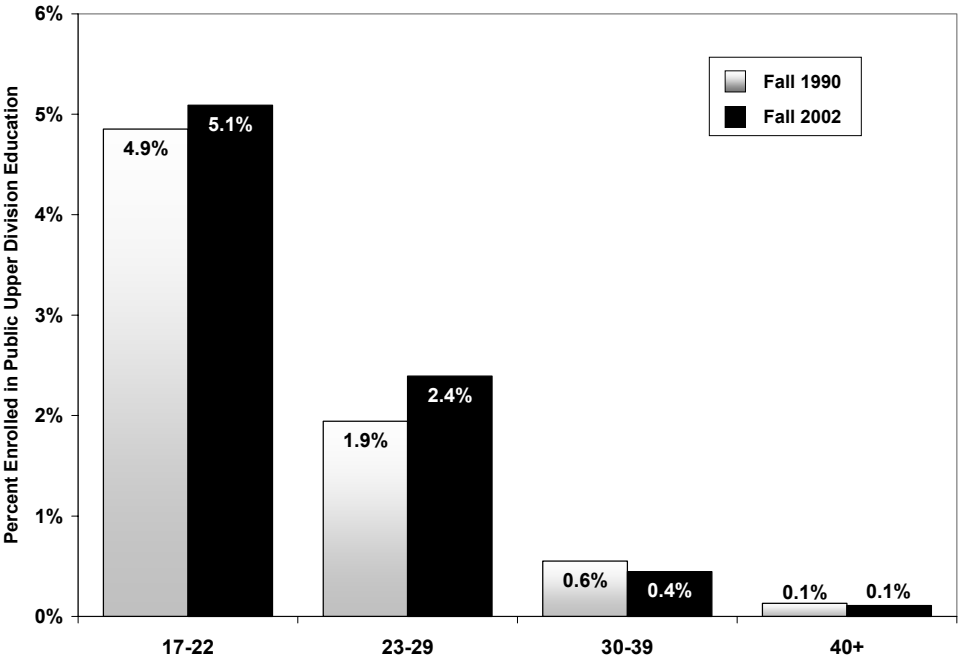


WSIPP 2002
Source: OFM Higher Education Enrollment Reports

Upper division enrollment increases have corresponded with slightly improved participation rates for younger age groups, which comprise the majority of enrollment. The percentage of individuals under the age of 30 enrolled in public upper division education has increased slightly since 1990 (see Exhibit 12). The 17 to 22 age group, which has grown substantially since 1994 (see Exhibit 13), accounted for three-fourths of upper division enrollment increases between 1990 and 2002. High rates of population growth for older age groups (those least likely to attend college) likely depressed participation rates for those over age 30.

Exhibit 12

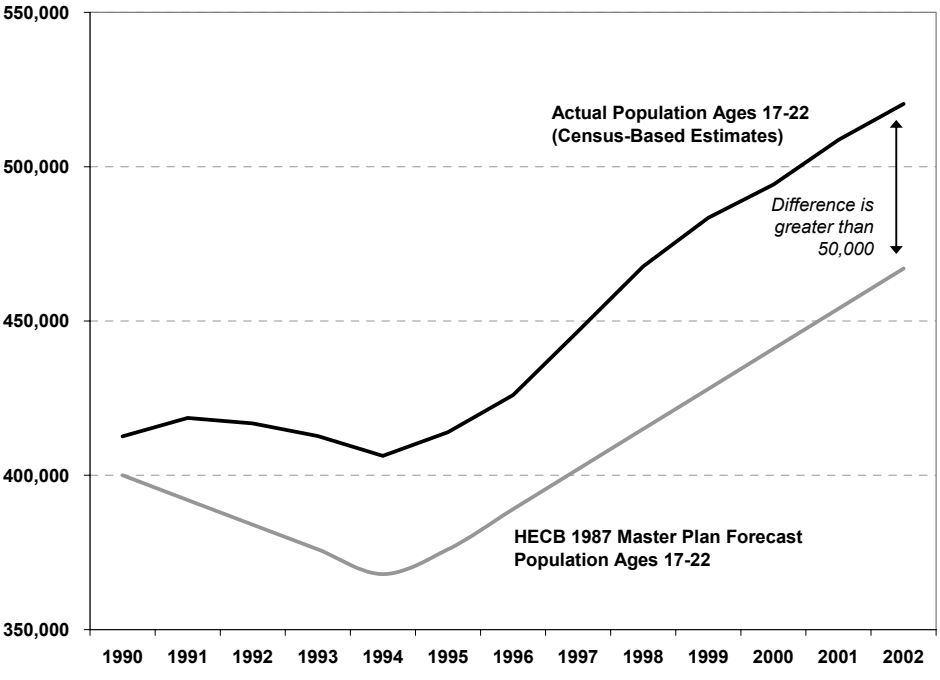
Upper Division Participation Rates for Younger Age Groups Have Improved



WSIPP 2002
Sources: OFM Higher Education Enrollment Reports and Population Estimates (based on Census)

Exhibit 13

Traditional College-Age Group (17 to 22) Has Grown More Than Forecasted in 1987

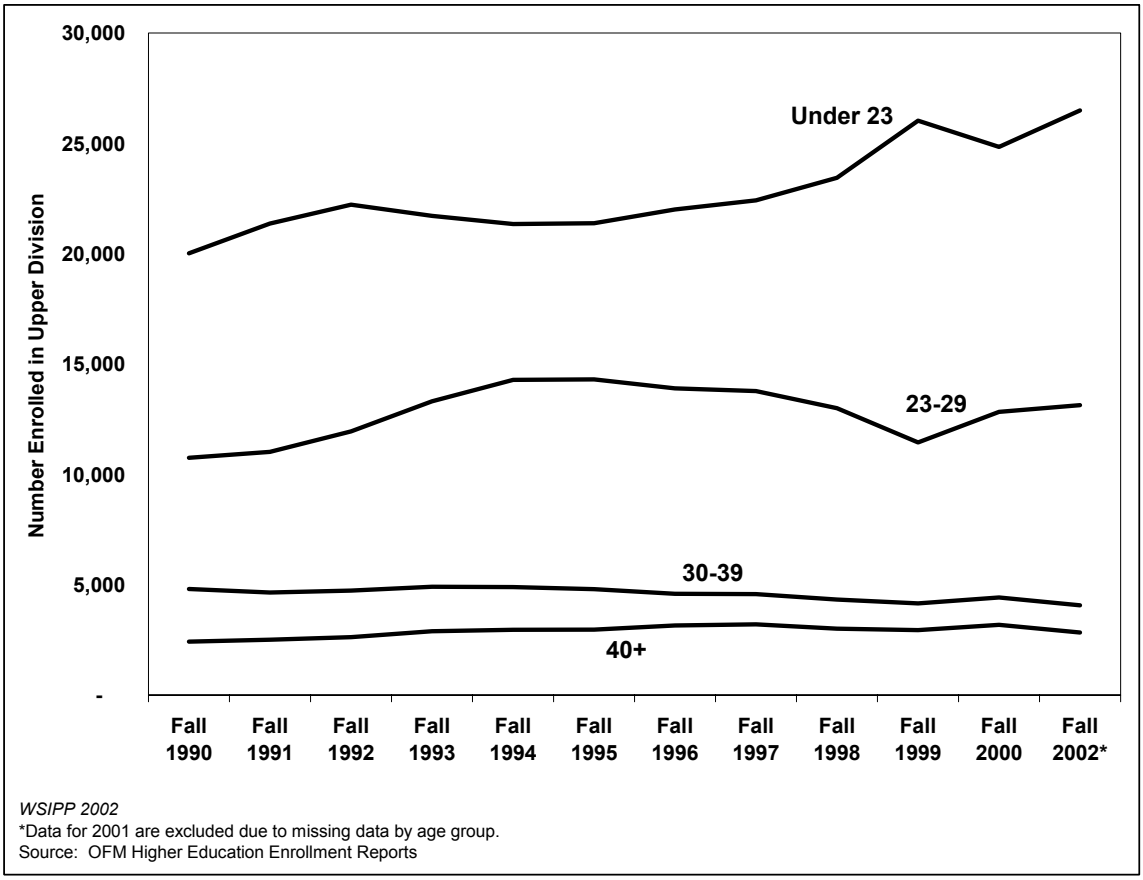


WSIPP 2002
Sources: HECB, *Building a System,* (1987) and OFM November 2001 Population Estimates

As expected by the HECB in the first master plan, largely based on population projections, enrollment of younger students is outpacing enrollment of older students, especially since the mid-1990s.

Exhibit 14

Number of Upper Division Students Younger Than 23 Is Increasing



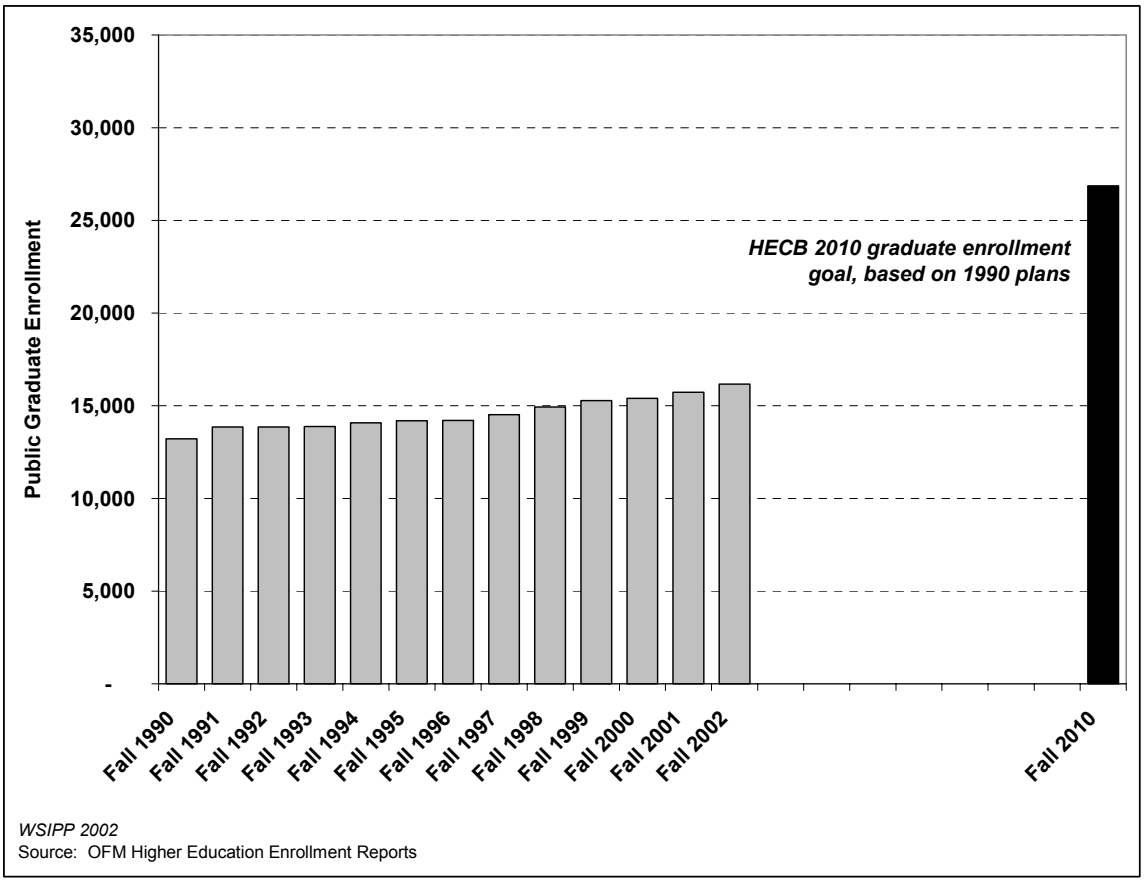
WSIPP 2002
*Data for 2001 are excluded due to missing data by age group.
Source: OFM Higher Education Enrollment Reports

Participation in Public Graduate Programs

Graduate enrollments are also expanding, although more slowly than anticipated by the HECB's 1990 plans. Since 1990, the number of graduate students in Washington's public institutions has increased by about 3,000, from 13,200 to nearly 16,200 (see Exhibit 15). The 1990 HECB goals called for graduate enrollments to increase to over 26,000 students by 2010, an average of nearly 700 per year. Since 1990, graduate enrollment has actually increased by an average of 250 students per year.

Exhibit 15

Graduate Enrollments Have Increased by About 3,000 Since 1990: Growth Is Lagging Behind the HECB's 1990 Goals

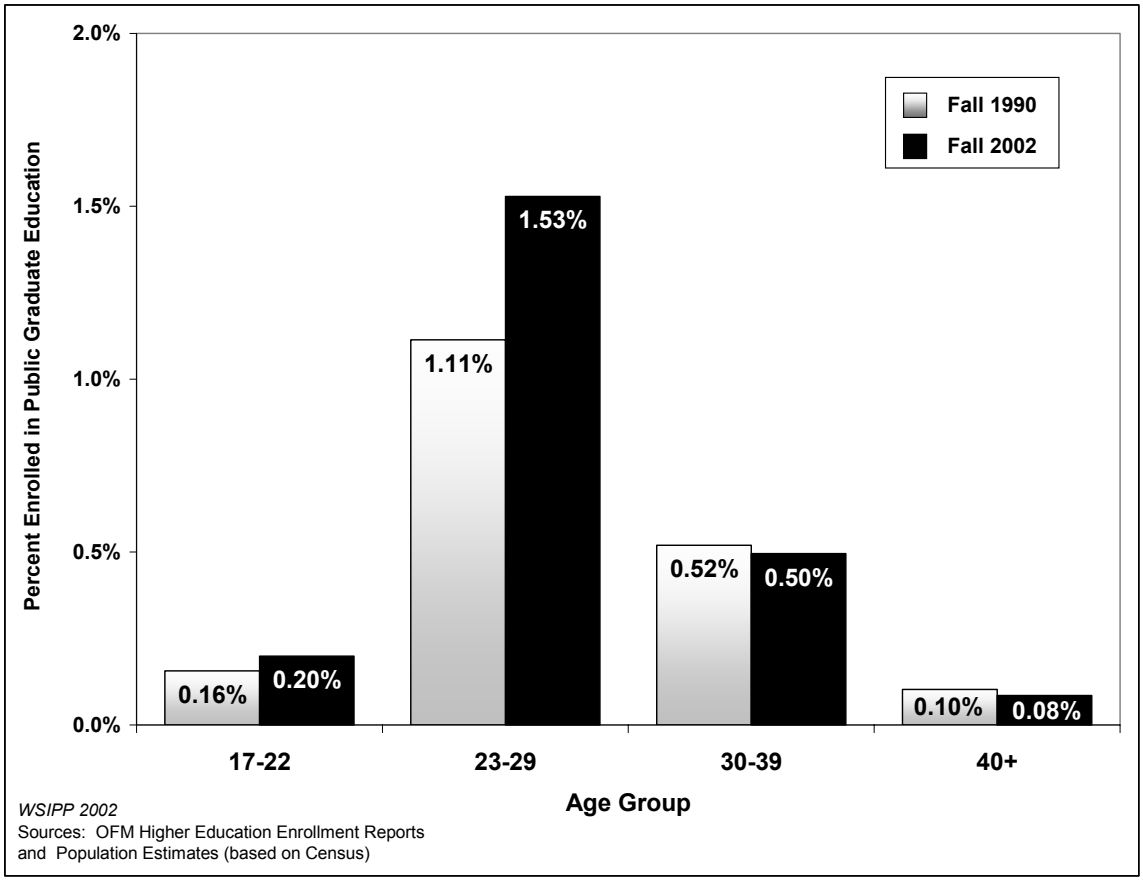


WSIPP 2002

Source: OFM Higher Education Enrollment Reports

The incremental growth in graduate enrollment has corresponded with improved participation rates since 1990 for younger age groups (see Exhibit 16).

Exhibit 16
Graduate Participation Rates Have Improved for Younger Age Groups

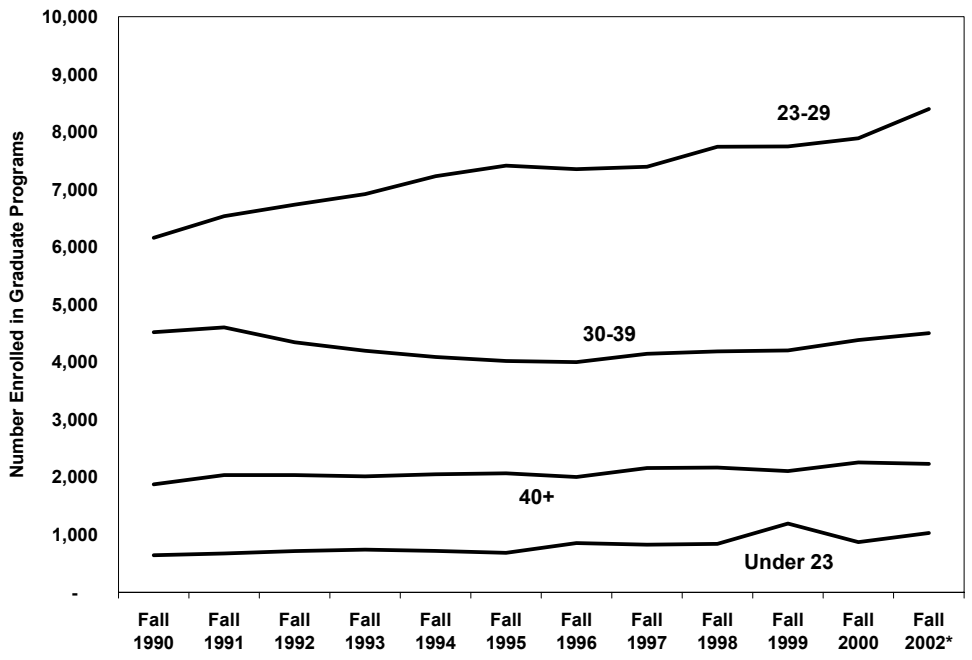


WSIPP 2002
Sources: OFM Higher Education Enrollment Reports and Population Estimates (based on Census)

The 23 to 29 age group has accounted for three-fourths of graduate enrollment growth (see Exhibit 17), despite the current decline of individuals in this age group (see Exhibit 18).

Exhibit 17

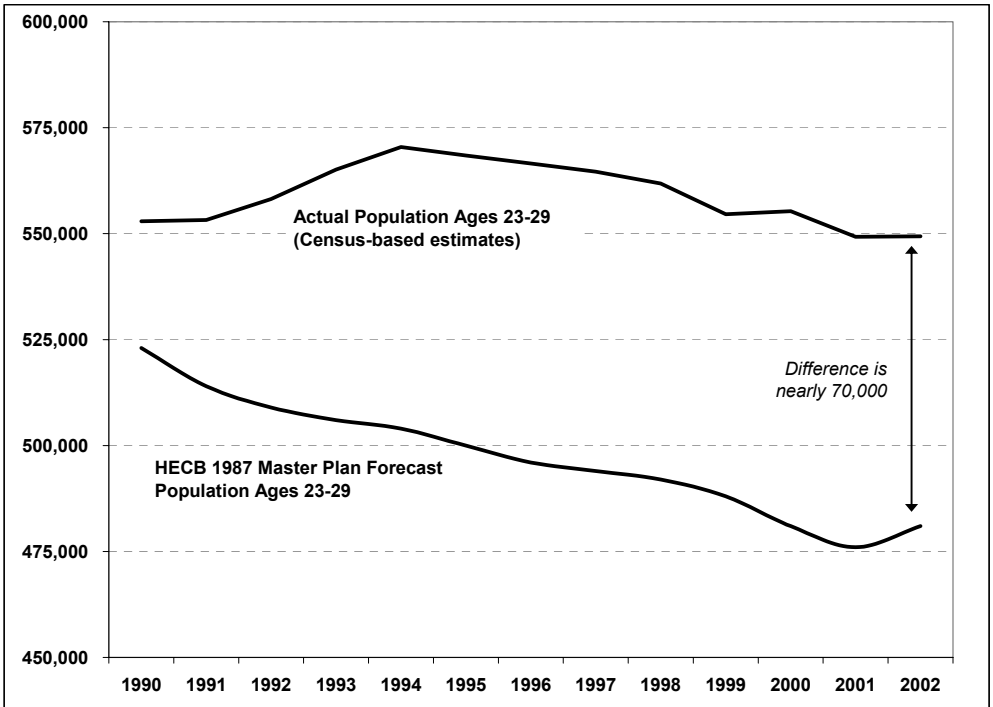
Number of Graduate Students Between Ages 23 and 29 Is Increasing



WSIPP 2002
*Data for 2001 are excluded due to missing data by age group.
Source: OFM Higher Education Enrollment Reports

Exhibit 18

The 23 to 29 Age Group Has Shrunk, Though Not as Much as Forecasted in 1987



WSIPP 2002
Sources: HECB, *Building a System* (1987) and OFM November 2001 Population Estimates

Washington Private Institutions' Enrollment Growth

Between 1990 and 1999 (the latest year comparable data are available), upper division enrollment growth in private institutions in Washington State was less than half the HECB's 1990 goals (see Exhibit 19).[68] In contrast, the number of individuals enrolling in private graduate programs has kept pace with HECB goals. In 1999, private institutions provided 43 percent of graduate enrollments in Washington State compared with 23 percent of upper division.

Exhibit 19

Private Graduate Enrollment Growth Is Outpacing Upper Division Growth (1990–99)

	Anticipated Growth 1990–2010	Actual New Enrollment 1990–1999	Fall 1999 Enrollment	*Comparison:* Public Institutions' Fall 1999 Enrollment
Upper Division	4,500	1,505	13,119	44,610
Graduate	3,000	2,016	11,320	15,275

Source: IPEDS and HEER

HECB Response to Lagging Enrollment Growth (1996)

In its 1996 master plan, the HECB noted that state funding was not keeping pace with 1990 goals and that population growth was occurring on a larger scale than expected. In response, the HECB extended its goal of reaching the 70th percentile in upper division and graduate enrollment to 2020 (rather than 2010). The revised goal was to reach the national average by 2010 and the 70th percentile by 2020.[69]

Have Participation Rates Improved Relative to Other States?

Limitations. Comparisons with other states are based on the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS) for 1998, the most recent year comparable data are available. The 1987 rankings were calculated by the HECB in 1990 using the same source; however, comparisons among states should be interpreted with caution for the following reasons:

- Not every higher education institution submits data to IPEDS each year, so NCES imputes enrollment data for known non-responding entities and excludes data for those who have not submitted in recent years. Newly established schools may be overlooked.

[68] Private institutions included in enrollment estimates: Antioch University, Bastyr University, City University, Cornish College of the Arts, Gonzaga University, Henry Cogswell College, Heritage College, Northwest College of Art, Pacific Lutheran University, Saint Martin's College, Seattle Pacific University, Seattle University, University of Phoenix (new in 1997), University of Puget Sound, Walla Walla College, Whitman College, and Whitworth College.

[69] HECB, *Building a System: Washington State Master Plan for Higher Education*, (Olympia, WA: Higher Education Coordinating Board, 1996), 5-6.

- How institutions categorize themselves (by sector) or their enrollments (by class standing) vary. All two-year public and four-year public and private institutions that submit data to NCES for IPEDS are included in national comparisons. Two-year private (usually technical) schools are excluded.

State Rankings. Washington was ranked lower in 1998 than in 1987 at all levels of higher education (see Exhibit 20). Washington ranked in the bottom 10 percent of states in both upper division and graduate participation in 1998. Because of its relatively high *lower division* participation rate, Washington was still slightly above the national average (ranked at the 54th percentile) for overall participation in higher education in 1998.

Exhibit 20
Washington's Participation Rate
Percentile Rankings Have Slipped

	1987	1998
Lower Division	86th	78th
Upper Division	16th	8th
Graduate	24th	6th
Overall	No data	54th

Sources: 1987 data from HECB, Design for the 21st Century; 1998 data from IPEDS Fall Enrollment and U.S. Census

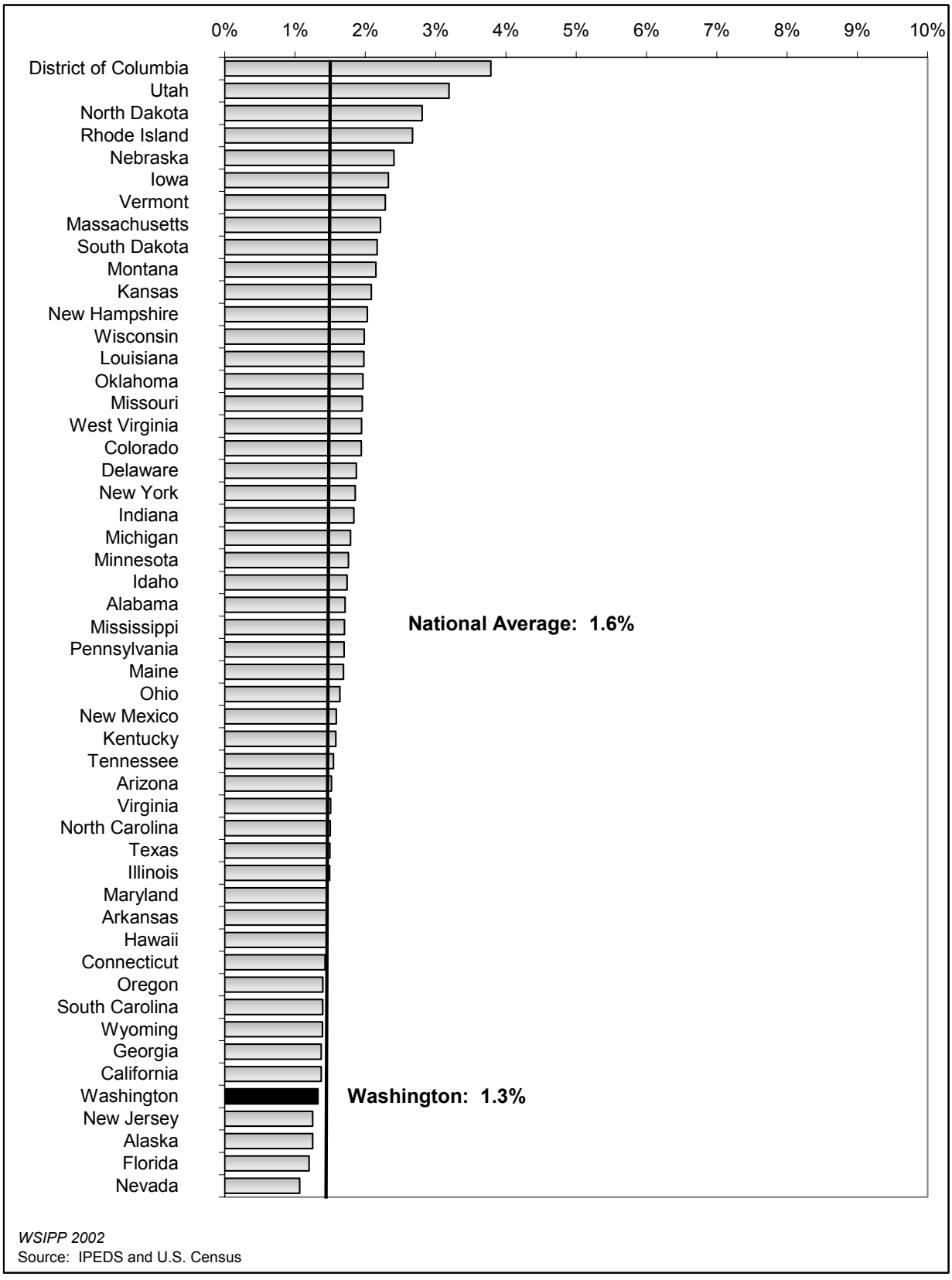
Unique aspects of different states likely influence how they are ranked by participation rate but are not revealed through examining Washington's rank. For example, certain states, such as Utah and Massachusetts, act as nationwide draws for particular niches within higher education. Each state's rank does not take into account how many students come from out-of-state or how many students are enrolled in private institutions. Some states that have small populations, such as North Dakota and Rhode Island, also have relatively high *proportions* of individuals enrolled in college even when the total *number* is low in comparison with other states.

The District of Columbia in particular is an anomaly. Washington D.C. is ranked at the top in both upper division and graduate participation rates because of its high concentration of higher education institutions within a small area. Excluding Washington D.C., there is a relatively narrow range of participation rates among the 50 states, especially at the graduate level.

Exhibits 21 and 22 present states' upper division and graduate participation rates, with states listed in order from highest to lowest.

Exhibit 21

States' Upper Division Participation Rates and Rankings (1998)

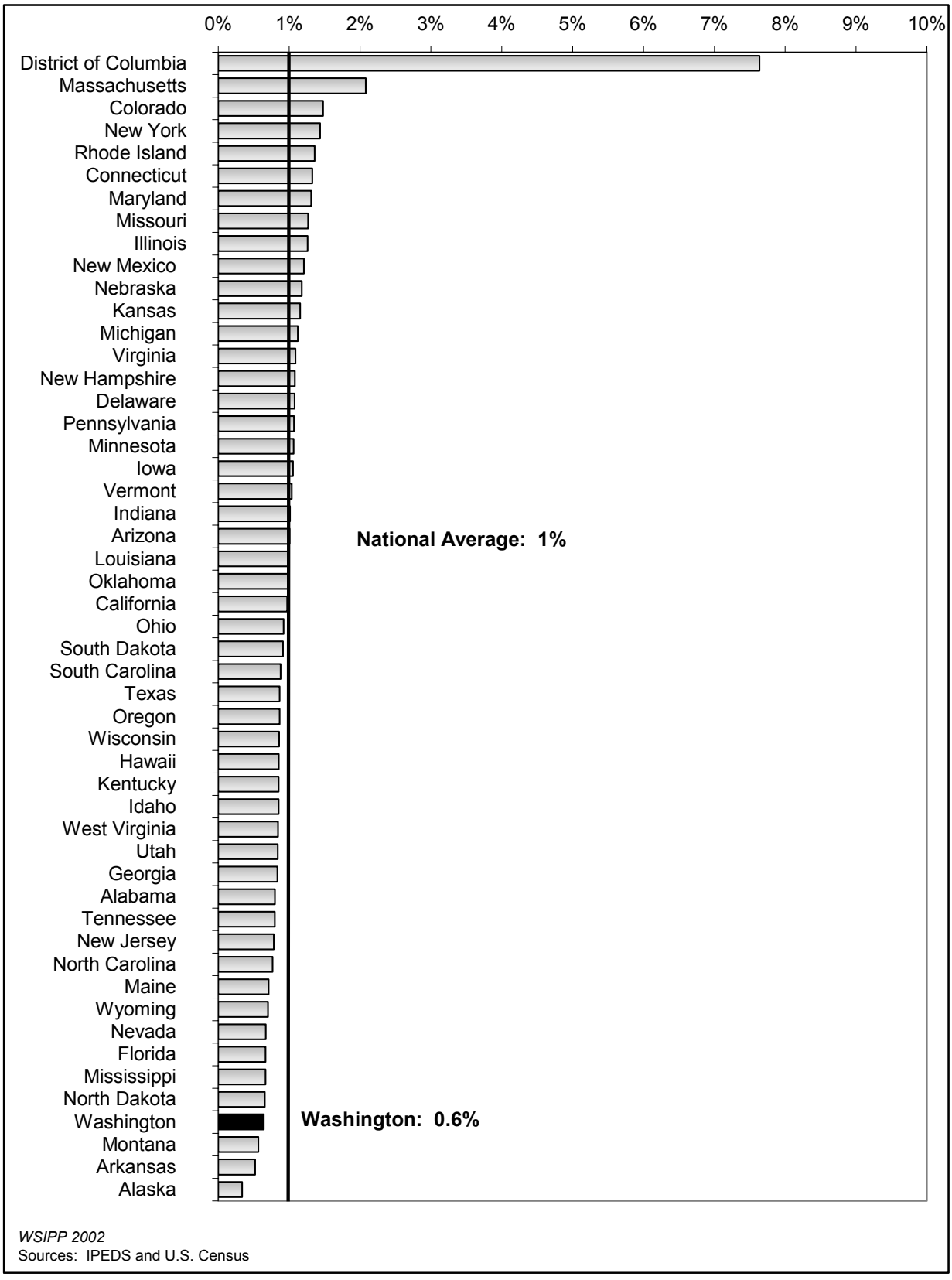


WSIPP 2002

Source: IPEDS and U.S. Census

Exhibit 22

States' Graduate Participation Rates and Rankings (1998)



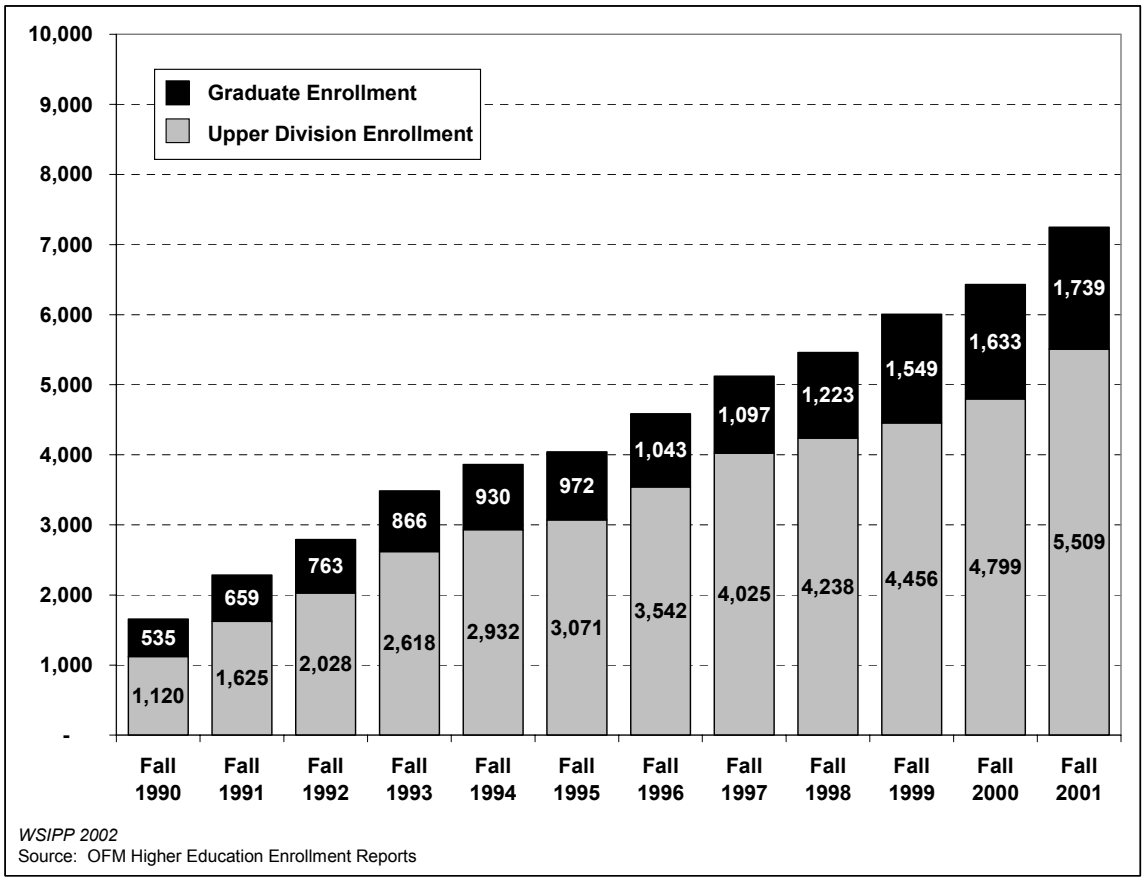
WSIPP 2002

Sources: IPEDS and U.S. Census

Role of Branch Campuses in Expanding Access

Growing by a combined average of 510 students per year, the branch campuses accounted for half the increase in upper division and graduate enrollment in Washington's public higher education system between 1990 and 2001. Branch campuses now make up over 11 percent of enrollment (excluding lower division).

