

Higher Education in Washington:

An External Assessment

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Evergreen Freedom Foundation



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Center for College Affordability and Productivity:

The Center for College Affordability and Productivity (CCAP) is a non-profit research center based in Washington, DC, that is dedicated to research on the issues of rising costs and stagnant efficiency in higher education, with a special emphasis on developing market-based solutions.

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Nothing in this publication should be construed as an attempt to aid or hinder the passage of any legislation or ballot measure.

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Introduction

The State of Washington prides itself on having a relatively vibrant economy that centers on high technology businesses that depends on a relatively highly educated labor force. The state has been lavish in its support of higher education, and probably most citizens would agree that the state has a pretty good system of schools to serve the state's citizens. For example, there are only eight public universities in the United States that ranked above the University of Washington in the *US News & World Report* rankings of national universities for 2008.¹

Yet a closer examination of higher education in the state shows that not all is well. The proportion of entering high school students who actually hold four year college degrees a decade later is extremely low in Washington –well below the already shameful national average. University costs –to students and to taxpayers – have risen a great deal, even more than national averages. There is some evidence that Washington universities have “done less with more” over time, rather than the more desirable reverse –more with less. A huge portion of financial resources devoted to higher education go to fund activities other than instruction or even research. While there is little evidence on what students learn in school (itself a scandal not emphasized in this report), it is unlikely that any detailed analysis of inputs and outcomes could conclude that Washington colleges are efficient and productivity is rising. Indeed, the very premises supporting public support of higher education (the notion it has positive economic and social “spillover” effects and that it promotes equal economic opportunity) are highly questionable.²

It is easy to criticize something, but it is harder to make recommendations for positive change. At the end of this extensive report, we offer some suggestions for ways to reduce the costs of the higher education enterprise in the state. Some of them are probably being implemented to some degree even now, but the empirical evidence on higher education in the state suggests that much more serious attention needs to be placed on an increasingly costly system of schools with a mixed rate of success in meeting the needs of the citizens of Washington. We hope this report sparks a dialogue on the state's postsecondary educational system.

The Rationale for State Support: Is It Valid?

Before getting into the specifics of higher education in Washington, it is worth reviewing: why do we give special treatment to colleges and universities? Why do we heavily subsidize the University of Washington, while we tax others providing goods and services to people, such as furniture manufacturers, car dealers and motels? Why are universities given special privileges and resources in our society?

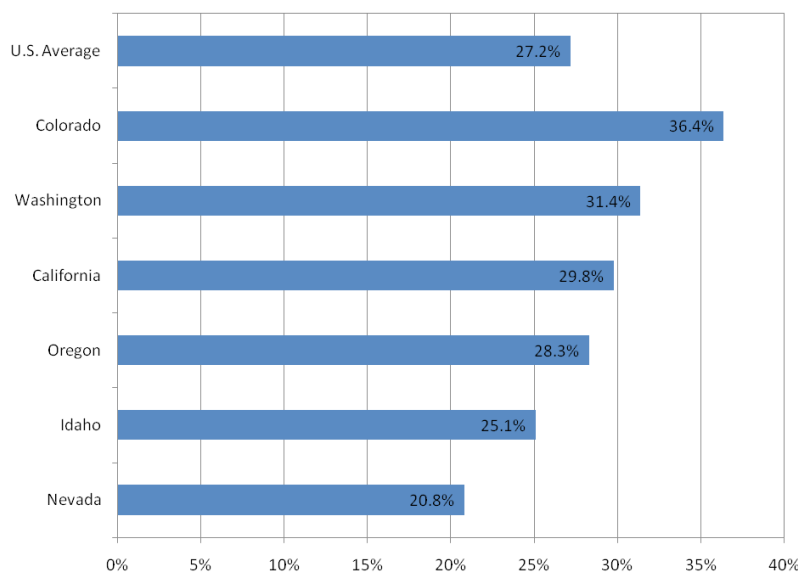
The two major cases for public subsidy are the equality of opportunity and externality arguments. The equality of opportunity argument suggests that universities are potent vehicles for promoting the egalitarian ideal that has permeated American society since its beginning. Any person, even from the humblest beginnings, can rise to the top in our meritocracy-driven society. College degrees have become a near prerequisite for economic success. Yet college is costly, and public subsidies enable poor individuals to attend college that otherwise would not have the opportunity.

It is also argued that education has important positive spillover effects. Supposedly, society will function better and make better collective decisions if the bulk of the populace is highly educated, because we will understand our common culture and heritage, and know about those things that bind us together as Americans. Education promotes national unity and identity, or so it is argued. Higher education leads to improved patterns of human behavior –college graduates commit fewer crimes, smoke less, and live longer. They give more to society (through taxes and philanthropy) than they take from it.

Above all, it is argued that there are positive economic spillover effects from supporting higher education. These spillover effects are hypothesized to result in higher productivity. Higher spending on schools supposedly means more college graduates. College graduates inspire their non-college educated co-workers, often teaching them things on the job and stimulating productivity. By educating person A, we indirectly stimulate the output and incomes of persons B, C, and D.

All of this is interesting theorizing, but there are problems with the analysis. The growth nationally in higher education public funding for a long time did lead, as predicted, to vastly more students and graduates from universities. Yet the data show a sharp slowing in the rate of growth in these factors –despite continued rising funding. The U.S. spends more on colleges than any other nation (both absolutely and as a percent of national output), but we have fallen behind several other nations in the proportion of adults with college degrees, and trends indicate that we will fall further in coming years. The data for Washington are not that much better than for the country as a whole, and well below that of similar Western state Colorado, as Chart 1 shows.

CHART 1
PERCENTAGE OF EACH STATE'S ADULT POPULATION POSSESSING A BACHELOR'S DEGREE, 2006



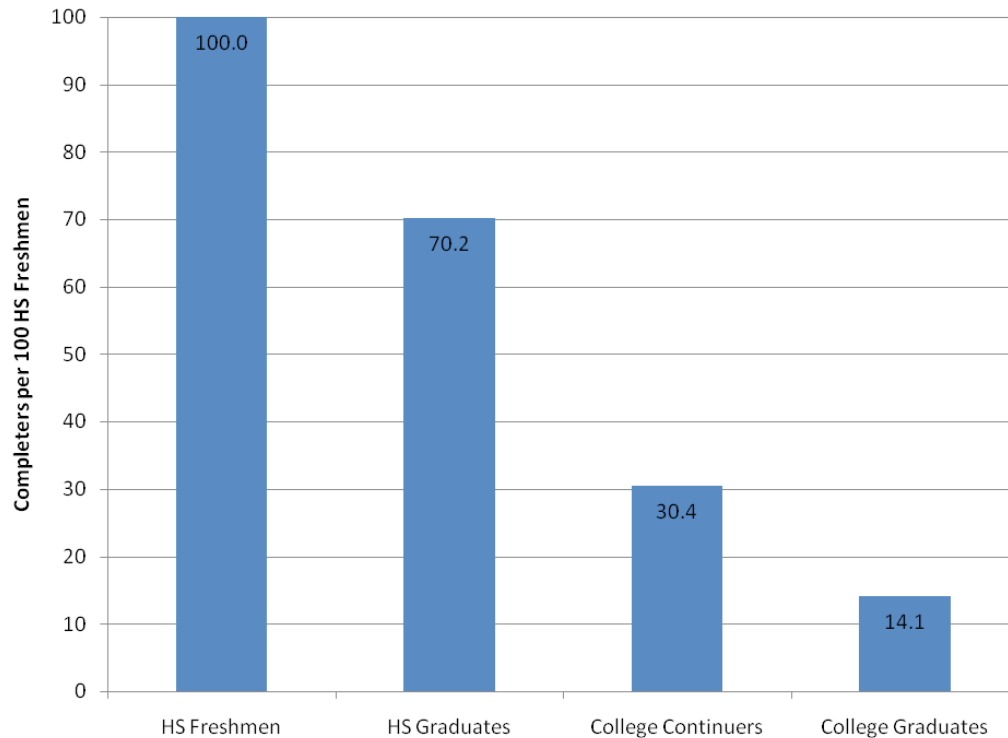
Source: U.S. Census Bureau. CCAP Calculations.

