
Special Report



Washington Research Council

February 5, 1999

Trends in Higher Education Finance

Washington is spending more on higher education now than in the 1970s, when the baby boomers were in college. But the proportion of the state's budget devoted to education was higher back then than it is today.

For 20 years state lawmakers enjoyed the luxury of spending relatively more on other services as enrollment pressures lessened. That luxury is coming to an end. The percentage of the budget dominated by higher education is rising, and will continue to do so in the foreseeable future.

During the 1960s and 1970s, state spending on colleges and universities commanded a bigger part of the state budget as lawmakers expanded the educational system to serve the baby boomers.

The baby bust followed the baby boom, however, and though Washington's population continued to swell, the numbers of college-age residents held fairly steady. During the 1980s and 1990s, the Legislature felt little pressure to expand the system's capacity.

Those days are gone. The children of the baby boomers are entering their college years. Lawmakers will face much tougher decisions on allocating tax dollars.

Gov. Gary Locke's 2020 Commission on the Future of Post-Secondary Education urges the state to increase the higher-education system's capacity by 100,000 students during the next two decades.

This is the third in a series of Special Reports on Washington's system of higher education by the Washington Research Council. It includes an analysis of five past trends as well as a fiscal snapshot of the 1997-1998 school year. Earlier reports examined the projected increases in demand for higher education and the shortcomings of Washington's financial aid program.

Briefly

This report identifies five trends:

- Since 1970, state spending on higher education has increased steadily, but higher education as a percentage of total state spending has decreased.
- Enrollments grew dramatically from 1960 to 1980, especially at the state community colleges.
- Sponsored Research and Hospitals have represented an increasing share of higher education spending.
- Real per student spending has grown, while students' tuition covers an increasing share of educational costs.
- Higher education's share of state capital spending has increased.

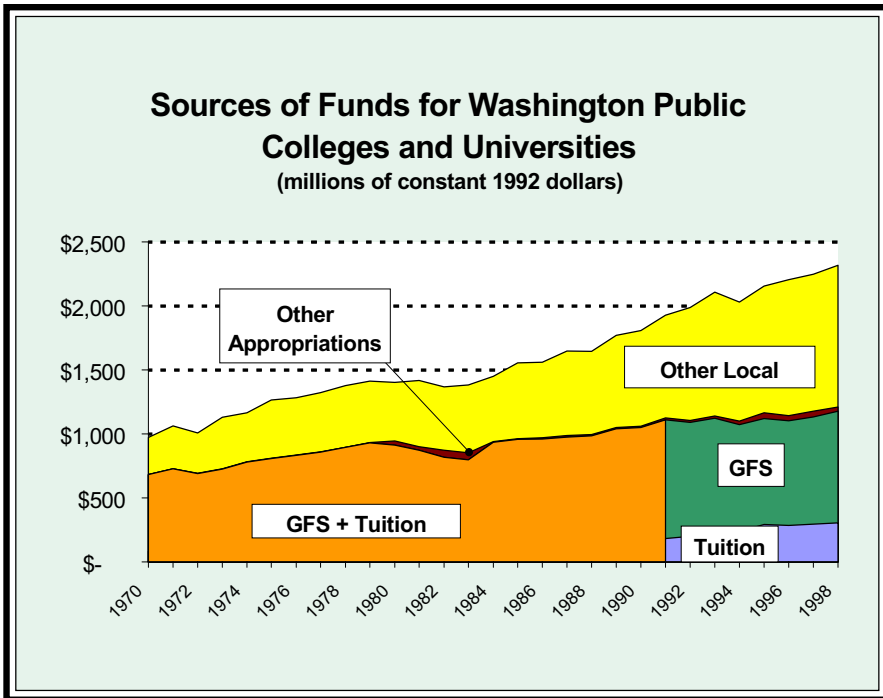


CHART 1

spent without legislative appropriation, gifts, research grants, and hospital fees for example. Currently, institutions retain student tuition as local revenue. Before 1992, institutions transferred tuition to the General Fund-State (GFS), from which the Legislature appropriated the money back to the institutions.

Seventy percent of 1970 expenditures were GFS appropriations, a combination of taxpayer funds and student tuition. Other state appropriations were negligible in 1970; local funds covered 30 percent of expenditures.

Trend: Since 1970 state spending on higher education has increased steadily, but spending as a percentage of total spending has decreased.

Adjusted for inflation, expenditures for state colleges and universities increased 138 percent from 1970 through 1998.

Chart 1 shows expenditures during 1970-1998.

The chart also shows the sources of these funds. Over time, the sources have changed.

A key distinction is between *appropriated* and *local* funds. Appropriated funds are state revenues provided to the institutions by the Legislature through the biennial state budget. Local funds are institutional revenues that can be

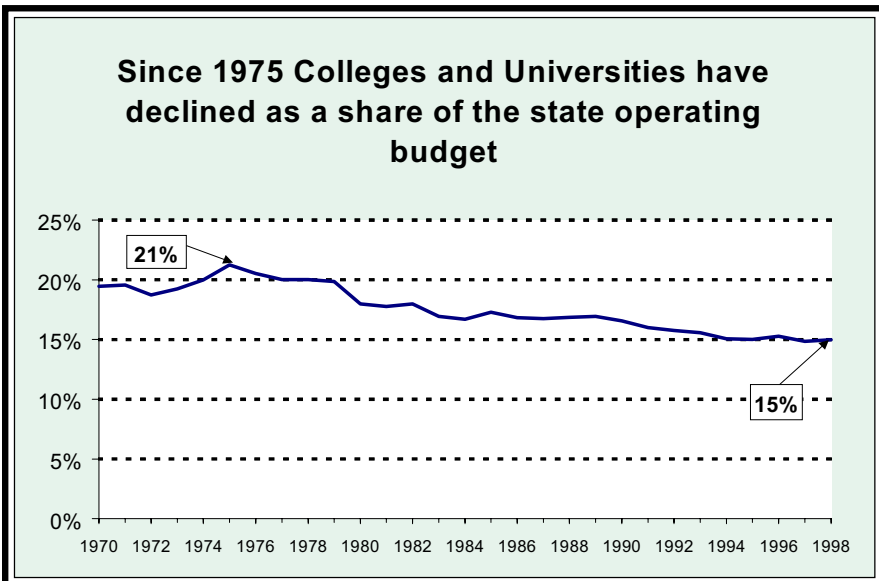
spent without legislative appropriation, gifts, research grants, and hospital fees for example. Currently, institutions retain student tuition as local revenue. Before 1992, institutions transferred tuition to the General Fund-State (GFS), from which the Legislature appropriated the money back to the institutions.

In 1998 tuition covered 13 percent of expenditures; GFS appropriations, 38 percent; other appropriations, 1 percent; and other local funds, 48 percent.

Chart 2 shows college and university expenditures as a percentage of the state operating budget. It's notable that though higher-ed spending increased greatly during 1970-98, its rate of increase was smaller than the growth rate of total state spending.

College and university expenditures as a share of state spending peaked in 1975, at 21 percent. By 1998, their share had fallen by a third, to 15 percent.

CHART 2



Why the decline? The number of college-aged state residents grew much less rapidly than the overall state population. Therefore the demand for spaces in our colleges and universities did not grow as rapidly as the demands for other state services.