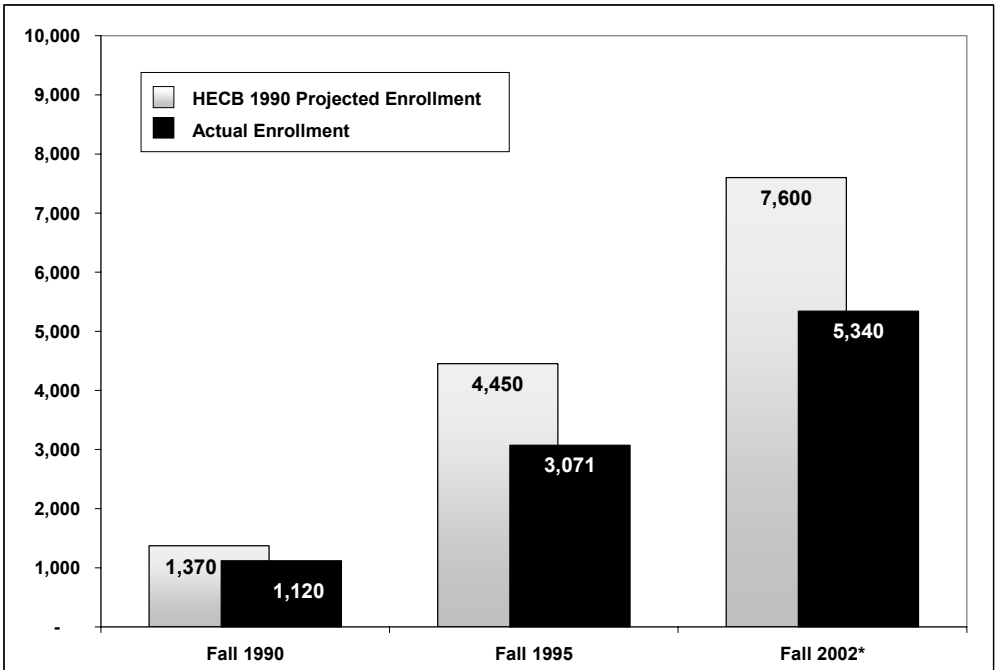
Exhibit 23
Branch Campuses Have Grown Steadily Since 1990



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

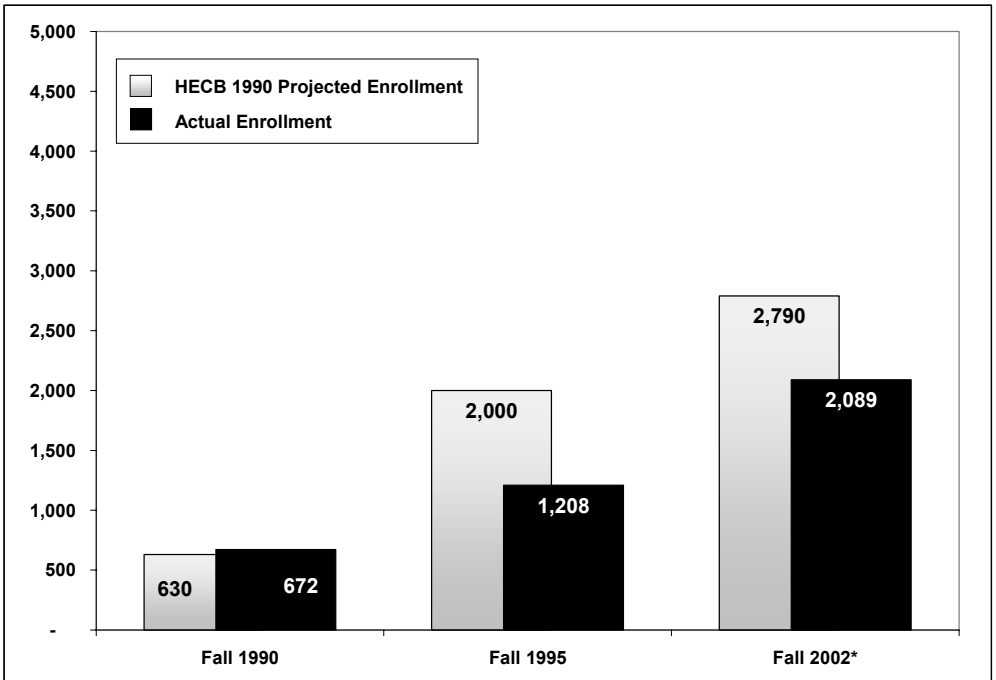
The branch campuses, like Washington's public higher education system overall, have not followed the growth curves the HECB projected in 1990 (see Exhibits 24 and 25).

Exhibit 24
Branch Campus Upper Division Enrollment Lags Behind 1990 Projections



WSIPP 2002
*Displays 2002 actual enrollment vs. HECB original plans for 2000.
Sources: HECB original plans from *Design for the 21st Century*; actual enrollment from OFM Higher Education Enrollment Reports (1990 and 1995); and data request from branches (2002)

Exhibit 25
Branch Campus Graduate Enrollment Lags Behind 1990 Projections



WSIPP 2002
*Displays 2002 actual enrollment vs. HECB original plans for 2000.
Sources: HECB original plans from *Design for the 21st Century*; actual enrollment from OFM Higher Education Enrollment Reports (1990 and 1995); and data request from branches (2002)

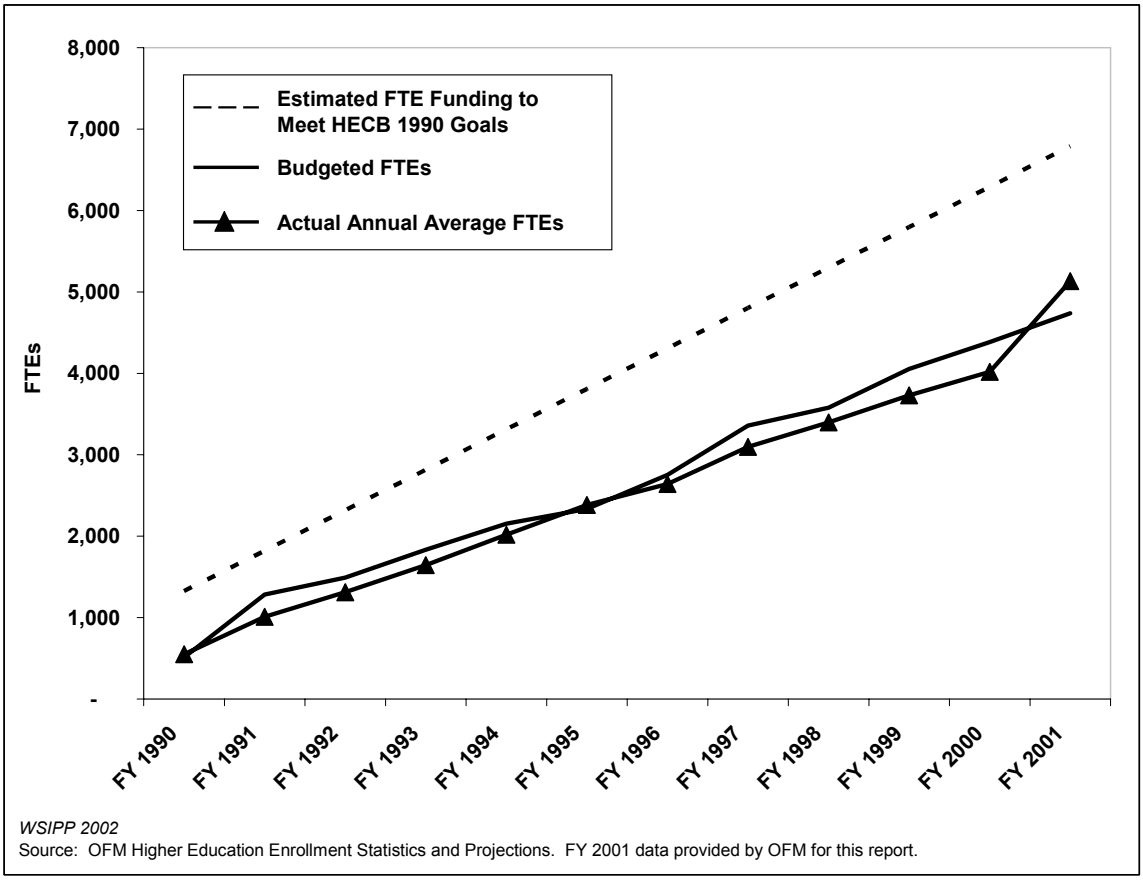
The following two factors have affected branch campus enrollment growth:

- Implementation of new degree programs; and
- Funding and associated capacity.

Implementation of New Degree Programs. The time and resources required for faculty recruitment and hiring, curriculum development, and program-related facilities acquisition have likely constrained enrollment growth.

Funding and Associated Capacity. FTE funding at the branch campuses has lagged behind the HECB's 1990 plans (see Exhibit 26).[70] Existing facility capacity is slightly lower than the 1990 plans (see Exhibit 27). There is considerable variation in funding and capacity among the five branch campuses. Appendix C presents comparable enrollment, capacity, and budget estimates for each branch campus.

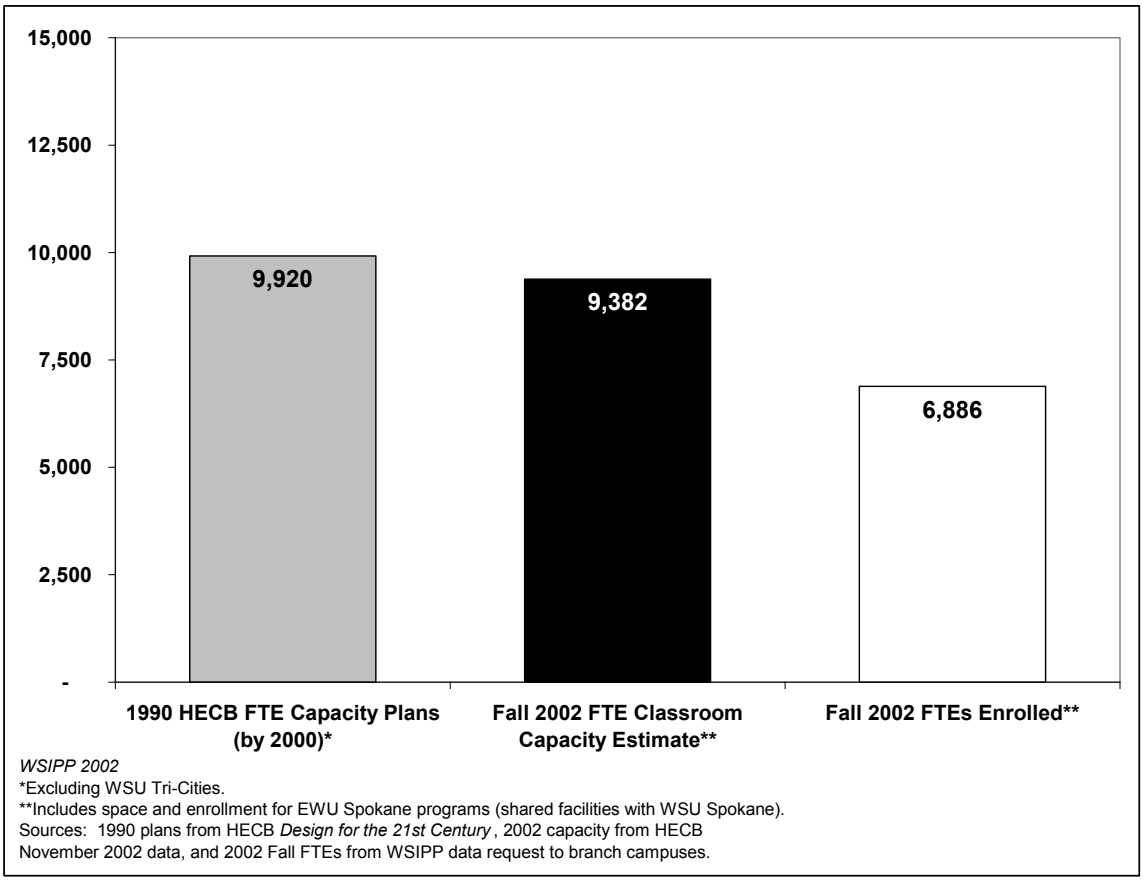
Exhibit 26
Branch Campuses FTE Funding Lags Behind HECB 1990 Plans



WSIPP 2002
Source: OFM Higher Education Enrollment Statistics and Projections. FY 2001 data provided by OFM for this report.

[70] Senate Higher Education Committee memo, "Branch Campus Development," October 12, 1998.

Exhibit 27
Branch Campus FTE Capacity and Enrollment



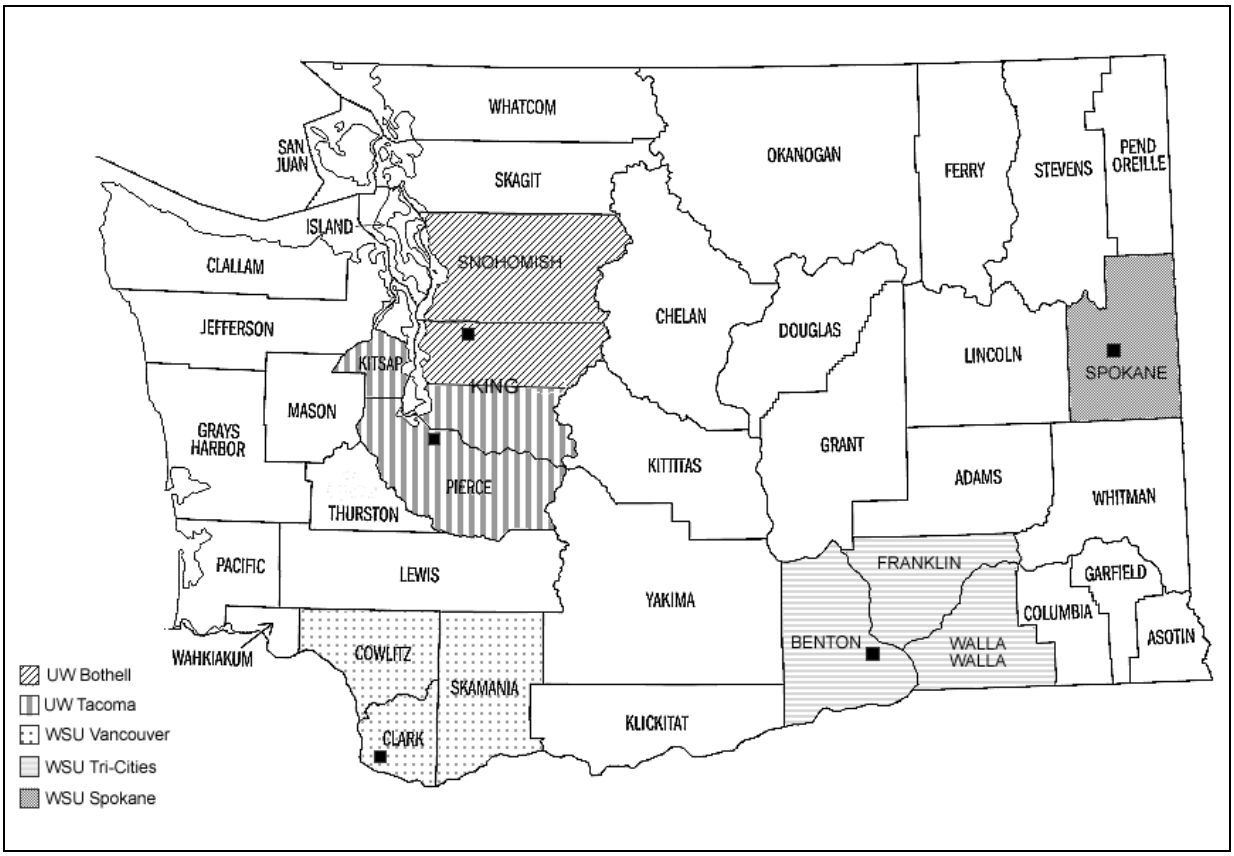
WSIPP 2002
*Excluding WSU Tri-Cities.
**Includes space and enrollment for EWU Spokane programs (shared facilities with WSU Spokane).
Sources: 1990 plans from HECB *Design for the 21st Century* , 2002 capacity from HECB November 2002 data, and 2002 Fall FTEs from WSIPP data request to branch campuses.

Branch Campus Role in Expanding Access in Targeted Urban Areas

In addition to expanding access statewide, each branch campus was intended to be the primary provider of public upper division and graduate education in surrounding areas (see Exhibit 28).[71] Although the HECB's "service area policy" was rescinded in 1995, the designated counties still serve as a reference point for the regional impact of the branch campuses.

[71] HECB, *Building a System* (1987), 16.

Exhibit 28
Branch Campus Target Areas

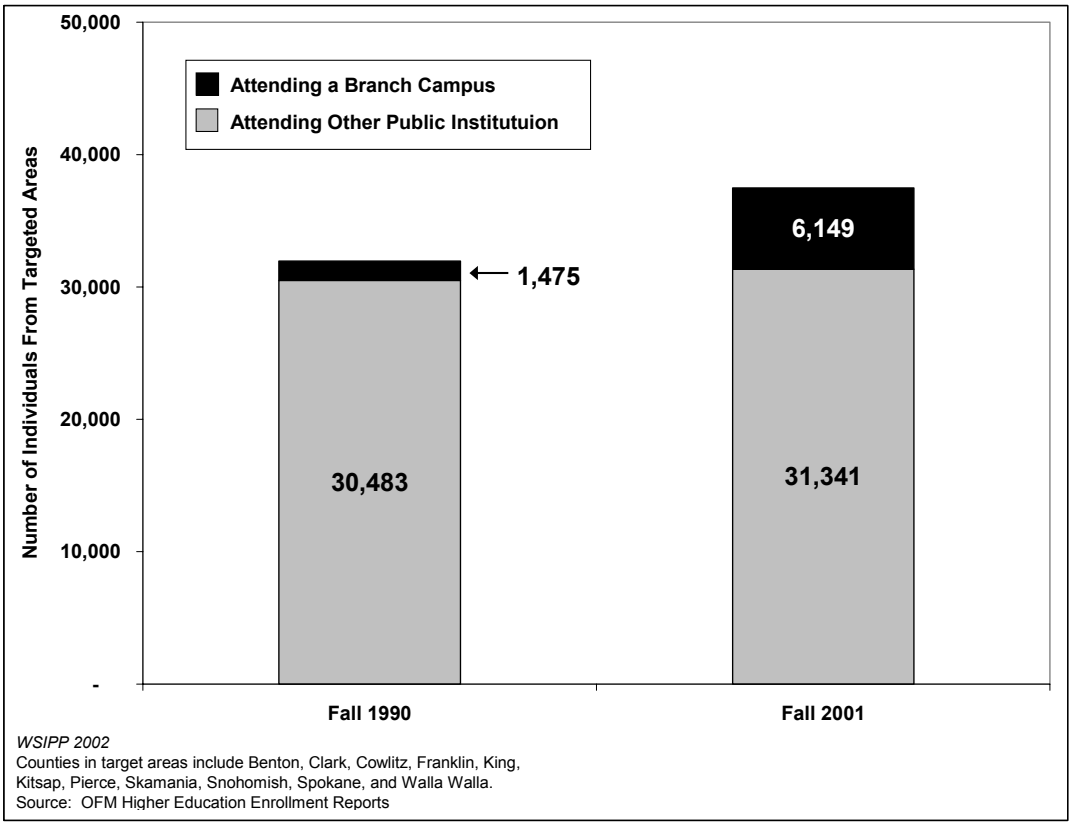


The *number* of individuals from the target areas who attend upper division and graduate programs increased by over 5,500 between 1990 and 2001. The branch campuses enrolled 84 percent of these additional students from the target areas (see Exhibit 29).

Participation *rate* changes in the branch campus target areas have been mixed (see Exhibit 30). Where participation rates changed, the actual change was very slight. The columns indicating participation rate changes in Exhibit 30 show the *direction* in which change occurred. Because county-based enrollment data are not available by age group, these rates are depressed by high rates of growth in older age groups—those least likely to enroll in school. Appendix D contains detailed participation rates by region.

Exhibit 29

Branch Campuses Accounted For Most New Upper Division and Graduate Enrollment of Students From Targeted Counties (1990–2001)



WSIPP 2002
Counties in target areas include Benton, Clark, Cowlitz, Franklin, King, Kitsap, Pierce, Skamania, Snohomish, Spokane, and Walla Walla.
Source: OFM Higher Education Enrollment Reports

Exhibit 30

Overall Participation Rates in Targeted Urban Areas Increased Slightly in Some Areas, Declined in Others (1990–2001)

Campus	Counties by Target Area	Upper Division Participation Rate Change	Graduate Participation Rate Change
UW Bothell	Snohomish	Up	Flat
UW Bothell and UW Tacoma	King	Down	Down
UW Tacoma	Pierce, Kitsap	Up	Up
WSU Vancouver	Clark, Cowlitz, Skamania	Up	Up
WSU Tri-Cities	Benton, Franklin, Walla Walla	Flat	Down
WSU Spokane	Spokane	Down	Up

Sources: HEER and U.S. Census population estimates

Did Branch Campuses Expand Access to Upper Division and Graduate Education?

Determining the extent to which the branch campuses have expanded access to baccalaureate and graduate programs is difficult because, in their absence, the legislature could have pursued other means of expanding access. The data analyzed for this report, however, indicate that branch campuses have played a larger role in expanding access than anticipated.

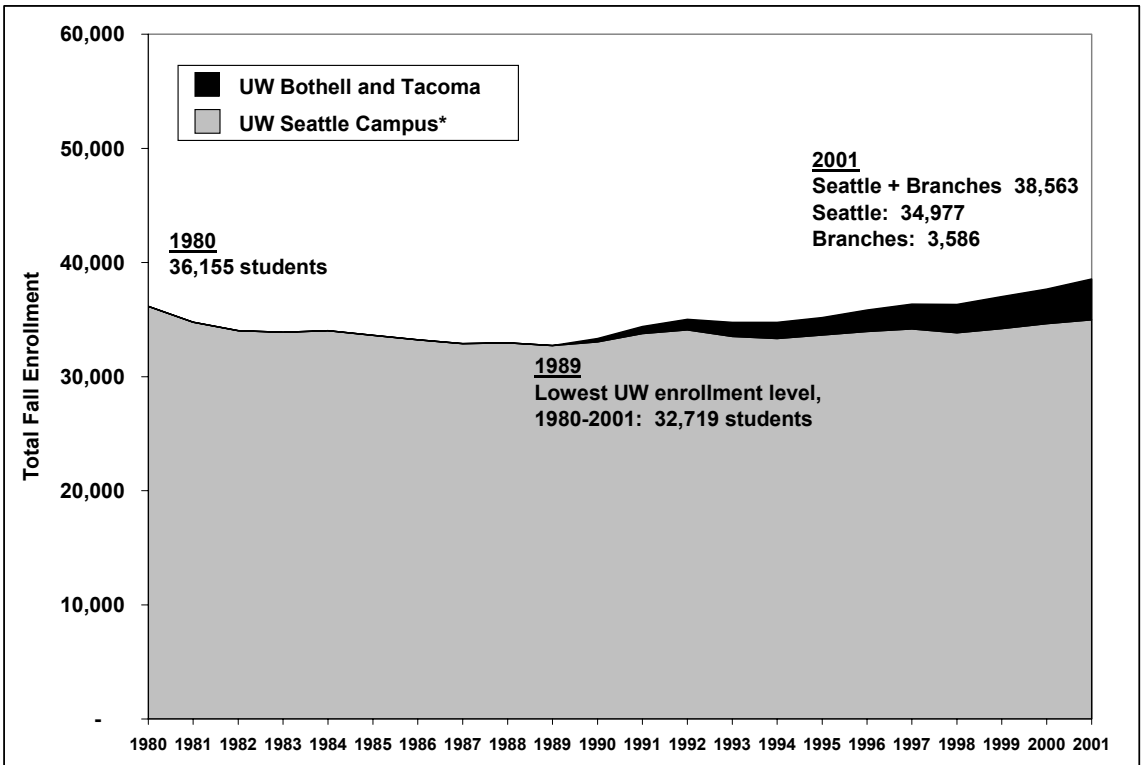
In 1990, the HECB planned for the branch campuses to account for approximately half of upper division and one-quarter of graduate public higher education enrollment growth. Between 1990 and 2001, the branches accounted for half of *both* upper division and graduate public enrollment growth statewide and over three-fourths of increases in the number of students from targeted urban areas. The branch campuses have grown faster than other public baccalaureate institutions; since 1990, overall enrollment growth has been about 2 percent a year compared with 15 percent at the branch campuses.

Impact on UW and WSU as "Multi-Campus Systems"

Another perspective on the role of the branch campuses can be gained by looking at the UW and WSU campus systems.

University of Washington. UW's overall enrollment declined during the 1980s. Since 1989, enrollment has expanded, largely at the branch campuses. The creation of the UW Evening Program and the lifting of enrollment caps in the early 1990s also likely increased enrollment at the Seattle campus. In 2001, branch campuses accounted for 18 percent of UW upper division enrollment and 5 percent of UW graduate enrollment, which is 9 percent overall (including lower division at the Seattle campus).

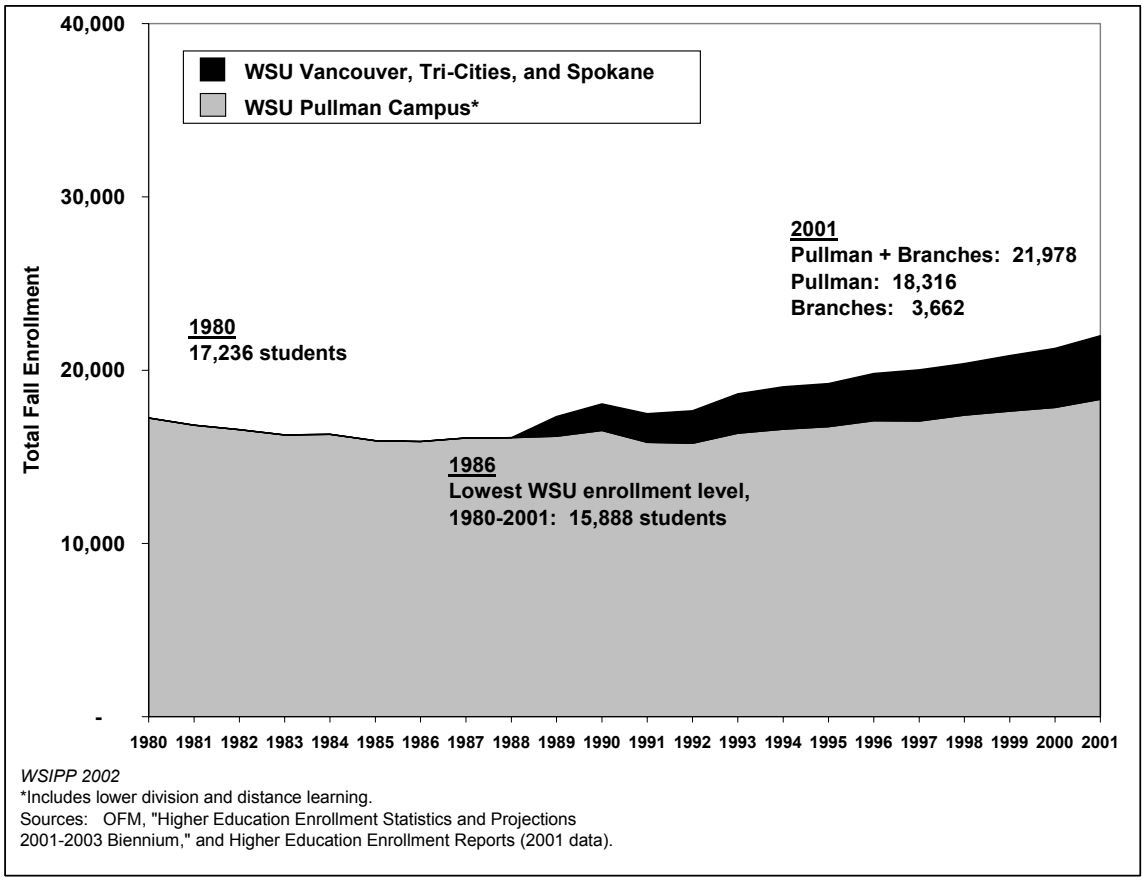
Exhibit 31
University of Washington Enrollment
Before and After Branch Campuses Were Created



WSIPP 2002
*Includes lower division and UW Evening Program.
Sources: OFM, "Higher Education Enrollment Statistics and and Projections 2001-2003 Biennium," and Higher Education Enrollment Reports (2001 data).

Washington State University. WSU's enrollment declined between 1980 and 1986. Most of WSU's enrollment growth since then has occurred at the branch campuses. There has been some growth at the Pullman campus as well, likely due to the lifting of enrollment caps and the expansion of distance learning. In 2001, WSU branch campuses made up 22 percent of WSU upper division enrollment and 34 percent of WSU graduate enrollment, which is 17 percent overall (including lower division at the Pullman campus).

Exhibit 32
Washington State University Enrollment
Before and After the Branch Campuses Were Created



WSIPP 2002
*Includes lower division and distance learning.
Sources: OFM, "Higher Education Enrollment Statistics and Projections 2001-2003 Biennium," and Higher Education Enrollment Reports (2001 data).

Other Measures of Access

Other measures of access for which data are available include proximity of institutions to population centers and degree attainment rates.

Proximity of Institutions to Population Centers

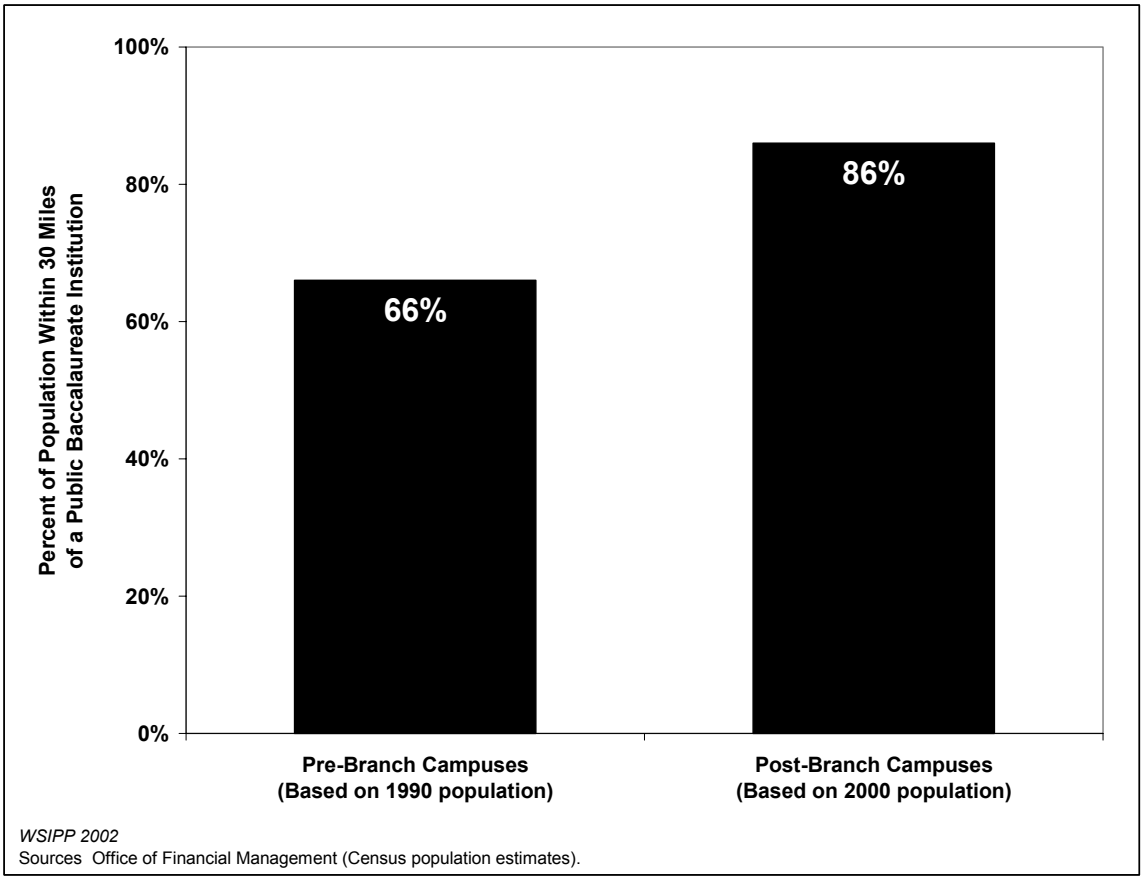
One measure of access to higher education is the proportion of the population that lives near public institutions offering baccalaureate and graduate degrees. The 1987 master plan noted that four of the six public baccalaureate institutions were located in rural areas. Only the University of Washington was located in the center of a sizeable urban population.[72]

Before the branch campuses were created, approximately 66 percent of Washington's population lived within 30 miles of one of the six baccalaureate institutions in Washington State, based on 1990 population estimates; this number drops to 20 percent when UW is

[72] The Evergreen State College (TESC) in Olympia was considered to be in a relatively small, though still urban, population center.

excluded. Since the branch campuses were established in urban centers, the percentage of the population living within 30 miles of a public baccalaureate institution has increased to 86 percent (see Exhibit 33). Excluding UW (Seattle), the figure is 41 percent.[73]

Exhibit 33
The Proportion of Washington's Population Within 30 Miles of a Public Baccalaureate Institution Has Increased (1990–2000)



WSIPP 2002
Sources Office of Financial Management (Census population estimates).