Moreover, the data suggest that the best of Washington's schools are largely "gated communities" with low proportions of students from families at or only modestly above the poverty line. There are 124 schools on the US News & World Report rankings list of top American national universities, and 122 schools on their list of top liberal arts colleges. Of these 246 colleges, four are in Washington, two public (University of Washington and Washington State) and two are private (Whitman and University of Puget Sound).⁴ Only 10% of Whitman students, and 13% of UPS students receive Pell Grants (Pell grant recipients come from low income homes), making them among the economically least inclusive schools in the nation. The public schools are slightly better in this regard with 21% of University of Washington students and 24% of Washington State students receiving Pell Grants, though this is still a smaller proportion than at some campuses of respected flagship universities, and well below the national average of over 34 percent. And since 2000, the number of Pell grant recipients has risen less at all four nationally ranked Washington schools than the national average.⁵ While recent initiatives at the University of Washington to lower the financial burden on lower income students are commendable, the notion that public higher education in Washington is promoting the American Dream by providing large opportunities for lower income students to get ahead does not seem to be supported by the evidence.

While it is true that there are colleges with larger proportions of Pell Grant recipients, the evidence suggests that the schools in the state on which the most resources are showered are rather exclusionary, with below average participation by students from low income backgrounds, raising the possibility that public funding of higher education in Washington actually *subtracts* rather than adds from equality of economic opportunity.

This is particularly true in light of the scandalously high attrition rates throughout a students education in Washington. The huge attrition rate between the time Washington students begin high school and, a decade later, the proportion of those who have college degrees is astounding. Chart 2 shows that for every 100 entering Washington high school freshmen, just over 14 will have graduated from any level of college within a decade. Indeed, the problem starts long before college, with only 7 in 10 high school freshman graduating. Of those who manage to graduate high school, less than half begin college, and of those that begin college, less than half graduate with a degree. The attrition rate in Washington is well above the national average, itself a scandal in terms of wastage of human and financial resources.

CHART 2
WASHINGTON COLLEGE COMPLETERS WITHIN 10 YEARS OF FRESHMAN YEAR OF HIGH SCHOOL



Sources: Postsecondary Education Opportunity, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS). CCAP Calculations.

Thus the egalitarian argument for taxpayer support of higher education is undermined by the facts. Very few Washingtonians obtain a college degree, and most of those that do are not from homes with low incomes.

Moreover, even the externality arguments are suspect after close empirical scrutiny. It is empirically difficult to measure such things as “promoting national cohesiveness” or finding evidence showing that college students have an unusually good appreciation for our civic institutions. Indeed, the one study we know that nationally examines this issue suggests that college students do very poorly on a standardized test of basic issues in American history, political institutions and economics – and that, in general, seniors in colleges do little better than freshman. The study conducted by the Intercollegiate Studies Institute measures the value added of attending college by measuring knowledge differences between freshman and seniors at 50 colleges. The areas tested are: American history, American Political thought, America and the world, and the market economy. Across the nation, freshman averaged a score of 50.4% while seniors averaged 54.2%, resulting in a value added

gain of just 3.8%. Two Washington schools were included in the study, University of Washington and Gonzaga. University of Washington seniors averaged 55.9%, demonstrating a 4.5% gain in knowledge over their freshman counterparts, while Gonzaga seniors averaged 51.9% demonstrating a 4.2% gain in value between the freshman and senior years.⁶ These admittedly very limited findings do not inspire confidence that either public or private universities are contributing importantly to the civic literacy of young Washingtonians.

If there are positive economic spillover effects on expending resources on universities, we should see, perhaps after a lag of several years, a positive correlation between state spending on higher education and economic growth, yet in reality we do not. Indeed, there is pretty good evidence the opposite is the case: higher spending on universities is negatively correlated with growth. For those readers interested in the intricate statistical results, one such regression model is included in this report (see Table 1).⁷ In two of three regressions, there is a statistically significant negative correlation between spending on universities and economic growth some years later –despite the fact that states with a high proportion of college graduates tend to have high growth rates.

TABLE 1
ECONOMIC GROWTH REGRESSION RESULTS

	5-Year Growth Obs: 1400	10-Year Growth Obs: 1200	15-Year Growth Obs: 950
Age of State	0.006*** (14.70)	0.008*** (13.65)	0.007*** (11.61)
Real Personal Income(t-n)	-0.00002*** (-20.30)	-0.00003*** (-18.65)	-0.00003*** (-27.19)
n-Year Growth in Unions	-0.04*** (-7.10)	-0.07*** (-8.75)	-0.00002 (-0.003)
n-Year Growth in population	1.31*** (29.36)	1.34*** (37.62)	1.20*** (37.01)
n-Year Growth in Tax Burden	-0.09*** (-3.04)	-0.07*** (-4.03)	-0.14*** (-9.90)
Real Per Capita Appropriation on Higher Education	-0.0003*** (-9.74)	-0.0002*** (-4.04)	-0.00006 (-1.31)
Real Per Capita Non Higher Education Expenditures	-0.000007** (-2.04)	0.000013** (2.31)	0.000009** (2.18)
Percentage of Population 25+ With BA or higher	0.005*** (7.38)	0.003** (2.49)	0.0039*** (4.15)
Weighted Adjusted R²	0.72	0.89	0.96
F-Stat Redundant Fixed Effects	12.14 (0.00) [†]	11.68 (0.00) [†]	23.38 (0.00) [†]

Notes: Values in parentheses are t-statistics.

***, ** and * denote statistically significant at the 1, 5 and 10 percent levels, respectively.

† denotes values in parentheses are p-values.

The complicated econometric results are confirmed by individual case studies. Take the states in Table 2 for example, which compares the appropriations for higher education and the economic growth of similar states. Over the past 25 years New Hampshire has spent on average much less on higher education (relative to income or population) than Vermont – but has experienced more robust growth rates. The same is true of South Dakota and North Dakota, or Tennessee and Kentucky.

TABLE 2
ECONOMIC GROWTH AND APPROPRIATIONS, STATE COMPARISONS

State	Average Appropriations*	Economic Growth**
New Hampshire	\$2.67	62.1%
Vermont	4.68	60.3
South Dakota	7.18	70.6
North Dakota	12.22	66.7
Tennessee	7.16	58.1
Kentucky	9.57	46.1

*Average Appropriations defined as average state appropriations per \$1000 of personal income, 1980-2005.

**Economic Growth defined as the growth in real per capita personal income, 1980-2005.

Sources: Bureau of Economic Analysis, *Grapevine* Data System Illinois State University, CCAP Calculations.

Other preliminary work we have done raises doubts about the notion that research appropriations positively impact growth. For example, there is actually a negative correlation between federal appropriations to universities (mostly for research) and economic growth.

Thus, the evidence does not support the spillover arguments (cultural or economic). So if taxpayer support of higher education isn't buying more egalitarian institutions that benefit the state through spillovers, what exactly is it buying? There is evidence that some of the incremental funds that Washington gives public universities through higher appropriations ends up in higher salaries for key staff, especially faculty. There are huge variations in spending per student between the public schools in the state, with little evidence that the high spending schools offer a significantly higher quality educational service for its students. While these may be desirable, that is something to be decided by the public, which should have as much information as possible available to them when making such decisions. That information should now include the knowledge that the most common reasons for taxpayer support, are not borne out by the evidence.

Washingtonians might scoff at these findings. After all, the state is growing robustly –and it spends a lot on higher education. Yet one can argue that growth would have been higher had higher education expenditures been used more efficiently. Washington is not a university-intensive state if judged by one of the most important indicators – the proportion of high school freshman who manage to earn college degrees.

There are considerable reasons to question the very first principles on which university public support is based. The assumption that if we spend a lot on universities we will have a more prosperous population is questionable. It is even questionable how much students learn in college. And far from serving as a bastion of promoting economic equality, our public universities may be promoting the opposite – a growing elitist society, where those educated at the top universities live in gated communities largely open only to those with considerable resources.

The basic statistics shown in Tables 3 and 4 will help put the rest of the report in context, though we will review many of them in greater detail in later sections.