Between 1960 and 1998 the state's overall population nearly doubled, from 2,853,000 to an estimated 5,685,000, an annual average increase of 1.8 percent. Over the period, the growth rate in the size of the 17-22 cohort, which drives demand for the state's colleges and universities, was more variable than the growth rate of overall population, as shown in Chart 3.

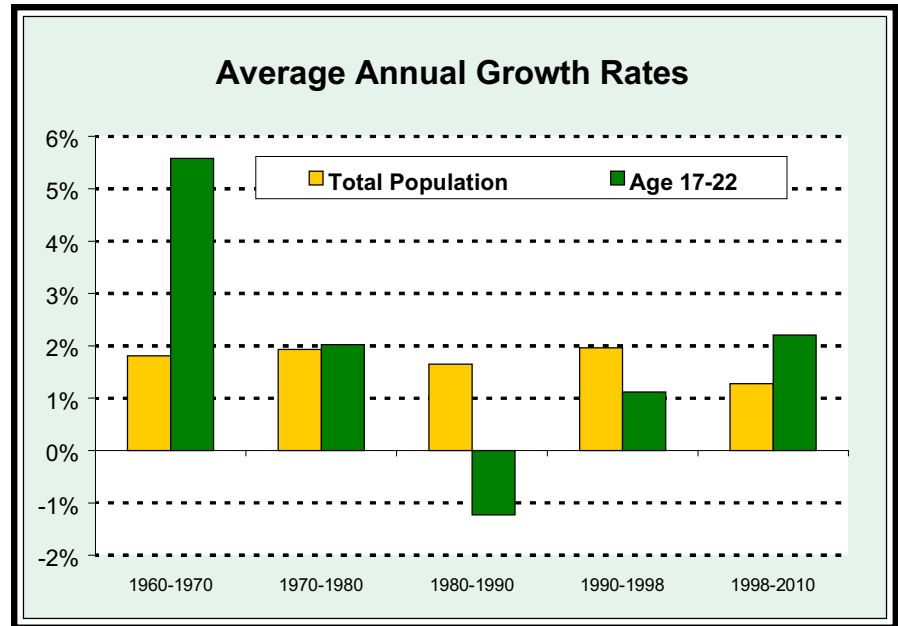


CHART 3

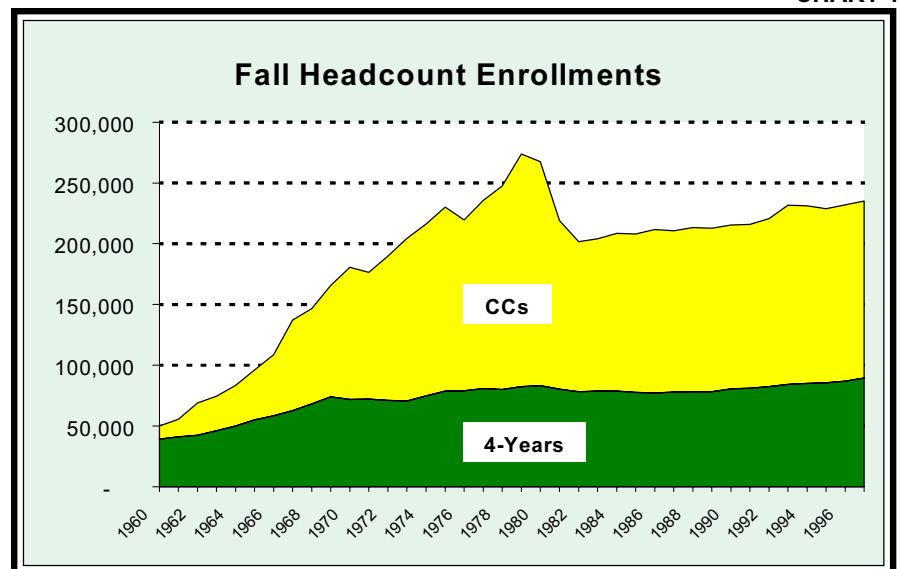
In 1960 the 17-22 cohort was 7.8 percent of state population. During the 1960s the cohort grew rapidly as the baby boomers began to reach college age. The relative size of the cohort peaked in 1977, at 11.7 percent of state population. During the 1980s the 17-22 cohort actually dropped in size, and by 1995 it represented 7.5 percent of state population. The relative size of the cohort has begun to grow once again as the baby boom echo, the children of the baby boomers, are reaching college age.

Trend: Enrollments grew dramatically from 1960 to 1980, especially at the state community colleges.

Chart 4 shows fall enrollments at the four-year and community colleges from 1960 through 1997. Total enrollment grew 370 percent, from 50,000 to 235,000. (The state's 5 technical colleges enrolled an additional 26,000 students in 1997.)

CHART 4

Proportionate enrollment growth at the community colleges was remarkable. In 1960, community colleges enrolled 22 percent of all higher-ed students in Washington. By 1979 that number had more than tripled, to 70 percent. Community college enrollments dropped sharply between 1979 and 1982 as a result of the national recession and the associated state budget difficulties. From 1982 to 1997, community college enrollments ranged between 61 and 64 percent of the higher-ed student population.



Fall Headcounts at the Four-year Schools

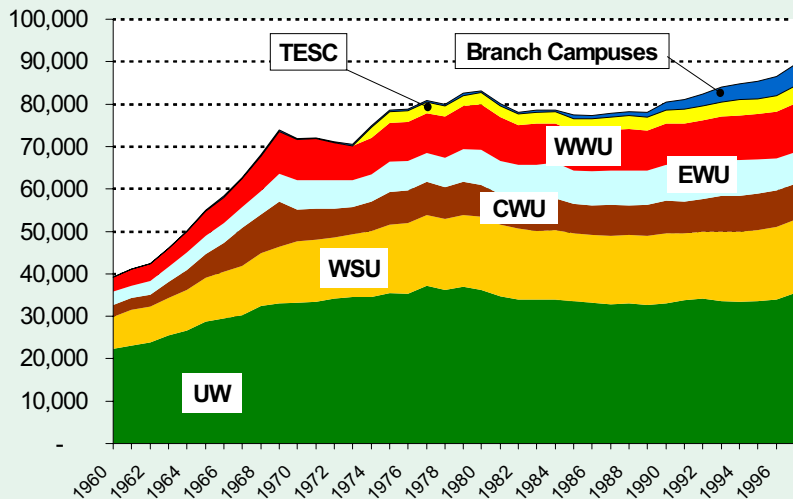


CHART 5

Fall Headcounts at the Branch Campuses

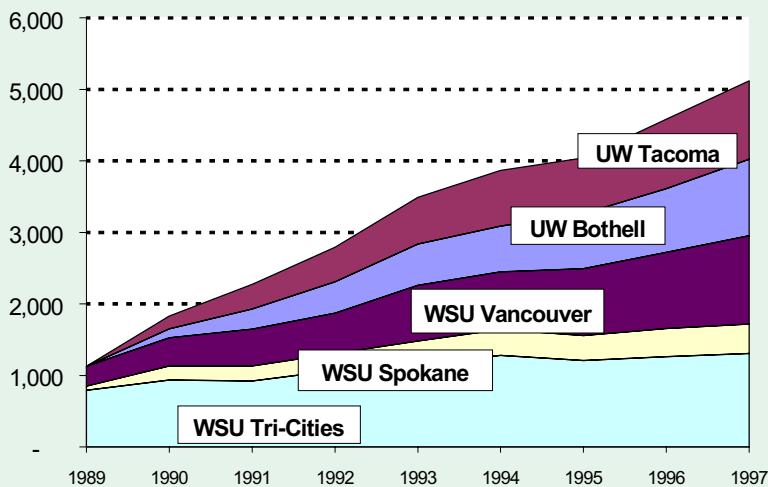


CHART 6

Headcount vs. FTE Annual Enrollment

The fall headcount enrollments shown in Charts 4, 5 & 6 are greater than the full time equivalent (FTE) annual enrollments for the schools. For the four-year schools, during 1978-1997, fall headcount enrollment exceeded FTE annual enrollment by 12 percent. Part-time attendance is more common at the community colleges. Over the 1978-1996 period, their fall headcount exceeded FTE annual enrollment by 61 percent. The spread at the community colleges was particularly great at the 1980 enrollment peak.