Degree Attainment

Another measure used to evaluate the accessibility of the higher education system is the proportion of the population that has earned a baccalaureate degree or higher. The greater the proportion, the more accessible the system is assumed to be. One major limitation of this measure is that it does not account for whether people earned their degrees at a Washington institution or in another state. However, this measure is commonly used to compare educational attainment levels.[74]

[73] OFM analysis based on U.S. Census data provided for this study.
[74] See, for example, *Educational Attainment in the United States* (Washington, D.C.: U.S. Census Bureau, Current Population Survey, 1994–2000).

Degree attainment has increased in Washington from 23 percent in 1990 to nearly 28 percent in 2000.[75] For each of the branch campus target areas, degree attainment rates have increased since 1990, although only King County and the Tri-Cities regions exceeded the statewide average in 2000 (see Exhibit 34).

Exhibit 34

Branch Campus Target Areas Have Increased Degree Attainment Rates Since 1990

Campus	Targeted Counties	1990 Percent of Population Age 25+ With a BA or Higher	2000 Percent of Population Age 25+ With a BA or Higher
UW Bothell and UW Tacoma	King	33%	40%
UW Bothell	Snohomish	19%	24%
UW Tacoma	Pierce, Kitsap	18%	22%
WSU Vancouver	Clark, Cowlitz, Skamania	15%	20%
WSU Tri-Cities	Benton, Franklin, Walla Walla	27%	30%
WSU Spokane	Spokane	21%	25%
Statewide		23%	28%

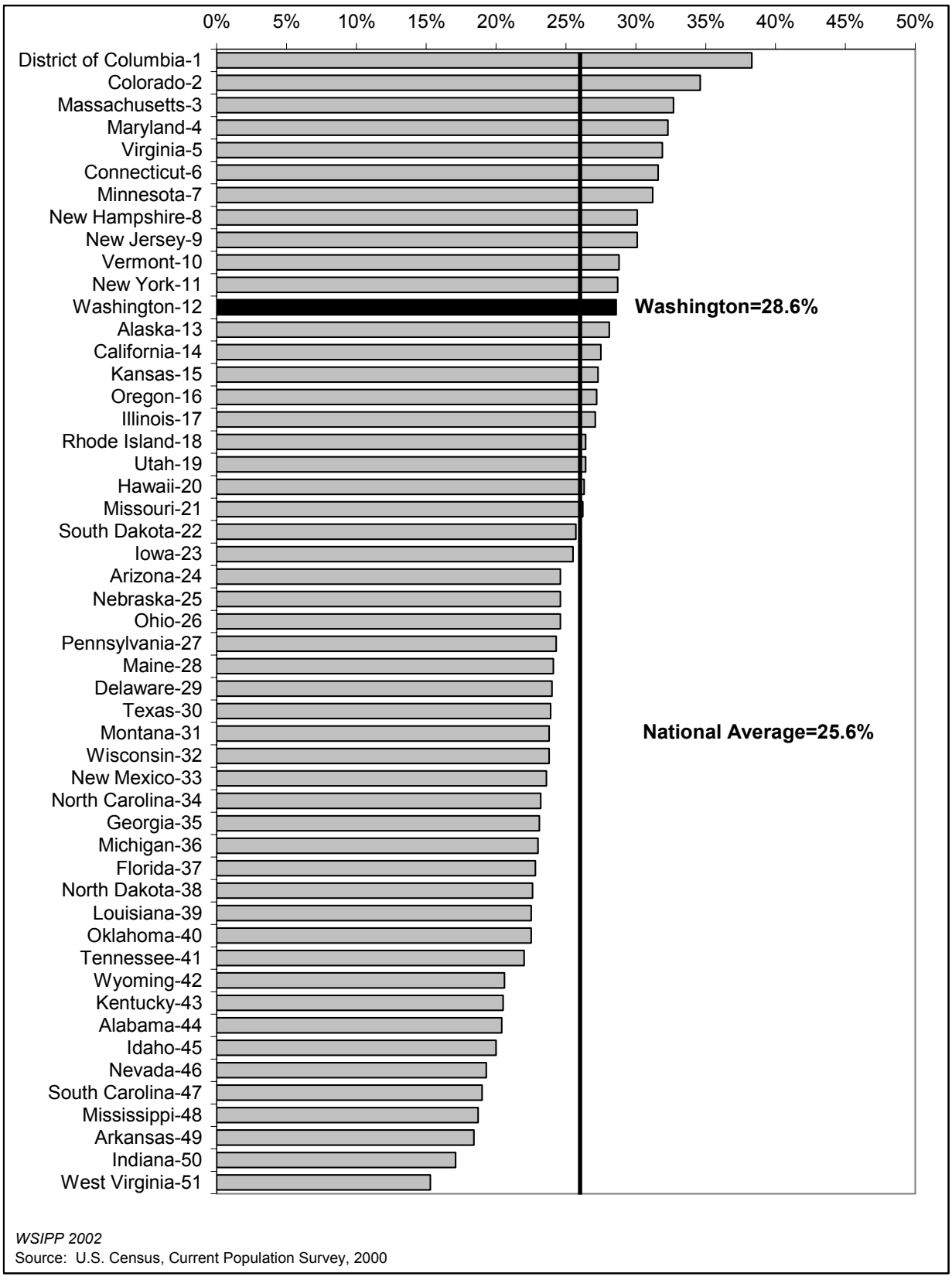
Source: U.S. Census

Comparison With Other States. In Washington State, a relatively high percentage of the population age 25 and older has earned a baccalaureate degree or higher (see Exhibit 35). Washington ranked 12th in degree attainment in 2000, the most recent year for which data are available. Washington's relatively high degree attainment rate, in comparison with its relatively low upper division and graduation participation rates, is generally attributed to a high level of in-migration of degree holders.

[75] The degree attainment percentages are based on the population aged 25 and older that has a baccalaureate or graduate degree using 1990 and 2000 U.S. Census sample data (Summary File 3). The Current Population Survey (CPS) for 2000 had a slightly higher degree attainment rate for Washington (29 percent). CPS, *Educational Attainment in the United States* (Washington, D.C.: U.S. Census, March 2000).

Exhibit 35

State Degree Attainment Rankings (2000)



WSIPP 2002

Source: U.S. Census, Current Population Survey, 2000

Summary

Branch campuses were created to expand access to upper division and graduate programs in Washington State.

Factors That Influence Enrollment. Access is primarily measured by enrollment levels and corresponding participation rates. Factors that influence enrollment, but are not captured in access measures based on available data, include state funding polices, demographic trends other than population growth, economic trends, and welfare reform.

Access Indicators. Since 1990, upper division and graduate enrollment growth has not occurred as rapidly as the HECB's 1990 goals, and Washington continues to rank relatively low in upper division and graduate participation compared with other states. However, most indicators examined in this report suggest that access *has* expanded in Washington State. Between 1990 and 2001:

- Upper division enrollment increased by about 8,000, and graduate enrollment by 3,000.
- Public participation rates improved for younger age groups (those most likely to enroll in college).
- More Washington residents live within 30 miles of a public baccalaureate institution.
- Degree attainment rates have increased.

Role of Branch Campuses. Branch campuses have played a larger role in expanding access than originally anticipated. The branch campuses have accounted for half of upper division and graduate enrollment growth since 1990. Within targeted urban areas, branch campuses accounted for 84 percent of the increase in the number of individuals enrolling in upper division and graduate programs between 1990 and 2001. Branch campus enrollments currently lag behind the HECB's 1990 plans, in part due to constraints related to implementing new degree programs and lower levels of funding.

SECTION III. TARGET PLACEBOUND STUDENTS

The HECB and the Legislature directed branch campuses to prioritize access for placebound individuals. Branch campuses were to tailor service delivery to older students thought to be more likely than younger students to work, have children, or face other challenges that make it difficult to relocate to enroll in school.

In 1987, population projections led the HECB to conclude that older students (the indicator of placebound students used in the first master plan) would likely dominate branch campus enrollments throughout the early 1990s. After 1995, the HECB predicted that the traditional college-age group would grow substantially, changing the demographics of students at the branch campuses as well as at other baccalaureate institutions across the state. Branch campuses were expected to "[a]djust to the increase in the traditional age of urban students after 1995."[76]

To assess whether branch campuses have targeted placebound students, and whether demographic trends influence the type of students attending the branch campuses, this section:

- Summarizes population trends since 1990;
- Examines the prevalence of placebound students at the main and branch campuses of UW and WSU;
- Provides data on how the branch campuses target placebound students; and
- Presents current population forecasts by age group for Washington State.

Population Trends

As illustrated in the previous section, population growth has exceeded forecasts from the late 1980s. After declining slightly in the early 1990s, the traditional college-age group (ages 17 to 22) has increased by over 100,000 statewide since 1994, which is about twice as much as anticipated in 1987. Increases in the number of individuals age 40 and older have been more dramatic, but only a small percentage of people older than 40 attend higher education programs. Both the 23 to 29 and 30 to 39 age groups expanded until the mid-1990s; they have since declined slightly.

Branch Campus Regions. Populations in areas where branch campuses are located have followed statewide trends: local populations aged 40 and older have steadily increased; while traditional college-age groups have also expanded, they have done so on a smaller scale. The number of individuals between the ages of 23 and 39 has been flat overall since 1990 in the areas surrounding the branch campuses.

[76] HECB, *Building a System* (1987), 15.

Placebound Indicators

When establishing the Educational Opportunity Grant Program in 1990, the Legislature defined placebound as an individual "who, because of family or employment commitments, health concerns, monetary need, or other similar factors, would be unable to complete an upper-division course of study but for receipt of an educational opportunity grant."[77] Available data allow us to compare students at the main and branch campuses based on the factors shown in Exhibit 36, which are grouped by data source.

Exhibit 36
Placebound Indicators Data Sources

Higher Education Enrollment Reports	Transfer Cohort Study
• Students' ages • Students' courseloads • Students' county of origin	• Students' employment status • Students' family status (whether they have children)

Higher Education Enrollment Reports (HEER)

As noted previously, HEER include data on all state-supported students who are enrolled in a public baccalaureate institution. This study includes data covering Fall 1990 through Fall 2002, with the most recent data available provided for each indicator.

Transfer Cohort Study

Available data on students' employment and family status come from a research project currently in progress, jointly conducted by the SBCTC and baccalaureate institutions in Washington.[78] The study examines the role of community and technical colleges in baccalaureate degree production by analyzing data on 2000–2001 graduates from Washington baccalaureate institutions. The transfer cohort study allows us to compare students who transferred from community colleges to either a branch or main campus.

The data cover graduates who transferred from a community college with 40 or more credits, including students who earned an AA or other two-year degree but excluding students who transferred with less than 40 credits. WSU Spokane enrolls very few transfer students from community colleges because it is primarily a graduate school; therefore, it was excluded from the transfer cohort study.

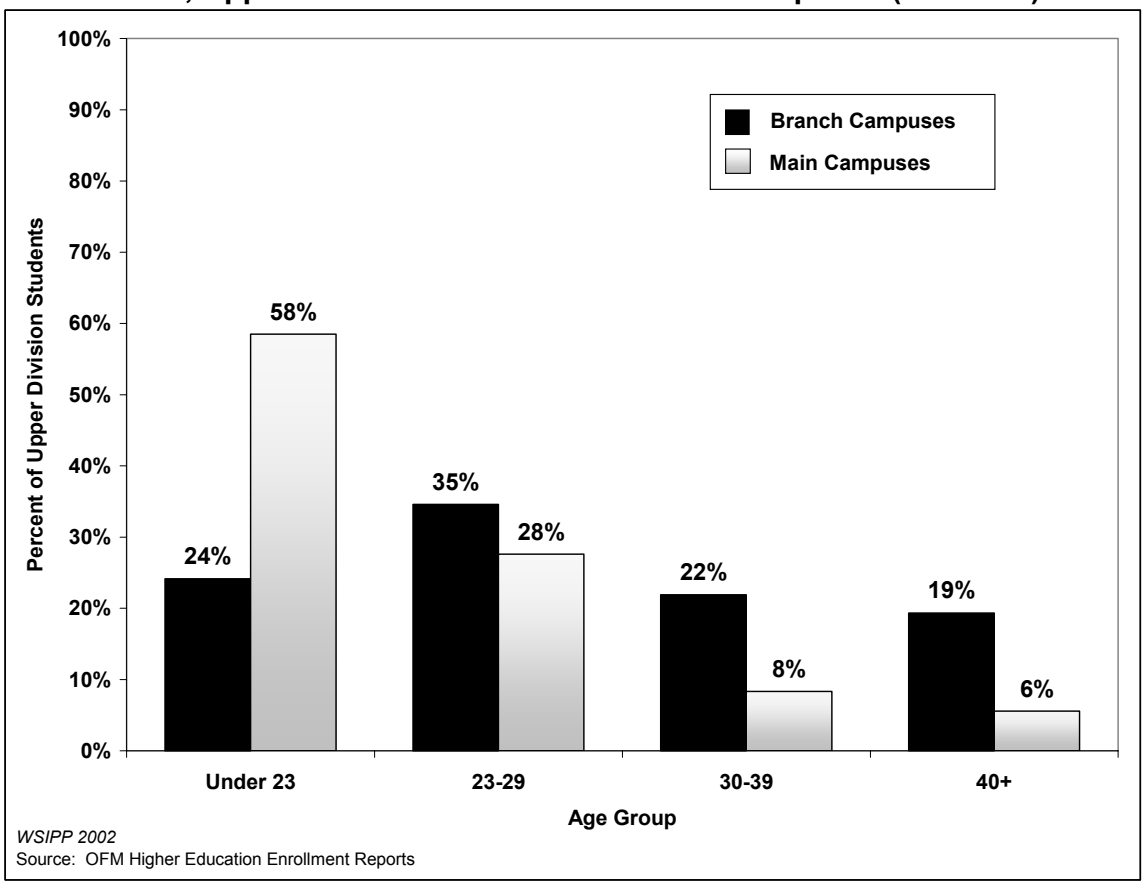
[77] Chapter 288, Section 4, Laws of 1990 (RCW 28B.101.020).
[78] SBCTC, *Role of Washington Community & Technical Colleges Related to Transfer* (Forthcoming study jointly conducted by two-year and baccalaureate institutions in Washington State. Data used in this report were provided by the SBCTC.)

Student Ages

Students' ages are frequently used as a proxy to indicate placebound students: older students are assumed more likely to be placebound. Branch campuses enroll proportionately more older students than the main campuses (see Exhibits 37 and 38).

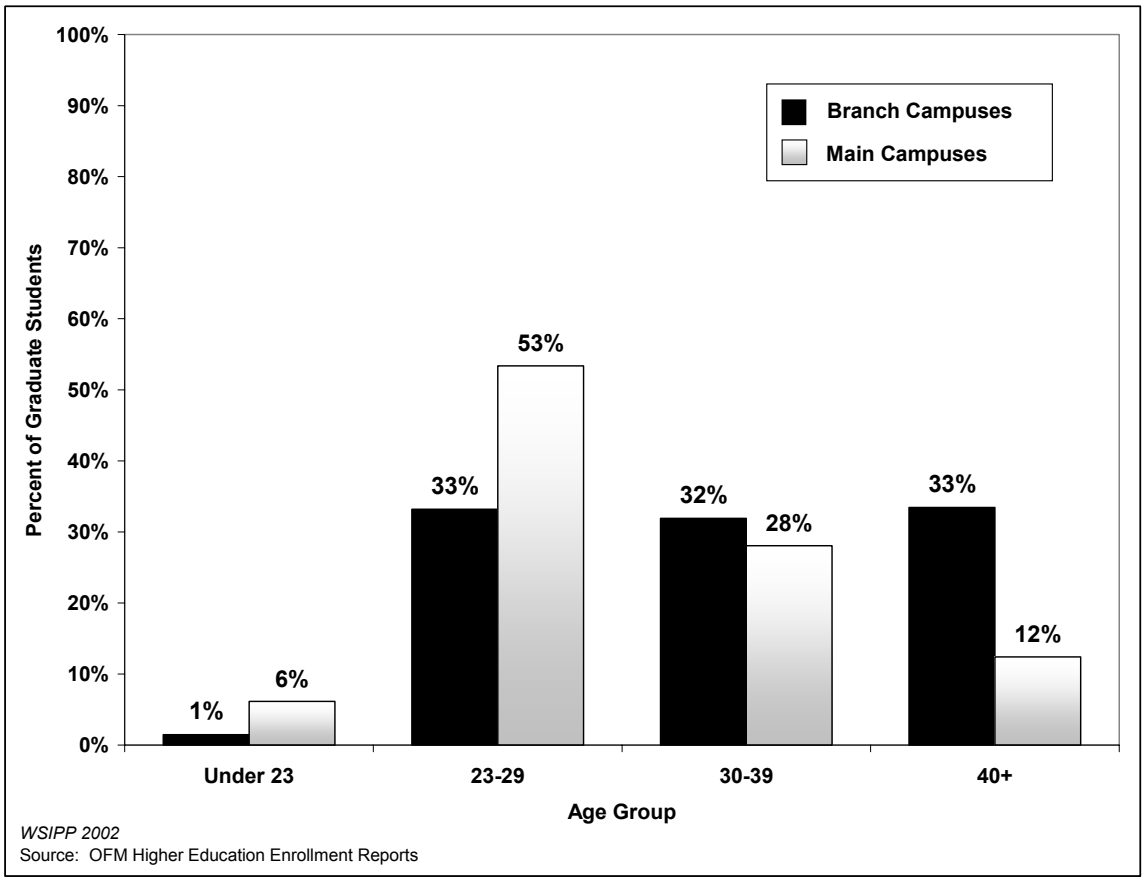
Exhibit 37

Branch Campuses Enroll Proportionately Fewer Younger, and More Older, Upper Division Students Than Main Campuses (Fall 2000)



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

Exhibit 38
Branch Campuses Enroll Proportionately More Older Graduate Students Than Main Campuses (Fall 2000)



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

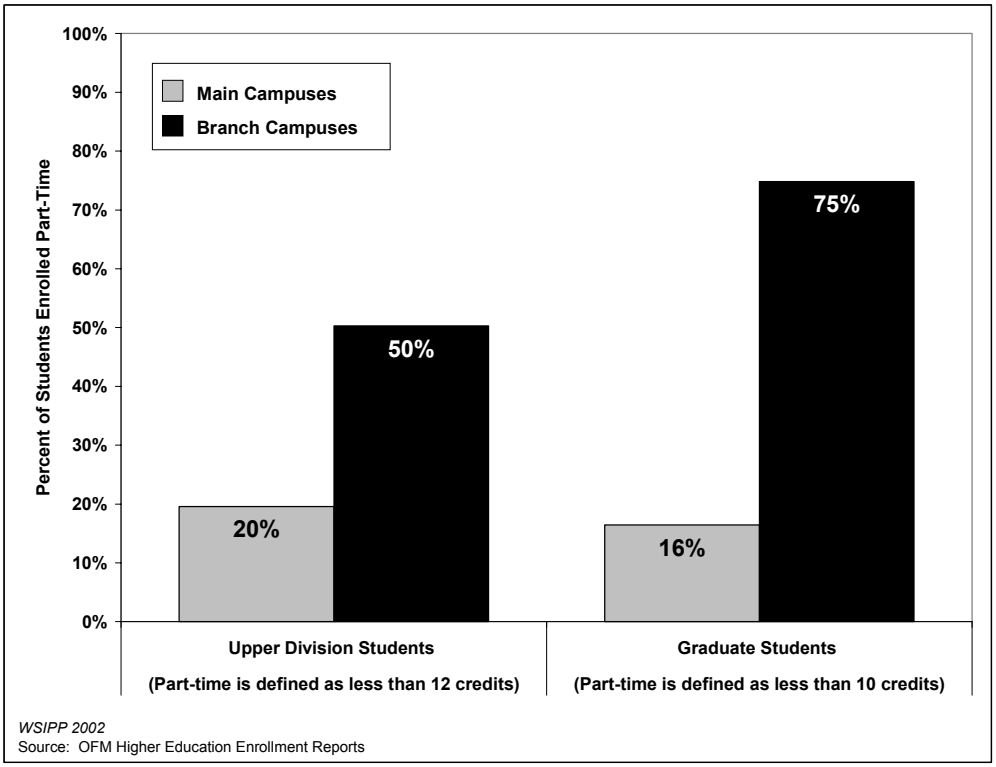
Comparison With Original Plans. As predicted by the HECB in its 1990 plans, both the main and branch campuses of the UW and WSU have seen a recent slight decrease in the average age of upper division students as the traditional college-age population has grown. Average graduate student ages have not changed noticeably since 1990.

Student Courseloads

Placebound students are assumed to be more likely to take fewer courses per semester or quarter because they work, have a family, or face other constraints on attending school full-time. Branch campuses enroll a greater proportion of part-time students than the main campuses (see Exhibit 39). Headcount to FTE student ratios, which directly control for the number of credit hours enrolled, also indicate that students enroll for fewer courses per quarter or semester, on average, at the branch campuses (see Exhibit 40).

Exhibit 39

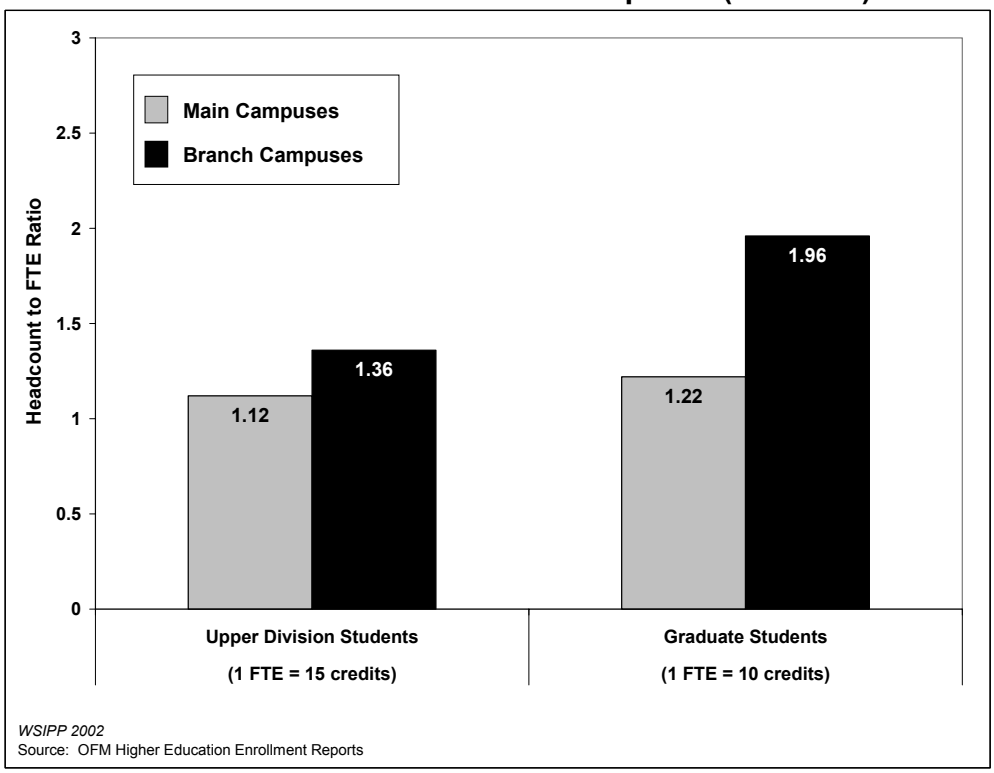
Branch Campuses Enroll a Higher Proportion of Part-Time Students Than Main Campuses (Fall 2001)



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

Exhibit 40

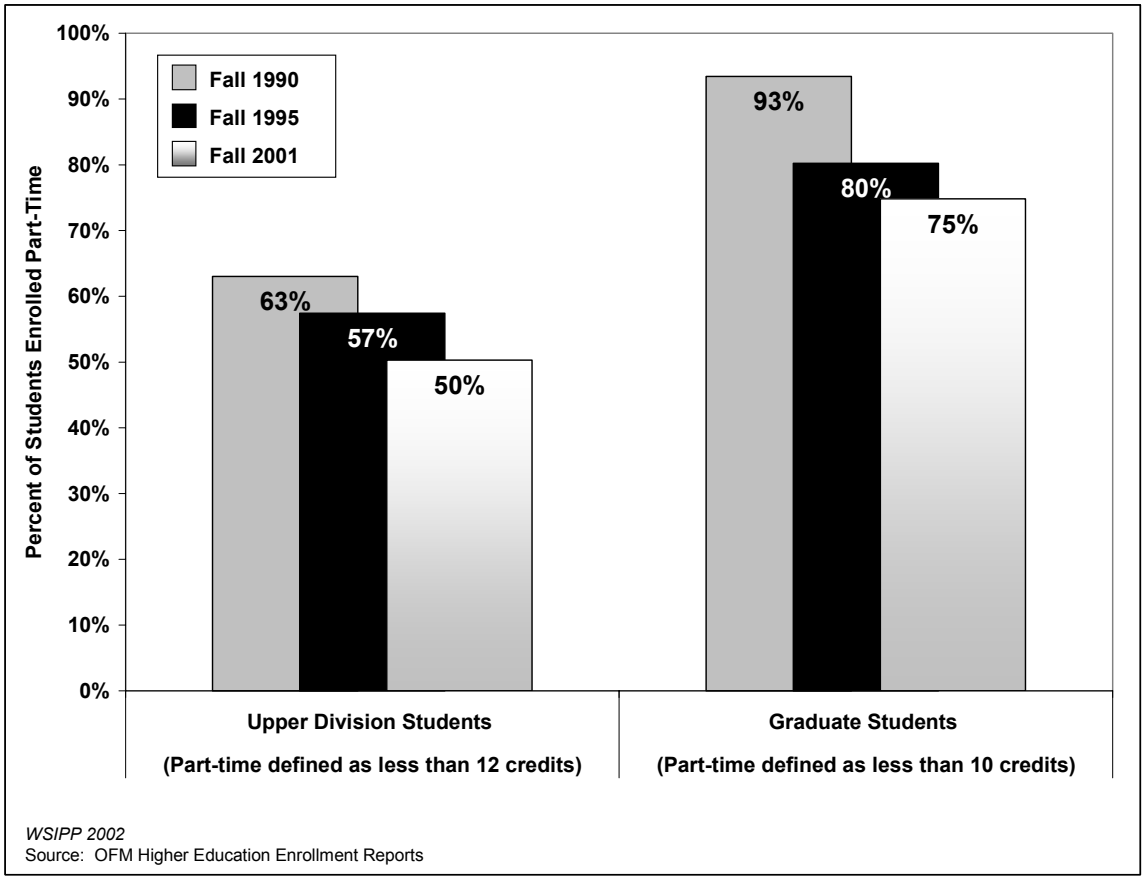
Branch Campuses Have a Higher Headcount to FTE Student Ratio Than Main Campuses (Fall 2001)



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

Comparison With Original Plans. In 2001, branch campus students were less likely to attend school part-time than in 1990 (see Exhibit 41). This trend confirms the HECB's original 1990 plans, in which the HECB predicted that more full-time, traditional students would attend the branch campuses by the late 1990s. The majority of branch campus students continue to attend part-time.

Exhibit 41
Branch Campuses Are Enrolling Fewer Part-Time Students



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

Student Origins

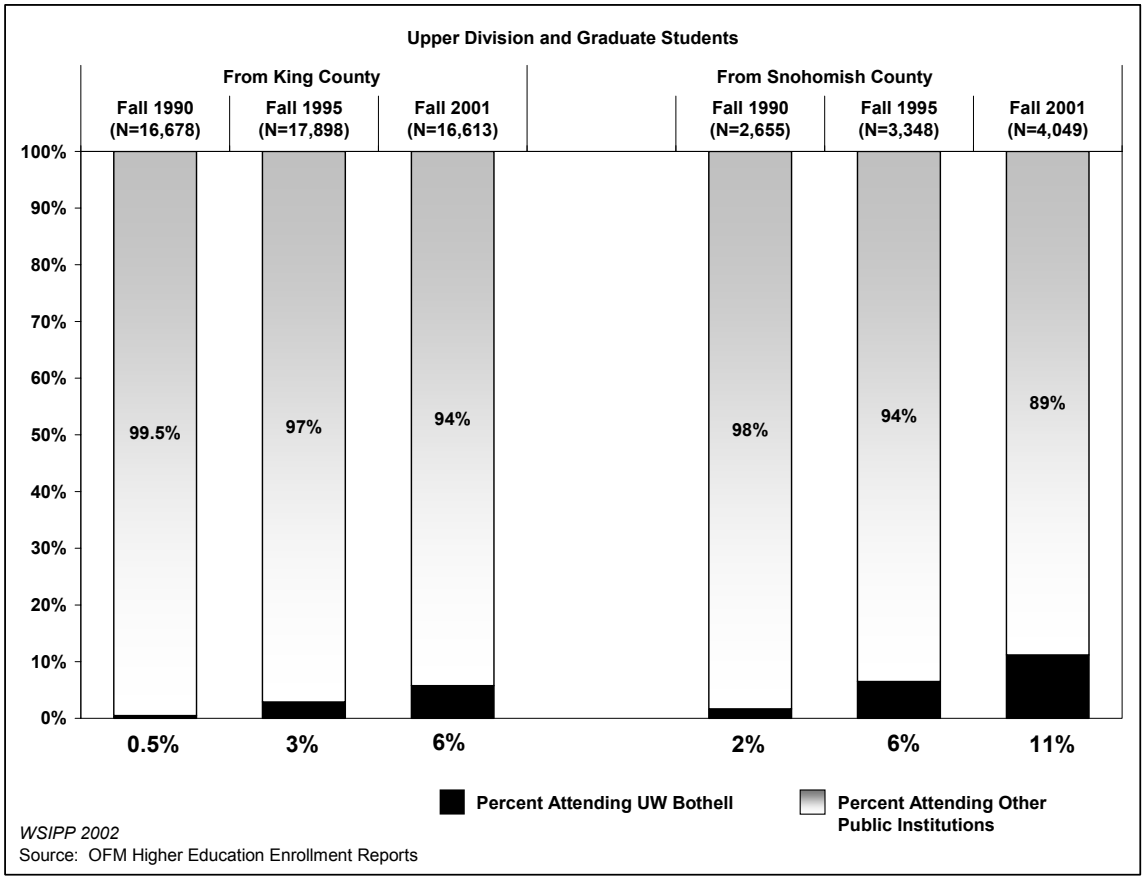
The notion of placebound assumes that students attending branch campuses do not relocate and are from nearby counties. With the exception of WSU Spokane, the majority of branch campus students come from the counties in the branch campus service areas designated by the HECB in 1987 (see Exhibit 28). In most cases, an increasing number *and* proportion of students from these counties attend the branch campuses.

Exhibits 42 through 46 show the proportion of students from each branch campus target area enrolled at the branch campuses compared with the total enrolled in Washington's baccalaureate institutions. King County is shown separately for UW Bothell and UW

Tacoma in the next two exhibits because only portions of King County were intended to be in each campus's target area.[79]

UW Bothell. In 2001, 86 percent of UW Bothell students came from either King or Snohomish Counties. An increasing proportion of students from King and Snohomish Counties attend UW Bothell (see Exhibit 42).

Exhibit 42
Upper Division and Graduate Students From King and Snohomish Counties Increasingly Attend UW Bothell

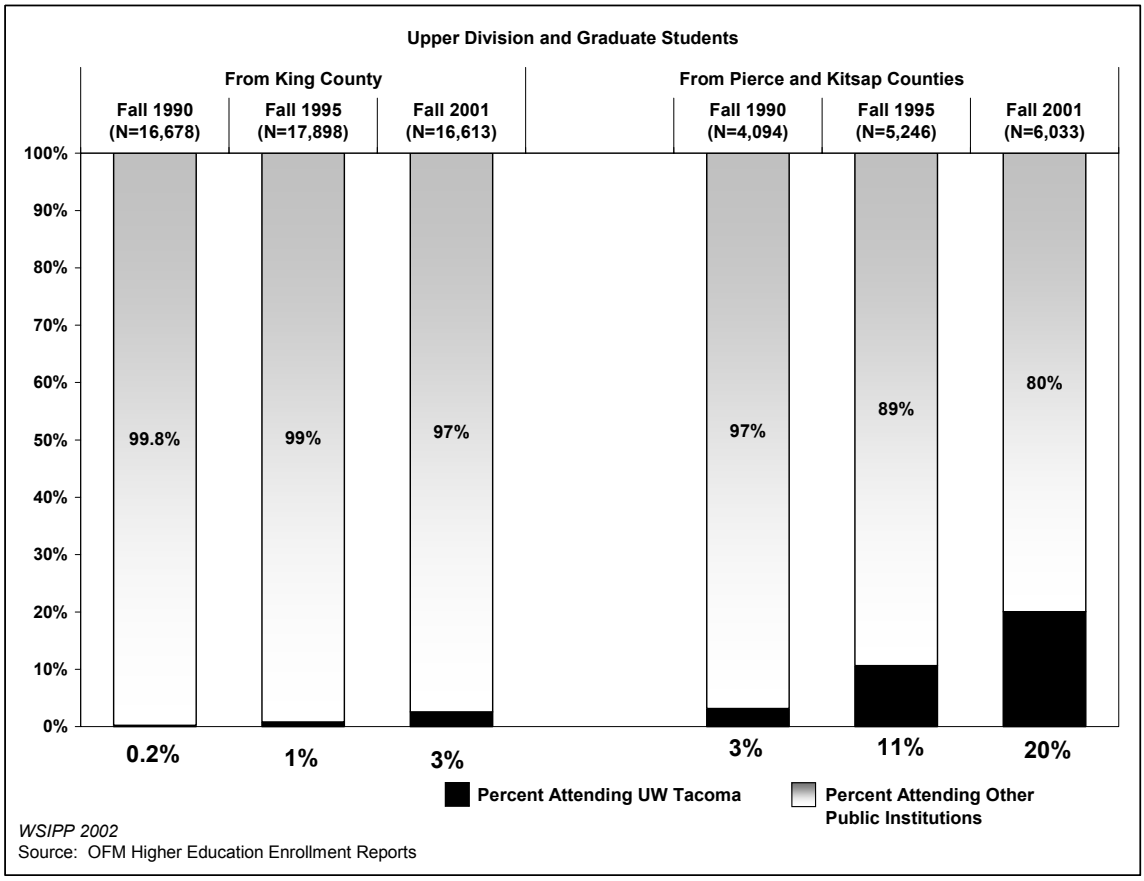


WSIPP 2002
Source: OFM Higher Education Enrollment Reports

[79] UW Bothell was intended to serve the north half of King County and UW Tacoma was intended to serve the south half of King County. Neither campus was intended to primarily serve Seattle.