From Table 3, a couple of things stand out. Washington does not enroll much of the college age population, falling significantly below California, Colorado, and the national average. Tuition at public schools is higher than every neighbor save Oregon, though it is slightly less than the national average. Private tuition is high as well, though it is more comparable to neighboring states. Loan debt is low, with only California being better in this regard. State appropriations are large, with only California spending more per capita. Combined with fairly high tuition charges, this implies that Washington schools are relatively rich. Lastly, the growth rate of the Washington economy has been in the middle of the pack, with the state growing faster than most neighbors but significantly slower than the national average by the most commonly accepted measure, real personal income per capita.

TABLE 3
COMMON HIGHER EDUCATION STATISTICS FOR WASHINGTON AND NEIGHBORING STATES

State	Percent of 18-24 Population Enrolled (2005)	Average Tuition 4 year Public (2005)	Average Tuition 4 year Private (2005)	Average Loan Debt of Graduates (2005)	State	Economic Growth (1980 -2005)
Washington	37.3	5,250	20,110	18,040	\$227.04	37.2%
California	41.3	4,408	21,691	17,270	251.62	30.2
Colorado	43.0	4,465	18,493	18,565	126.79	47.1
Idaho	36.2	3,919	5,490	20,696	225.71	38.6
Nevada	30.4	2,671	12,622	NA	209.85	29.0
Oregon	37.3	5,348	20,844	19,667	161.09	34.2
US Average	40.6	5,351	19,292	19,200	212.96	43.8

Sources: IPEDS, NCES, Census Bureau, Project on Student Debt, *Grapevine* Data System Illinois State University, Bureau of Economic Analysis. CCAP calculations.

TABLE 4
COMMON HIGHER EDUCATION STATISTICS FOR THE LARGEST WASHINGTON INSTITUTIONS

Institution	Undergraduate Enrollment (2006)	Average Tuition (2006)	Percent Increase in Tuition (2000-2006)	Endowment per Undergraduate Student (2006)	Graduation Rate (2005)
Public Institutions					
University of Washington-Seattle	27,836	\$6,385	35.3%	\$64,183	74.3%
Washington State University	19,554	6,866	50.6	\$17,959	63.2
Western Washington University	12,838	5,003	37.8	\$2,538	64.8
Central Washington University	10,145	5,457	47.4	\$959	51.6
Eastern Washington University	9,838	4,905	39.1	\$648	47.8
The Evergreen State College	4,124	5,067	44.2	\$603	55.7
Private Institutions					
Gonzaga University	4,275	26,560	29.2	\$30,148	78.4
Northwest University	1,141	19,762	57.1	\$10,525	41.0
Pacific Lutheran University	3,340	25,488	29.6	\$18,465	66.0
Seattle University	4,160	26,325	32.2	\$43,820	66.7
Seattle Pacific University	2,979	25,128	39.5	\$13,534	63.7
University of Puget Sound	2,539	32,060	27.8	\$87,707	72.9
Walla Walla College	1,635	21,014	16.2	\$8,015	49.5
Whitman College	1,455	32,980	29.6	\$234,229	86.1
Whitworth College	2,253	25,692	29.6	N/A	76.1

Source: IPEDS, *US News and World Report*. CCAP Calculations.

The statistics reported for the largest public and private schools in Table 4 also reveal a number of points of interest. Public schools tend to be larger and charge much less in tuition than private schools, though there is considerable variability among these variables even within categories. There does not seem to be too much difference in graduation rates among types of school (public vs. private), but there is enormous variation in this statistic within each category. For example among private schools, the range is between from 49.5% at Walla Walla College to 86.1% at Whitman College. Similarly, the graduation rate at the University of Washington is 26.5% higher than at Eastern Washington University. With the exceptions of the University of Washington and Washington State, the public schools have small endowments per student, whereas the private schools tend to have larger endowments, with Whitman College being an extreme case.

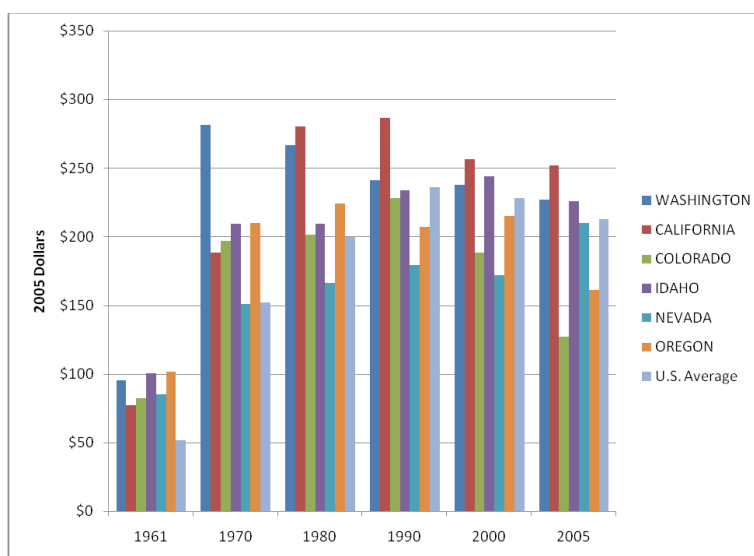
Indeed, some very recently announced data suggests Whitman now has well over a quarter of a million dollars per student, while the University of Washington's endowment in fiscal year 2007 rose a robust 21.7 percent, to \$2.184 billion, the ninth largest state university endowment in the country. The increase in endowment in that one year (\$390 million), invested at 5 percent, would provide about \$700 per undergraduate student, hardly an insignificant amount. Returning to the table, although tuition is much lower at public schools compared to private schools, the rate of increase is faster at public schools.

Background: Washington Higher Education Facts and Figures

State Appropriations for Higher Education

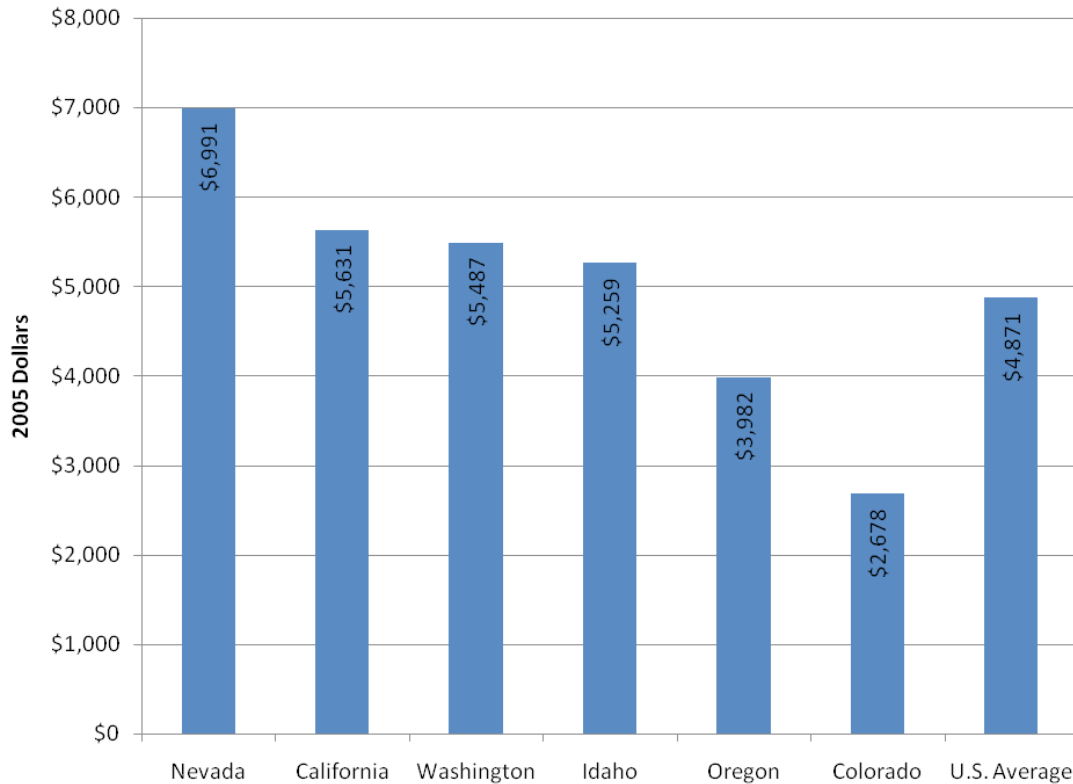
When compared with its neighbors per capita spending on higher education, Washington has consistently been among the biggest spenders over the last four decades. It was the highest spender by far in 1970, but by 2005, it had been surpassed by California, though it remained above Colorado, Idaho, Nevada, Oregon and the national average. The State Higher Education Executive Officers (SHEEO) recently released their State Higher Education Finance report for the 2007 fiscal year. In it, they report that appropriations per FTE was \$6,736 in FY 2007. It should be noted that their methodology is somewhat different from ours. They apply two different adjustments to try and control for differences in the cost of living in different areas and the enrollment mix of the student body. They also use a different price index to control for inflation. The FY 2007 figure reported by SHEEO was 1.9% higher than the figure for FY 2006.