Chart 5 provides more detail on the enrollment growth at the four-year schools. From 1960 to 1997, enrollment at these institutions increased 128 percent. The University of Washington (UW) experienced the smallest percentage growth, 59 percent. As a consequence, its share fell from 57 percent of total enrollments to 40 percent. Enrollment at Washington State University (WSU) increased 132 percent over the same period.

In 1960, the student bodies at Central Washington University (CWU), Eastern Washington University (EWU), and Western Washington University (WWU) were each about 3,000 students. WWU experienced by far the greatest growth, 252 percent, and it enrolled 11,500 students in 1997. CWU grew by 183 percent over the period, and EWU by 139 percent.

The Evergreen State College (TESC) opened in 1974. Twenty-three years later, it enrolled 4,000 students.

Chart 6 provides detail on the branch campuses. In 1989 WSU opened branch campuses at Tri-Cities, Vancouver, and Spokane. (In Tri-Cities, WSU absorbed the existing Tri-Cities University Center.) In 1990, UW opened branches at Bothell and Tacoma. In 1997 some 5,000 students enrolled at these five branch campuses.

Trend: Local funding has become more important.

Local funds (other than tuition) grew from 30 percent of expenditures in 1970 to 48 percent in 1998. This increasing reliance on local funds reflected a changing distribution of expenditures across budgetary programs.

Chart 7 shows the shares of three major programs, Instruction, Sponsored Research, and Hospitals, from 1974 to 1998. (Expenditure by program is not available prior to 1974.) Expenditures for Hospitals and Sponsored Research are largely from local funds. Together these two programs rose from 27 percent of expenditures in 1974 to 36 percent in 1998. Over the period, Instruction shrank from 38 percent to 33 percent of expenditures.

GFS appropriations of taxpayer money to the state's colleges and universities net of tuition paid into GFS grew from \$446 million in 1980 to \$981 million in 1998. Inflation absorbed much of this increase; real appropriations of taxpayer money grew by 9 percent over the period. Appropriations grew less than state personal income. As Chart 8 shows, taxpayer support was 1 percent of personal income in 1980 and 0.6 percent in 1998. The pattern is one of fairly steady decline, with the exception of the early 1980s. In that period, the state budget crisis brought a sharp decline in 1982 and 1983. In absolute terms taxpayer support for the institutions was lower in 1982 than in 1981. Appropriations rebounded in 1984.

Trend: Real per student spending has grown, while students' tuition covers a greater share of costs.

Per-student educational expenditures have grown more rapidly than inflation.

Since the state's colleges and universities are complex institutions engaged in many activities in addition to teaching students, it is difficult to precisely identify per-student costs. We will use as a proxy expenditure on Instruction per FTE student. Although this index

Data Sources

The financial data presented in this report for fiscal year 1998 come from the state Office of Financial Management (OFM). Data for prior years come from the Legislative Evaluation and Accountability Program (LEAP).

The state's colleges and universities prepare financial statements that differ somewhat from the numbers issued by OFM and LEAP. For example, OFM pegs the FY 1998 expenditure of UW at \$1,281 million, while the school's 1998 annual report puts expenditures at \$1,646 million. In part, this reflects different accounting conventions. Much of the difference, however, is caused by the UW annual report's inclusion of the expenditures of affiliated organizations such as the Association of University Physicians and the University of Washington Physicians' Network, which are legally separate from UW and receive no state appropriations.

The OFM numbers are the appropriate measure of the state's financial commitment, but the institutional numbers may give a more accurate reading on the economic impact that the schools have on their communities.

Population data come from OFM and the U.S. Census. Enrollment data is from OFM and the state Higher Education Coordinating Board.

Inflation adjustments use the U.S. Department of Commerce's Implicit Price Deflator for Personal Consumption Expenditures.

Sponsored Research and Hospitals have increased as a share of expenditures while Instructions has decreased

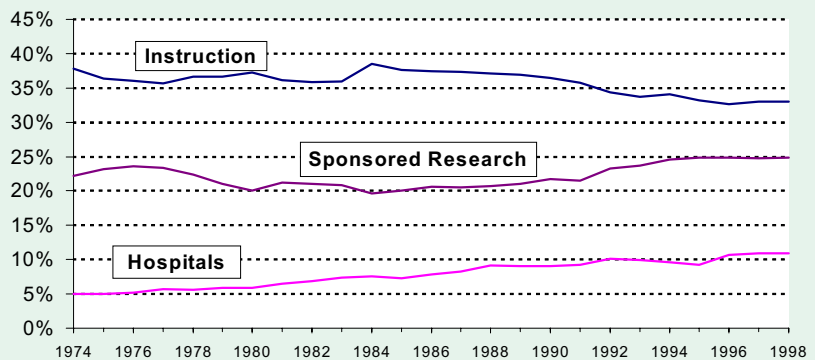


CHART 7

Taxpayer support to the institutions from the general fund as a share of state personal income has fallen

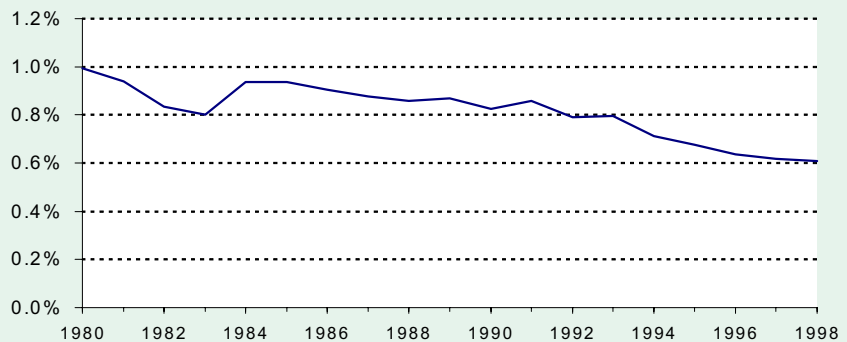


CHART 8

Per Student Expenditures on Instruction at the Four-Year Schools (constant 1992 dollars)