UW Tacoma. In 2001, 84 percent of UW Tacoma students came from either King, Kitsap, or Pierce Counties. More than half (57 percent) came from Pierce County. Students from each of these three counties have increasingly attended UW Tacoma (see Exhibit 43).

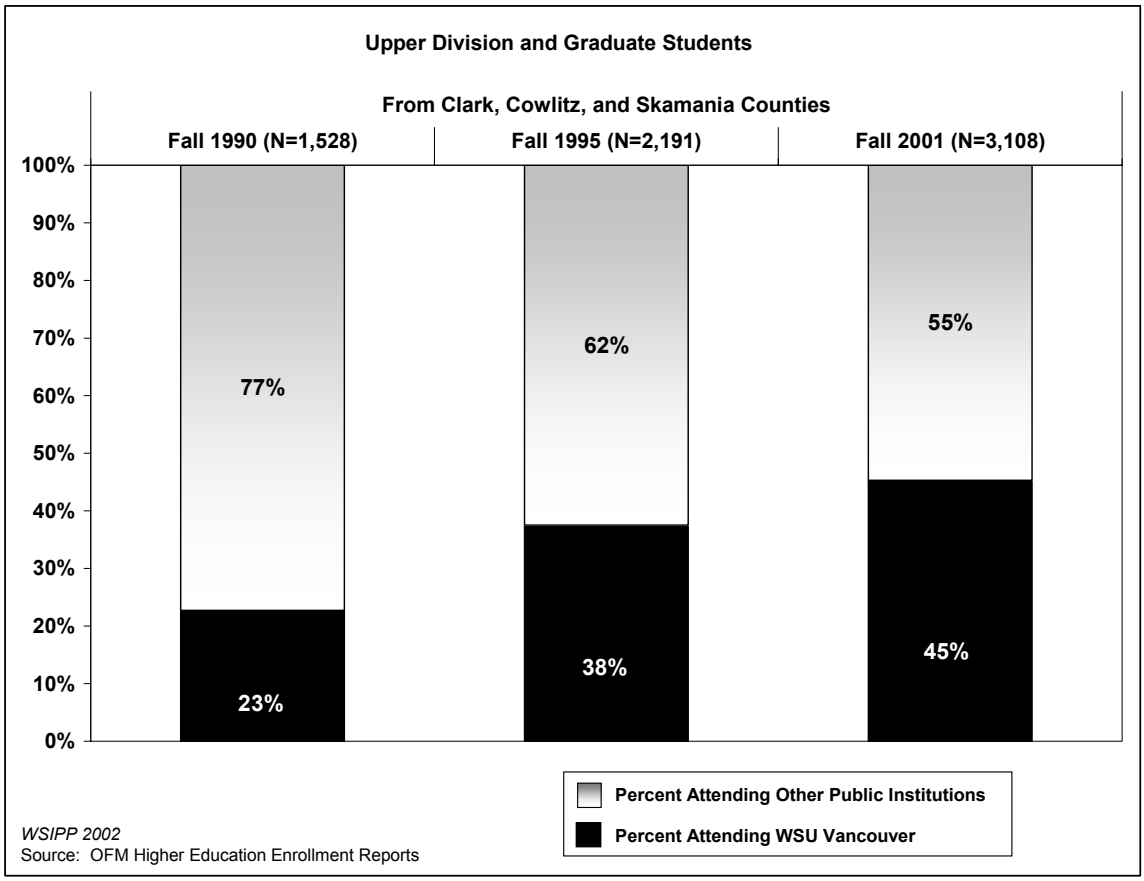
Exhibit 43
Students From King, Kitsap, and Pierce Counties Increasingly Attend UW Tacoma



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

WSU Vancouver. In 2001, 84 percent of WSU Vancouver students were from Clark, Cowlitz, or Skamania Counties; most were from Clark County (72 percent). Increasing proportions of students from these three counties have attended WSU Vancouver since 1990 (Exhibit 44).

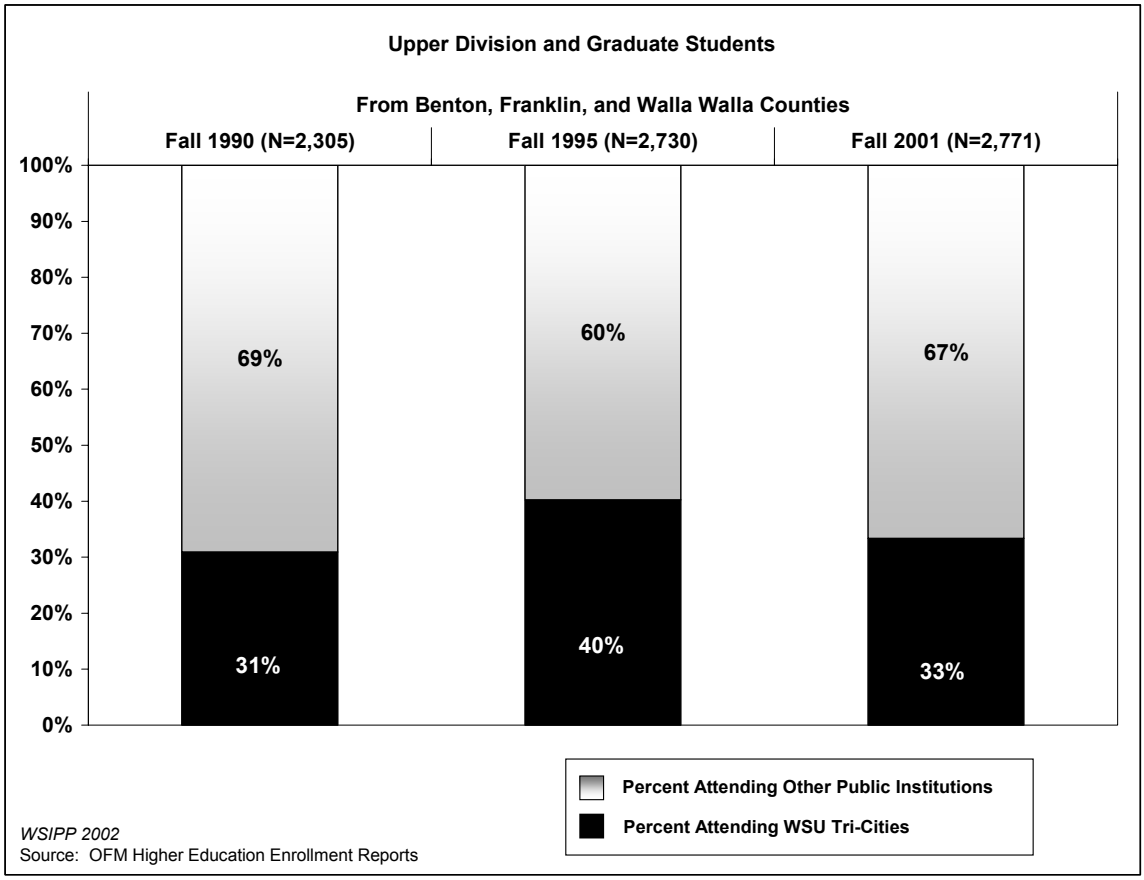
Exhibit 44
Students from Clark, Cowlitz, and Skamania Counties Increasingly Attend WSU Vancouver



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

WSU Tri-Cities. In 2001, 86 percent of WSU Tri-Cities students were from either Benton, Franklin, or Walla Walla Counties. Two-thirds (67 percent) were from Benton County alone. The proportion of students from the area attending WSU Tri-Cities increased during the 1990s, although this percentage recently declined (see Exhibit 45).

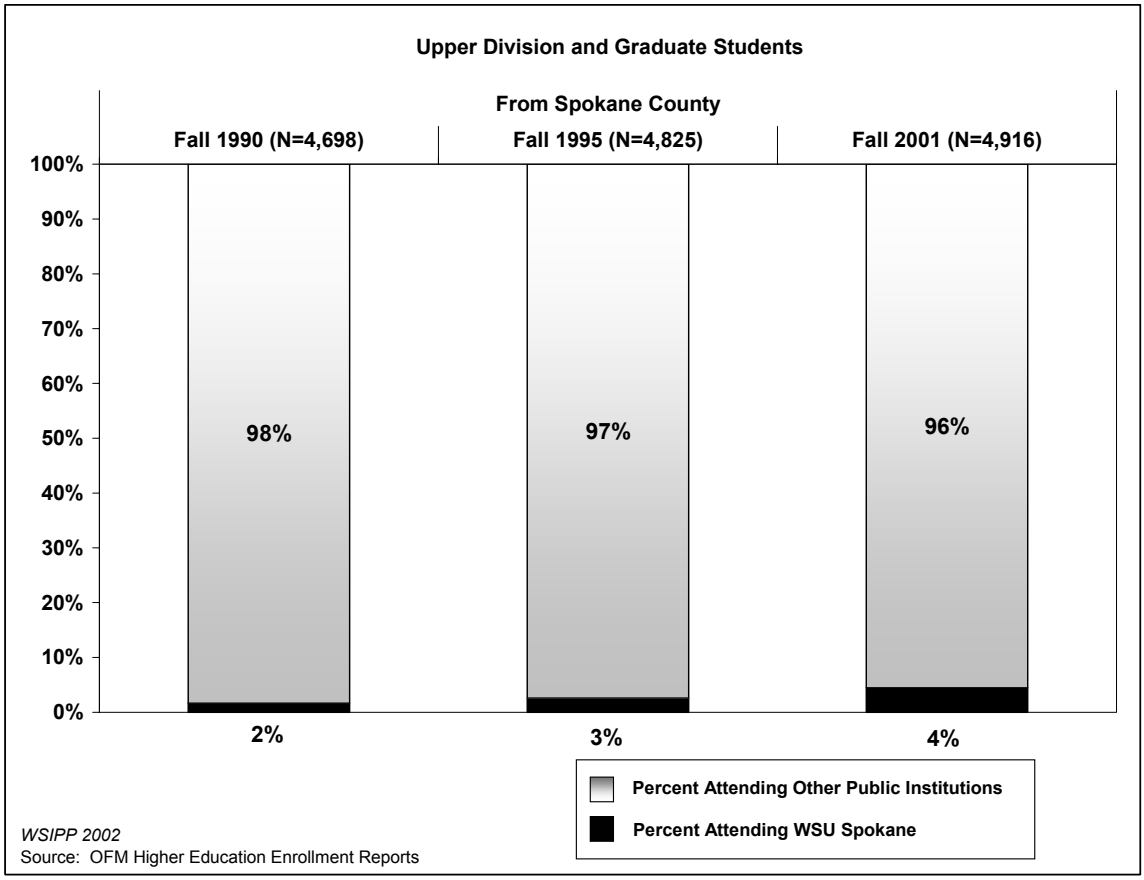
Exhibit 45
About One-Third of Students From Benton, Franklin, and Walla Walla Counties Attend WSU Tri-Cities



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

WSU Spokane. Compared with other branch campuses, students attending WSU Spokane are more likely to come from outside the campus' primary service area. In 2001, 24 percent of WSU Spokane students were from Spokane County, 60 percent were from other Washington counties, and 16 percent were from out-of-state. The percentage of students from Spokane who attend WSU Spokane has increased slightly since 1990 (see Exhibit 46).

Exhibit 46
A Small, Although Increasing, Percentage of Students From Spokane County Attend WSU Spokane



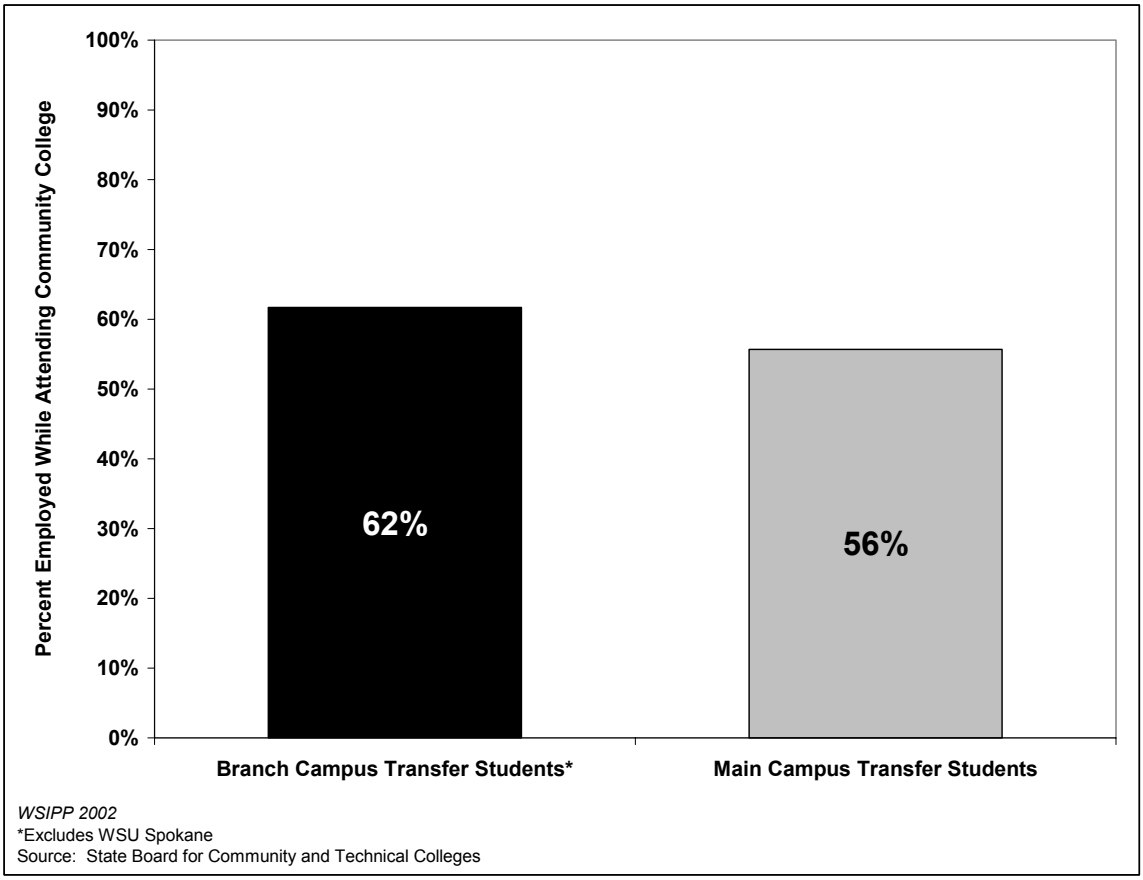
WSIPP 2002
Source: OFM Higher Education Enrollment Reports

Employment Status

The notion of placebound assumes that students who are employed either full-time or part-time are less able to relocate to attend college. Available data on employment status are from the transfer cohort study, covering the period when students attended community college. For both main and branch campuses, a majority of the students included in the study were employed when they attended a community college. Community college students who transferred to the branch campuses were slightly more likely be employed than students who transferred to a main campus (see Exhibit 47).

Exhibit 47

Branch Campus Transfer Students Were Slightly More Likely to Be Employed When Attending Community College Than Main Campus Transfer Students



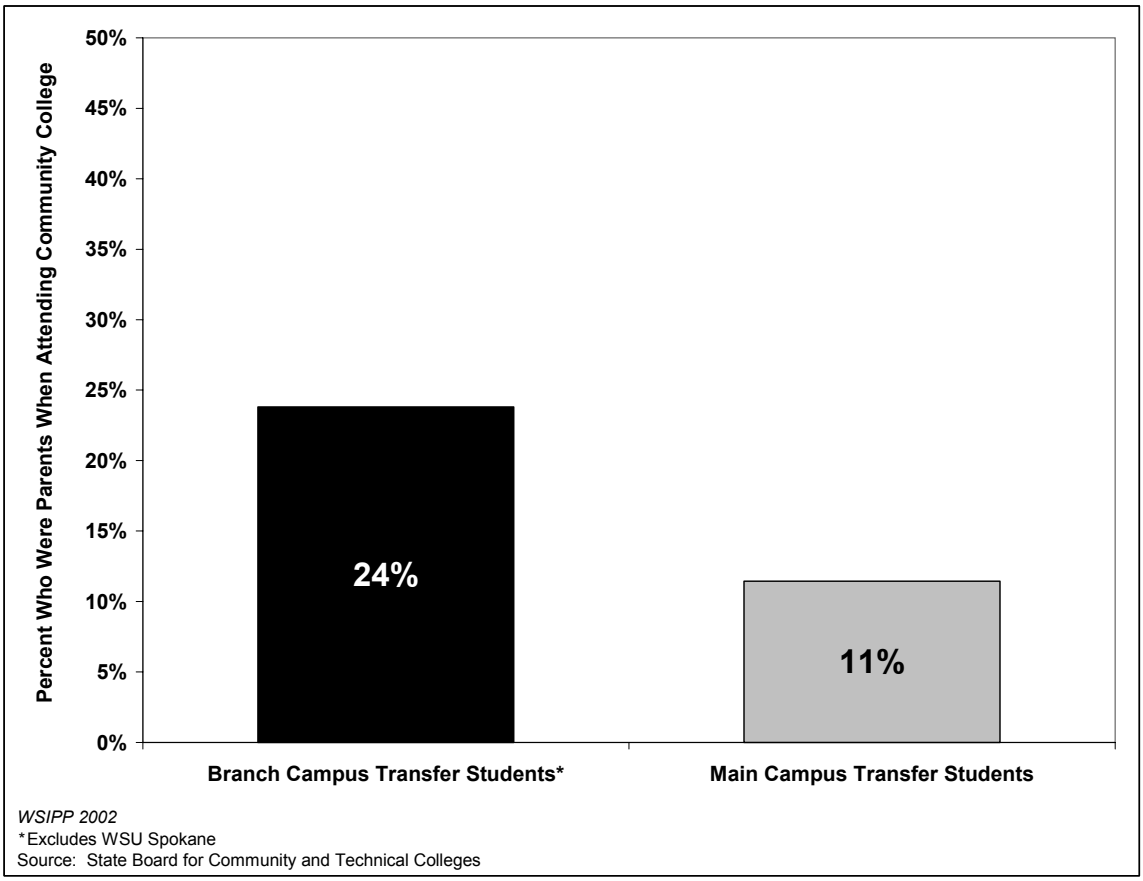
WSIPP 2002
*Excludes WSU Spokane
Source: State Board for Community and Technical Colleges

Family Status

The notion of placebound assumes that students with children are less able to relocate to attend college. Available data on whether students are parents are from the transfer cohort study, covering the period when students attended community college. Nearly one-quarter of branch campus graduates included in the cohort study were parents when enrolled in community college compared with 11 percent of main campus graduates (see Exhibit 48).

Exhibit 48

Branch Campus Transfer Students Were More Likely to Be Parents When Attending Community College Than Main Campus Transfers



WSIPP 2002
*Excludes WSU Spokane
Source: State Board for Community and Technical Colleges

Do Branch Campuses Tailor Services to Placebound Students?

The branch campuses were directed to tailor education programs to placebound students, but specifically how they were to structure their programs was not specified. Based on the premise that placebound students are more likely to be employed than traditional college-age students, two indicators for which data are available were identified to examine this question:

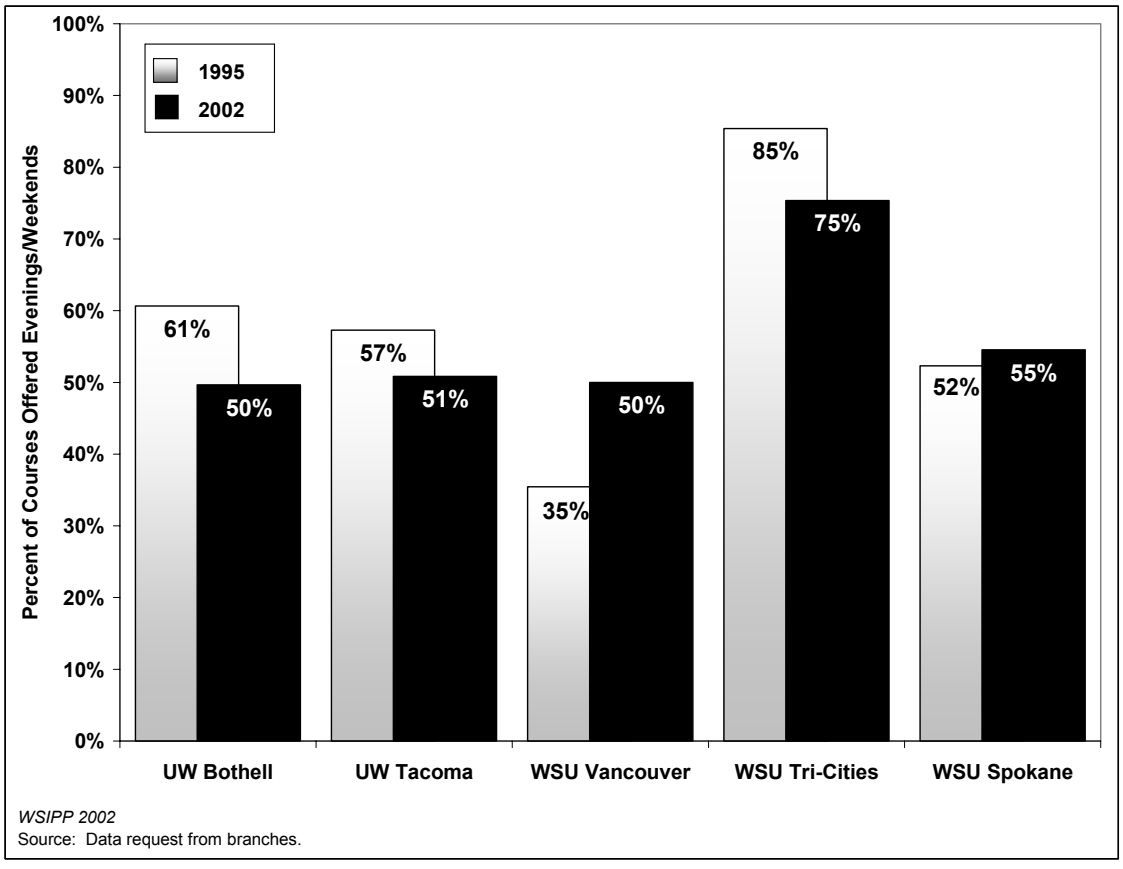
- Timing of class schedules; and
- Whether degree programs can be completed on a “non-traditional” schedule.

These indicators measure whether courses are scheduled outside the common working hours of 8 a.m. to 5 p.m., Monday through Friday. While not everyone works during those hours, and not all students are employed, this is one way that institutions can target placebound students, who tend to be less able to attend classes during the weekday.[80]

Class Schedules

All the branch campuses currently offer at least half their courses in the evenings and on weekends. Possibly in response to the changing student demographics described earlier, three of the five branch campuses offered more courses on a traditional schedule in 2002 compared with 1995 (see Exhibit 49). A non-traditional schedule is defined as courses that begin after 4 p.m. on a weekday or are held on the weekends.

Exhibit 49
Branch Campuses Schedule at Least Half Their Courses for Evenings and Weekends



WSIPP 2002
Source: Data request from branches.

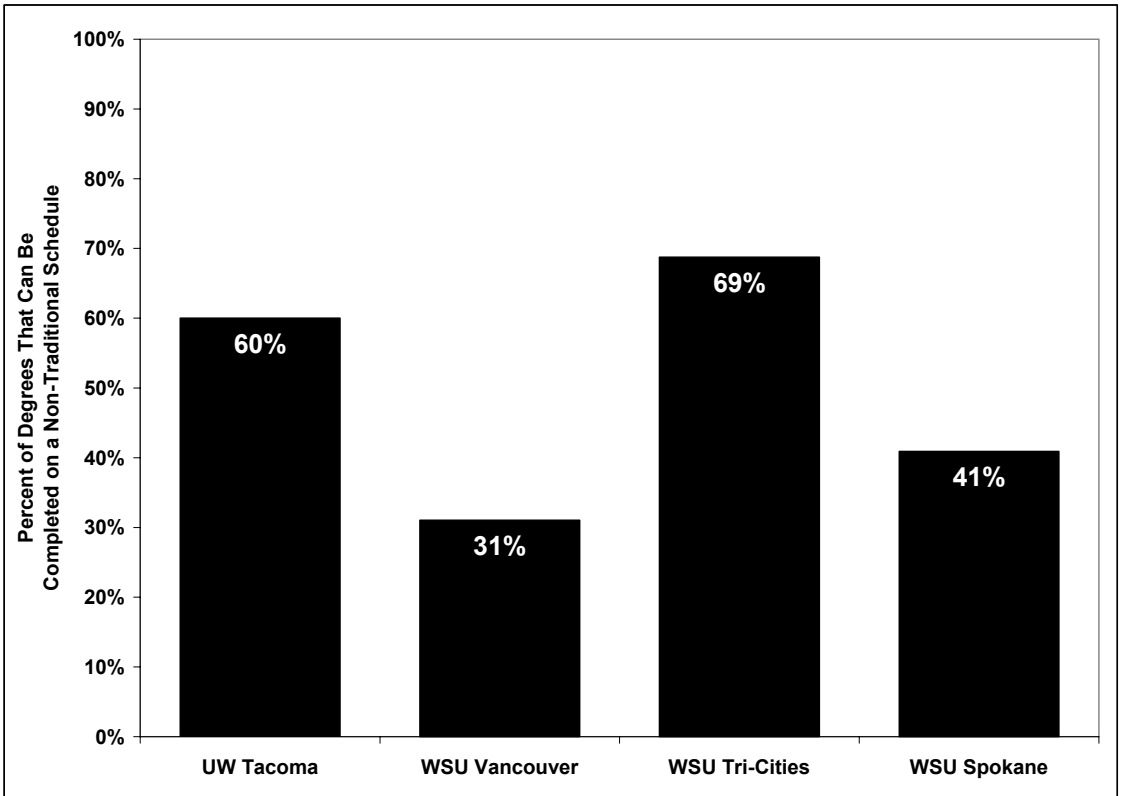
Whether courses are offered on a non-traditional schedule often varies by program. Nursing and liberal arts courses are usually offered during the daytime, while business and teacher education courses are frequently offered in the evenings. Branch campuses regularly schedule both day and evening classes of courses when possible.

[80] Peter J. Benekos, Alida V. Merlo, and William J. Cook, "Strategies to Meet the Educational Needs of Non-Traditional Graduate Students," *Journal of Criminal Justice Education* 9, no. 2 (1998): 320.

Degree Programs

Data provided by the branch campuses indicate that approximately one-third to two-thirds of the branch campus' degree programs can be completed entirely on a non-traditional schedule (see Exhibit 50).[81]

Exhibit 50
Approximately One-Third to Two-Thirds of Branch Campus Degree Programs Can Be Completed on a Non-Traditional Schedule



WSIPP 2002
Source: Data request from branches.

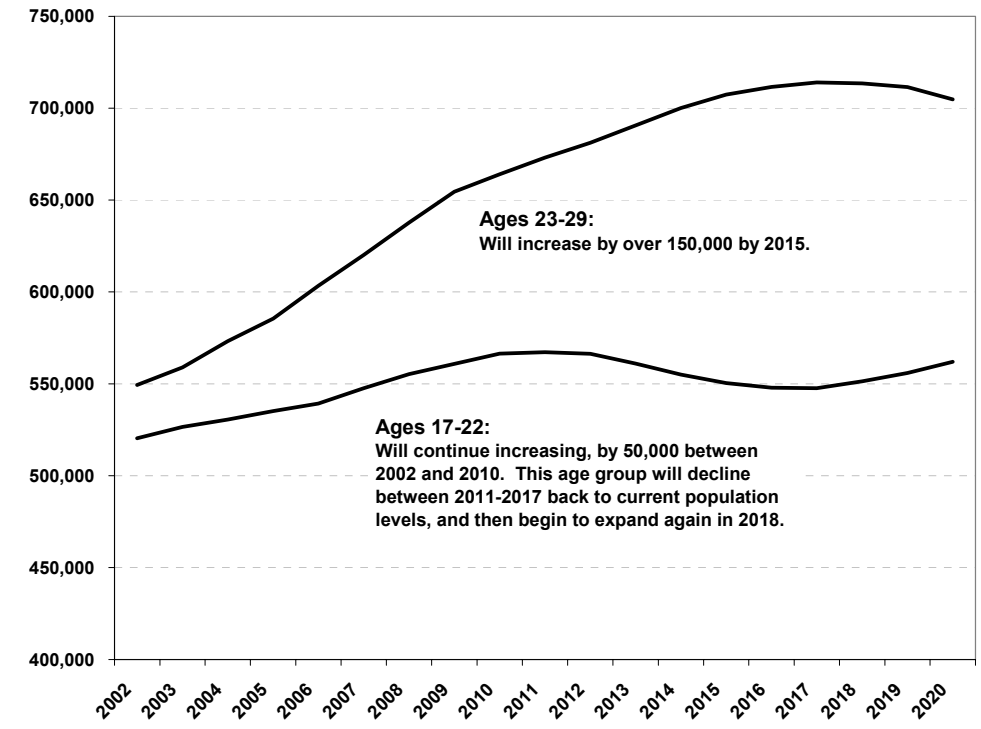
Population Forecasts

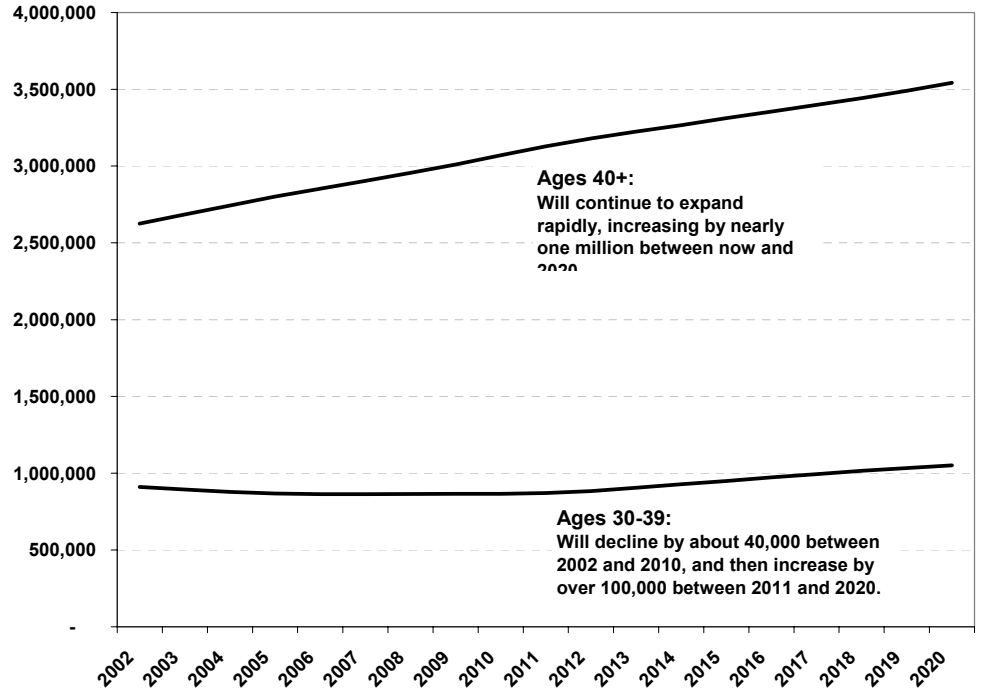
The demographic trends of the 1990s will continue through the next decade. The number of traditional college-aged individuals will continue to increase rapidly, and the number of individuals aged 40 and over will grow even more quickly (see Exhibit 51). The number of individuals between the ages of 30 and 39 will decline between 2002 and 2010, while the number of individuals aged 23 to 29 (an indicator of placebound demand) will grow rapidly over the next decade. Branch campuses will likely continue to enroll increasing numbers of both traditional college-age and older students.

[81] Excludes UW Bothell because data were not available.

Exhibit 51

Washington State Population Forecasts by Age Group (2002–2020)





WSIPP 2002
Source: OFM November 2001 Forecast

Summary

Branch campuses were created in part to serve placebound students, defined as older students who are thought to be more likely to work, be parents, or face other challenges that make it difficult to relocate to enroll in school.

Population Trends 1990–2002. When branch campuses were created in 1989, the HECB anticipated that growth in the traditional college-age group (17 to 22) would lead the branch campuses to serve both older and younger age groups by the late 1990s. Throughout Washington State, the traditional college-age population has grown faster than anticipated by forecasts from the late 1980s. As the traditional college-age population has grown, the average age of upper division students at the branch campuses has decreased slightly, as has the percentage enrolled part-time.

Placebound Indicators. Available data suggest that branch campuses are more likely than main campuses to target placebound students:

- University of Washington and Washington State University branch campuses enroll proportionately more older and part-time students than the main campuses.
- An increasing number and proportion of students from nearby counties attend the branch campuses.
- Students who transfer to branch campuses are slightly more likely to have been employed and about twice as likely to be parents when they attended community college than students who transfer to the main campuses.
- Each branch campus offers at least half their classes in the evening and on weekends, and one-third to two-thirds of branch campus degree programs can be completed entirely on a non-traditional schedule.

Population Forecasts. Current population forecasts indicate that the traditional college-age group will continue to grow by nearly 50,000 between 2002 and 2010. The number of people between the ages of 23 and 29 will increase by more than twice as much during the same time period. The branch campuses will likely continue to enroll increasing numbers of both traditional college-age and older students.

SECTION IV. TWO PLUS TWO MODEL

When branch campuses were created in 1989, it was generally agreed that the public community and technical college system provided adequate access to lower division education throughout Washington State. The branch campuses were therefore established as "upper level institutions," offering the final two years of baccalaureate degree programs. Branch campuses also offer graduate programs.