CHART 3
STATE APPROPRIATIONS PER CAPITA DEVOTED TO HIGHER EDUCATION,
WASHINGTON & REGIONAL PEER STATES, 1961-2005



Source: Grapevine Data System Illinois State University. CCAP Calculations.

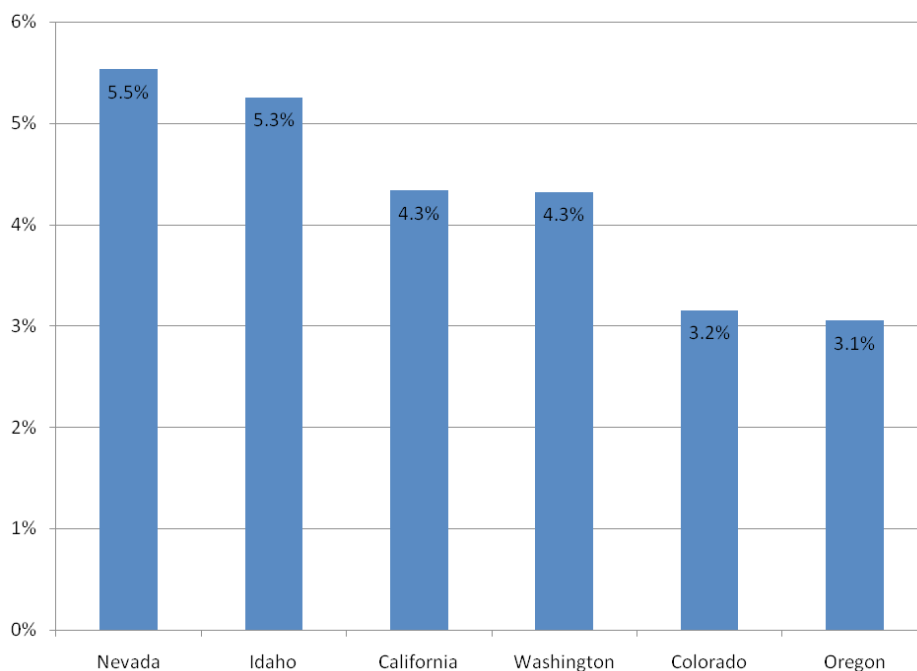
CHART 4
STATE APPROPRIATIONS PER FTE STUDENT AT ALL INSTITUTIONS, 2005



Sources: Grapevine Data System Illinois State University, Digest of Education Statistics Table 196. CCAP Calculations.

The same largely holds true when we look at spending *per student*. The most common method for doing so is to construct a number referred to as full-time equivalent (FTE) students. This number accounts for the fact that many students attend school only part time. Thus, several part time students will count as one full time student. As Chart 4 indicates, after adjusting spending for the number of FTE students, Washington is still among the highest spenders. While both Nevada and California spend more (by \$1504 and \$144 respectively) it spends more than twice as much as Colorado and \$616 more than the national average. The comparison with Colorado is particularly noteworthy, since Colorado, despite spending far less per student, has a significantly higher portion of its adults with college degrees than Washington.

CHART 5
PERCENTAGE OF TOTAL STATE AND LOCAL APPROPRIATIONS DEVOTED TO HIGHER EDUCATION,
WASHINGTON & REGIONAL PEER STATES, 2005



Sources: U.S Census Bureau, *Grapevine* Data System ,Illinois State University, and CCAP calculations.

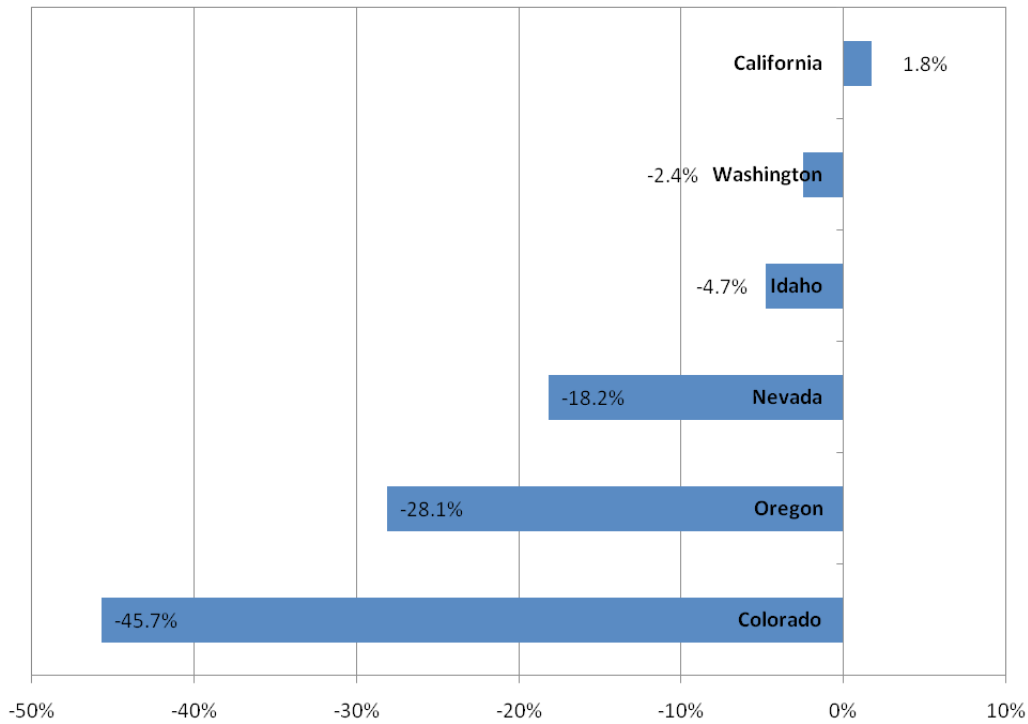
While Washington is among the biggest spenders in both per capita and per student terms, it is in the middle of the pack when looked at as a percent of all state and local government expenditures. This figure was 4.3% in Washington as Chart 5 shows. 4.3% was also the average among all of the states in the nation. This result, high spending in per capita and per student terms, but mid level spending as a percent of the total state budget is a function of the fact that Washington is a big government spending state generally. Another possible explanation relates to differences in average incomes. It could be that as states get richer, they devote a proportionally smaller (or greater) share of resources to higher education. To test this, we developed a statistical model (using multiple regression analysis) to try to explain interstate variations in state higher education appropriations as a percentage of personal income. Table 5 offers a detailed look at these regression results.⁸ Based on variables in the model, estimates are derived for each state as to the predicted level of state appropriations. It is possible by looking at the residual values (deviation of appropriations from that predicted) to see if the state tends to have a propensity to spend more or less than what national behavioral norms predict.