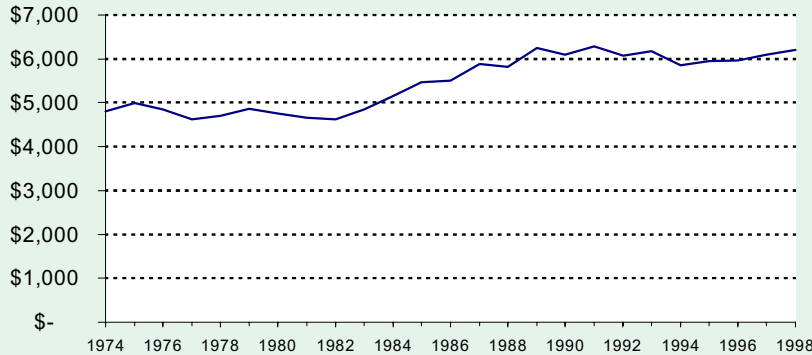


CHART 9

Institutional Reliance on Tuition Has Grown

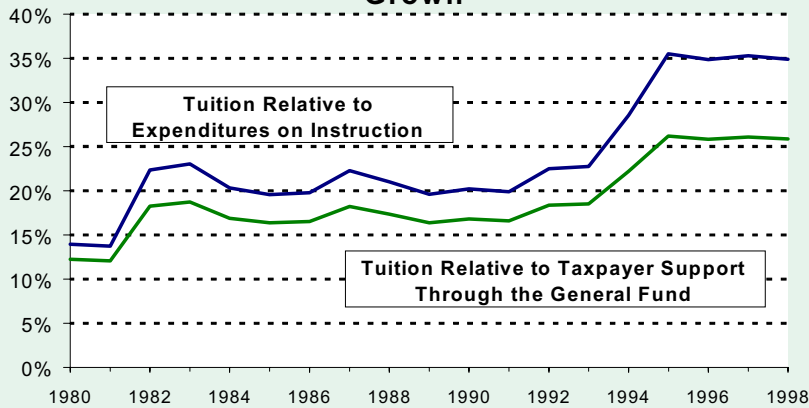


CHART 10

GFS Appropriations, Tuition, and State Need Grants (millions of dollars)

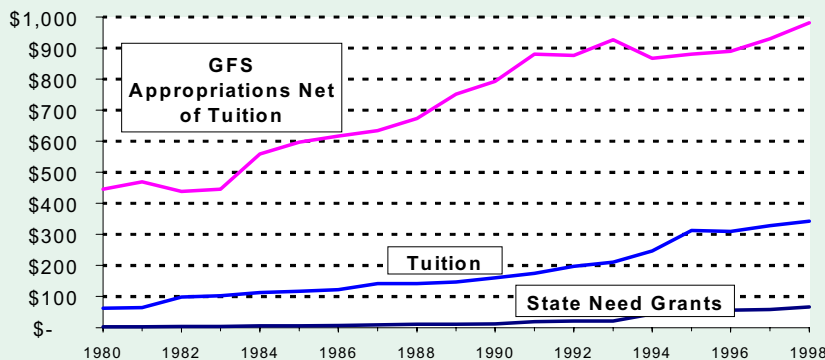


CHART 11

understates the full costs of educating a student, it provides a useful basis for measuring the movement of costs over time.

Chart 9 shows expenditures on Instruction per FTE student at the 4-year schools in constant (1992) dollars. From 1974 to 1998, real expenditures per student increased by 29 percent. The increase, however, was concentrated in the 1980s. Spending per student peaked in 1991.

Over this time period students and their families have been asked to bear an increasing share of educational costs. Chart 10 compares tuition revenue to expenditure on Instruction and to GFS appropriations net of tuition. In 1980 tuition was 14 percent of expenditure on Instruction and 13 percent of taxpayer support. By 1998 tuition had grown to 35 percent of instructional expenditure and 26 percent of taxpayer support. Most of the increase was concentrated in three years, 1982, 1994, and 1995. As previously noted, the state was in a fiscal crisis in 1982, and the 1982 tuition increase offset the reduced support of taxpayers for the institutions. The 1994 and 1995 tuition increases came in the context of the Initiative 601 limit on GFS spending. By this time tuition had been placed outside of the General Fund and so tuition increases provided a means of increasing support for higher education that was not subject to the limit.

Increasing tuition rates present a risk to students and families of limited financial means. As tuition has increased, the legislature has increased funding for the major financial aid program, the State Need Grant. The Need Grant is funded through appropriations to the

Higher Education Coordinating Board, which is distinct from the funding provided to the institutions. In 1998, an estimated 47,000 students received need grants totaling \$66 million. This is up from 17,000 students and \$12 million in 1990. Chart 11 compares the GFS appropriations to the institutions (net of tuition), tuition and State Need Grants.

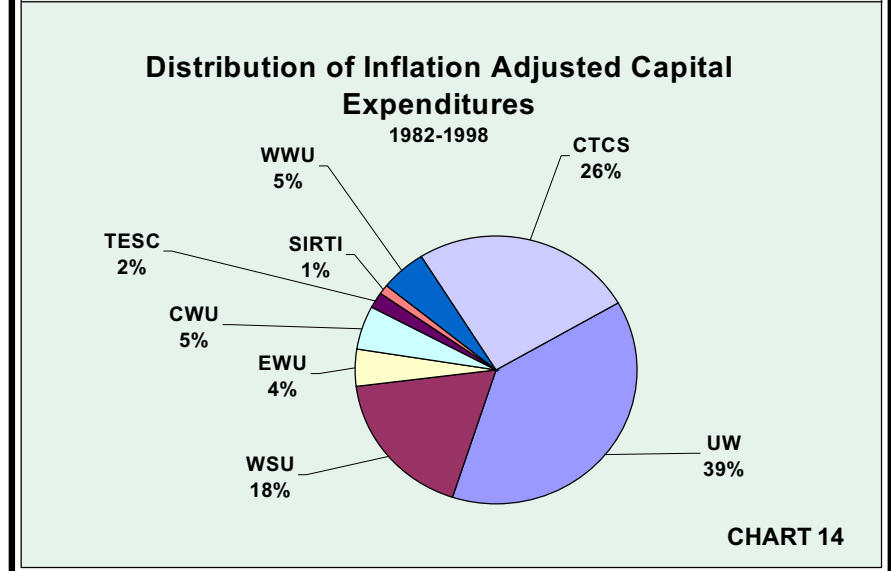
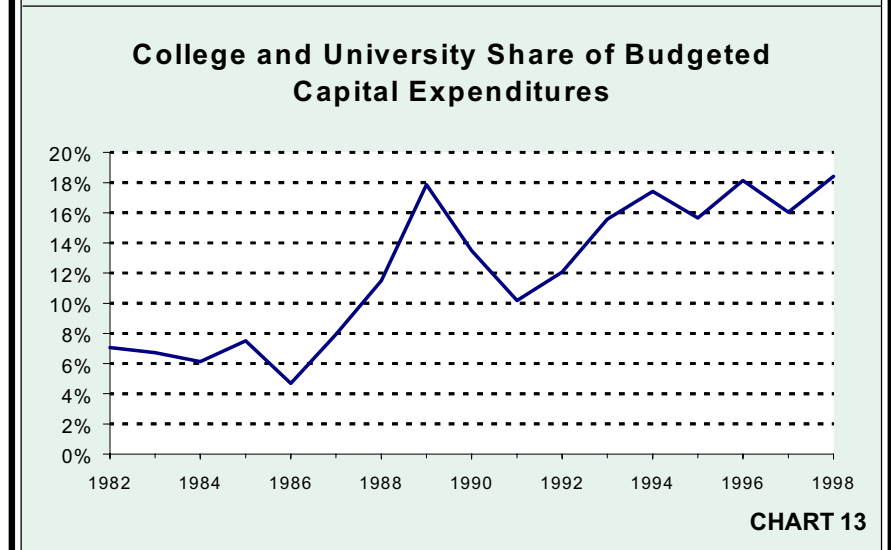
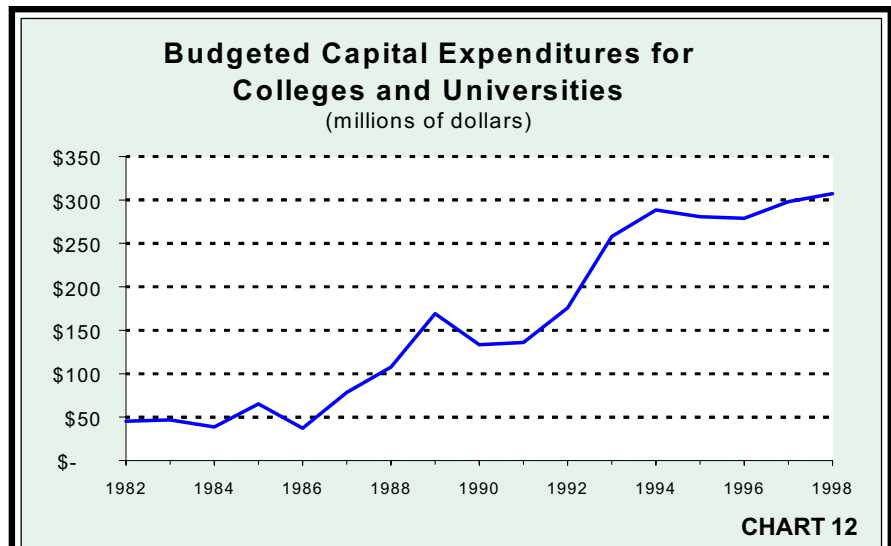
Trend: Higher education's share of state capital spending has increased.