Students complete the first two years of baccalaureate programs at another institution, and the last two years at a branch campus, thus the label "two plus two" model. Because most branch campus students begin their studies at community colleges,[82] this section focuses on transfers from the community college system:

- Description of the two plus two model;
- Transfer student trends;
- Challenges in transfer for branch campus students; and
- Other models of upper division education.

Two Plus Two Model

Because branch campuses do not provide the first two years of baccalaureate degree programs, *transfer* is an integral element of the two plus two model. Branch campus undergraduate students transfer from another institution and enter with upper division (either junior or senior year) class standing.

Transfer Pathways

Throughout the higher education system, transfer patterns vary greatly. Some students attend multiple four-year institutions during their college career; others transition from community colleges to four-year institutions. Frequently, students move back and forth between two- and four-year colleges, some earning associates' degrees, others amassing various credits, before settling on a final baccalaureate degree program.[83]

Students can transfer to four-year institutions at any point after beginning their college careers. In contrast, branch campuses, as upper level institutions, usually require that transfer students have earned 90 quarter (60 semester) transferable credits. The following specific transfer pathways are available for branch campus students:

[82] For this report, the phrase "community colleges" refers to Washington's public community and technical colleges. Most branch campus transfer students come from community colleges.

[83] Barbara K. Townsend, "Redefining the Community College Transfer Mission," *Community College Review* 29, no. 2 (2001): 31-33.

- ***Direct Transfer Agreement.*** The Direct Transfer Agreement (DTA) is an agreement among community colleges and baccalaureate institutions in Washington State. Under this agreement, specific courses are completed for an Associate of Arts (AA) degree to fulfill general education requirements at Washington's baccalaureate-level institutions. Students who transfer through the DTA are given priority in admissions and guaranteed junior standing upon transferring, as long as other minimum admissions requirements are met. Approximately half of all students who transfer from community colleges to baccalaureate institutions in Washington complete an AA degree.[84]

- ***Associate of Science Degree.*** In 2002, two new Associate of Science (AS-T)[85] degrees were created in Washington State, one with a biology/chemistry focus, and the other with an engineering/computer science focus. These degrees were created to facilitate community college students' transfer into scientific baccalaureate degree programs by identifying lower division coursework required for such four-year degrees.[86] Similar to the provisions included in the DTA, community colleges and baccalaureate institutions have agreed that AS-T graduates be given priority in admissions and conferred junior status upon admission.[87]

- ***Technical Degrees.*** Technical degrees are awarded in a variety of fields, including nursing, information technology, administrative support, and other vocational fields. Most courses in these types of degrees are not considered comparable to courses taken for baccalaureate degrees, although technical courses may be evaluated on a course-by-course basis by the receiving institution to determine whether they are transferable. Approximately 250 students with technical degrees transfer to baccalaureate institutions each year.[88]

- ***Associate in Applied Science.*** Created in 2002, the Associate in Applied Science (AAS-T) is intended to provide a common structure across technical degrees to facilitate transfer to baccalaureate institutions. In addition to technical courses, the AAS-T includes 20 credits of general education courses accepted by baccalaureate institutions.[89]

- ***90+ Credits (No Degree).*** Students who have earned 90 or more quarter credits may transfer to a branch campus, assuming lower division requirements have been completed and all credits are transferable.[90]

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[84] Loretta Seppanen, *The New Transfer Student – Students Completing Job Preparatory Programs With a Transfer Goal* (SBCTC, prepared for a conference, Transfer: The Forgotten Function, July 2001; <http://www.sbctc.ctc.edu/oldweb/Board/Educ/transfer.htm>, December 4, 2002.
[85] The "-T" identifies the degree as a transfer degree.
[86] HECB, *Master Plan Policy Paper #5: Accommodating Future Enrollment Through Better Connections Within and Across Systems* (Olympia, WA: Higher Education Coordinating Board, May 1999), 13.
[87] Getting Into College: Transferring to Washington Colleges, <http://www.hecb.wa.gov/college/transferring.html>, November 21, 2002.
[88] Seppanen, *The New Transfer Student*.
[89] SBCTC, "The Associate in Applied Science-T (AAS-T) Degree," (handout provided to author).
[90] WSU campuses admit students with 60 quarter (40 semester) credits.

Articulation Agreements. The pathways described above are available statewide, regardless of the institutions students attend. There are also many institution-specific articulation agreements based on specific degree programs. Through faculty collaboration, community colleges and baccalaureate institutions agree which coursework at the lower division covers general education requirements and specific program prerequisites for four-year degree programs.[91]

Why Do Some Students Choose the Two Plus Two Model?

There are a variety of reasons students choose to complete baccalaureate degrees through a two plus two model:

- Lower tuition costs at community colleges;
- The need for remediation to be better prepared for baccalaureate-level coursework; and
- Delayed decision to pursue a baccalaureate degree after already having begun studies at community colleges.[92]

Transfer Student Trends

Number of Potential Transfer Students

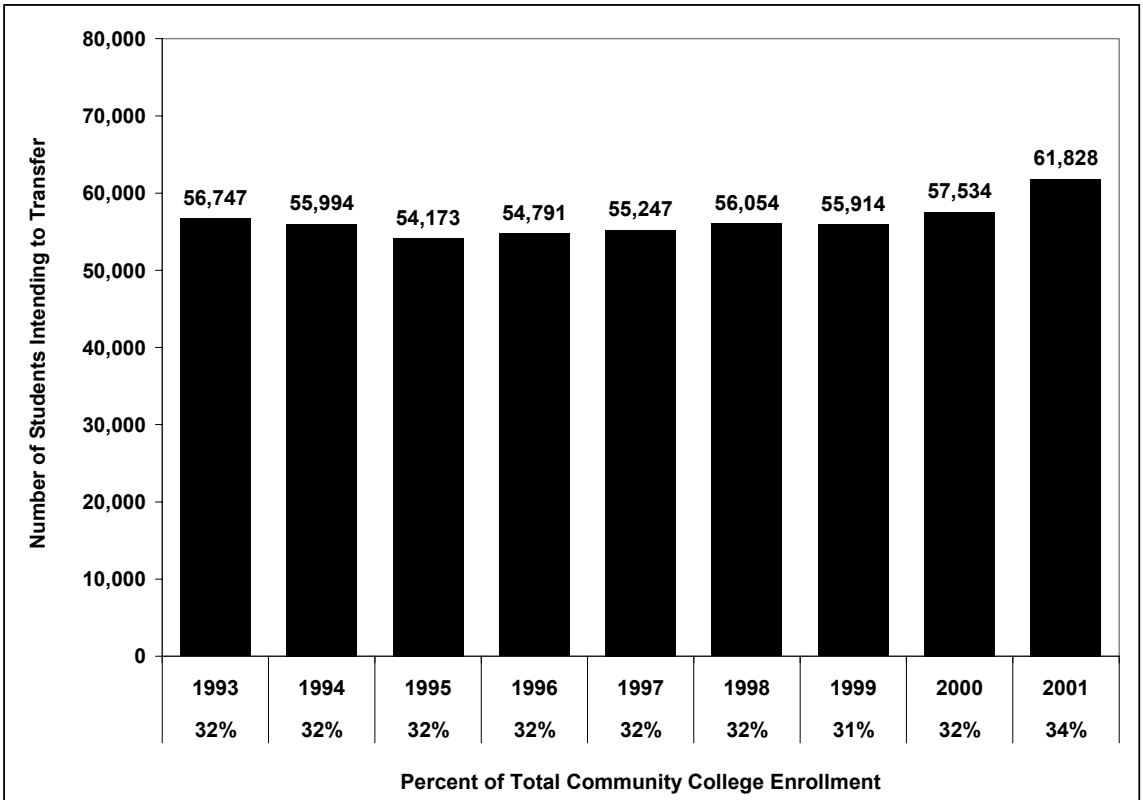
The number of community college students who plan to transfer has recently increased after declining temporarily in the mid-1990s. In the fall of 2001 nearly 62,000 potential transfer students were enrolled in Washington's community colleges, about 7,000 more than in 1996.[93] Potential transfer students at community colleges represented about one-third of total community college enrollment; this proportion has not changed significantly since 1993 (see Exhibit 52).

[91] Ron Crossland, *Articulation and Transfer in the State of Washington, 1997–98* (Olympia, WA: SBCTC, December 1997), 6.

[92] Susan Lois Poch, *Accountability in Washington's Public Higher Education Institutions: Do Community College Transfer Students Fit In?* (Pullman, WA: Dissertation at WSU, College of Education, May 1998), 12.

[93] Students indicate whether they plan to transfer when they first enroll in a community college. For consistency with the HEER data included in this report, only state-supported SBCTC enrollments are included in this analysis. In the fall of 2001, non-state supported enrollment made up 27 percent of total SBCTC enrollment, including enrollment funded through contracts (14 percent) and student-paid tuition and fees (13 percent). Technical colleges were first included in SBCTC student headcounts in 1993; therefore, previous years' headcounts are not directly comparable. The total number of community and technical college students enrolled each fall has averaged around 176,000 since 1993. SBCTC, *Fall Enrollment Reports*, 1993 to 2001.

Exhibit 52
The Number of Community College Students Planning to Transfer Is Growing



WSIPP 2002
Source: SBCTC Fall enrollment reports.

Transfer Rate

Because not all students transfer immediately after leaving community college, and because many students attend various institutions at different points during their college careers, it is difficult to calculate an accurate transfer rate that captures these different transfer patterns. The following presents a rough estimation of the proportion of students who transfer based on the number who are considered "transfer ready," but this analysis should not be construed as a precise rate.

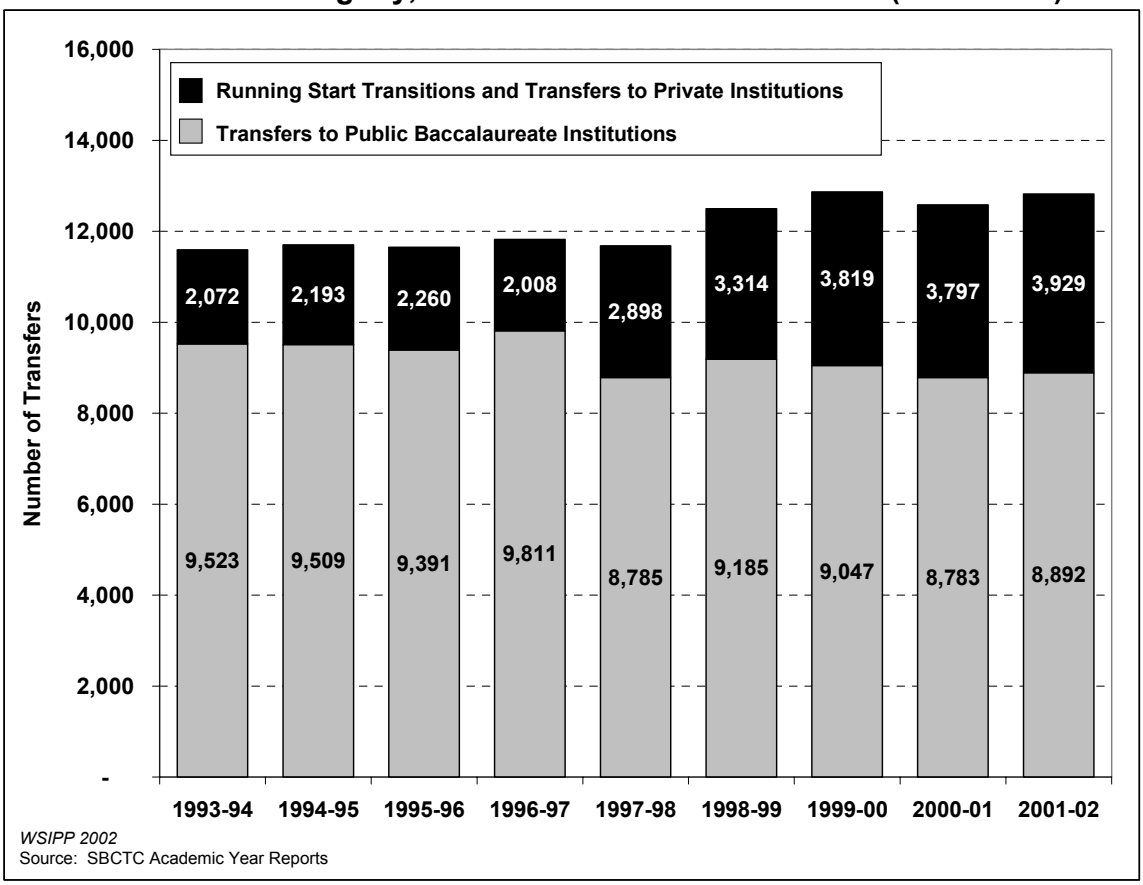
Transfer Readiness. The number of community college students who transfer to baccalaureate programs each year is smaller than the total number who indicate that they plan to transfer, because included in that group are students who have just begun their studies. Based on 2000–2001 data, approximately two-thirds of students who indicated they plan to transfer were considered "ready" to do so, meaning that they had earned 45 or more quarter credits and maintained a GPA of 2.0 or higher.[94]

[94] In Fall 2000, 57,534 students were categorized as *planning* to transfer, and 38,534 students (67 percent) were considered *ready* for transfer during the 2000–2001 school year. This percentage is an estimate and does not necessarily include the same group of students. SBCTC, *Fall 2001 Enrollment Report*, 6; *Academic Year Report 2000–01*, 37.

Actual Transfers. The number of community college students who actually transfer to baccalaureate programs each year is about one-third the size of the "transfer ready" group. A total of 12,821 community college students transferred into baccalaureate programs during the 2001–02 school year, most of whom (69 percent) enrolled in public baccalaureate institutions. For the 2001-02 school year, the SBCTC estimated that 8,892 community college students transferred to public baccalaureate institutions, a slight decline since 1993 (see Exhibit 53).[95] Including Running Start, the number of community college transfers to public institutions has increased. Running Start students usually transition into lower division programs, which precludes the branch campuses.

Exhibit 53

Community College Transfers to Public Baccalaureate Programs Have Declined Slightly, Total Transfers Have Increased (1993–2002)



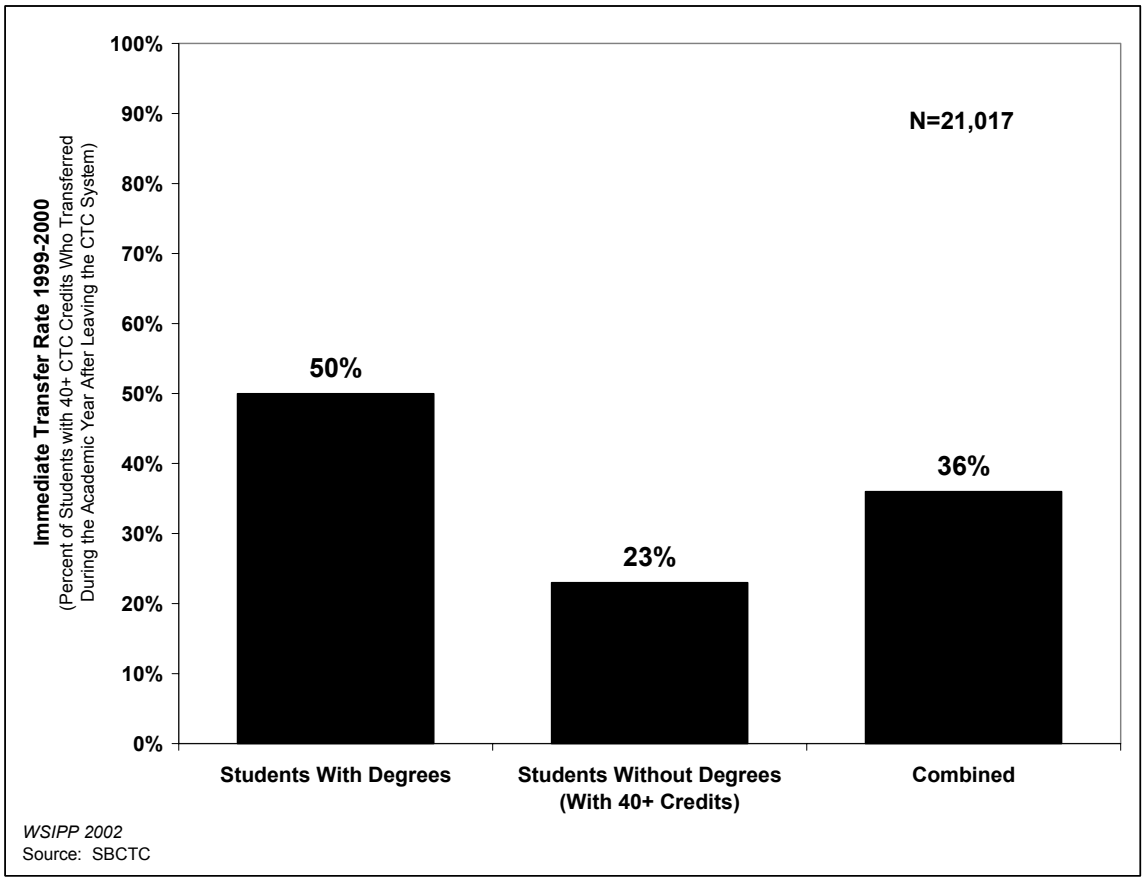
WSIPP 2002
Source: SBCTC Academic Year Reports

[95] In 2001–02, remaining transfers included 1,688 Running Start students who transitioned to four-year institutions, 1,975 community college students who transferred to private four-year institutions, and 266 who transferred to other institutions. SBCTC, *Academic Year Report 2001–02*, 45.

Upper Division Transfers. Approximately 70 percent of students who transfer from community colleges to public baccalaureate institutions enter with upper division standing. In the fall of 2001, 4,356 students transferred from community colleges to public upper division programs.[96]

Degree Status. Students who earn an associate's degree are more likely to transfer into a baccalaureate program during the academic year after leaving community college compared with students who earn 40 or more quarter credits but no degree (see Exhibit 54).[97]

Exhibit 54
Students With Associate Degrees Are More Likely to Transfer to Baccalaureate Institutions (1999–2000)



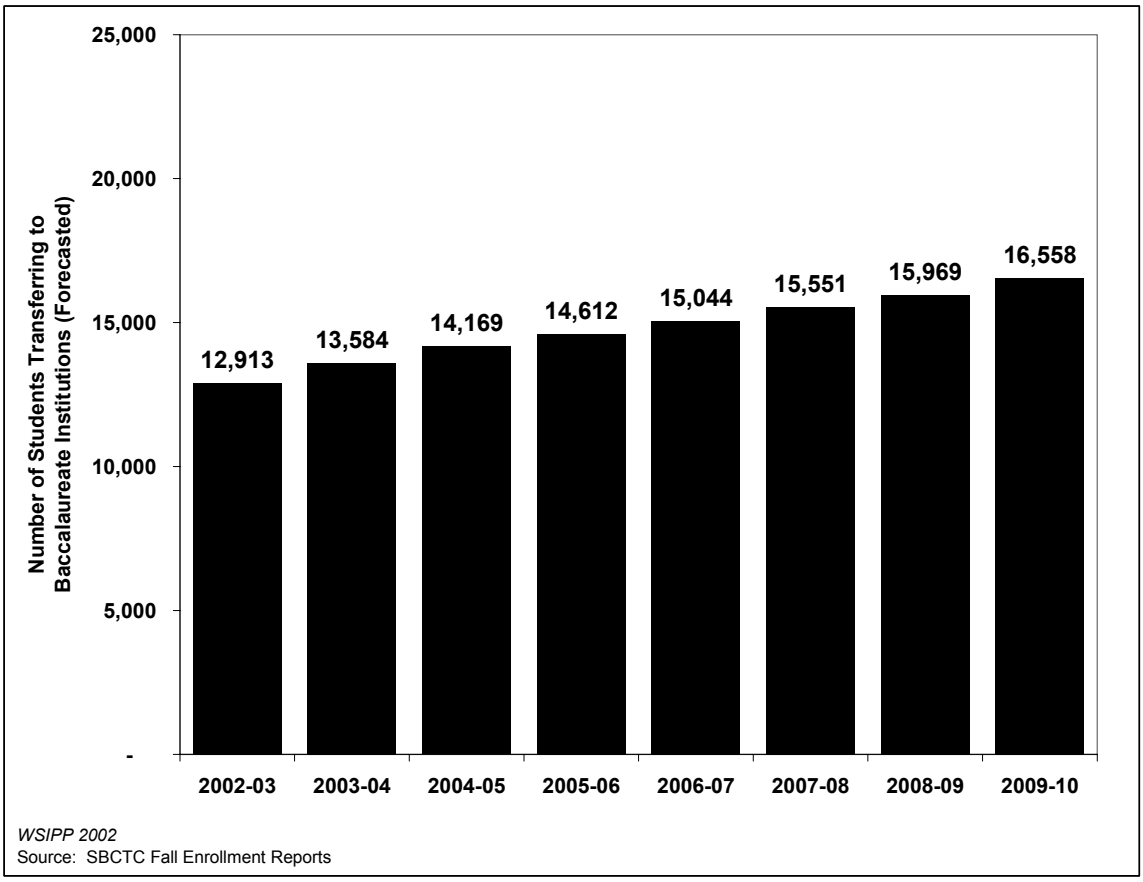
WSIPP 2002
Source: SBCTC

[96] WSIPP analysis of HEER. HEER data record students as community college transfers if the last institution attended prior to transferring was a community or technical college.
[97] This is based on the "immediate transfer rate," which includes students with 40+ credits who have just left the community college system; the "rate" is the percentage of these students who transfer during the academic year following their departure from a community college. Data for this report provided by SBCTC.

Transfer Forecast

The number of transfer students is expected to continue to grow. In 1998, the SBCTC forecasted transfers through 2010, estimating that the total number of community college students who transfer into baccalaureate programs each year would increase by over 3,600 students between 2002 and 2010 (see Exhibit 55).

Exhibit 55
Between 2002 and 2010, Transfers to Baccalaureate Institutions Are Forecasted to Increase Steadily



WSIPP 2002
Source: SBCTC Fall Enrollment Reports

Branch Campus Transfers

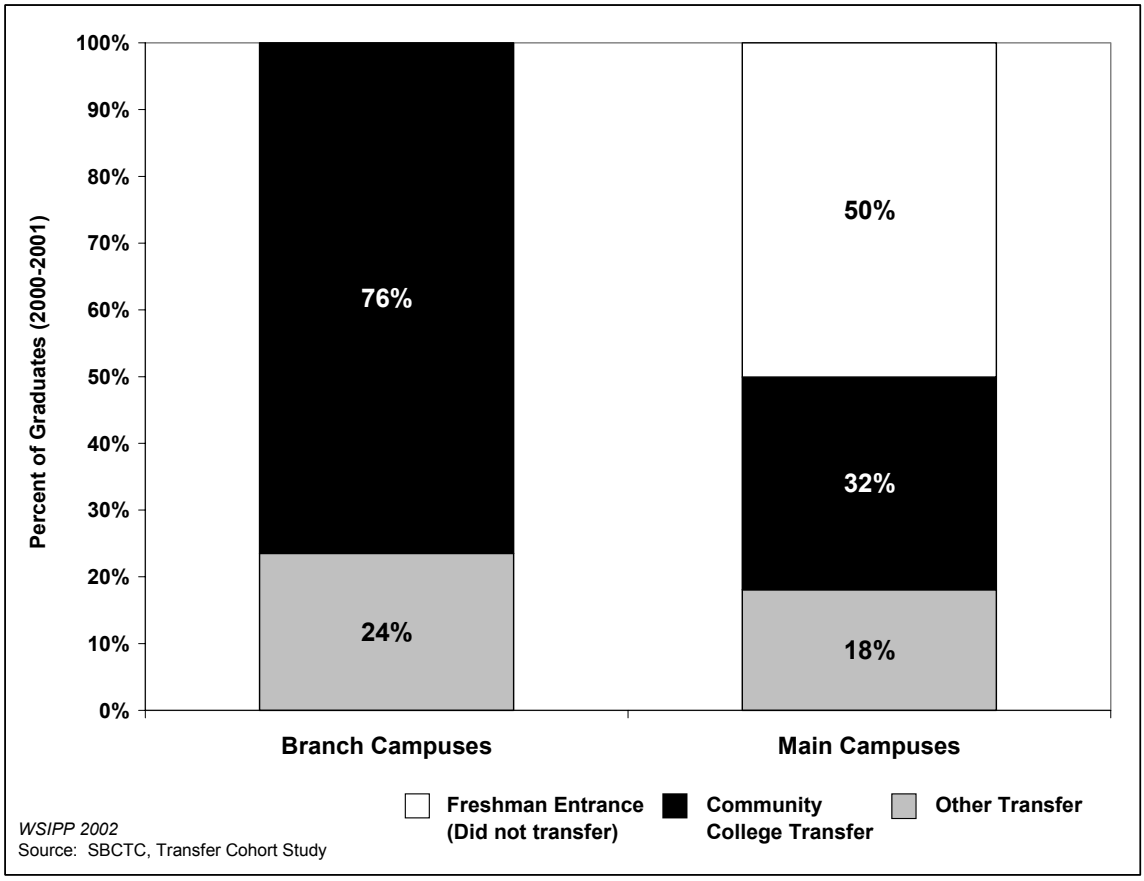
Branch campuses rely heavily on the community college system to funnel students into baccalaureate programs. In the fall of 2001, 71 percent of incoming branch campus undergraduate students came from community colleges.[98] In contrast, community college transfers made up about 24 percent of incoming undergraduates at the main campuses of UW and WSU.

[98] Out of a total of 1,484 new students (excluding graduate students). Other branch campus undergraduate students came from four-year institutions (7 percent), out-of-state (11 percent), or other/unknown sources (12 percent). WSU Spokane is the exception to this trend, because it mostly enrolls graduate students. In Fall 2001, one community college student transferred to WSU Spokane.

An indicator of the branch campuses' reliance on the community college system is provided by the transfer cohort study (see Section III). Graduates in 2000–2001 from the branch campuses were more than twice as likely to be community college transfers as main campus graduates (see Exhibit 56).[99]

Exhibit 56

Recent Baccalaureate Graduates at the Branches Were More Likely to Be Community College Transfers Than Main Campus Graduates (2000–2001)

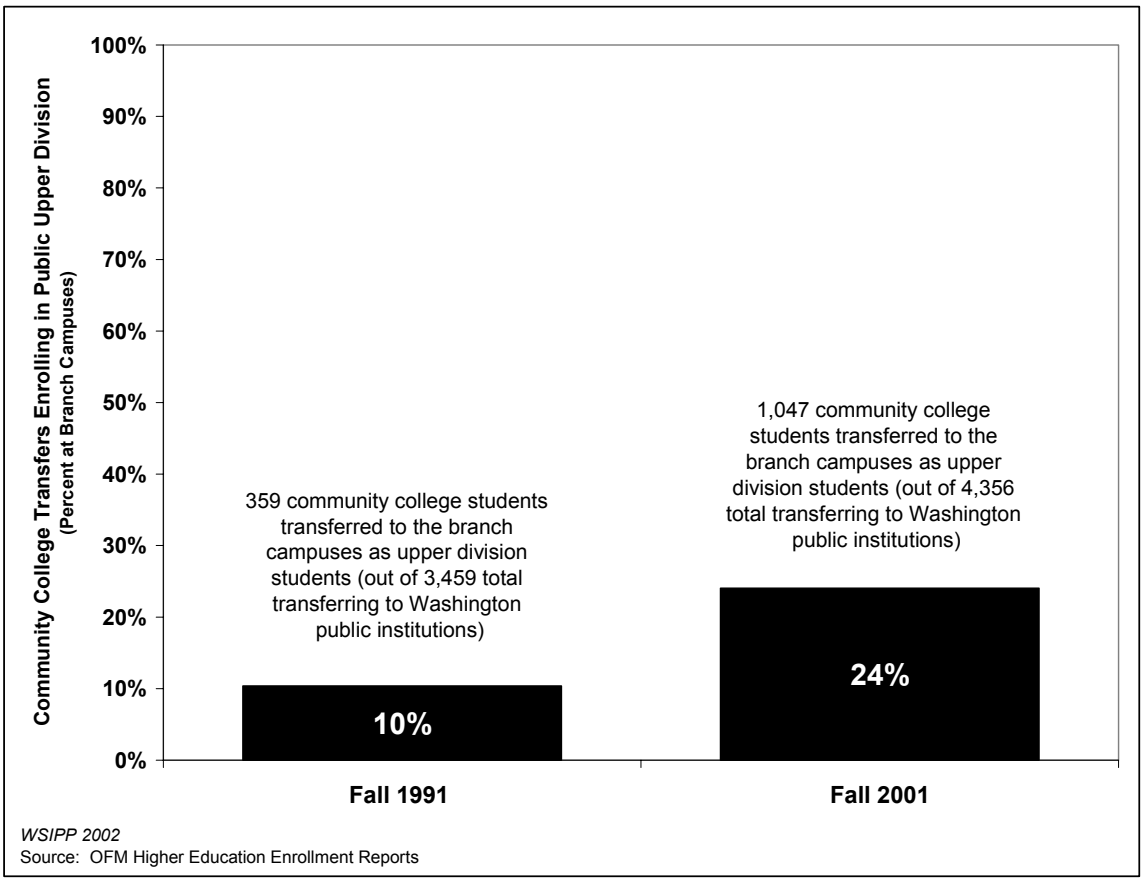


WSIPP 2002
Source: SBCTC, Transfer Cohort Study

Trends. Between the fall of 1991 and the fall of 2001, the number of community college transfers to branch campuses nearly tripled. The proportion of community college students transferring to branch campuses rather than upper division programs at other public institutions increased from 10 to 24 percent (see Exhibit 57). The remaining upper division community college transfers went to one of the public four-year (non-branch) institutions in the fall of 2001, excluding students who transferred to private schools.

[99] Community college transfers are defined in the transfer cohort study as having transferred 40 or more quarter credits from a community college to a baccalaureate institution.

Exhibit 57
An Increasing Proportion of Upper Division Transfers From Community Colleges Attend Branch Campuses



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

Challenges in Transfer for Branch Campus Students

Transfer students often encounter challenges not experienced by students who complete baccalaureate programs at a single institution ("freshman entrance" students), many of which are not unique to branch campuses. In general, transfer students can have a difficult time transitioning, both socially and academically, to new institutions. Dissimilar expectations for students and other differences between the community college and baccalaureate institutional environments contribute to these challenges.[100]

Transfer of Credits

Challenges related to the two plus two model center around whether courses taken at community colleges cover lower division requirements and are accepted for baccalaureate degrees, because the branch campuses do not offer lower division coursework.

[100] Poch, *Accountability in Washington's Public Higher Education Institutions*, 23.

General Education Requirements. How many general education requirements are covered depends on the transfer pathway (see Exhibit 58). Covering general education requirements prior to transferring makes it easier to transfer credits, although branch campus students can fulfill general education requirements at the upper division.

Degree Program Prerequisites. The key difficulty of the two plus two model is that branch campus students must usually transfer into a degree program (rather than as undeclared majors) due to the upper-level structure of the branches. Because each baccalaureate degree program has different lower division prerequisites, students may not necessarily fulfill those prerequisites under statewide, general transfer agreements.[101]

Transferable Credits. Regardless of the pathway taken, students who wish to transfer to branch campuses must first earn 90 *transferable* credits. Transferable credits are those that cover general education requirements, degree program prerequisites, and/or are considered to be electives comparable to baccalaureate coursework. Baccalaureate institutions determine whether such coursework is comparable. In most cases, no more than 90 community college quarter credits are accepted for baccalaureate degrees. Courses taken for technical degrees usually do not transfer because they are not considered comparable to baccalaureate coursework.

At the branch campuses, transfer students whose credits do not meet all lower division requirements may be admitted with provisional status but must complete the remaining required lower division coursework at another institution. In attempt to ease transitions, multiple community colleges coordinate course offerings with each branch campus. Program-specific articulation agreements are developed by faculties at the community colleges and branch campuses.

[101] Crossland, *Articulation and Transfer*, 4.

Exhibit 58

How Transfer Pathways Cover *Lower Division* Baccalaureate Degree Requirements

Pathways	General Education Requirements*	Degree Program Prerequisites
Direct Transfer Agreement	• 90 credits automatically transfer covering general education requirements	Depends on the program
Associate of Science	• 90 credits automatically transfer partially covering general education requirements	Prerequisites for science and engineering degrees are covered
Associate in Applied Science (Special Technical Degree)	• 20 credits automatically transfer partially covering general education requirements • Remaining credits evaluated on a course-by-course basis	Prerequisites for baccalaureate degrees specially designed for technical fields are covered
Other Technical Degrees	• All credits evaluated on a course-by-course basis	Depends on the program
90+ Credits (No Degree)	• All credits are evaluated on a course-by-course basis • Institutions develop course lists to indicate which courses are transferable (applies to all pathways where courses do not automatically transfer)	Depends on the program

**All credit amounts shown are for quarter systems.*

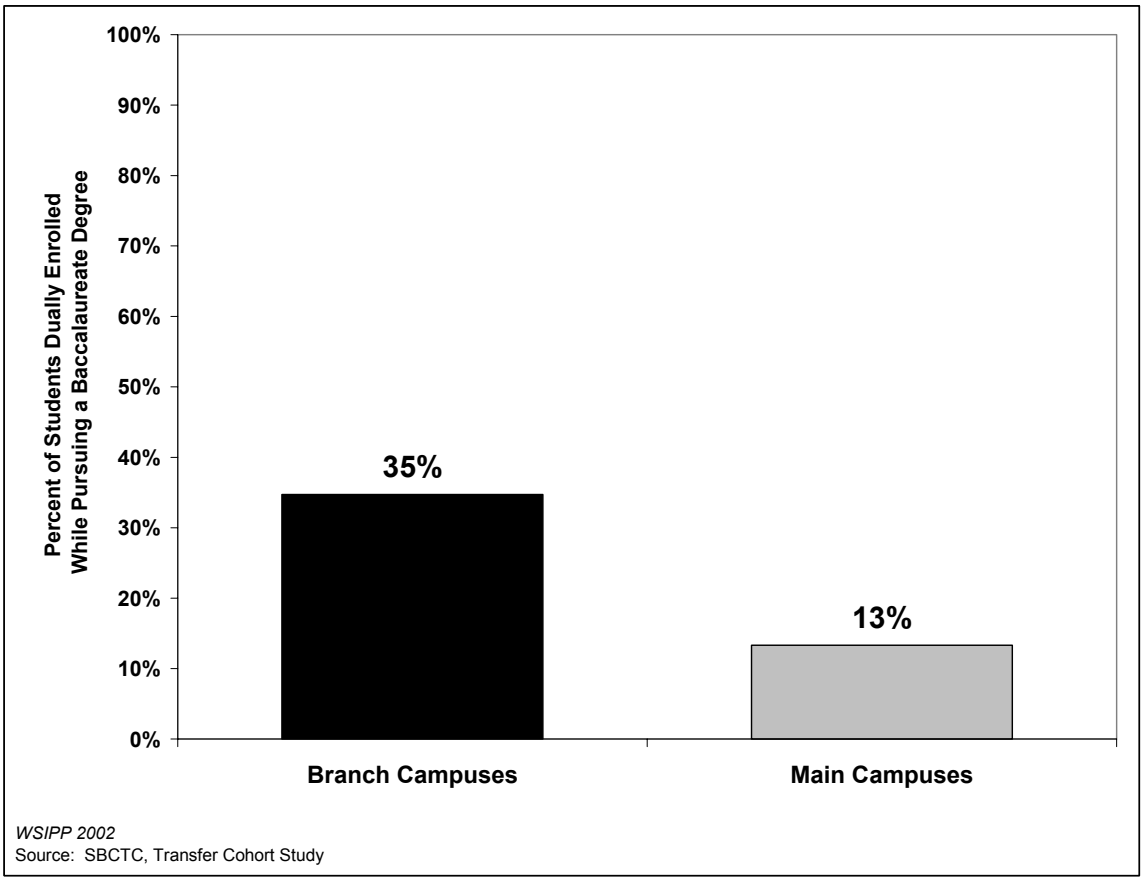
Two ways to examine the challenges related to transfer of credits at the branch campuses are dual enrollment and graduation efficiency. Additional detail on technical degrees is also provided.