TABLE 5
 APPROPRIATIONS PER \$1000 PERSONAL INCOME REGRESSION RESULTS

Dependent Variable: APPROPRIATIONS PER \$1000 OF PERSONAL INCOME				
Method: Least Squares				
Included observations: 50				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	14.07472	1.587478	8.866084	0.0000
% Voting Kerry in 2004	-4.476267	3.427777	-1.305880	0.1984
Personal Income per Capita	-0.000155	5.27E-05	-2.949922	0.0051
Percent Private Enrollment	-4.281367	2.199477	-1.946538	0.0580
State & Local Expenditures per Capita	0.000556	0.000155	3.594272	0.0008
Average Public Tuition	-0.000378	0.000171	-2.204292	0.0328
R-squared	0.643492		Mean dependent var	6.828972
Adjusted R-squared	0.602980		S.D. dependent var	2.300084
S.E. of regression	1.449273		Akaike info criterion	3.692167
Sum squared resid	92.41720		Schwarz criterion	3.921610
Log likelihood	-86.30418		F-statistic	15.88388
			Prob (F-statistic)	0.000000

Washington's residual confirms that it is a high spending state within its region, as shown by Chart 6. Only California spent more than predicted by the independent variables. Washington spends 2.4% less than the model predicts, compared to 4.7% less for Idaho, 18.2% less for Nevada, 28.1% less for Oregon, and 45.7% less than Colorado. In other words, even though Washington is in a region that generally spends less than we would expect on higher education, Washington spends very close to what we would predict.

CHART 6
PERCENT DIFFERENCE OF PREDICTED AND ACTUAL APPROPRIATIONS PER \$1000
PERSONAL INCOME BASED ON REGRESSION MODELING

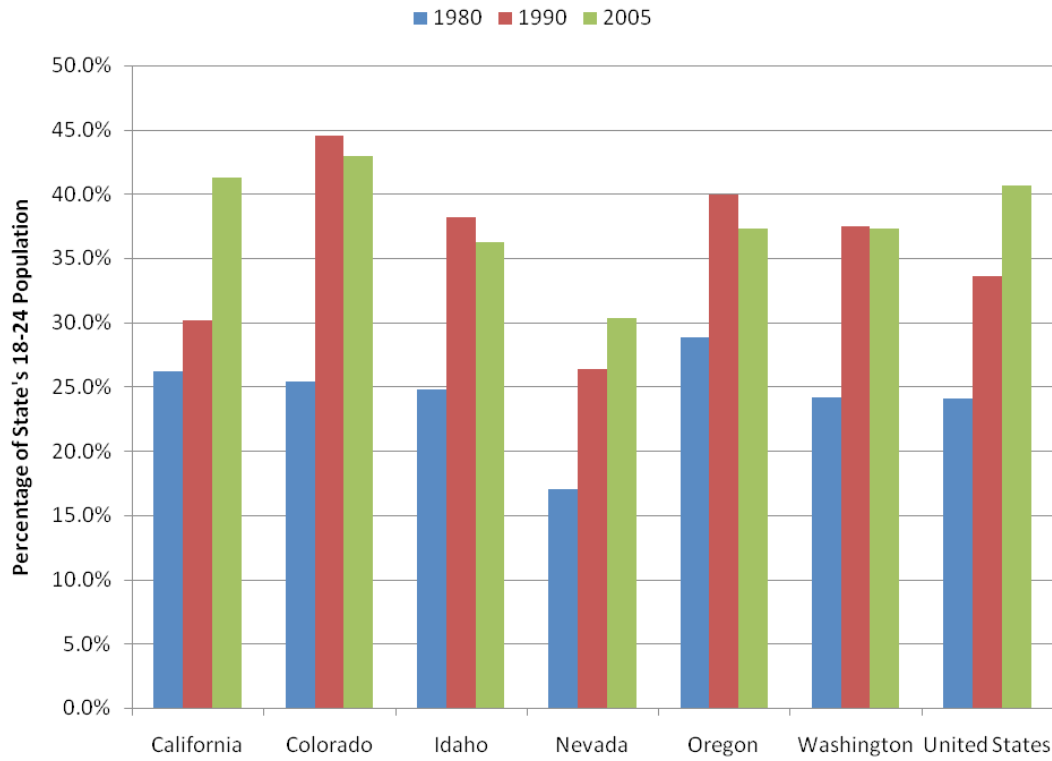


Source: Residual results from Table 5 regression equation. For regression data see footnote 6 above.
Note: CCAP Calculations.

Enrollment Trends

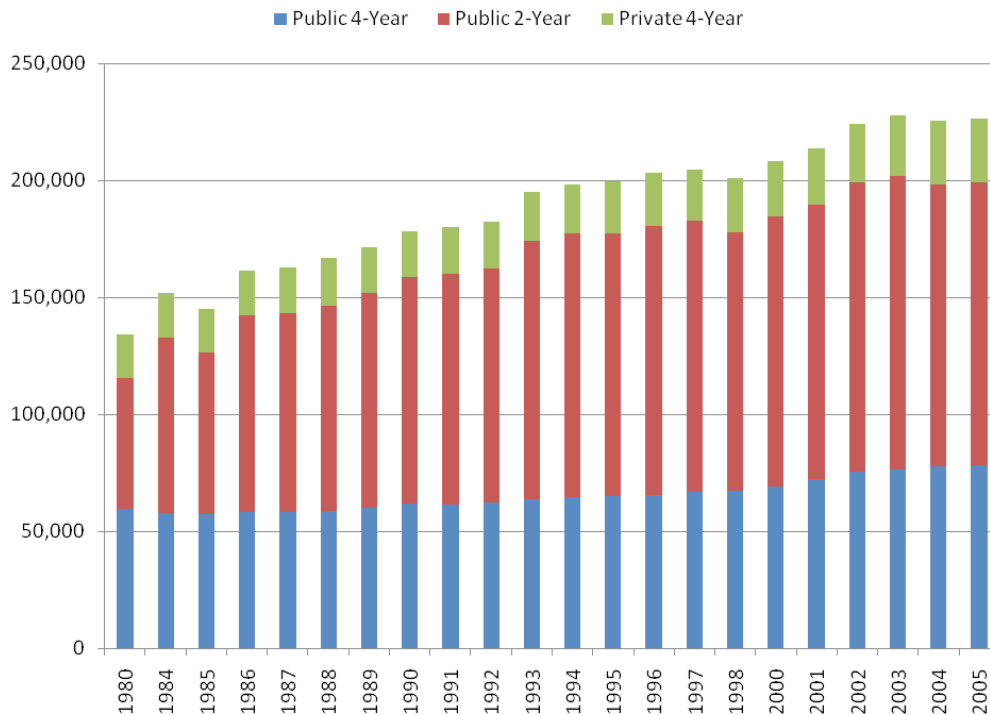
The relatively high spending in Washington does not seem to translate into higher proportions of the college age population enrolled in institutions of higher education. In fact, Washington has a smaller proportion in college than the national average, and significantly beats only Nevada among neighbors in this measure (it is virtually tied with both Oregon and Idaho), as shown in Chart 7. Washington was tied with the national average in 1980, higher than it in 1990, but was below the national average by 2005. This is quite surprising given that the state is among the highest spenders in the region. The states high levels of spending on higher education are not translating into more students being educated.

CHART 7
WASHINGTON AND NEIGHBORING STATES: UNDERGRADUATE FTE ENROLLMENT PER 18-24 POPULATION



Sources: IPEDS, Census Bureau. CCAP Calculations.