Major physical investments for the state's colleges and universities are funded through the state's capital budget. The primary source of capital financing is the sale of bonds backed either by the full faith and credit of the state or by dedicated streams of revenue.

The 1982-1998 period saw a large increase in capital expenditures for higher education, in part occasioned by the decision to construct the branch campuses. As Chart 12 shows, budgeted capital expenditures grew from \$45 million in FY 1982 to \$307 million in FY 1998.

In 1982 higher education accounted for 7 percent of state capital spending. The institutions' share of the total began to rise in the late 1980s. In recent years it has averaged about 17 percent as shown in Chart 13.

Over the 17-year period, capital expenditures totaled \$2.8 billion in constant 1992 dollars. Chart 14 shows the distribution of expenditures among the institutions. UW (including the branch campuses) represented 38 percent of the total, while WSU represented 18 percent. Over the most recent ten-year period, capital expenditures averaged 11 percent of operating expenditures.



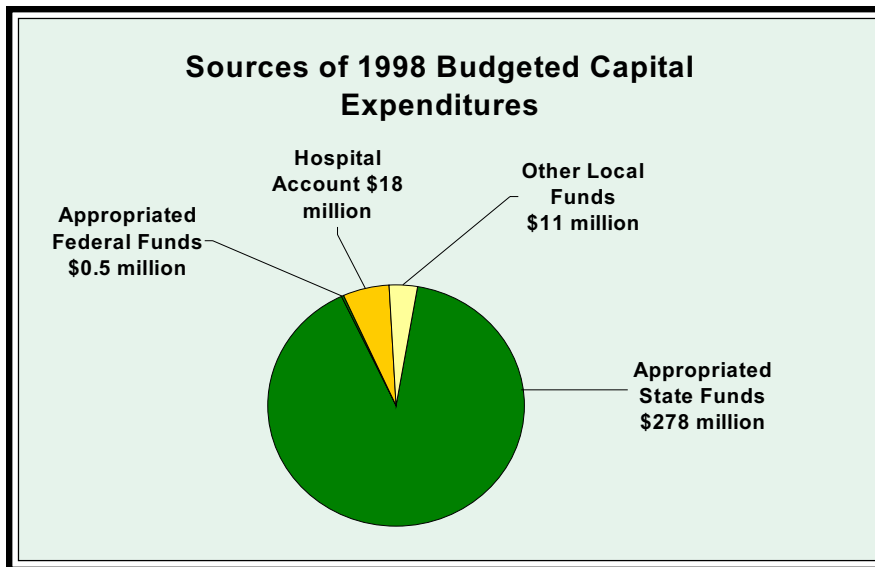


CHART 15

In FY 1998, UW received the largest share of budgeted capital expenditures, \$126 million. The community and technical colleges spent \$66 million; CWU \$43 million; and WSU \$36 million. As Chart 15 shows, 90 percent of these expenditures were funded from state sources; 6 percent from the hospital account, 4 percent from other local funds; and a small amount with federal money.

An additional \$44 million in non-budgeted capital expenditures occurred in FY 1998. These included projects such as student housing and parking facilities that are supported by user fees.

A SNAPSHOT OF THE SYSTEM IN FY 1998

Washington's system of public higher education includes 39 institutions: two research universities, UW and WSU; four comprehensive institutions, CWU, EWU, TESC, and WWU; 27 community colleges; five technical colleges; and the Seattle Vocational Institute. Each institution operates from a main campus. Most also offer programs at off-campus centers. Recently the system has expanded as the research universities have opened branch campuses.

Expenditures at Washington's public colleges and universities totaled \$2,605 million in FY 1998. These institutions engage in a broad range of interconnected activities including teaching, research, public service, and hospital operation. A mix of government appropriations, tuition, fees, research grants, donations, and endowment-income funds these activities.

Higher Education Budgeting

Higher education institutions follow generally the same budgeting process as other state agencies. Budgeting at each four-year school, however, culminates with public hearings by its governing board, which generate public awareness and support. Following adoption by the governing boards, the schools' budget proposals are submitted to the Office of Financial Management (OFM) and the Higher Education Coordinating Board (HECB). The State Board for Community and Technical Colleges (SBCTC) develops its budget request with input from the individual campuses. Following adoption by the SBCTC, the proposal is forwarded to HECB and OFM. The HECB reviews each proposal and develops a set of recommendations to the Governor. The Governor, through OFM, develops a set of higher ed priorities, which are embedded in the budget he submits to the Legislature

Chart 16 presents an overview of the sources of funds expended by the higher education institutions in FY 1998. Appropriated funds accounted for 39 percent, or \$1,019 million. The Legislature authorized these expenditures in the state operating budget for the 1997-1999 biennium. Local funds yielded the remaining 61 percent, or \$1,586 million.

Most appropriations for higher education came from the GFS.

The three largest groupings of local funds were grants and contracts, which provided 25 percent of higher education funding, tuition, which provided 13 percent, and hospital fees, 10 percent. (Federal research dollars are local funds in this context.)