Dual Enrollment

A student is "dually enrolled" when attending both a community college and a baccalaureate institution during the same quarter or semester. A dually enrolled student pays tuition at both institutions. Dually enrolled students may be covering lower division degree program prerequisites or making up credits that did not transfer. As would be expected under a two plus two model, students who transfer to branch campuses are more than twice as likely to be dually enrolled at some point during their college careers compared with students who transfer to the main campuses of the UW and WSU (see Exhibit 59). More than half the students included in the transfer cohort study were not dually enrolled at any point after transferring to both the branch and main campuses.

Exhibit 59

Branch Campus Community College Transfers Are More Likely to Be Dually Enrolled Than Their Main Campus Counterparts (2000–2001 Graduates)



WSIPP 2002
Source: SBCTC, Transfer Cohort Study

Limitations. The dual enrollment statistic is based on the transfer cohort study and does not include all transfer students; the cohort includes students who transferred from community colleges with at least 40 quarter credits and graduated during the 2000–2001 school year. The measure also does not include students who make up the required lower division coursework at four-year institutions (rather than community colleges), so the full extent of dual enrollment is unknown.

Graduation Efficiency

Within Washington's public higher education system, the Graduation Efficiency Index (GEI) is used to assess how efficiently students complete baccalaureate degree programs at each institution. The GEI compares the minimum number of credits required to complete baccalaureate degrees with the total credits that students take and is calculated as follows:

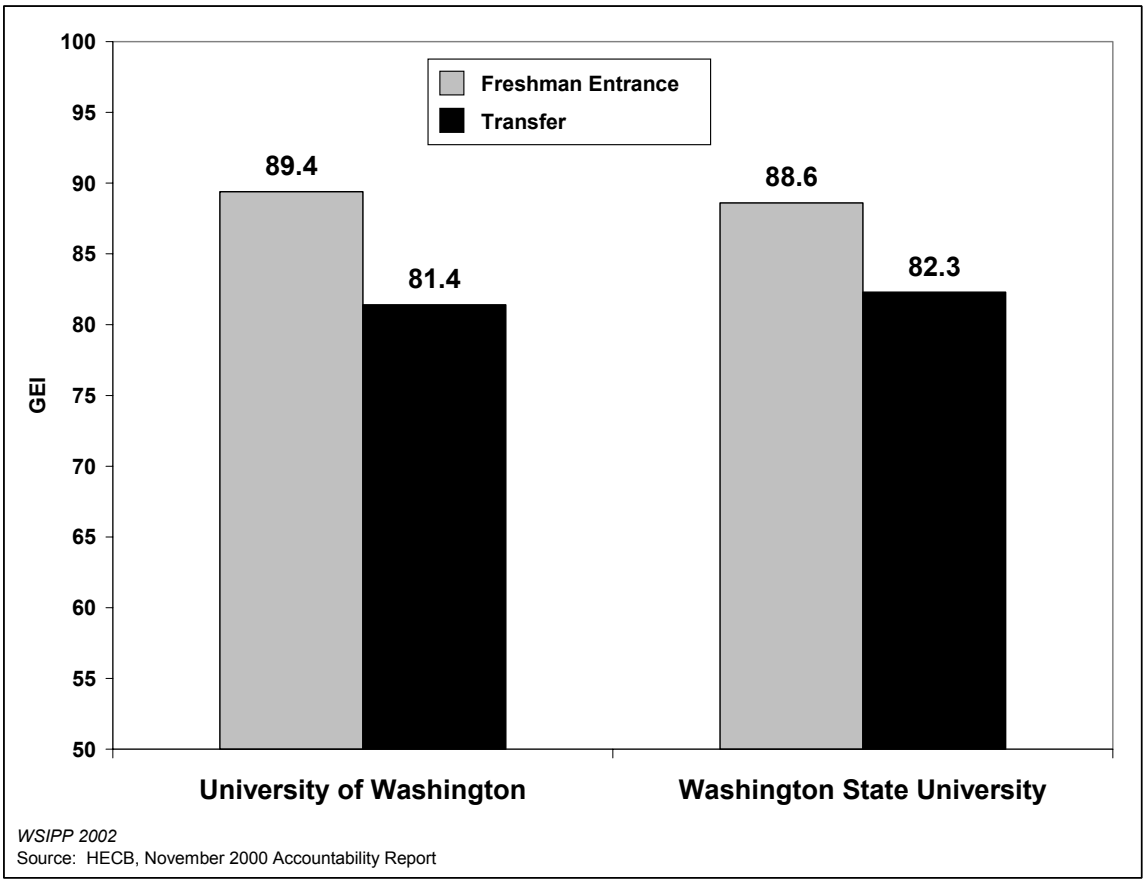
$$GEI = \frac{\text{(Minimum Number of Credits Required For Degree – Transfer Credits)}}{\text{Sum of Credits Enrolled on the 10th Day of Each Quarter/Semester}} \times 100$$

GEIs can range from 0 to 100, with 100 being "perfect" efficiency. Low GEIs indicate that students take more credits than the minimum required for baccalaureate degrees. Higher GEIs indicate that students complete degree programs without taking many "extra" courses.

Limitations. The GEI does not indicate whether students are taking additional courses because they need to cover requirements or whether it is a matter of personal preference.[102] The GEI does, however, suggest that transfer students may be making up for requirements not completed prior to transferring. Available GEI data indicate:

- Freshman entrance students graduate with greater efficiency than transfer students.
- Branch campus students, probably because they are all transfer students, complete degree programs with less efficiency than main campus freshman entrance students.

Exhibit 60
Freshman Entrance Students Graduate With Higher GEIs Than Transfer Students[103]

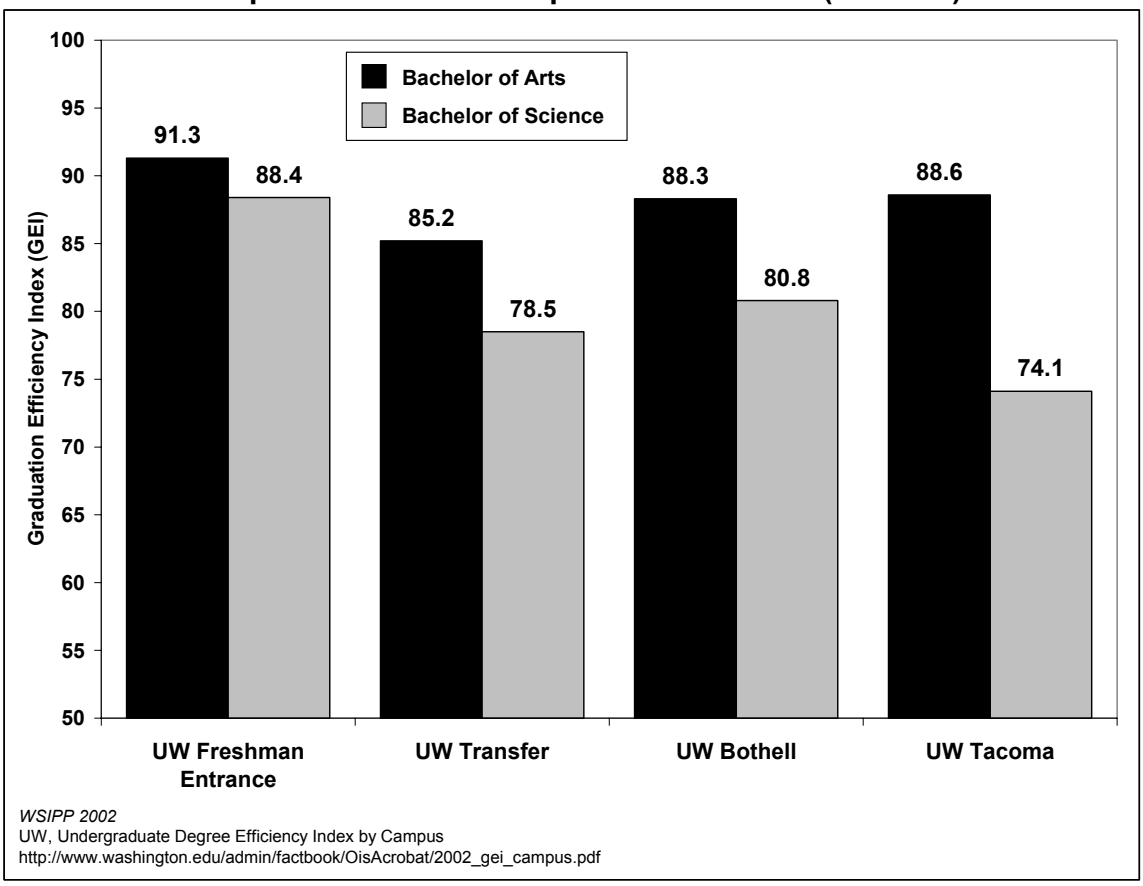


WSIPP 2002
Source: HECB, November 2000 Accountability Report

[102] For a detailed discussion of the GEI measure, including its benefits and limitations, see Gerald M. Gillmore and Phillip H. Hoffman, "The Graduation Efficiency Index: Validity and Use as an Accountability and Research Measure," *Research in Higher Education* 38, no. 6 (1997).
[103] HECB, *Performance Accountability: 1999–2000 Academic Year Review and Recommendations for 2001–03* (Olympia, WA: HECB, November 2000).

Branch Campus GEIs. WSU does not calculate GEIs by campus, but the UW does. UW branch and main campus *transfer* GEIs are comparable, but both are lower than UW *freshman entrance* GEIs (see Exhibit 61).[104] Available data separate GEIs for bachelor of arts (BA) and bachelor of science (BS) graduates because BA graduates complete their degrees with greater efficiency, on average, than BS graduates.[105]

Exhibit 61
University of Washington Branch Campus GEIs Are Comparable to Main Campus Transfer GEIs (2001–02)



WSIPP 2002
UW, Undergraduate Degree Efficiency Index by Campus
http://www.washington.edu/admin/factbook/OisAcrobat/2002_gei_campus.pdf

Technical Degree Issues

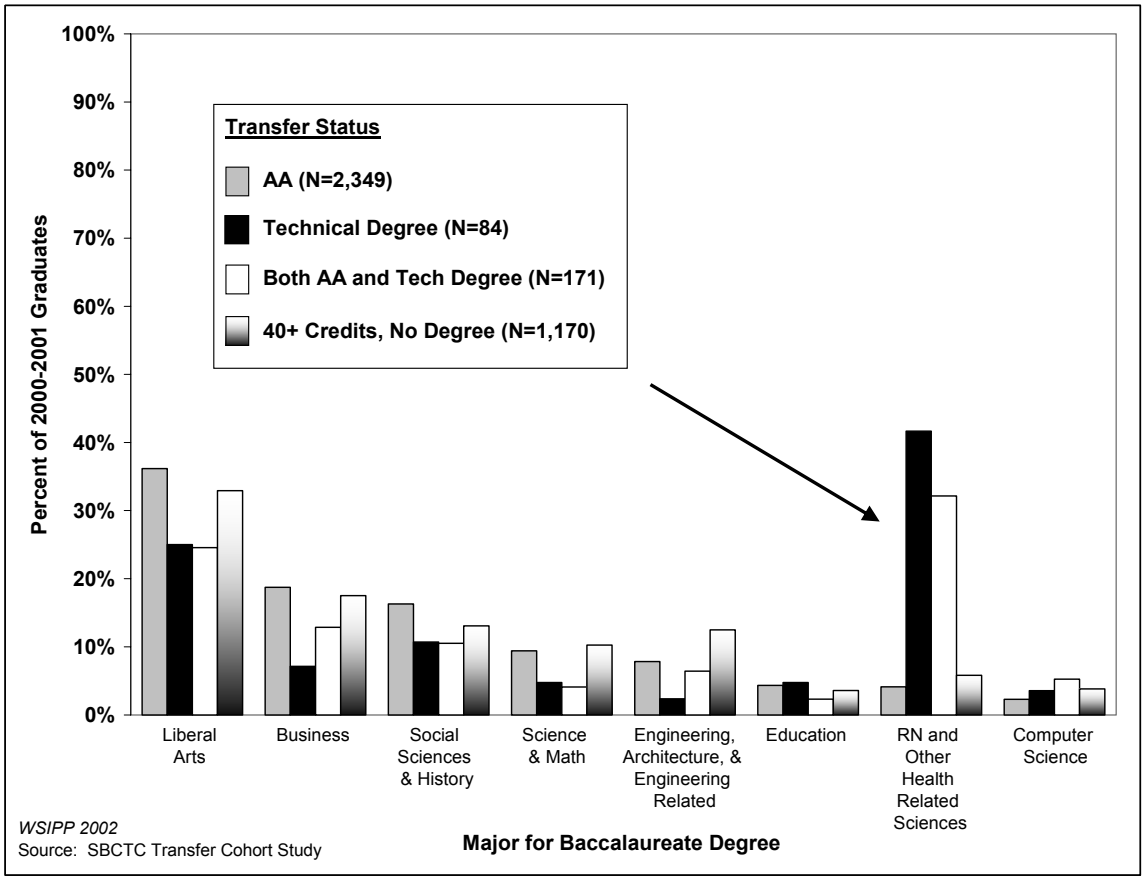
The Associate in Applied Science (AAS-T) degree was created in response to concerns about loss of credits for technical degree transfer students. Available data on technical degree earners are from the transfer cohort study. Seven percent (255 students) of community college transfer students included in the study had earned technical degrees

[104] University of Washington, Office of Institutional Studies, *Undergraduate Degree Efficiency Index, Academic Year 2001-02,* <http://www.washington.edu/admin/factbook/OisAcrobat/2002_gei_campus.pdf>, October 2, 2002.
[105] Gerald M. Gillmore and Phillip Hoffman, *Average Graduate Efficiency Indexes for University of Washington Undergraduate Degree Programs* in *Research Notes* N-96-8 (Seattle: University of Washington, Office of Education Assessment, December 1996).

prior to transferring to a baccalaureate institution. More than half of students who earned technical degrees also completed an AA degree. Students who complete both technical and AA degrees may be doing so in order to ensure that general education requirements are covered prior to transfer.

Research conducted by the SBCTC has found that many "[t]echnical degree transfers continue their work-related interest at the baccalaureate level by majoring in fields such as business and allied health."[106] Over 40 percent of students with technical degrees included in the transfer cohort study transferred to a nursing (or other health-related) program compared with less than 10 percent of other community college transfers (see Exhibit 62).

Exhibit 62
Technical Degree Transfers Are More Likely to Major in Nursing/Health-Related Sciences for Baccalaureate Degrees (2000–2001)



Poor graduation efficiency is suspected for students who earn two-year technical degrees,[107] although no empirical research has yet examined this particular issue. Technical degree earners may not be able to transfer a significant amount of credits because coursework completed for technical degrees is often not considered comparable to

[106] Loretta Seppanen, "Transfer with a Technical Degree," (Presentation prepared for the AACC Conference, April 2002. Paper provided to author by Ms. Seppanen.)
[107] Crossland, *Articulation and Transfer*, 5.

baccalaureate coursework. The AAS-T degree attempts to address this problem by requiring students to complete 20 credits of core general education courses. Some other approaches to addressing challenges of the two plus two model are described in the inset below.

Approaches to Improving Transfer and Articulation

Co-location: UW Bothell and Cascadia Community College. Studies completed in the early 1990s by the SBCTC and HECB identified need for expansion in both lower and upper division in the north King/south Snohomish County region.[108] Based on these studies and HECB recommendations, the 1994 Legislature created Cascadia Community College and directed that it be co-located with UW Bothell. The co-location model was intended to build on existing institutional resources (rather than creating an entirely new four-year institution) and to ease transitions from two-year to baccalaureate programs.[109] The campus opened in Fall 2000.

Dual Enrollment. Although dual enrollment rates indicate potential challenges of the two plus two model, formal dual enrollment programs may help map out students' "entire plan for their education ... clearly from the beginning," allowing them to cover lower division requirements without postponing their transition to a baccalaureate degree program.[110] There are several dual enrollment pilot projects currently operating throughout the state.[111]

Common Course Numbering. Public higher education institutions in eastern Washington are currently collaborating to develop a common course numbering system for select community college courses considered equivalent to courses required in baccalaureate degrees.[112]

Upside Down Degrees. Some baccalaureate institutions in Washington have created applied baccalaureate degrees that are structured to follow two-year technical programs. These degrees typically follow an "upside down" model. In this model, students receive technical degrees at a community college ,and then complete general education requirements through upper division coursework at a baccalaureate institution. This model reverses the typical sequence of courses in which students complete general education requirements at the lower division and specific degree courses at the upper division.[113]

Other Models of Access to Upper Division Programs

Students have other options besides public, on-campus programs to complete a baccalaureate degree, including off-campus centers, distance learning, and private institutions.

[108] MGT of America, *An Evaluation of Alternative Organizational Models for Meeting the Higher Education and Work Force Training Needs, Snohomish County Areas* (Submitted to the HECB, October 15, 1993); HECB, *Campus Master Plan: Cascadia Community College & The University of Washington – Bothell at Truly Farms – Stringtown* (Olympia, WA: HECB, September 1995), 4.
[109] RCW 28B.45.0201.
[110] Poch, *Accountability in Washington's Public Higher Education Institutions*, 19.
[111] SBCTC, <http://www.sbctc.ctc.edu/Transfer/tpolicy.asp>, December 5, 2002.
[112] Ibid.
[113] Crossland, *Articulation and Transfer*, 10.

Off-Campus Centers

Two of the branch campuses replaced off-campus centers in 1989 and, at the time, it was anticipated that many other existing centers would be phased out in favor of a designated service area approach to providing higher education.[114] However, in 1995 the HECB's service area policy was rescinded, and off-campus centers have expanded. In 1990, there were 12 off-campus centers, and, by 2001, there were 28 off-campus centers around the state (see Exhibit 63).

Exhibit 63
Off-Campus Centers in Washington State (Fall 2001)

Institution	Eastern Washington	Western Washington
Central Washington University (CWU): **6 Centers**	• Yakima • Wenatchee • Moses Lake	• Steilacoom • SeaTac • Lynnwood
Eastern Washington University (EWU): **7 Centers**	• Benton County (multiple sites) • Walla Walla • Moses Lake • Yakima • Spokane	• Kent • Vancouver
The Evergreen State College (TESC): **3 Centers**		• Grays Harbor • Quinault Reservation • Tacoma
Washington State University (WSU): **7 Centers**	• Yakima • Spokane • Wenatchee	• Longview • Aberdeen • Centralia • Bellingham
Western Washington University (WWU): **4 Centers**		• Bremerton • Everett • Skagit County (location not specified) • Pierce County (location not specified)

Source: HEER 2001

Off-campus centers primarily provide upper division education. In 2001, 75 percent of off-campus FTEs were in upper division, 18 percent in graduate, and 6 percent in lower division courses.[115] Off-campus centers, however, do not constitute separate campuses of their parent institutions. The *history of establishment* and *size* are key distinguishing characteristics between off-campus centers and branch campuses, as described below.[116]

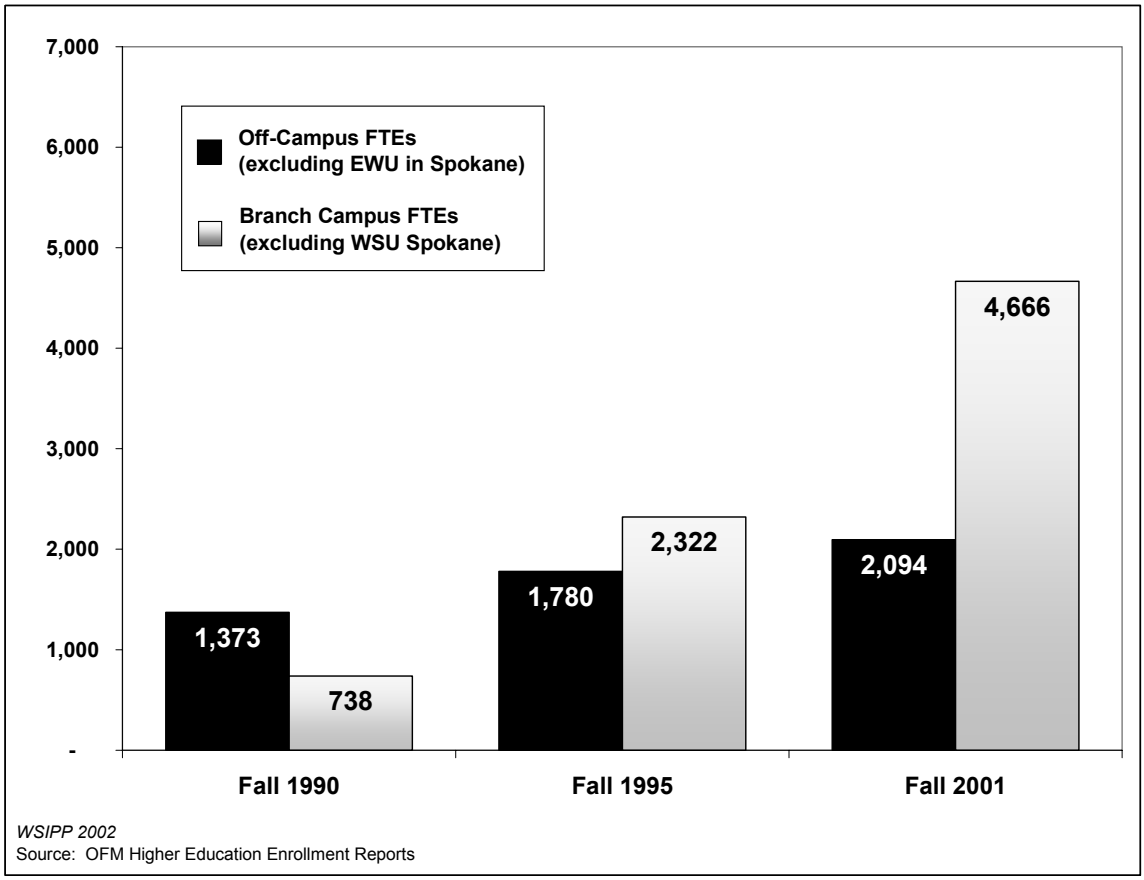
Establishment. The branch campuses of the UW and WSU were formally established through legislation, whereas off-campus centers are usually initiated by the institutions

[114] WSU Vancouver replaced the SW Washington Joint Center for Education, and WSU Tri-Cities replaced the Tri-Cities University Center. HECB, *Building a System* (1987), 16.
[115] WSIPP analysis of HEER.
[116] Cost of instruction, as well as capital costs, may also be different between branch campuses and off-campus centers. Cost analyses will be included in the final report on branch campuses, due June 2003.

themselves. Two exceptions are EWU programs in Spokane and CWU's Yakima Center, which were both legislatively established at the same time the branch campuses were created.[117] EWU in Spokane is unique in both size and structure and is described separately below.

Size. Off-campus centers are smaller than branch campuses. In the fall of 2001, the average size of off-campus centers was 70 FTEs compared with an average of 1,050 FTEs at the branch campuses.[118] Combined FTE enrollment in off-campus centers was over 2,000 (excluding EWU in Spokane), an increase of about 700 since Fall 1990 (see Exhibit 64). In comparison, the branch campuses (excluding WSU Spokane) enrolled nearly 4,700 FTEs in the fall of 2001, an increase of about 3,900 since 1990.

Exhibit 64
Off-Campus Centers' FTE Enrollment Has Increased by 700 Since 1990
(Branch Campus Enrollment Included for Comparison)



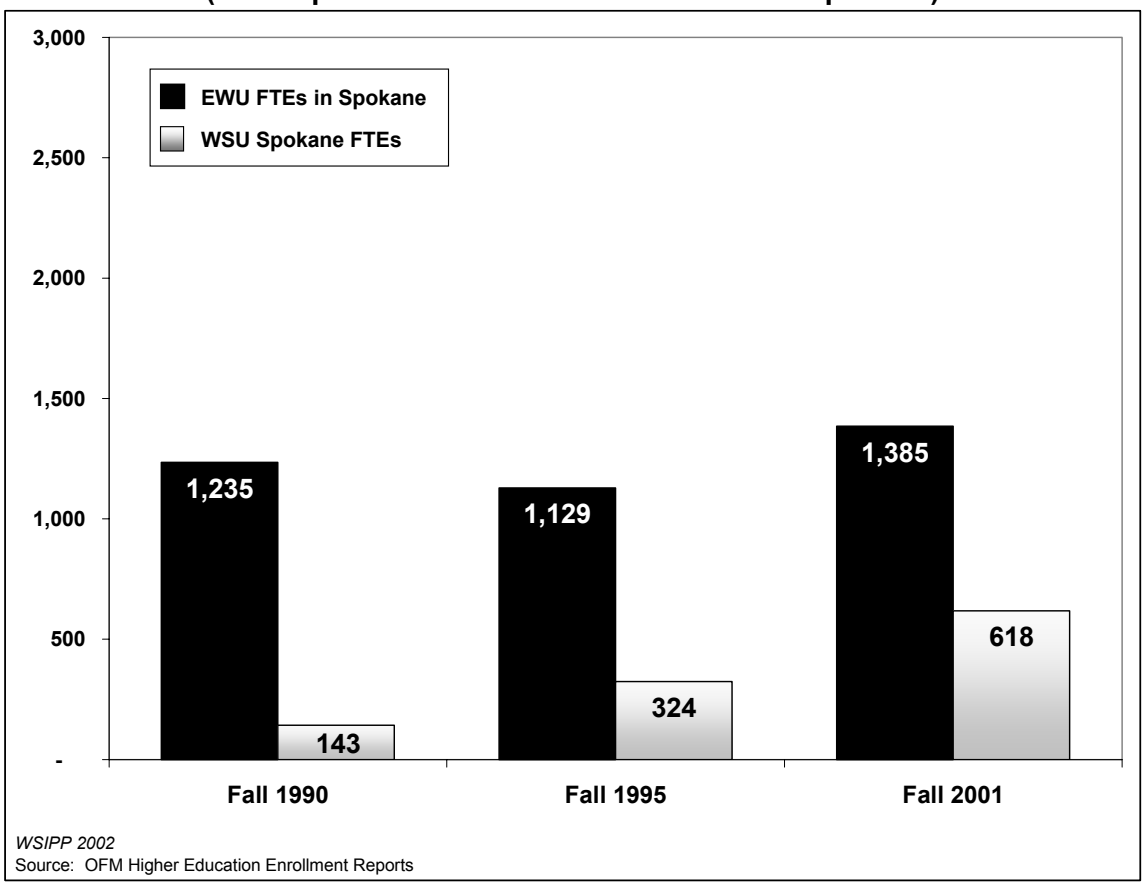
WSIPP 2002
Source: OFM Higher Education Enrollment Reports

[117] RCW 28B.45.050 and RCW 28B.45.060.
[118] Average size of off-campus centers excludes EWU's Spokane programs. This analysis includes both state- and non-state-supported enrollments at off-campus centers because the proportion that is state-supported tends to vary widely depending on how institutions account for the programs by year and by site. The majority of off-campus FTEs is state-supported; in Fall 2001, 84 percent was state-supported, a slight increase since 1990. FTEs rather than student headcounts are provided because off-campus centers have a high headcount to FTE ratio. Source: WSIPP analysis of HEER.

EWU in Spokane. EWU is considered to be co-located in Cheney and Spokane, with an emphasis on its Cheney programs.[119] Through both legislation and HECB policy, EWU and WSU Spokane have been directed to coordinate degree programs to avoid duplication within the region.[120] WSU Spokane is the fiscal agent for the Riverpoint campus shared with EWU.

In the fall of 2001, 2,984 students (1,385 FTEs) attended EWU Spokane programs compared with 908 students (618 FTEs) at WSU Spokane. FTE enrollment in EWU's Spokane programs increased by 150 between Fall 1990 and Fall 2001; during the same period, WSU Spokane FTE enrollment increased by about 450 (see Exhibit 65). In the fall of 2001, EWU's Spokane enrollment made up 40 percent of total off-campus center FTE enrollment as recorded in OFM's higher education enrollment reports (HEER).

Exhibit 65
EWU's Spokane Programs' FTEs Have Increased Slightly Since 1990
(WSU Spokane Enrollment Included for Comparison)



WSIPP 2002
Source: OFM Higher Education Enrollment Reports

In addition to these off-campus programs operated by single institutions, a new consortium-based approach has recently been implemented in the north Puget Sound region (see inset below).

[119] HECB, *Spokane Area Higher Education Services Study*, (Olympia, WA: HECB, January 1999), 3.
[120] RCW 28B.45.050; HECB, *Building a System* (1987), Appendix C.

North Snohomish, Island, Skagit Counties Higher Education Consortium (NSIS)

The 1996 Legislature directed the HECB to study higher education needs and possible delivery models for north Snohomish, Island, and Skagit Counties. In 1997, based on this study, the HECB recommended that local community colleges and various public four-year institutions create a consortium of programs to meet anticipated demand for nearly 10,000 additional FTEs in upper division and graduate programs by 2020.[121] Edmonds, Skagit, and Everett Community Colleges and CWU, UW, WSU, and WWU are included in the consortium.

Rather than constituting a new institution or branch campus of a single institution, the consortium approach is based on the notion that "the resources of the seven consortium members include significant experience and expertise in a wide range of programs and program delivery methods ...; these resources are potentially more extensive than can be offered by any one, single institution."[122]

Plans completed in 1998 called for the construction of a new university center and expanded space in community colleges. NSIS began enrolling students in January 2002 and currently offers two-year degrees as well as baccalaureate, masters, and certification programs. NSIS enrolled 450 students (approximately 130 FTEs) during the Fall 2002 quarter.[123]

Distance Learning

Distance learning is defined as coursework in which more than half of instruction is provided outside the classroom without direct (in-person) student-teacher contact. Distance learning in Washington's public institutions encompasses a variety of formats (see Exhibit 66). WSU has been operating distance learning programs through its Washington Higher Education Telecommunications System (WHETS) since 1992, and the community college system has especially focused on expanding distance learning since the mid-1990s. Washington's K-20 educational network, which uses high-speed video connections, and the Internet have also provided new forums for distance education. As of 2000, students could earn 22 different baccalaureate and graduate degrees through public distance learning courses, including nearly 3,000 separate courses, in Washington State.[124]

[121] HECB, in association with NBBJ Architecture Design Planning, *Final Report: North Snohomish, Island, Skagit Counties Higher Education Consortium, Facility Utilization and Program Delivery Plan* (Seattle: NBBJ Architecture Design Planning, September 1998), 19.
[122] HECB (NBBJ), *Final Report*, 3.
[123] Enrollment data provided by NSIS staff.
[124] HECB, *2000 Distance Learning Study* (Olympia, WA: HECB, January 2001), 1-3.

Exhibit 66
How Is Distance Learning Provided in Washington Public Baccalaureate Institutions?

Method	Percent of Distance FTE Enrollment (2000–2001)
Interactive (two-way) video, non-Internet	41%
Internet-based (on-line) classes via email, listservs, websites, and specialized software	41%
Pre-recorded video	15%
Correspondence	3%

Source: OFM, Summary of Distance Learning Enrollment by Headcount and FTE. N=2,069 FTEs. Includes both state and non-state-supported enrollment. Most (93 percent) is state-supported.