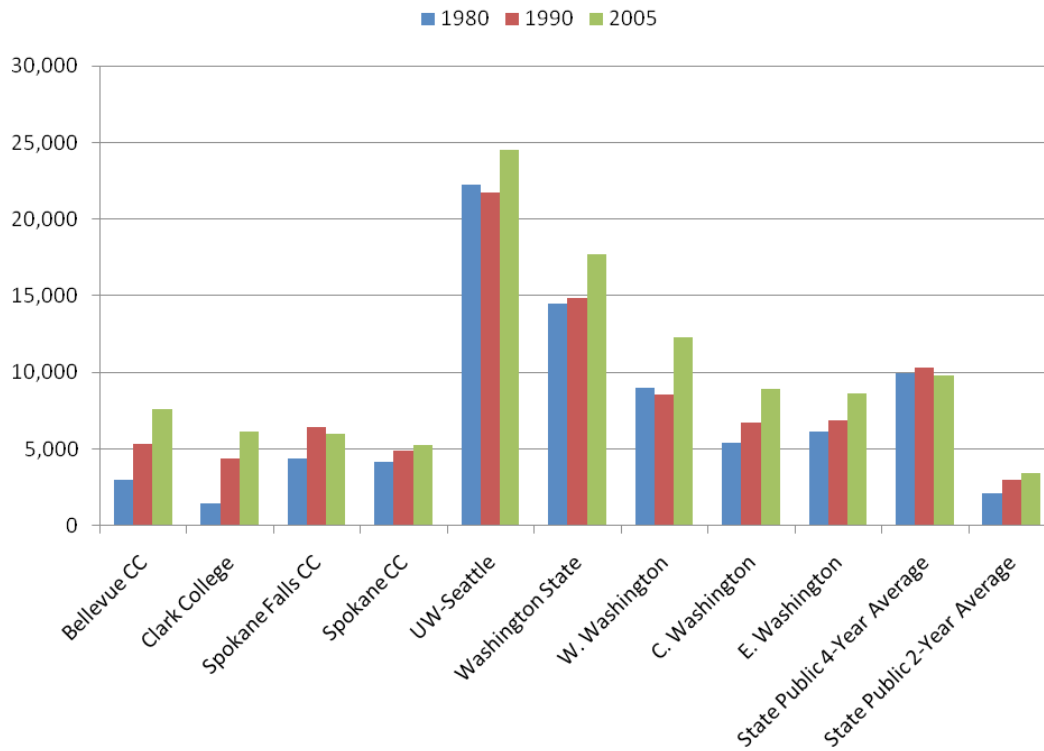
CHART 8
WASHINGTON FTE ENROLLMENT BY CONTROL AND LEVEL OF INSTITUTION, 1980-2005



Sources: IPEDS, CCAP Calculations.

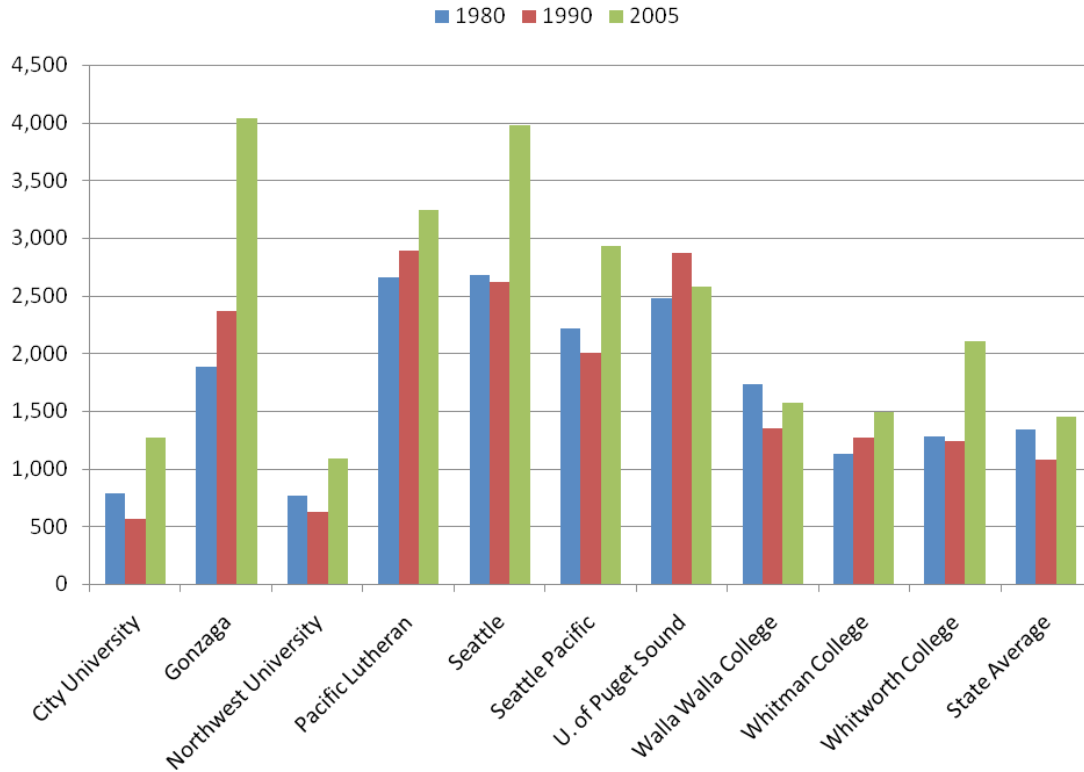
While the proportion of the college age population enrolled is the same as it was 15 years ago, population growth means that the number of students enrolled in absolute terms has been increasing. In fact, enrollment in Washington institutions of higher education has increased by almost 100,000 over the last two and a half decades (see Chart 8). The biggest increase came from public 2-year schools, where enrollment more than doubled. Enrollment at public 4-year schools also increased, though by much less. Private 4-year schools have seen growth as well, at rates higher than those of the public schools. SHEEO reports that enrollment has continued to grow, and is now around 215,000.

CHART 9
WASHINGTON: FTE UNDERGRADUATE ENROLLMENT FOR THE 10 LARGEST PUBLIC INSTITUTIONS



The considerable aggregate growth should not obscure the fact that there is considerable variability when looking at the growth of individual schools (see Charts 9 and 10). For example, Gonzaga and Seattle have grown rapidly, with Gonzaga doubling in size in the last 25 years. Meanwhile, UW Seattle and Washington State have grown much more moderately. Greater resources in public higher education have not translated into huge “supply side” enrollment expansion at the two largest public universities.

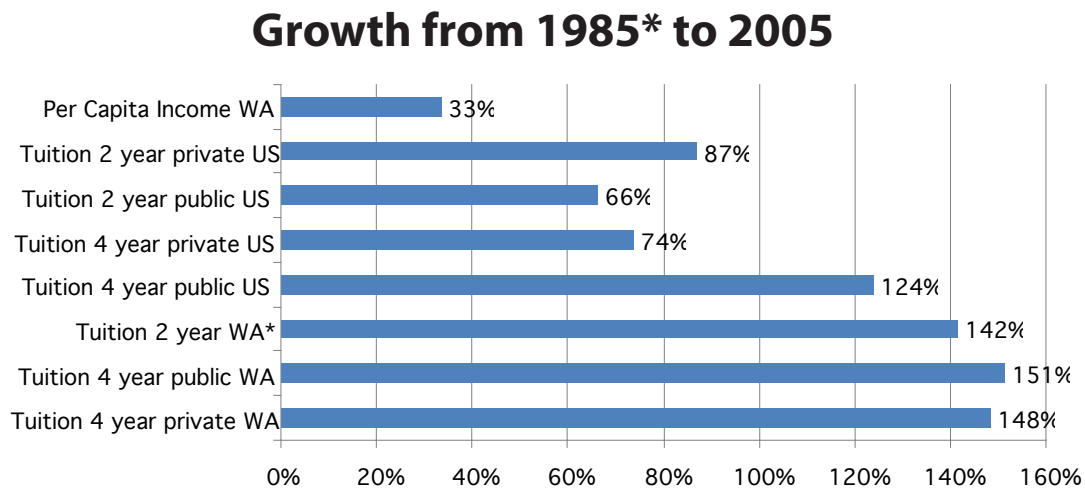
CHART 10
WASHINGTON: FTE ENROLLMENT FOR SELECTED PRIVATE INSTITUTIONS



Tuition Trends

There is growing concern over the costs of higher education. One of the main sources of such concern is exploding tuition charges. Chart 11 shows that from 1985 to 2005, tuition at Washington 4-year public schools grew 27% more than the national average, and 118% more than the average per capita income in the state. At 4-year Washington private schools tuition grew 74% more than the national average tuition growth at 4-year private schools, and 115% more than the state per capita income. Tuition at 2-year schools also grew by more than the national average. This troubling trend is the focus of the next section.