The state's accounting system assigns expenditures to various "programs." Chart 17 shows how FY 1998 expenditures were divided among 11 budget programs:

- ❑ *Instruction*: instruction and departmental research, special sessions instruction, community education;

- ❑ *Research*: agricultural research centers, other institutes and research centers, individual or project research;

- ❑ *Public Service*: community service, cooperative extension service;

- ❑ *Primary Support Services*: academic computing, ancillary support, academic administration;

- ❑ *Libraries*;

- ❑ *Student Services*;

- ❑ *Hospitals*: University Hospital, Harborview Medical Center;

- ❑ *Institutional Support*: institutional management, fiscal operations, community relations and development;

- ❑ *Plant Operation and Maintenance*: utilities and other fixed costs, building and utilities maintenance, custodial and grounds services;

- ❑ *Sponsored Research*: federal and private grants and contracts;

- ❑ *Other*: SBCTC, CTC Computer Consortium, WSU Computer Data Center.

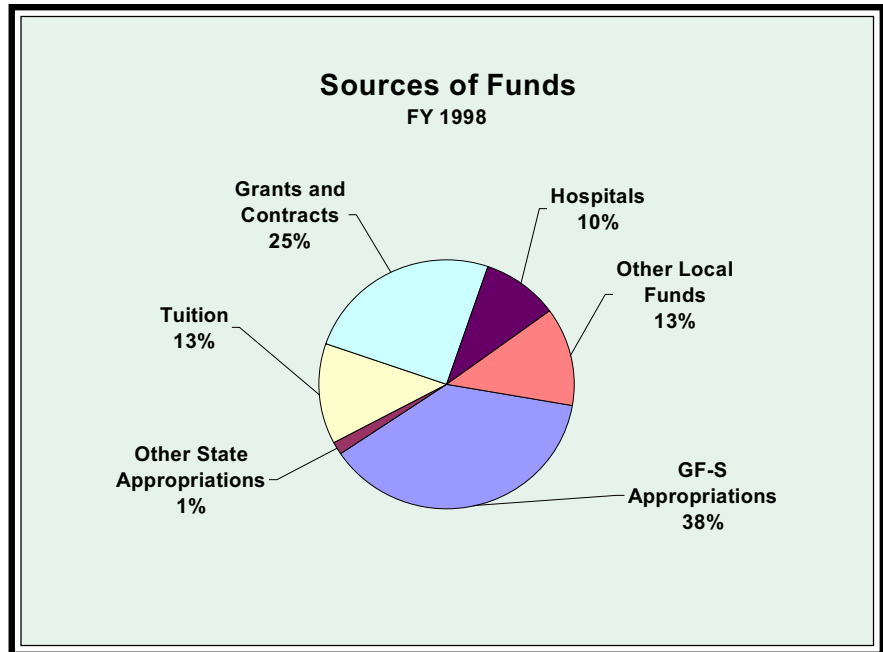
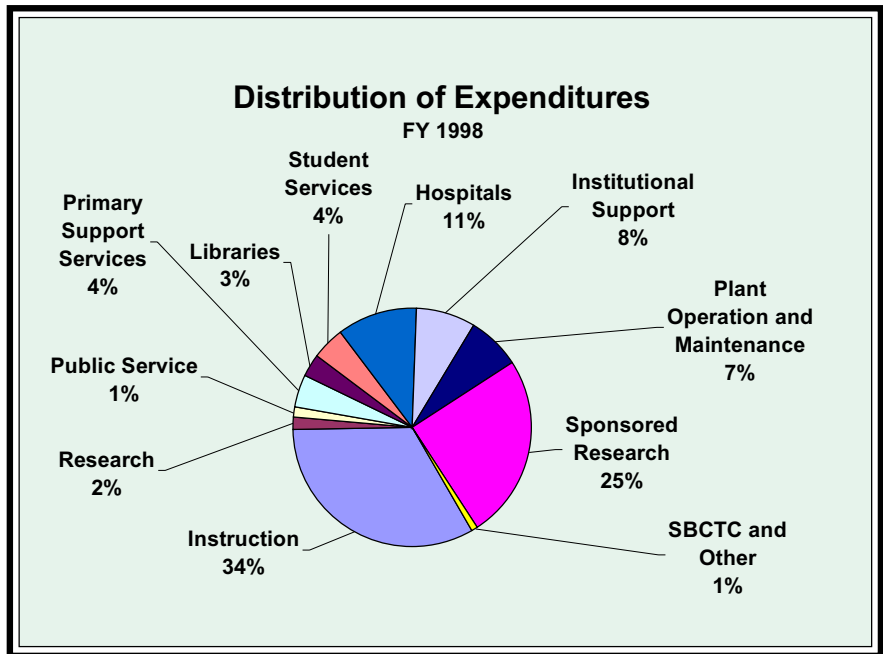


CHART 16

CHART 17



Expenditure by Object
FY 1998 (millions of dollars)

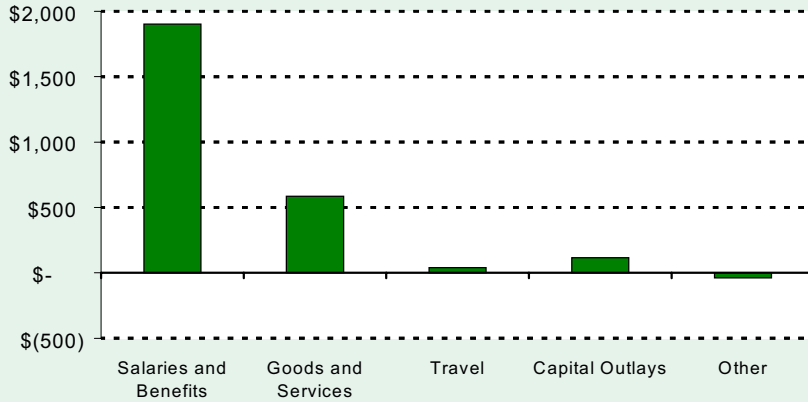


CHART 18

FTE Employment
FY 1998

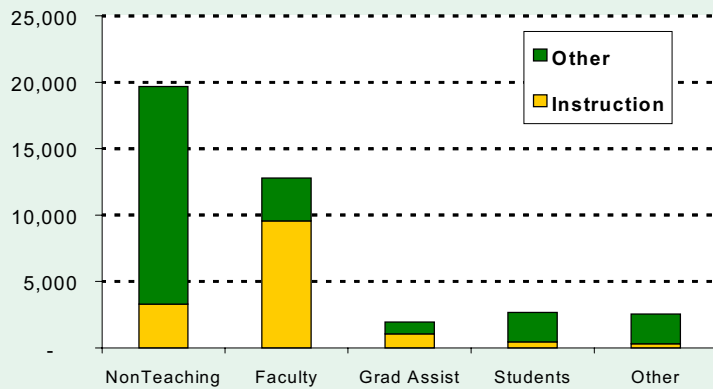


CHART 19

Expenditures by Institution
FY 1998

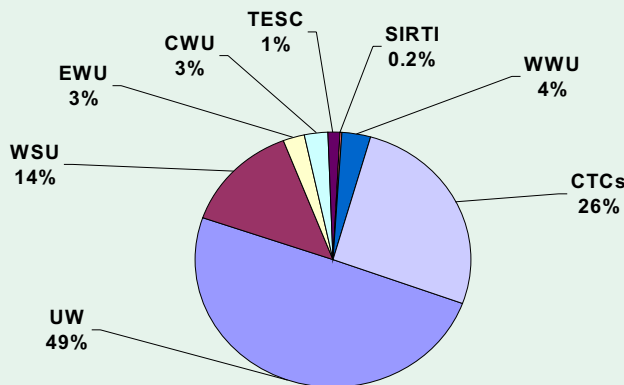


CHART 20

At \$861 million, Instruction is the largest single budget program. This category includes the salaries and benefits of the teaching faculty. Sponsored Research, \$647 million, is second, while hospitals, \$270 million, ranks third.