Student Characteristics. While some "traditional" on-campus students enroll in distance education, distance learning students are more likely to be older, female, and enrolled part-time than the average on-campus student.[125] The flexibility of distance learning courses, particularly the timing of class schedules, is the most common reason students give for opting for instruction via distance learning methods.[126]

Enrollment. Data on distance learning have only recently begun to be collected. In 2000, the HECB estimated that distance learning was the fastest growing segment of higher education in Washington State.[127] However, distance learning still makes up a small portion of enrollment at baccalaureate institutions. During the 2000–2001 school year, an average of 2,069 FTEs were enrolled in distance learning courses operated by Washington's public baccalaureate institutions each quarter/semester, representing slightly more than 2 percent of total enrollment.[128]

Private Institutions

Students can also complete baccalaureate degrees by attending private institutions. The SBCTC estimates that nearly 2,000 community college students transfer to private institutions each year, which is about 15 percent of all community college transfers. The number of community college transfers to private schools has hovered between 1,600 and 2,000 since 1993.[129]

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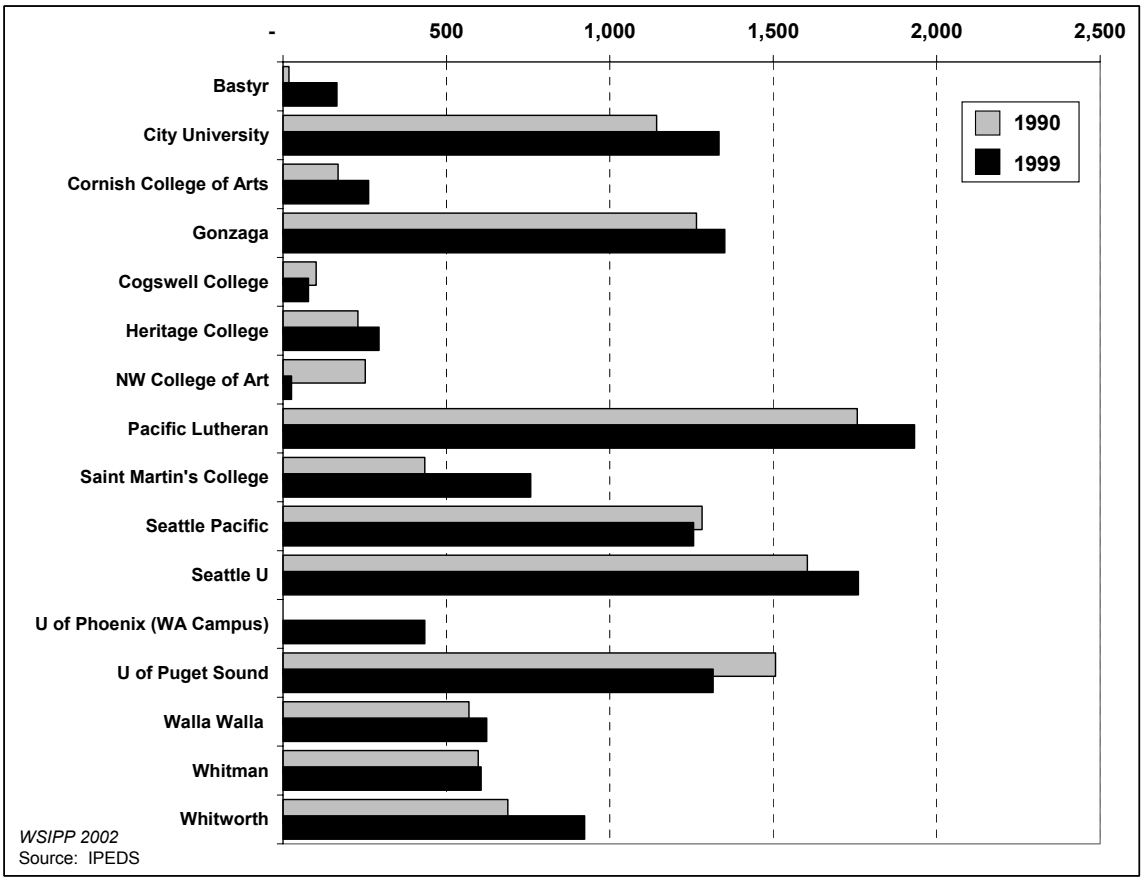
[125] HECB, *2000 Distance Learning*, 12.
[126] WSU, "Distance Degree Programs, Assessment and Program Evaluation, Fall 1996–Summer 1998," <http://www.distance.wsu.edu/pubs/assessment/assmt98.asp>, November 15, 2002.
[127] HECB*, 2000 Distance Learning*, 5.
[128] The per-quarter/semester student headcount for distance learning in 2000–2001 was considerably higher (6,318) because most students are enrolled part-time, and distance learning student headcounts may be duplicative across institutions. Approximately 95 percent of distance learning FTEs in public baccalaureate institutions are state-supported. OFM, "*Summary of Distance Learning Enrollment by Headcount and FTE* (Annual Average 2000–01)." Spreadsheet provided to WSIPP.
[129] SBCTC, *Academic Year Reports 2000–01*, 41; and (1997–98), 35.

At most Washington private institutions, upper division enrollment has increased since 1990 (see Exhibit 67). Upper division enrollments at Bastyr University, Cornish College of Arts, Saint Martin's College, and Whitworth College increased by over 30 percent between 1990 and 1999. The University of Phoenix established a campus in Washington State in 1997, and by 1999 enrolled 434 upper division students (with over 1,000 including lower division and graduate enrollment). The NW College of Art, Cogswell College, University of Puget Sound, and Seattle Pacific University all experienced declines in upper division enrollment between 1990 and 1999.[130]

Exhibit 67

Most Private Institutions Have Increased Upper Division Enrollment Since 1990



More than 40 additional private institutions based in other states offer HECB-authorized degree programs to Washington residents through distance learning or Washington-based campuses. Nearly half these institutions established their first degree programs in Washington State within the last five years. Current enrollment levels for these institutions are unknown.[131]

[130] Private graduate enrollment has increased more than upper division enrollments for most of these campuses. WSIPP analysis of IPEDS.

[131] There are also 42 private institutions based in Washington classified as religious institutions. Handout provided to author of HECB October 2002 listings of authorized degree-granting and religious exempt institutions.

Summary

Under the two plus two model, students complete the first two years of baccalaureate programs at another institution and the last two years at a branch campus. Most branch campus students transfer from community colleges.

Branch Campus Transfer Pathways. To transfer to branch campuses, students complete lower division coursework through a variety of pathways:

- Direct Transfer Agreement for Associate of Arts degree;
- Associate of Science degrees (new in 2002);
- Technical degrees;
- Associate in Applied Science degree (new in 2002);
- Earn credits without completing a degree; and
- Articulation agreements for specific degree programs.

Some students choose to complete baccalaureate degrees through a two plus two model because of lower tuition costs at community colleges and the need for remediation to be better prepared for baccalaureate-level coursework. Additionally, some students do not decide to pursue a baccalaureate degree until after they have begun studies at community colleges.

Transfer Student Trends. The total number of community college transfer students is growing and is forecasted to continue to do so through 2010. Students who earn two-year degrees are more likely to transfer than students who do not earn degrees. Approximately 70 percent of community college students who transfer to baccalaureate programs enter with upper division standing.

Branch Campus Transfers. Between 1991 and 2001, the number of community college students who transferred to branch campuses nearly tripled. An increasing proportion of community college students who transfer into upper division programs enroll at the branch campuses rather than other public institutions.

Challenges in Transfer for Branch Campus Students. The primary challenge of the branch two plus two model is providing pathways that cover lower division general education requirements and especially degree program prerequisites for baccalaureate degrees, because the branch campuses do not offer lower division coursework. Most existing pathways partially cover such requirements, but no one pathway covers all lower division requirements.

Articulation agreements between institutions for specific degree programs have been developed to assist students in identifying the necessary lower division prerequisites. At the branch campuses, transfer students whose credits do not meet all lower division requirements may be admitted with provisional status, but they must complete the remaining required lower division coursework at another institution.

Two indicators of these challenges, dual enrollment rates and graduate efficiency indices, suggest that branch campus students have some difficulty in covering all lower division requirements prior to transfer. Technical degree students, who make up a small percentage of transfer students, may face particular difficulties because of the course content of technical degree programs. The extent of these challenges is not known at present.

Other Models of Access to Upper Division Programs. Other models of access to upper division programs include off-campus centers, distance learning, and private institutions. Enrollment in all three of these segments of higher education has increased in recent years.

Comparative models of providing access to upper division programs will be explored in detail, including their costs, in the final report on branch campuses due in June 2003.

SECTION V. FOSTERING ECONOMIC DEVELOPMENT THROUGH DEGREE PROGRAMS

In addition to expanding access to higher education programs, the desire for economic development in targeted urban areas was a central justification for creating the branch campuses. Branch campuses were intended to respond to labor market demand for employees with baccalaureate and graduate degrees.

This section summarizes:

- Demand for baccalaureate and graduate degrees;
- Branch campus degree programs; and
- Degree production.

Demand for Baccalaureate and Graduate Degrees

An estimated 19 percent of projected job openings in Washington State between 2000–2008 will require baccalaureate degrees or higher. While the majority of projected new jobs require less than a four-year degree, the long-term trend in Washington is characterized by growing demand for a skilled, increasingly well-educated workforce.[132] According to preliminary results of a 2001 Workforce Training and Education Coordinating Board (WTECB) survey, 11 percent of Washington firms had difficulty filling positions requiring a baccalaureate degree or higher.[133]

Certain economic sectors are experiencing significant scarcity of skilled workers. Health care and educational occupations face the largest supply-demand gaps. The health care industry currently leads other sectors in growth in the number of new jobs, particularly in nursing and technical fields.[134] The education sector also faces significant labor demand. A recent report on supply and demand for teachers in Washington State noted that there is a "considerable shortage [in the] special education, mathematics, and physics" teaching areas.[135]

The business sector, particularly within the high-tech industry, has recently experienced declines in employment corresponding with the national recession but continues to play an important role in the economy. Recent occupational projections for Washington State

[132] Workforce Training and Education Coordinating Board, *Washington's Economy* (Olympia, WA: WTECB, January 2002), 6.
[133] In comparison, 15 percent of surveyed firms indicated they had difficulty finding workers with vocational certificates or associate degrees. A total of 2,207 firms were surveyed. Workforce Training and Education Coordinating Board, *Employer Needs and Practices Survey 2001* (Olympia, WA: WTECB, forthcoming, preliminary results provided to the Institute for this study.)
[134] Employment Security Department, *2001 Washington State Labor Market and Economic Report* (Olympia, WA: ESD, December 2001), i.
[135] Office of the Superintendent of Public Instruction, *Educator Supply and Demand in Washington State: 2002 Report* (Olympia, WA: OSPI, July 2002), 1.

placed computer-related occupations at the top of the list of the fastest growing occupations within the state for 2000–2008.[136]

Branch Campus Degree Programs

Process for Degree Program Approval

The HECB is charged with approving new degree programs at public baccalaureate institutions, including branch campuses and off-campus programs.[137] Criteria for degree program approval include the following:

- State's need for the program;
- Effective use of resources; and
- Consistency with institutional mission and priorities.[138]

Institutions are required to document state need and provide detailed plans for program structure and costs.[139] The branch campuses, as part of multicampus systems, are additionally subject to university approval within the UW and WSU systems.

Initial Branch Campus Plans

The HECB's 1990 plans for branch campus degree programs were based in part on the findings of the UW and WSU studies conducted for the branch campus development process. The WSU study emphasized the responsiveness of degree plans, which would "focus on the needs of each community."[140] Studies conducted in the 1980s in all three WSU branch campus regions (Vancouver, the Tri-Cities, and Spokane) informed the degree planning process for the WSU branch campuses. In 1988, the UW surveyed employers throughout the Puget Sound region and found:

> *The intellectual skills employers value most highly in their college-educated employees are those associated with liberal arts degrees that treat the disciplines as ways of understanding rather than as merely bodies of information to be mastered. Skills most valued include writing and communication, reasoning and problem solving, the ability to work with others, and quantitative skills.*[141]

The HECB's 1990 plans for branch campuses encouraged the development of baccalaureate programs "which allow students to receive a broad-based education in the arts and sciences, or a professional field."[142] At the graduate level, branch campuses were to focus on applied master's degree programs, though the HECB stated that "[r]esearch

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[136] Other fastest growing occupations are concentrated in retail, service, health, and education. ESD, *2001 Washington State Labor Market*, i, 23.
[137] RCW 28B.80.340.
[138] Higher Education Coordinating Board, *Guidelines for Program Planning, Approval, and Review* (Olympia, WA: HECB, January 2001), 3.
[139] HECB, *Guidelines for Program Planning* (2001), 4.
[140] WSU, *Building the Multi-Campus System*, 5.
[141] UW, *Plan to Expand*, 6.
[142] HECB, *Design for the 21st Century*, 16.

oriented masters programs (e.g., in the arts and sciences) will be offered where need has been clearly demonstrated and unique opportunities exist for research collaboration."[143]

The original branch campus legislation did not state whether the branches were intended to offer master's-level degree programs only, or doctoral degrees as well. The policy history of doctoral degree programs at the branch campuses is summarized in the following section, in relation to research activities at branch campuses.

Branch Campus Degree Program Histories

Each branch campus has generally followed the original plans for degree programs described in Section I. The most noticeable differences in the types of degrees offered at the branches are between the UW and WSU campuses. UW Bothell and UW Tacoma, which represented entirely new locales for higher education programs, both opened their doors with a single degree program in the liberal arts. In contrast, the WSU campuses each took over programs already in operation at pre-existing off-campus centers. WSU branch campuses also took part in WSU's distance learning programs, bringing instruction from Pullman faculty directly to branch campuses before branch resident faculty were recruited.

Because of these different histories, degree programs tend to be more numerous at WSU branch campuses than at UW branches. WSU Spokane is somewhat different than the other two WSU branches because it was intended to have a focused range of degree programs to avoid duplication with programs offered by EWU, which operates programs at its Cheney campus and in Spokane.

Degree program histories are summarized below for each branch campus, followed by a comparison between students' majors and current occupational projections.

[143] Ibid.

UW Bothell. When UW Bothell first enrolled students in 1990, one baccalaureate degree program in liberal studies was offered. By the fall of 2002, UW Bothell offered 5 baccalaureate, 4 master's, and one teacher certification program (see Exhibit 68). The majority of UW Bothell enrollment is in baccalaureate programs, primarily in arts and sciences, as well as concentrations in applied degree programs (business and computer science).

Exhibit 68
UW Bothell Degree Program History

Baccalaureate Degrees	**Year Students First Enrolled**
Interdisciplinary Arts and Sciences (formerly Liberal Studies), B.A.	1990
Nursing, B.S.	1992
Business Administration, B.S.	1993
Computing and Software Systems, B.S.	1996
Environmental Science, B.S.	2000
Master's Degrees	**Year Students First Enrolled**
Education, M.Ed.	1992
Business Administration, M.B.A. (formerly Master of Management)	1998
Policy Studies, M.A.	2001
Nursing, M.N.	2002
Certifications	**Year Students First Enrolled**
Teacher Certification	1996

Degree program history provided by UW Bothell

UW Tacoma. When UW Tacoma first enrolled students in 1990, one baccalaureate degree program in liberal studies was offered. In the fall of 2002, UW Tacoma offered seven baccalaureate, six master's, and two education-related certification programs (see Exhibit 69). Most of UW Tacoma's enrollment is in undergraduate programs, primarily in arts and sciences, as well as concentrations in applied degree fields (mainly business and computer science).

Exhibit 69
UW Tacoma Degree Program History

Baccalaureate Degrees	**Year Students First Enrolled**
Interdisciplinary Arts and Sciences (formerly Liberal Studies), B.A.	1990
Nursing, B.S.N.	1992
Business Administration, B.A.B.A.	1993
Computing and Software Systems, B.S.	1999
Environmental Science, B.S.	2001
Urban Studies, B.A.	2001
Social Welfare, B.A.S.W.	2002
Master's Degrees	**Year Students First Enrolled**
Education, M.Ed.	1992
Nursing, M.N.	1996
Social Work, MSW	1998
Business Administration, M.B.A.	2000
Interdisciplinary Arts and Sciences, M.A.	2000
Computing and Software Systems, M.S.	2002
Certifications	**Year Students First Enrolled**
Teacher Certification	1994
Educational Administrator Certificate	2001

Degree program history provided by UW Tacoma

WSU Vancouver. In 1990, WSU Vancouver offered three baccalaureate degrees and four graduate programs. In Fall 2002, WSU Vancouver offered 13 baccalaureate, nine master's, and one certification program (see Exhibit 70). Baccalaureate and graduate degree programs developed since 1990 include both arts and sciences and applied fields. WSU Vancouver's enrollment is relatively evenly distributed across the programs offered, primarily at the baccalaureate level.

Exhibit 70
WSU Vancouver Degree Program History

Baccalaureate Degrees	**Year Students First Enrolled**
Business Administration, B.A.	1990
Humanities, B.A.	1990
Social Science, B.A.	1990
Nursing, B.S., RN	1993
Psychology, B.S.	1993
Biology, B.S.	1996
English, B.A.	1996
Human Development, B.A.	1998
Manufacturing Engineering, B.S.	1998
Public Affairs, B.A.	1998
Computer Science, B.A.	1999
Elementary Education, B.A.	2000
Anthropology, B.A.	2002
Master's Degrees	**Year Students First Enrolled**
Business Administration, M.B.A.	1990
Education Administration	1990
Education, Ed.M.	1990
Teaching, M.I.T.	1990
Public Affairs, M.P.A.	1995
Nursing, M.N.	1997
Technology Management, M.T.M.	1998
Environmental Science, M.S.	2002
History, M.A.	2002
Certifications	**Year Students First Enrolled**
Secondary Education Certificate	No data

Degree program history provided by WSU Vancouver

WSU Tri-Cities. In 1989, WSU Tri-Cities offered eight baccalaureate and 14 master's degree programs. In 2002, WSU Tri-Cities enrollment was distributed among 13 baccalaureate, 14 master's, and two certification programs. WSU Tri-Cities' current degree programs are largely in applied fields, many of which continue to reflect its collaborations with the U.S. Department of Energy. WSU Tri-Cities also offers a variety of education-related degree programs at the master's level.

Exhibit 71

WSU Tri-Cities Degree Program History and Current Enrollment

Baccalaureate Degrees	Year Students First Enrolled*
Business, B.A.	1989
Computer Science, B.S.	1989
Education – Elementary Ed., B.A.	1989
Electrical Engineering, B.S.	1989
Mechanical Engineering, B.S.	1989
General Studies, Humanities, B.A.	1990
General Studies, Social Sciences, B.A.	1990
Nursing, R.N. to B.S.N.	1990
Environmental Science, B.S.	1992
General Studies, Science, B.S.	1993
Agriculture, B.S.	1999
Computer Science, B.A.	1999
Master's Degrees	**Year Students First Enrolled***
Biology, M.S.	1989
Business, M.B.A.	1989
Chemistry, M.S.	1989
Computer Science, M.S.	1989
Education – Administration, Ed.M.	1989
Education – Counseling, Ed.M.	1989
Education – Elementary Ed., M.I.T.	1989
Education – Literacy, Ed.M.	1989
Electrical Engineering, M.S.	1989
Environmental Science, M.S.	1990
Mechanical Engineering, M.S.	1990
Business, M.T.M.	1992
Environmental Engineering, M.S.	1995
Nursing, M.N.	2002
Certifications	**Year Students First Enrolled**
Teacher Certification	2002
Education Administrator Certification	2002

**The year 1989 refers to programs in place prior to the creation of WSU Tri-Cities.*
Degree program history provided by WSU Tri-Cities

WSU Spokane. WSU Spokane was intended to provide primarily graduate programs; in the HECB's 1987 master plan, its undergraduate offerings were limited to those not already offered by EWU. 1990 WSU Spokane degree program plans called for emphases in graduate health sciences, engineering, and architecture programs.[144] WSU Spokane currently offers two baccalaureate degrees and four baccalaureate completion programs—five-year programs in which students complete the final two years at WSU Spokane (the first three at another institution). WSU Spokane also offers 11 master's and 4 certification programs. Additionally, in 1992, in response to changing accreditation requirements, WSU Spokane began offering a doctoral degree in pharmacy.[145] Policies relating to doctoral programs at the branch campuses are described in the following chapter.

Exhibit 72
WSU Spokane Degree Program History

Baccalaureate Degrees	**Year Students First Enrolled**
Business Administration (Real Estate) (program coordinated w/ Pullman campus)	2001
Computer Engineering	2000
Baccalaureate Completion Programs	**Year Students First Enrolled**
Architecture	1989
Interior Design	1989
Landscape Architecture	1989
Construction Management	1992
Master's Degrees	**Year Students First Enrolled**
Engineering Management	1982
Human Nutrition	1984
Speech & Hearing Science (with EWU)	1989
Criminal Justice	1990
Health Policy Administration	1994
Technology Management	1998
Architecture	1999
Interior Design	1999
Landscape Architecture	1999
Education (with WSU Pullman)	2000
Exercise Science	2001
Doctoral Degrees	**Year Students First Enrolled**
Pharmacy	1992
Certifications	**Year Students First Enrolled**
Field-based Principal's Certificate	1997
Certificate on Aging	2000
Certificate in School Psychology	2001
Certificate in Public Service Leadership	2002
Certificate in Psych. Rehab.	2003 (anticipated)

Degree program history provided by WSU Spokane

[144] WSU, *Development Plan for Campuses*, 15.
[145] Excerpt from HECB meeting, Public Testimony and Discussion, "New Degree Proposal: Doctor of Pharmacy (Pharm. D.) – Washington State University," (SeaTac Radisson Hotel, May 6, 1992).

Occupational Projections Compared With Student Majors

Students' majors across the branch campuses tend to be concentrated in the business, education, and health fields, as well as liberal arts, which can be applied to a variety of occupational fields. Computer and social sciences are also frequent majors for branch campus students.

Current occupational projections in branch campus target areas tend to be concentrated in the business, education, health, and engineering fields. With the exception of engineering, branch campus degree programs tend to follow current occupational projections, although not uniformly. How occupational projections compare with student majors varies for each targeted area; see Appendix E for a description of the data sources used and the limitations of this analysis (which is not an estimation of supply and demand), as well as comparisons by targeted area.

Degree Production

The HECB's 1990 branch campus plan cited Washington's relatively low degree production rates, compared with other states, as an indicator of need for branch campuses to respond to demand for degree programs. Unfortunately, a comparable analysis of this indicator cannot be replicated.[146] Additionally, because degrees awarded by WSU do not indicate those completed at branch campuses, the proportion of degrees produced by the branch campuses since 1990 cannot be determined.

Branch Campus Degrees

A sense of the branch campuses' role in degree production, however, can be discerned through available data. The transfer cohort study estimated that during the 2000–2001 school year 1,310 undergraduate students graduated from branch campuses, accounting for 13 percent of all baccalaureate graduates within the public higher education system.[147] The most recent available data from IPEDS indicate that UW Bothell and UW Tacoma produced 775 baccalaureate and 126 master's degrees during the 1999-2000 school year, representing 11 percent of UW baccalaureate and 5 percent of UW graduate degrees.

Statewide Degree Production

Total Degrees Awarded. Available data covering degrees produced in Washington's public higher education system indicate that between the 1989–90 and 1999–2000 school years:

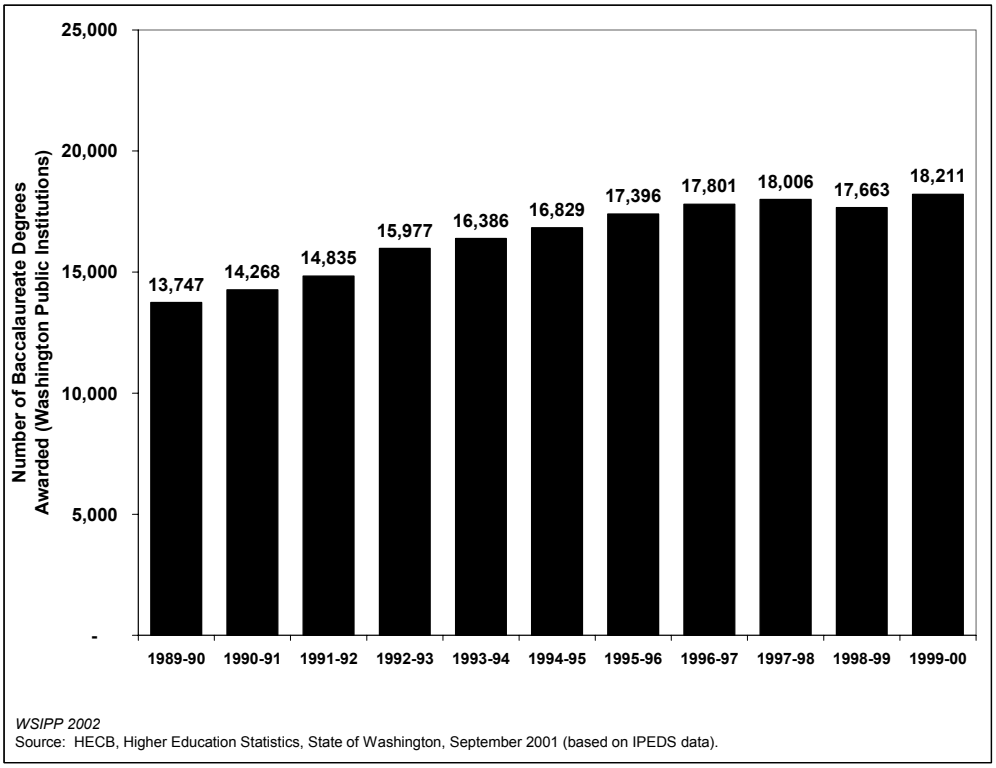
- The number of baccalaureate degrees awarded increased by 32 percent (see Exhibit 73).

[146] The 1990 analysis of degree production rates in comparison with other states accounted for in- and out-migration of degree holders. This analysis cannot be replicated based on the description of the methodology contained in the report. MGT of America, Inc., *Branch Campus Development Alternatives: Appendix for Chapter 2* (Submitted to the HECB, November 5, 1989).
[147] SBCTC, *Transfer Cohort Study*. The proportion of graduate degrees from branch campuses is unknown.

- The number of master's and professional degrees produced increased by about 20 percent (see Exhibit 74).
- The number of doctoral degrees produced has remained about the same (see Exhibit 75).

Degree Production Rates. In 1990, the HECB measured degree production rates as a percentage of the number of individuals in the 18 to 44 age group. Since the 1989-90 school year, baccalaureate and master's degree production rates have improved, while doctoral degree production rates have declined slightly.

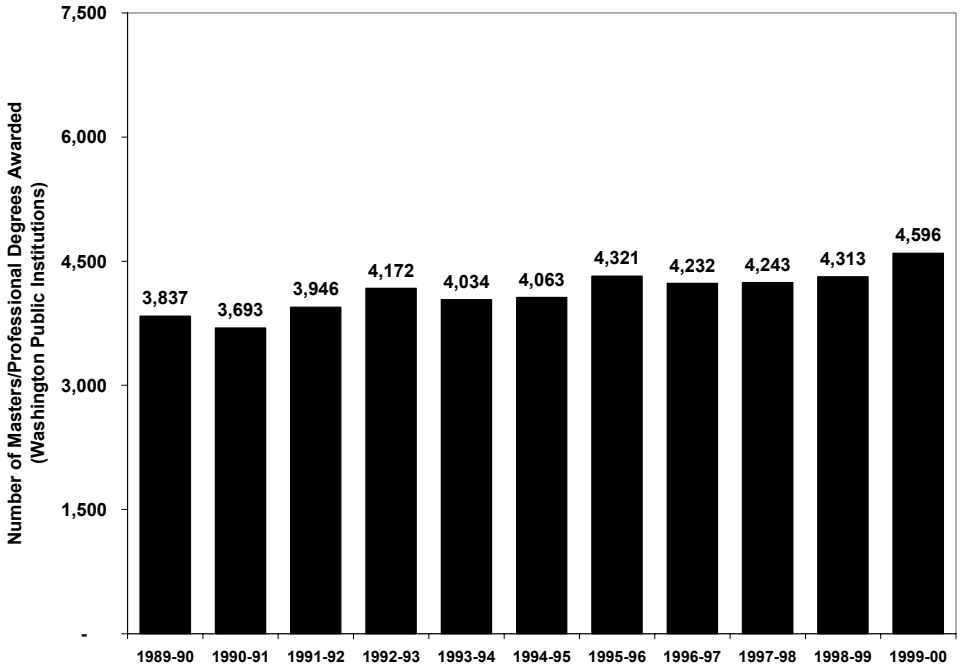
Exhibit 73
Baccalaureate Degrees Awarded by Washington Public Institutions Have Increased



WSIPP 2002
Source: HECB, Higher Education Statistics, State of Washington, September 2001 (based on IPEDS data).

Exhibit 74

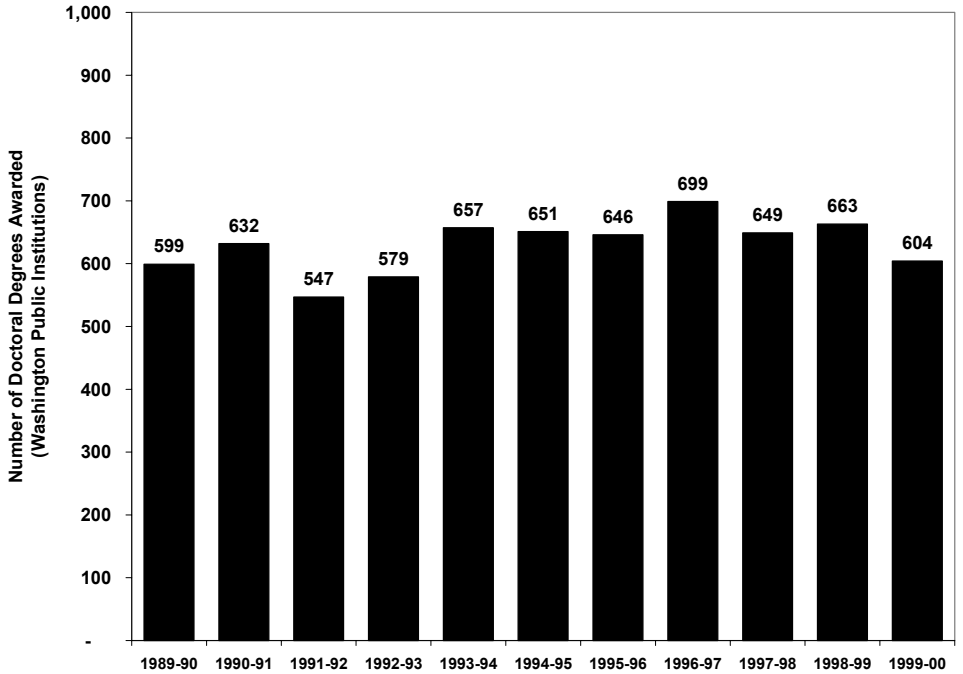
Master's and Professional Degrees Awarded by Washington Public Institutions Have Increased



WSIPP 2002
Source: HECB, Higher Education Statistics, State of Washington, September 2001 (based on IPEDS data).

Exhibit 75

Doctoral Degrees Awarded by Washington Public Institutions Have Not Changed



WSIPP 2002
Source: HECB, Higher Education Statistics, State of Washington, September 2001 (based on IPEDS data).

Summary

Branch campuses were created in part to respond to labor market demands for employees with baccalaureate and graduate degrees.

Branch Campus Degree Programs. When the branch campuses were created, plans developed by the UW, WSU, and the HECB emphasized baccalaureate arts and sciences and applied master's degree programs. The development of degree programs at the branch campuses has generally followed the original plans.

Comparison With Occupational Projections. Students' majors across the branch campuses tend to be concentrated in the business, education, and health fields, as well as liberal arts, which can be applied to a variety of occupational fields. Computer and social sciences are also frequent majors for branch campus students. Current occupational projections in the branch campus target areas tend to be concentrated in the business, education, health, and engineering fields. With the exception of engineering, branch campus students' majors loosely mirror current occupational projections, although not uniformly.

Statewide Demand for Baccalaureate and Graduate Degrees. Over the next five years, an estimated 19 percent of projected job openings in Washington State will require baccalaureate degrees or higher. The majority of new jobs will require less than a four-year degree, but the long-term trend in Washington is characterized by growing demand for a skilled, increasingly well-educated workforce. Health care, education, and technology-related occupations are the most rapidly growing sectors.

Degree Production. Statewide degree production has increased over the last decade at the baccalaureate and master's levels, but not at the doctoral level. Data regarding degrees awarded at the branches are limited because WSU degrees do not indicate those completed at branch campuses. During the 2000–2001 school year, approximately 13 percent of baccalaureate degrees were granted at branch campuses.

SECTION VI. FOSTER ECONOMIC DEVELOPMENT THROUGH RESEARCH

One justification for operating the branch campuses under the University of Washington (UW) and Washington State University (WSU) concerned the economic benefits associated with research institutions. Establishing branch campuses as research institutions was expected to promote economic development in their target areas. This section summarizes:

- Economic impacts of higher education;
- Branch campus doctoral program policy history;
- Branch campus capital and research funding; and
- Indicators of economic development.

Economic Impacts of Higher Education

The impacts of higher education on regional and statewide economies are complex and varied. This section summarizes research that assesses the regional impacts of higher education institutions, as well as potential statewide impacts and a policy tradeoff in supporting higher education programs focused on economic development.

Positive Regional Impacts

Research has shown that higher education institutions have a positive impact on regional economies. There are short- and long-term benefits, including direct and indirect benefits for individuals and local communities.[148] Positive regional effects of higher education institutions are summarized in Exhibit 76.

Exhibit 76[149]
Positive Regional Economic Effects of Higher Education Institutions

Short-Term Effects		Long-Term Effects
Direct	**Indirect**	**Direct and Indirect**
College, employee, student, and visitor purchases Increased local government net revenues Increased local employment and income	Increased business volume Increased local government net revenues Expanded local credit base Increased real estate values	Human capital growth Decisions of firms and graduates to locate in the area Labor market information

[148] Donald S. Elliott, Stanford L. Levin, and John B. Meisel, "Measuring the Economic Impact of Institutions of Higher Education," *Research in Higher Education* 28, no. 1 (1988): 19.

[149] Adapted from Joseph Kott, "Regional Economic Impact of Institutions of Higher Education," *Planning for Higher Education* 16, no. 4 (1987-88): 21.

Short-term direct effects are related to "the direct expenditures of students and faculty and how this contributes to ... employment and tax revenue."[150] Students and faculty who move into the area because of a higher education institution spend money within the region and therefore have a positive impact. Expenditures by the institution itself also contribute to the local economy; funds for research, salaries, and other expenditures that come from outside the area represent new money for the region. Indirect or "multiplier" effects are related to the "increased business volume resulting from [a university's] presence," where local businesses respond to the institution's needs for goods and services.[151]

Long-term direct and indirect effects include "the enhancement of local workers' skills, the relationship between research and local industry, and the effects on business location."[152] When graduates remain in the area, the local skill base is improved, which can lead to increases in productivity. Research activities may lead to "technology transfer" or "spillovers," where collaborations between higher education and industry may lead to the creation of new firms and technologies. Such spillovers may create new jobs, attract new businesses, and increase the local tax base.[153]

Negative Regional Impacts

Some negative regional economic impacts are associated with higher education institutions, including increased operating costs and capital investments of local government. The support for higher education institutions by local governments, especially in terms of capital investments in infrastructure such as roads, utilities, police and fire protection, and increases in local school capacity, can mitigate the positive effects of institutions.[154]

Despite these negative local effects, assessments of the impacts of higher education have shown that the positives outweigh the negatives for regional economies. Some research has found that for each outside dollar spent on higher education within a region, the economic returns range between $1.50 to over $3.[155] One review of regional economic impact studies concluded that "a university's annual [net] impact approximately equals its annual budget."[156]

[150] Ross Gittell and Norman Sedgley, "High Technology and State Higher Education Policy," *American Behavioral Scientist* 43, no. 7 (2000): 1096.
[151] Kott, "Regional Economic Impact," 25.
[152] Elliott et. al., "Measuring the Economic Impact," 19.
[153] Patricia Beeson and Edward Montgomery, "The Effects of Colleges and Universities on Local Labor Markets," *The Review of Economics and Statistics* 74, no. 4 (1993): 753.
[154] Kott, "Regional Economic Impact," 21.
[155] Ibid., 30.
[156] Melanie Blackwell, Steven Cobb, and David Weinberg, "The Economic Impact of Educational Institutions: Issues and Methodology," *Economic Development Quarterly* 16, no. 1 (2002): 94.