CHART 11
REAL TUITION AND PERSONAL INCOME GROWTH, 1985*-2005



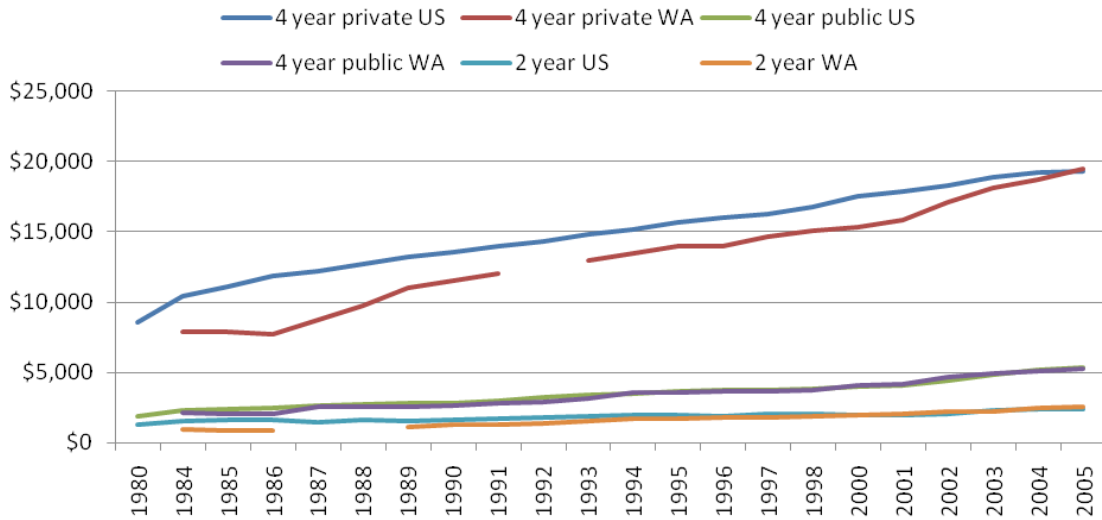
* Tuition growth at 2-year WA schools is from 1989-2005

Sources: Bureau of Labor Statistics, Digest of Education Statistics, IPEDS, Bureau of Economic Analysis. CCAP Calculations.

What has happened to the costs of attending college and why?

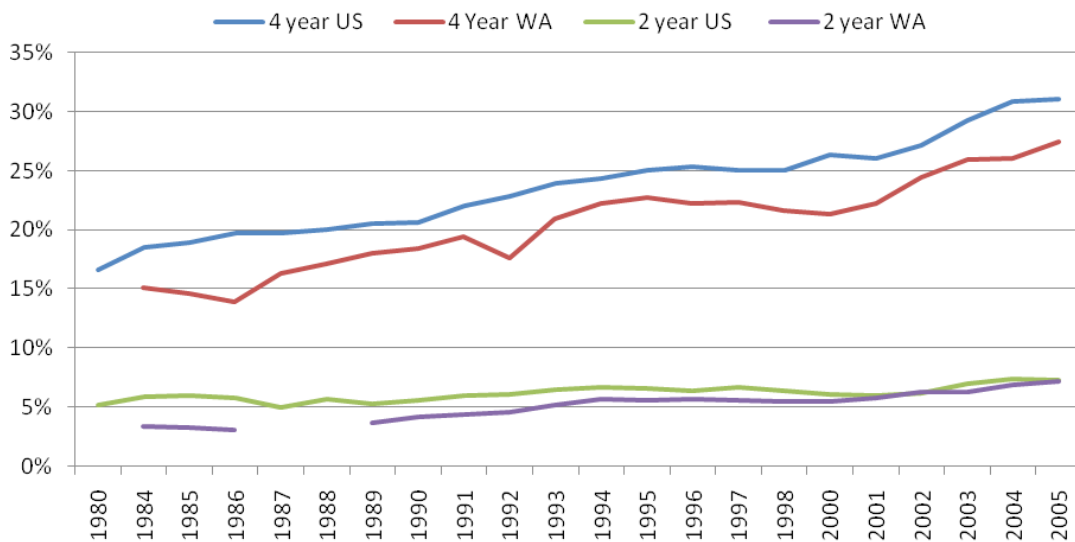
The costs of attending an institution of higher education have been exploding across the nation and Washington is no exception. Chart 12⁹ shows the average real (inflation adjusted) tuition and required fees for in state students by year and the level and control of the school.¹⁰ From 1984 to 2005, the average cost of attending a 4-year private school increased 147%, from \$7,867 to \$19,452 (in 2005 dollars). Over the same time span, tuition at 4 year public schools increased by 142%, from \$2,184 to \$5,296. At 2 year schools, tuition increased by 192%, from \$881 to \$2,573.

CHART 12
AVERAGE TUITION AND FEES, REAL (2005 \$) FTE WEIGHTED



Sources: Bureau of Labor Statistics, Digest of Education Statistics, IPEDS. CCAP Calculations.

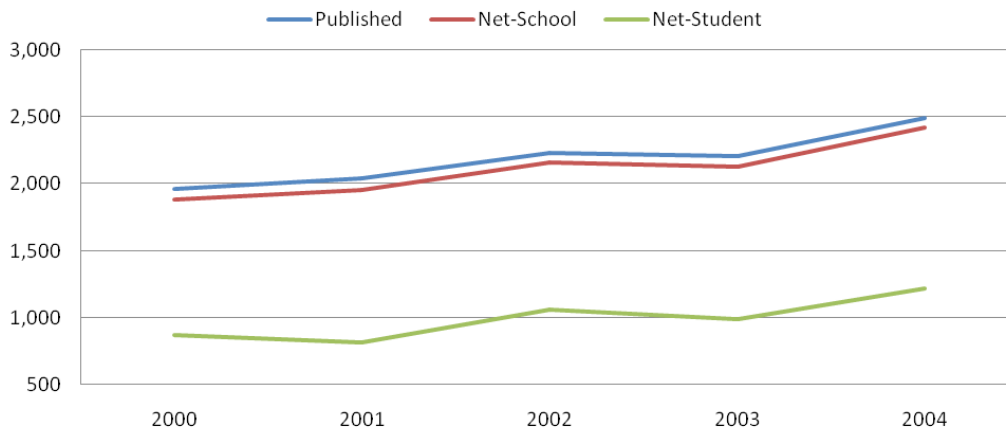
CHART 13
AVERAGE TUITION AND FEES BY SCHOOL TYPE, % OF PER CAPITA INCOME, FTE WEIGHTED, 1980-2005



Sources: Bureau of Labor Statistics, Digest of Education Statistics, IPEDS, Bureau of Economic Analysis. CCAP Calculations.

Even more troubling than the explosive tuition increases is the fact that the ability of Washingtonians to pay for schooling, as measured by the state's per capita income, has not kept up with them, as shown in Chart 13. In fact, tuition at 4-year schools has nearly doubled as a percent of per capita income, meaning that the typical resident would need to pay over one quarter of his or her income per year in tuition. While tuition has increased at 2-year schools as well, the cost is still much less than at 4-year schools, at around 7% of per capita income. The cost differential between two and four year public schools has widened appreciably over time. Increasingly, two year schools are viewed as the low cost, arguably “poor persons” option for post-secondary higher education.

CHART 14
REAL (2005 \$) TUITION AT 2-YEAR WA SCHOOLS



Sources: Bureau of Labor Statistics, IPEDS. CCAP Calculations.

Some people will argue that the financial burden on students and their families is not nearly as bad as Charts 11, 12 and 13 suggest, because governments and schools will often provide scholarships and other discounts to students, and, moreover, those discounts have grown over time. This is a valid point, but schools are reluctant to release information about the actual average tuition and fees they charge, perhaps a sign that their aid packages are not offsetting the tuition increases. Moreover, when students apply to schools, typically *they do not know* if they are going to receive any aid at all, let alone how much they will end up being offered. Thus the “sticker price” (stated tuition) is potentially a very important factor in deciding where or whether to attend college.

In spite of a lack of transparency in the provision of data (this is not unique to Washington schools), we can estimate what we will call the net tuition and required fees. We have constructed two versions of net tuition and fees (for brevity we will just refer to it as net tuition, though it includes required fees). Unfortunately, the federal data source used (the Integrated Postsecondary Education Data System, or IPEDS) only allow for these “net tuitions” to be calculated from 2000 to 2004.

The first net tuition is the figure for schools. It is the most accurate estimate of the true average tuition revenue per student for the school. It is found by subtracting the average amount of institutional aid (scholarships and fellowships) provided by the school from the published tuition (sticker price).