The assignment of expenditures to categories is somewhat arbitrary. For example, the category Instruction pays for a certain amount of research since at the research universities teaching faculty are expected to devote a portion of their time to research. At the same time expenditures recorded in other budget programs are critical inputs to the instruction of students. Faculty could not teach effectively without classrooms and libraries.

Chart 18 disaggregates FY 1998 spending by object. Higher education by its nature is a very labor-intensive enterprise. Not surprisingly, then, salaries and benefits, \$1,903 million, comprise a large share of expenditures. Goods and services expenditures totaled \$586 million, while those for travel reached \$40 million. Capital investments of \$115 million were funded through the operating budget. A much greater amount of capital, \$307 million, was funded through the capital budget. The expenditure recorded for the final programmatic category, other, is a negative \$39 million. This reflects inter-agency and intra-agency reimbursements.

These salaries and benefits supported 39,620.5 FTE employees. As shown in Chart 19, slightly less than one third of these, 12,791, were faculty members of the institutions. The Instruction program employed 75 percent of the faculty; Sponsored Research, another 17 percent.

The category Non-Teaching includes most of the administrative and support positions at the higher education institutions, excluding graduate assistants and student employees. The category Other includes accrued sick leave, terminal leave buy-out, and overtime or call back.

Chart 20 shows how higher education expenditures were divided among institutions. UW, at \$1,281 million, accounted for nearly one-half of the total. This large share reflects the concentration of Sponsored Research at UW and the two hospitals that it operates. Expenditures at WSU represented 14 percent of the total; at the four comprehensive schools, 10 percent; and at the community and technical colleges, 26 percent. In addition, \$5 million, 0.2 percent of the total, was spent at the Spokane Intercollegiate Research and Technology Institute (SIRTI).

Chart 21 provides some detail on expenditures for each institution by program and source of funds. The Research, Academic Support, Student Services, Public Service, Libraries, and SBCTC and Other categories shown in Chart 17 have been combined as All Other.

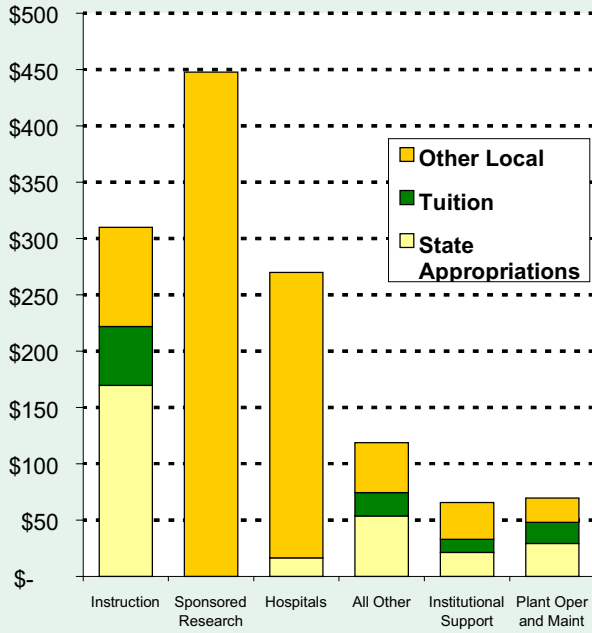
The patterns of expenditures by program for UW and WSU differ from those of the other institutions. Instruction is by far the largest program at the comprehensives and the CTCs. At UW Sponsored Research is the largest program, and Hospitals is nearly as large as Instruction. Together Sponsored Research and Hospitals explain why UW represents such a large share of state higher education expenditures. While UW represents 49 percent of overall higher education expenditures, it only receives 28 percent of state appropriations for higher education.

For WSU, expenditures for Sponsored Research are equal to 63 percent of expenditures for Instruction. The All Other category is unusually large at WSU. This reflects the large amount of state-funded research and extension services associated with the university's support of the state's agricultural industry.

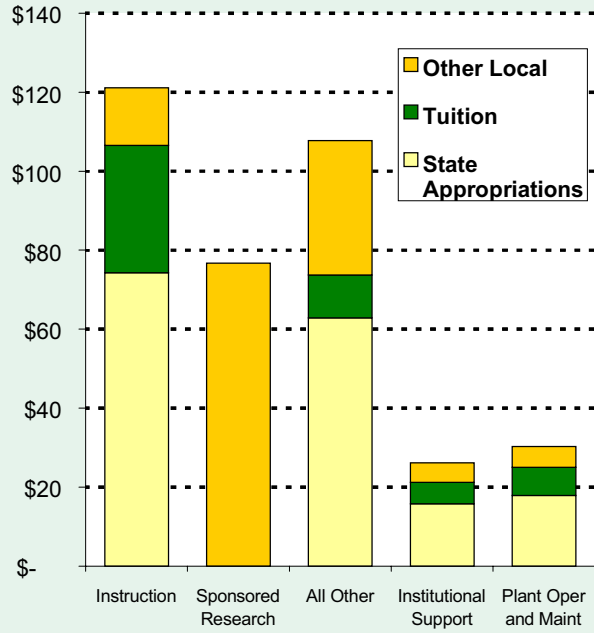


This Special Report is the second in a series of reports on higher education made possible, in part, by the support of the M.J. Murdock Charitable Trust and the Ben B. Cheney Foundation.

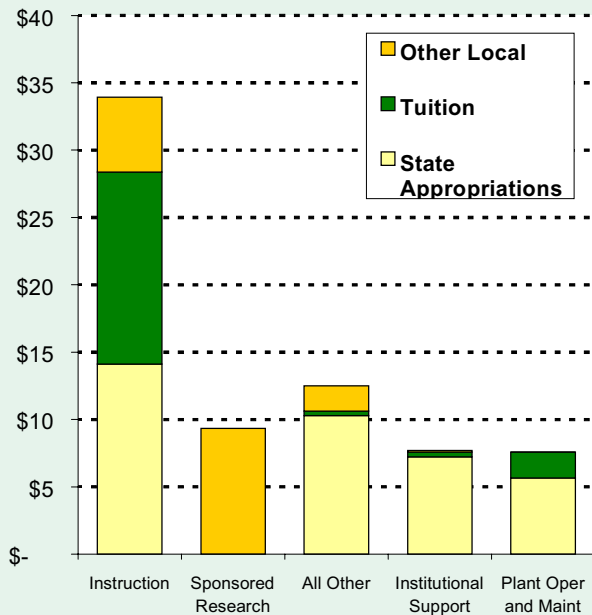
University of Washington
(millions of dollars)



Washington State University
(millions of dollars)



Central Washington University
(millions of dollars)



Eastern Washington University
(millions of dollars)