Methods of Analysis

To assess the regional economic impact of higher education institutions, multiple extensive surveys requiring vastly different data sources are required to estimate the range of short- and long-term, direct and indirect effects. Challenges of conducting such assessments are illustrated by the types of information required:

- Reliable surveys to evaluate faculty, staff, and student decisions to locate to the area and their subsequent expenditures in the region;
- Defining and measuring direct local expenditures that can be attributed to the institution;
- The selection and use of multipliers to estimate indirect effects; and
- The leveraging of tax dollars to support higher education.[157]

The methods used for evaluating the economic impacts of higher education institutions are continuingly being refined. The comparisons that can be made between different institutional studies are limited, particularly regarding the extent of impacts.[158] There is, however, a general consensus in the research that the net impact is positive for regional economies.

Implications for Assessing Branch Campus Impacts. Such an extensive assessment was outside of the scope of this study. Branch campuses probably have a more limited impact on regional economies than traditional higher education institutions because of the way they are structured. Most studies of regional economic impacts are based on four-year residential universities. Branch campuses, as two-year non-residential campuses that target local placebound students, have a more limited regional impact because they do not attract as many individuals from outside the area. Branch campuses have also been limited to providing more applied, rather than research-oriented, degree programs.

Branch campuses do, however, attract some students and faculty from outside the local areas, and the campuses, through their daily operations, spend outside money within the region. An additional consideration is that, in the absence of branch campuses, some individuals might have left the area to attend other higher education institutions, which negatively impacts the targeted areas, assuming those individuals would not return to the region after graduating.[159]

Statewide Impacts

Because public higher education institutions are primarily supported by state funds, some *regional* benefits represent costs for the *state* overall. Estimations of regional impacts are based on the notion that individuals and firms from outside the region spend money that would otherwise be expended elsewhere. When individuals move from one region of the state to another, their expenditures are considered "new" to the region and are calculated

[157] Elliott et al., "Measuring the Economic Impact," 21.
[158] Blackwell et al., "The Economic Impact," 89.
[159] Blackwell et al., "The Economic Impact," 91.

as benefits but would not be included in assessments of statewide net benefits. Similarly, state funding for institutions represent "new" expenditures for regions within the state but represent costs in statewide economic impact assessments.[160]

Policy Tradeoff

How much the state invests in higher education impacts both regional and statewide economies. Most states support both expanded access and economic development to varying degrees. Where funding is targeted depends on whether states prioritize "promoting economic efficiency and growth *or* equity and opportunity" in access to higher education.[161] A focus on economic development, which is generally associated with higher cost, research-oriented programs, as well as capital investment, can restrict the amount of state funding available for the expansion of access.

Implications for Branch Campuses. Given constraints on state resources, the policy question for the state may be whether to prioritize state dollars for *access* in the shorter term or to support higher cost programs—particularly at the graduate level—that more indirectly contribute to economic development in the long run. However, it should also be noted that investments in graduate programs are a part of expanding access where demand for such degree programs exists.

A 1991 HECB study on graduate education explained why program costs tend to be relatively high:

> *Costs for graduate education will always be high, as it is an extremely labor-intensive enterprise, depending upon highly-qualified and educated individuals to deliver the educational product…. [graduate education] is time-consuming, as graduate students require significant faculty time in the lab, with advising, or providing thesis/research assistance. Graduate study also requires the latest equipment to keep up with current scientific methods and instruction.*[162]

As stated above, current data covering costs to the state associated with instruction and research at the branch campuses were not available at the time of this writing. Analyses of such costs in comparison with other models of providing upper division and graduate education will be provided in the final report on branch campuses.

Branch Campus Doctoral Degree Policy History

The desire to foster economic development and concerns about the cost of graduate education have influenced policies regarding whether branch campuses are authorized to offer doctoral degree programs, as reflected in a 1997 report by the HECB:

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[160] Elliott et al., "Measuring the Economic Impact," 27.
[161] Gittel and Sedgley, "High Technology," 1107. Emphasis added.
[162] Higher Education Coordinating Board, *Graduate Education Study, Final Report and Recommendations* (Olympia, WA: HECB, September 1991), 67.

For local communities, the state often provides financial assistance to help communities meet economic development and other goals. At the same time, the needs of any one local community – let alone the needs of all local communities – may be too great to meet with state resources. Therein lies a tension that comes into play in the discussion of whether to offer doctoral degrees on branch campuses: how to use increasingly constrained resources to assist local communities with some needs, and to target scarce state resources to local communities in especial need.[163]

Initial Doctoral Policies

The legislation that established the branch campuses as graduate education providers did not indicate whether they should offer doctoral degree programs (see Appendix A). The 1990 HECB report, which contained detailed plans for the branch campuses, included a policy statement prohibiting doctoral degrees at branch campuses:

The heavy demand such programs place on research and clinical resources, their intensive nature, the small faculty-student ratios, the high cost, and their dependence on the intellectual life of a residential, scholarly community – all indicate that doctoral programs should exist exclusively on the UW and WSU main campuses.[164]

Branch campuses were "expected to support scholarly activity by faculty and students" that is related to instructional programs, but not at the doctoral level.[165] Doctoral programs at the branch campuses were considered to be duplicative of the UW and WSU main campus programs and therefore not cost-effective for the state.[166]

Policy Shifts

The HECB's policies regarding doctoral programs at branch campuses have become less prohibitive over time.

1991. In 1991, the HECB's blanket prohibition on doctoral programs at branch campuses began to be relaxed. Based on the findings from a 1991 study of graduate education needs in Washington State, the HECB considered the possibility of allowing applied doctoral programs at branch campuses. The question was raised in a 1991 memo:

Although it is clear that research-oriented (Ph.D.) programs are inappropriate [at branch campuses], should clinical or practice-oriented doctoral programs be permitted on branch campuses where need can be clearly documented and stringent quality standards met?[167]

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[163] Higher Education Coordinating Board, *Doctoral Degrees on the Branch Campuses* (Olympia, WA: HECB, March 1997), Executive Summary, 2.
[164] HECB, *Design for the 21st Century*, v.
[165] Ibid.
[166] HECB, *Graduate Education Study*, 45.
[167] HECB memo, "Briefing on the Graduate Education Study," (Olympia, WA: HECB, March 20, 1991), 24.

1992. In 1992, the HECB established a new policy that allowed branch campuses to petition for a waiver of the doctoral degree prohibition based on the criteria that:

- There is exceptional state need for the program;
- Having a branch campus location provides an advantage to students and to the program;
- There must be comparable quality to main campus programs; and
- The program must constitute a "reasonable investment of state resources" (i.e., the above factors should justify the reallocation of state funds to the program).[168]

WSU Spokane was authorized in 1992 to offer a doctoral program in pharmacy in response to changes in accreditation in the pharmaceutical field. Spokane was favored over the WSU Pullman campus because of the relatively high concentration of health care industries in Spokane.[169]

1995. Given the exception made for WSU Spokane, the HECB stated in 1995 that "they would be willing to consider further exceptions to the prohibition against doctoral degrees at the branch campuses, based on documentation of exceptional need and special conditions."[170]

1997–98. By 1998, following a 1997 review of doctoral degree policy at the branch campuses, the HECB's policy allowed for exceptions for applied doctoral degrees:

> *Doctoral degrees will not be offered on the branch campuses. Exceptions to this policy for practice-oriented doctorates may be granted by the HECB under exceptional conditions.*[171]

1999. Under legislative direction, WSU, EWU, and the HECB conducted planning studies for higher education needs in the Spokane area. The WSU plan recommended that the HECB consider allowing doctoral degree programs in Spokane on a case-by-case basis. In 1999, the HECB approved the WSU plan and created a new mission statement for WSU Spokane that includes authoritization for doctoral programs subject to approval by the HECB.[172]

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[168] Excerpt from HECB meeting, Public Testimony and Discussion, "New Degree Proposal: Doctor of Pharmacy (Pharm. D.) – Washington State University," (SeaTac Radisson Hotel, May 6, 1992), Meeting minutes, 1-2.
[169] Ibid., 9.
[170] HECB, *Doctoral Degrees*, 2.
[171] Higher Education Coordinating Board, *Guidelines for Program Planning, Approval, and Review* (Olympia, WA: HECB, 1998), Appendix B.
[172] The current mission statements for each of the branch campuses are contained in Appendix F. Higher Education Coordinating Board, *Spokane Area Higher Education Services Study* (Olympia, WA: HECB, January 1999).

Current Policy

Legislative interest in the issue of doctoral programs at the branch campuses led to a hearing in April 2001. During this hearing, the cost of and demand for doctoral programs were discussed—the same issues that surfaced during the development of branch campus plans. Current HECB policy allows for exceptions for both applied and research-oriented doctoral programs:

> *The HECB will consider doctoral degrees on the branch campuses on a case-by-case basis in accordance with specific criteria applicable to practice-oriented and research-oriented doctorates.*[173]

WSU Spokane continues to be the only branch campus that offers a doctoral degree. The 1997 HECB report on doctoral degree programs noted that "no plans for doctoral degree programs have been proposed for the UW branch campuses. This may reflect an institutional decision to focus on the original branch campus mission, community needs, or the availability of doctoral programs nearby. In any case, it may not be accurate to characterize the need for doctoral programs as being the same for all branch campuses."[174]

Differences between the branch campuses in terms of emphasis on instructional and research programs are part of their unique identities. The 1991 HECB Graduate Education Study recognized that, "[w]hile remaining true to their primary mission of upper division and master's-level instruction, the branch campuses should develop unique identities, in response to the institution's goals, local needs and resources, and the overall needs of the state."[175] The current branch campus mission statements (see Appendix F) contain elements of the original mission set forth by the HECB in 1989 and also reflect how each campus has evolved over time.

Branch Campus Capital and Research Funding

Capital and research funding for branch campuses are two different types of contributions to the regional economies targeted for economic development. Capital investments represent significant costs to the state, while research funding at the branch campuses comes from non-state sources.

Branch Campus Capital Investments

State-funded capital investments in branch campuses have been substantial over the last decade, exceeding the preliminary estimates provided by the HECB in 1990 (see Exhibit 9). Exhibit 77 summarizes state capital appropriations for branch campuses through the 2001-03 biennium. To date, the state has invested more than $600 million in branch campus capital facilities.

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[173] HECB, *Guidelines for Program Planning* (2001), Appendix B.
[174] HECB, *Doctoral Degrees*, 5.
[175] HECB, *Graduate Education Study*, 47.

Exhibit 77
Total Biennial Capital Appropriations for Branch Campuses (1989-91 to 2001-03)*

Campus	Capital Appropriations (in thousands)
UW Bothell	$239,496
UW Tacoma	$157,420
WSU Vancouver	$107,276
WSU Tri-Cities	$23,336
WSU Spokane (including SIRTI)	$82,635
Total	**$610,163**

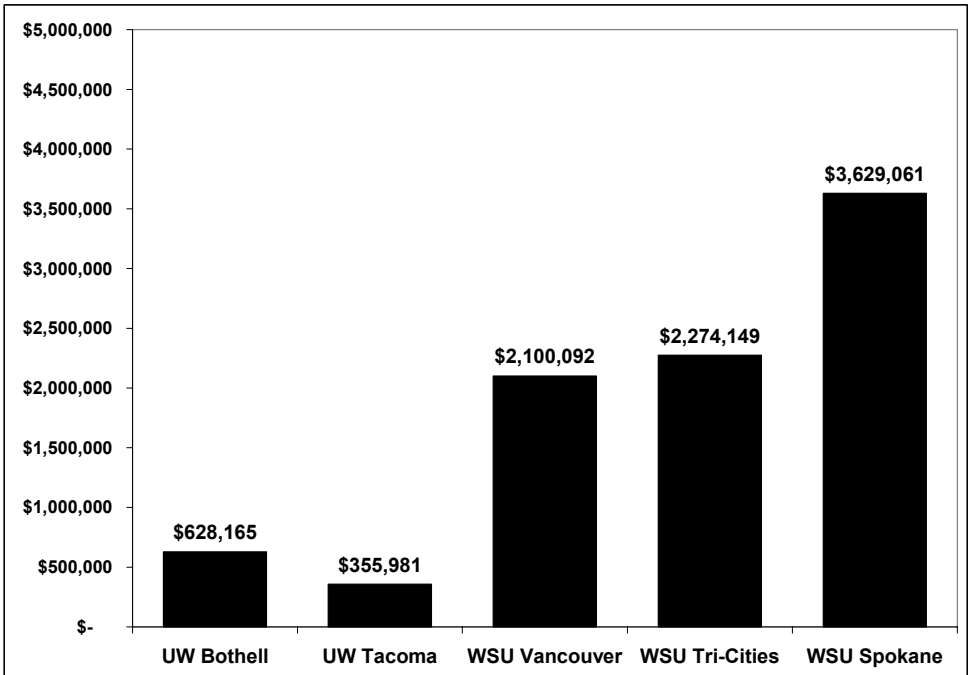
**Includes supplemental budgets*
Source: OFM, 1989–1999; Senate Ways and Means, 2001–03

Branch Campus Research Funds

All branch campuses conduct research activities supported by outside funds. In fiscal year 2002, branch campuses generated approximately $9 million in research funds from non-state grants and contracts. WSU branch campuses have considerably more research funds than the UW branches (see Exhibit 78). For WSU Tri-Cities and WSU Spokane, research grants and contracts constituted over a quarter of total institutional revenues between 1992 and 2002 (see Exhibit 79).

Exhibit 78

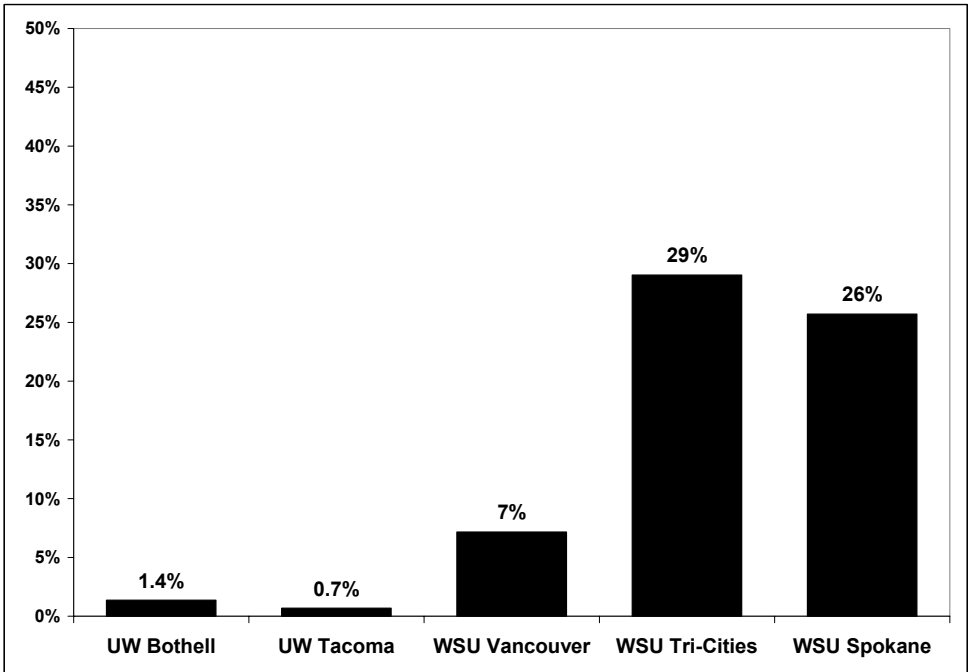
Research Funds at Branch Campuses Vary Widely
(Total Funds Budgeted for Research, FY 2002)



WSIPP 2002
Source: Data request from branch campuses.

Exhibit 79

WSU Tri-Cities and WSU Spokane Research Funds
Make Up Over a Quarter of Their Total Budgets
(Research Funds as Percent of Total Funds, Average From FY 1992–2002)



WSIPP 2002
Source: Data request from branch campuses.

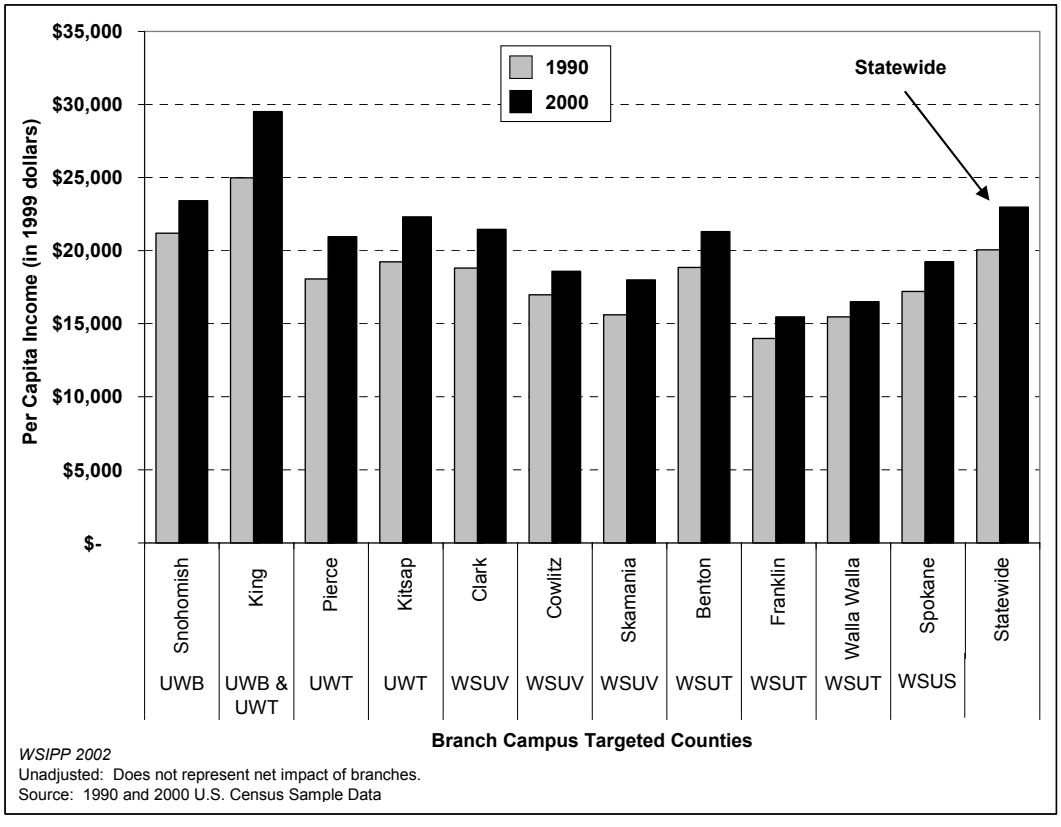
Indicators of Economic Development

Indicators of economic development include per capita income, poverty, and unemployment rates.[176] Numerous factors, including statewide and national economic trends, impact these indicators. The effects of these factors cannot be delineated based on available data, so the degree of impact from the branch campuses alone cannot be determined. Each indicator, however, suggests that differences between the Puget Sound region and the rest of Washington persist. Generally, targeted counties in the Puget Sound region have higher per capita income, lower poverty rates, and lower unemployment rates than targeted counties in southwest and eastern Washington.

Per Capita Income

Disparities in per capita income were considered indicative of the need for economic development in the areas where branch campuses were established in 1989.[177] Since 1990, per capita income has risen across the state and in every county within the branch campus regions (see Exhibit 80). Snohomish and King Counties have above-average per capita income; all other counties in the branch campus target areas have below-average per capita income.

Exhibit 80
Per Capita Income Has Risen Statewide and In All Branch Campus Target Areas (1990–2000)



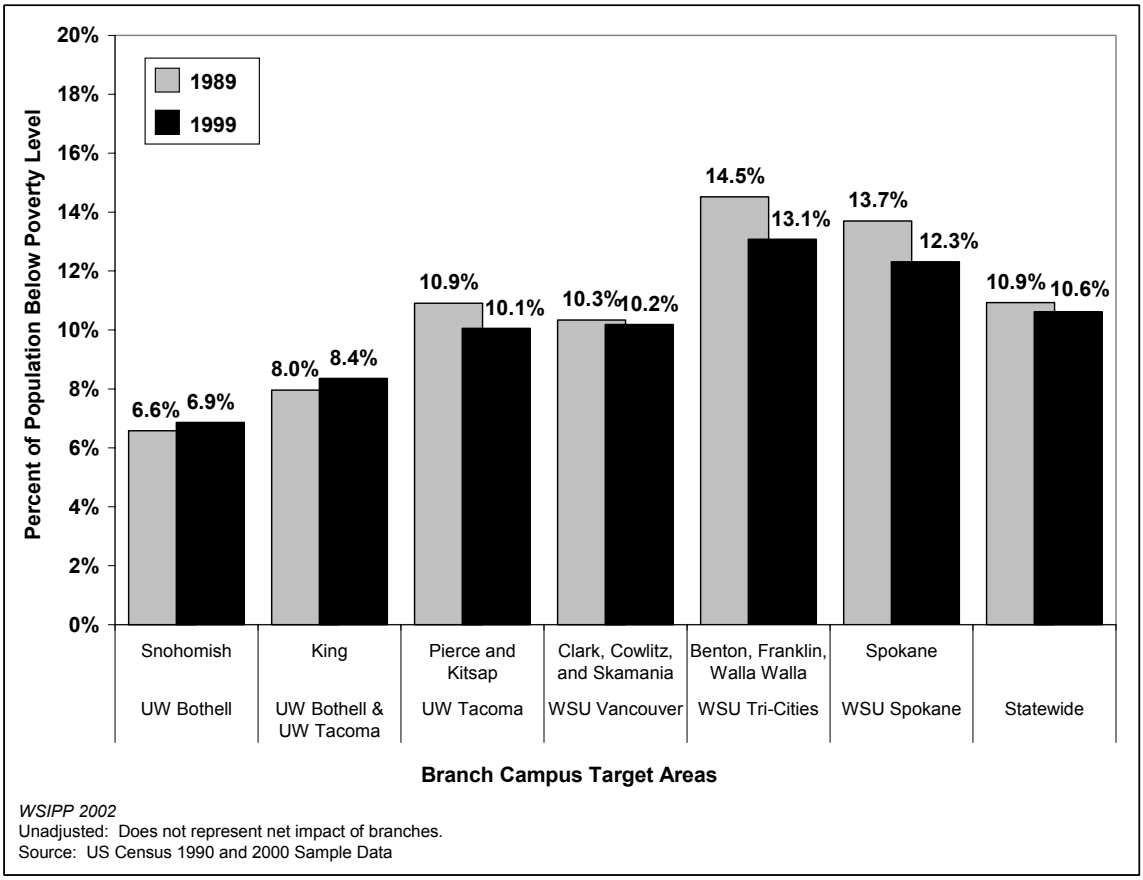
WSIPP 2002
Unadjusted: Does not represent net impact of branches.
Source: 1990 and 2000 U.S. Census Sample Data

[176] Elliott et al., "Measuring the Economic Impact," 29.
[177] de Give, *The Influence of Special Interests*, 83.

Poverty Rates

The poverty rate is defined as the percentage of the population with income below the federal poverty level.[178] With the exception of King and Snohomish Counties, poverty rates declined in the branch campus target areas between 1989 and 1999 (see Exhibit 81). Both King and Snohomish Counties, however, have poverty rates below the statewide average. Counties surrounding UW Tacoma and WSU Vancouver have poverty rates slightly below the statewide average. In eastern Washington, poverty rates in WSU Tri-Cities and WSU Spokane target areas declined by over 1 percent between 1989 and 1999 but remain above the statewide average.

Exhibit 81
Poverty Rates Have Slightly Declined Statewide and in Most Branch Campus Target Areas (1989–99)



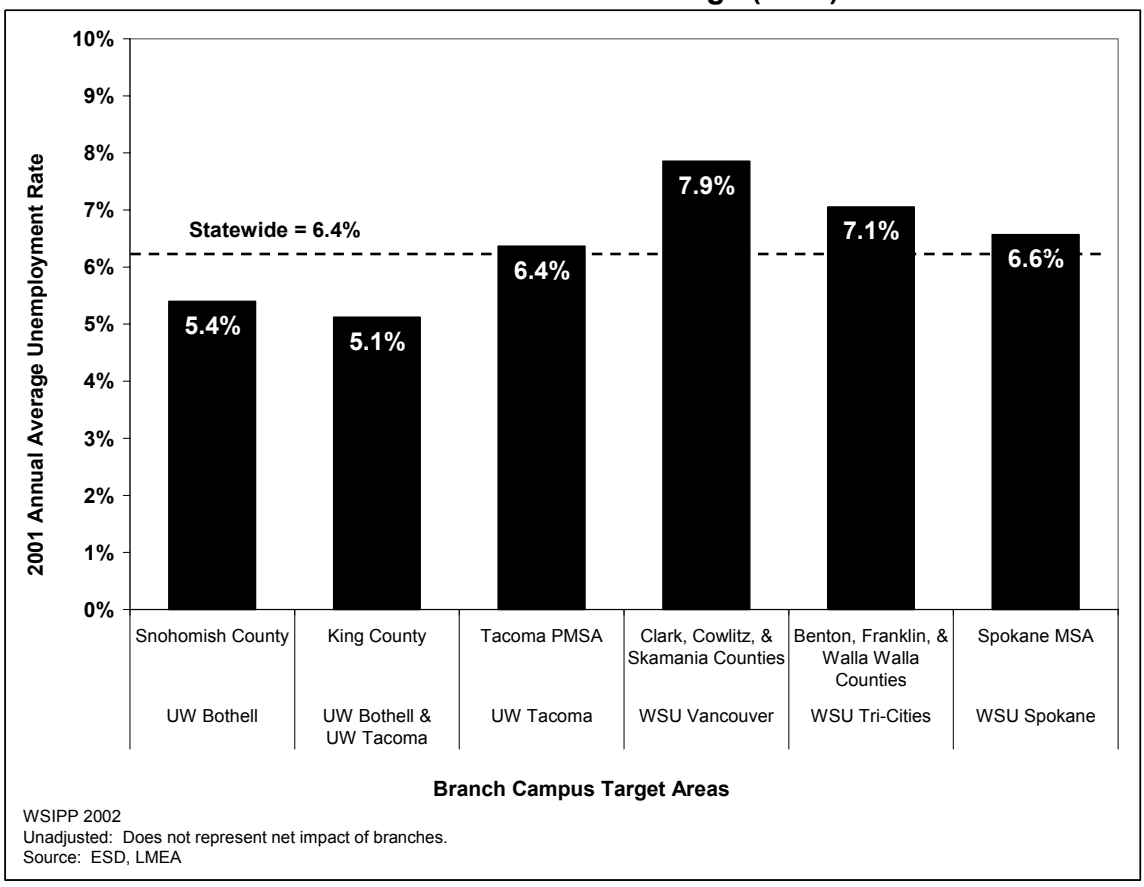
WSIPP 2002
Unadjusted: Does not represent net impact of branches.
Source: US Census 1990 and 2000 Sample Data

[178] This analysis uses the federal definition of the poverty level. In 1999, the poverty level for a household with three people was $13,290 (in 1999 dollars); in 1989, it was $9,885 (in 1989 dollars). Figures are based on U.S. Census sample data. 1999 Source: U.S. Census, *Summary File 3: 2000 Census of Population and Housing, Technical Documentation* (November 2002), B-34 to B-35. 1989 Source: U.S. Census, *1990 Summary Tape File 3: Technical Documentation on CD ROM*, <http://factfinder.census.gov/metadoc/1990stf3td.pdf>, December 7, 2002.

Unemployment Rates

Changes in regional unemployment rates closely follow national and statewide economic trends, so only the most current (2001) unemployment rates by region are provided in Exhibit 82. The unemployment rate is defined as the percentage of the labor force that is unemployed, excluding individuals who have voluntarily dropped out of the labor market. Unemployment rates in the Puget Sound region are at or below the statewide average, while the targeted areas in southwest and eastern Washington have unemployment rates higher than the statewide average.

Exhibit 82
Unemployment Rates in Southwest and Eastern Washington Are Above Statewide Average (2001)



WSIPP 2002
Unadjusted: Does not represent net impact of branches.
Source: ESD, LMEA

Summary

Regional Economic Impacts of Higher Education Institutions. Research has shown that higher education institutions have an overall positive impact on regional economies. Estimations of regional economic benefits are based on the way higher education institutions attract students, faculty, and new sources of money. The impact of branch campuses is less than that of traditional higher education institutions because of how they

are structured. Available data do not allow us to estimate the extent of branch campus economic impacts on targeted regions.

Policy Tradeoff. *Statewide* net economic impacts are different than *regional* impacts because the majority of public higher education funding—a significant part of regional economic benefits—comes from the state's general fund. A tradeoff exists between supporting programs focused on long-term economic growth and expanding access to higher education in the short-term. A focus on economic development, which is generally associated with higher cost research-oriented programs, can restrict the amount of state funding available for the expansion of access.

Doctoral Degree Policy History. This tradeoff is exemplified by the debate over whether to support doctoral degrees at branch campuses. Both the desire to foster economic development and concerns about the cost of graduate education have influenced policies regarding whether branch campuses are authorized to offer doctoral degree programs. Initial HECB policy prohibited doctoral programs at branch campuses because of their relatively high costs, but this policy has become less prohibitive over time. Current HECB policy allows for doctoral programs at branch campuses subject to HECB approval on a case-by-case basis. WSU Spokane is the only branch campus that currently offers a doctoral program.

Branch Campus Capital and Research Funding. Capital investments and research grants and contracts are two different types of contributions to regional economies. Capital investments represent significant costs to the state, while research funding at branch campuses comes from non-state sources. As of the 2001–03 biennium, the state had invested over $600 million in branch campus capital facilities. Branch campuses generate funds for research from non-state grants and contracts, with totals for each campus ranging from $356,000 to over $3.6 million during the 2002 fiscal year.

Indicators of Economic Development. Indicators of economic development include per capita income, poverty, and unemployment rates. Data on these indicators suggest that economic disparities between the Puget Sound region and southwest and eastern Washington persist, although there have been increases in per capita income and declines in poverty rates in most of the branch campus target areas. The degree to which branch campuses have contributed to these improvements cannot be determined based on available data.

CONCLUSION

The original mission of branch campuses was to expand access to higher education and foster regional economic development. This report examines whether the branch campuses are fulfilling this mission, based on a review of indicators from available data sources.

Have the Branch Campuses Expanded Access to Upper Division and Graduate Education?

Although Washington continues to have relatively low rates of participation in upper division and graduate education (compared with other states), access *has* expanded, as measured by enrollment levels. Branch campuses have played a larger role in expanding access than anticipated by the HECB in 1990. In Washington State, between 1990 and 2001:

- The number of individuals enrolled in public upper division and graduate programs increased by about 11,000.
- Branch campuses accounted for half the growth in public upper division and graduate enrollment.
- Upper division and graduate participation rates increased for younger age groups; this measure reveals that enrollment increased faster than population growth for those most likely to attend college.
- Other indicators of access have also increased, including degree attainment rates and the percentage of Washington's citizens who live near a public baccalaureate institution.
- Within targeted urban areas, branch campuses accounted for 84 percent of the increase in the number of individuals enrolling in public upper division and graduate programs.

Do Branch Campuses Target Placebound Students?

Data on placebound measures included in this report, including student ages, courseloads, employment, and family status, indicate that branch campuses enroll placebound students more than the main campuses of UW and WSU. The timing of branch campus' course schedules, as well as increased enrollment of local residents, also suggest that branch campuses target individuals who may be unable to relocate.

Do Branch Campuses Respond to Demand for Degrees?

The long-term trend in Washington State is increasing demand for employees with advanced degrees. Current labor market demand is particularly high in the health care and education fields.

The implementation of degree programs at each branch campus has generally followed original plans. Branch degree programs loosely mirror current regional occupational projections; many branch campus students major in arts and sciences, which can be applied to a variety of occupational fields. Statewide degree production has increased over the last decade at the baccalaureate and master's levels, but not at the doctoral level. Determining the specific contribution of branch campuses to degree production since 1990 is not possible due to limitations of available data.

How Do Branch Campuses Impact Regional Economies?

Research indicates that traditional higher education institutions benefit regional economies because they attract students, faculty, and new sources of money. The impact of branch campuses is less than that of traditional institutions because of their structure, but the regional impact is most likely positive.

To date, the state has invested over $600 million in branch campus capital development. Branch campuses generate non-state funding through research grants and contracts. Indicators of economic development reviewed for this report show some improvements in targeted regional economies, but the role of branch campuses in these improvements is unknown, and disparities between the Puget Sound region and the rest of the state persist.

A tradeoff exists between the policy goal of supporting programs focused on long-term regional economic growth and expanding access to higher education in the short-term:

- *Statewide* net economic benefits of higher education institutions are different from *regional* benefits because the majority of public higher education funding comes from the state's general fund.
- A focus on economic development, generally associated with higher cost, research-oriented programs, can restrict the amount of state funding available for the expansion of access.

Are the Branch Campuses Fulfilling Their Mission?

In 1989, the HECB and Legislature established a dual mission for branch campuses: to expand access and to foster economic development. Data analyzed for this report indicate that branch campuses are fulfilling these objectives. Since 1989, as the state's higher education and fiscal policy climates have changed, new policy issues have emerged:

- Is this branch campus mission still valid for Washington's higher education system?

- If so, what are possible alternatives to the current structure of branch campuses in meeting this dual mission?
- If the state decides to prioritize access or economic development, how would that change how branch campuses operate and are funded?

The Institute's final report on branch campuses, due in June 2003, will summarize potential advantages and disadvantages, including costs, of different models of providing upper division and graduate education. Policy options regarding the future of branch campuses will also be explored.