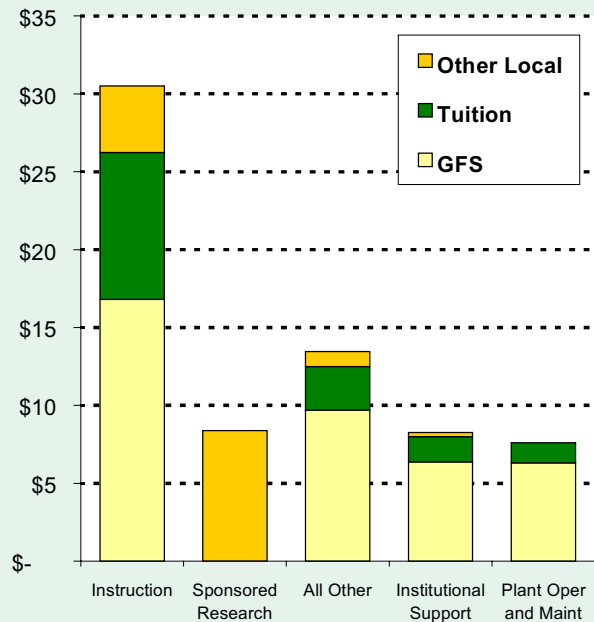
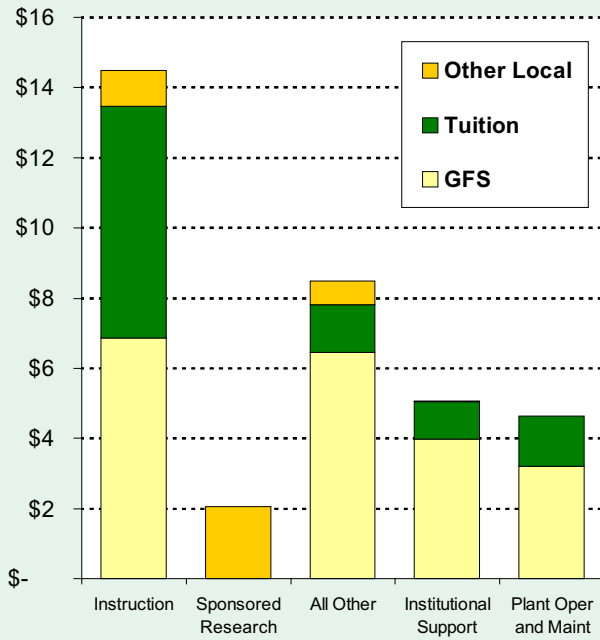


CHART 21

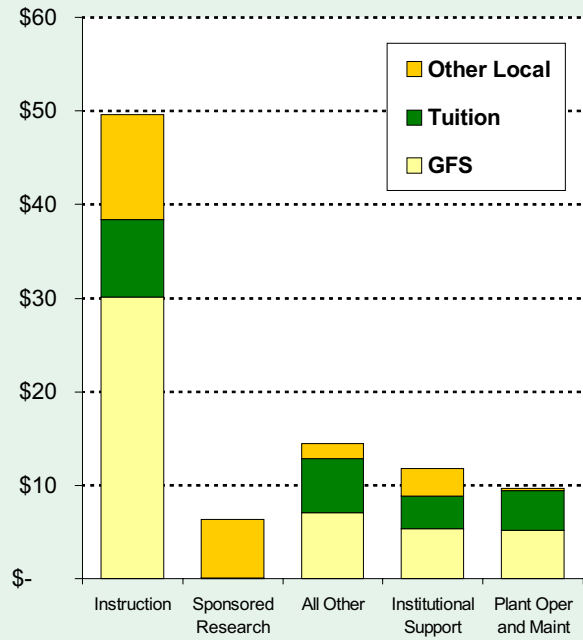
The Evergreen State College

(millions of dollars)



Western Washington University

(millions of dollars)



Community and Technical Colleges

(millions of dollars)

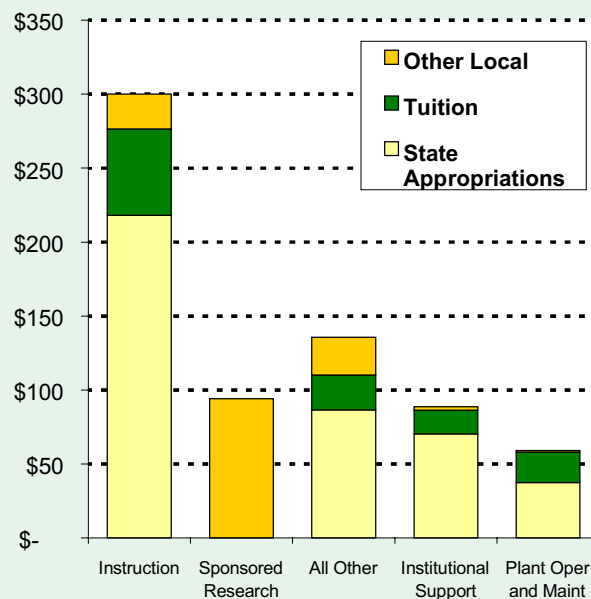


CHART 21

This Special Report is the third in a series on Higher Education. The previous Higher Education Special Reports are available on-line or by mail. They are:

State's College Financial Aid Program Gets a Failing Grade, March 27, 1998 - The State Need Grant, Washington state's largest financial aid program for college students, should play a critical role in guaranteeing that young people have access to higher education, but this report finds that the program as currently structured, it fails in this role and should be completely overhauled. Washington State ranks high in national comparisons of financial aid funding per student. However, the design of the system is seriously flawed. In its current form, Washington's State Need Grant Program does a poor job of ensuring access to the baccalaureate institutions for economically disadvantaged students who are under the age of 24. To meet the challenge of the expanding college enrollments, the program will have to be fundamentally redesigned.

Defining the Challenge: A Closer Look at Higher Education, May 17, 1997 - This report examines the state Master Plan for Higher Education which calls for an increase in enrollments well beyond that implied by simple demographics and not supported by other evidence. The report offers the alternative of a reduction in the general tuition subsidy and an increase in need-based aid.

Other WRC publications concerning education issues include:

Rethinking School Impact Fees - Special Report - February 1995 - This report looks at the increasing use of impact fees by school districts to fund school construction projects. It answers such questions as "How prevalent are impact fees," "Who pays impact fees," "What makes for valid impact fees," "Can school fees meet the rational nexus test." It analyzes the issues and problems of Washington's impact fee law. Both a summary (10 pages) and the full text (49 pages) are available in hard copy only.

Citizens' Guide to School Districts - The Citizens' Guide provides background information on public education and school district budgeting in Washington state. It covers the Washington state testing program, with test results for fourth, eighth and eleventh grades, and provides national comparisons with Washington's education expenditures. It also analyzes school budgets and presents data on school districts such as revenue sources, expenditures, school levy information, salary and staffing data.

School Guide 1998 is available on-line or for purchase. The School Guide sells for \$15 each.

School Guide 1997 & 1995 are available on-line or by mail. (The WRC did not publish a School Guide in 1996.)

Policy Briefs (all available on-line or by mail):

Governor's Proposed Budget Boosts Education Spending - January 22, 1999

Higher Education II: Paying for College - April 7, 1997

Higher Education Demands a Closer Look - March 25, 1997

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