It is important to note that this figure is different from the net tuition *for students*. Aside from knowing how much money schools get per student, we also want to know what students actually pay. To find this figure, what we will refer to as net tuition for students, we must also account for state and federal aid. Thus net tuition for students is equal to published tuition minus federal, state, local and institutional grants. Student loans are not subtracted because students are required to pay them back, something that is not typically required of grants. Net tuition for students is the best estimate of the actual financial burden for students.

There are factors that would tend to bias the figures in either direction. For example, the U.S. Department of Education database does not include private scholarships that the schools do not know about. Thus, we would tend to overestimate the financial burden of students. On the other hand, much of the grant money that is awarded goes toward paying for things other than tuition, many of them valid educational expenses such as books and transportation costs. This would indicate that we tend to underestimate the actual financial burden on students. While this methodology is obviously not perfect, in the absence of greater disclosure by schools, we believe it is the most accurate estimate possible.

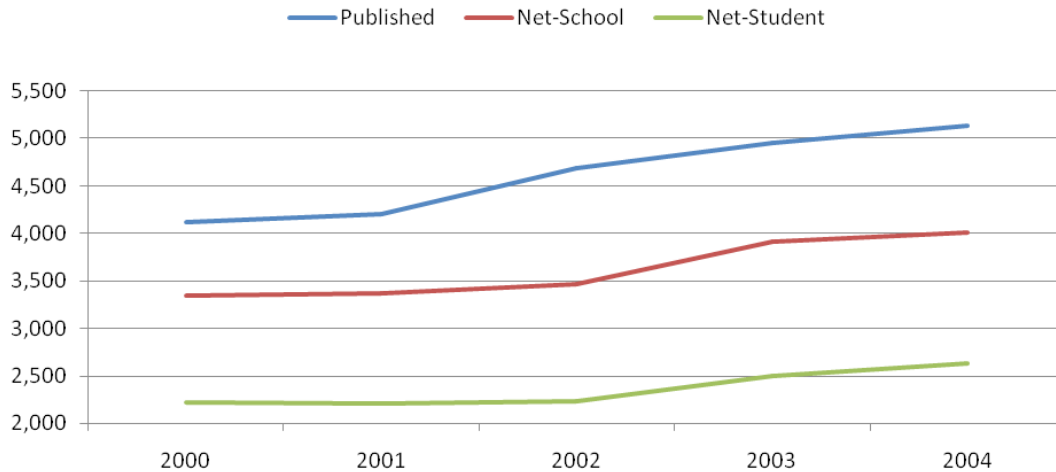
On balance, these numbers almost certainly underestimate both net school and net student tuition. The reason is that these figures do not include room and board charges, even though much of the financial aid that gets awarded goes toward paying for these types of expenses. Ideally, we would be able to separate the aid that goes toward tuition charges and the aid that goes toward everything else, but unfortunately, the available data does not break down financial aid by how it is actually spent. Thus we are making the assumption that all aid is spent on tuition, which will, almost certainly result in underestimates of the net school and net student values, since we know that some financial aid is really spent on other things such as room and board or textbooks.

Charts 14, 15 and 16 show published, net-school, and net student tuition and required fees in inflation adjusted dollars at 2 year, 4-year public and 4-year private Washington schools, respectively.

At 2-year Washington schools (see Chart 14), published tuition and the net school tuition track each other very closely, and have both risen by about \$500 from 2000 to 2004. This means that both the published tuition and the tuition revenue per student for the schools increase by about the same amount, and both are about \$500 higher in 2004 than they were in 2000.

A different story emerges when we look at what students themselves pay (net student). Net student tuition has not seen the relatively steady growth that published and net schools have, and appear to jump and then stay constant for a year before jumping again. The first jump occurred in 2002, with another in 2004. As a result of these jumps, net student tuition, the actual financial burden on the students, is \$344 higher in 2004 than it was in 2000.¹¹

CHART 15
REAL (2005 \$) TUITION AT 4-YEAR PUBLIC WA SCHOOLS



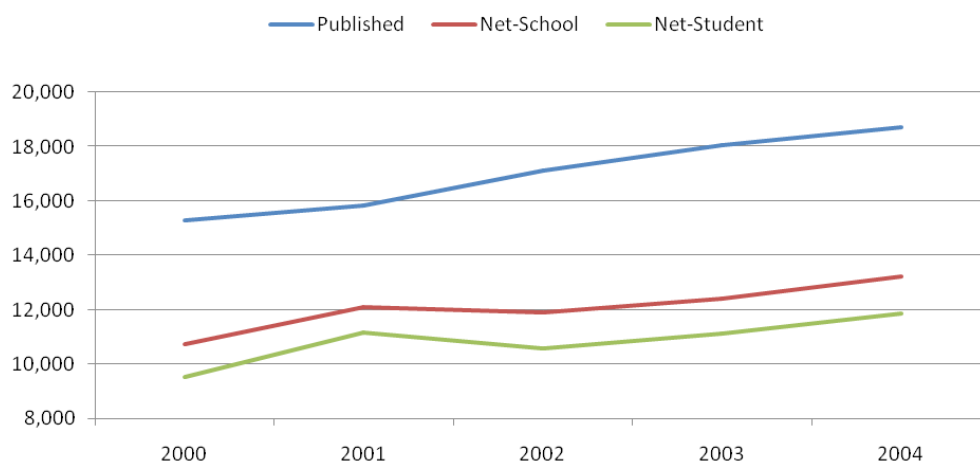
Sources: Bureau of Labor Statistics, IPEDS. CCAP Calculations.

At 4-year public schools (see Chart 15), published tuition and the net school tuition again track each other, but the gap between them is larger and appears to be growing. This means that schools typically got about \$770 less in revenue than is suggested by published figures in 2000, and about \$1,100 less in 2004. It also suggests that schools typically increase financial aid to students at a slightly higher rate than they increase published tuition by. The most interesting thing to note is what occurs with net student tuition, or what the students actually pay. This figure hovered at around \$2,200 from 2000-2002, but has been steadily increasing ever since. By 2004, the financial burden on students was more than \$400 higher (\$2,635) than it was in 2000.

At 4 year private schools (see Chart 16), published and net school tuition no longer track each other. Rather it is net school and net student tuition that appear to move together. In 2004, schools typically received \$5,474 less than published tuition rates, with students paying \$6,836 less than published rates, on average. Note that both the amount that students themselves pay (net student in the chart) and the amount that schools receive per student (net school) both appear to be increasing steadily since 2002. By 2004, students were paying \$2,350 more than they were in 2000, with schools receiving a slightly larger amount.

Unfortunately, data for 2005-2008 is not yet available from the Department of Education, but if these trends continued beyond 2004, it could be very harmful to the affordability of higher education within Washington.

CHART 16
REAL (2005 \$) TUITION AT 4-YEAR PRIVATE WA SCHOOLS



Sources: Bureau of Labor Statistics, IPEDS. CCAP Calculations.

Thus net tuition for students, the amount they actually pay, is increasing across the board. Students were paying more in inflation adjusted dollars in 2004 than they were in 2000 regardless of what type of school they attended. Students at 2-year schools were paying, on average, \$340 more in 2004 than they did in 2000. Students at 4-year public schools were paying \$400 more and students at 4-year private schools were paying \$2,350 more. What is truly shocking that these numbers are not decreasing. With all of the money being spent by the federal and state government with the intention of making college more affordable, we would certainly expect them to be decreasing. After all, one of the main justifications for ever increasing appropriations for higher education is that we need to reduce the financial burden on students. But the financial burden on students was greater in 2004 than it was in 2000, regardless of the type of school they attended, even after accounting for all of the aid by federal, state, and local governments, as well as the institutions themselves.

While this information is certainly revealing, a significant drawback is that there is such a lag in the reporting of data. It would be much more useful to know what is happening right now than what happened in 2004, but until there is greater transparency in higher education, we are forced to report these numbers as is. Unless schools decide to make the data available in a timely manner, or the Department of Education speeds up the collection and release of information, we have no choice but to assume that relationships between published and net tuition that have been observed in the past hold in the present as well. And a continuation of the trends observed would not bode well for current and future students in the state of Washington.

Some organizations do have access to more recent data, and their numbers do not bode well for Washingtonians either. SHEEO reports that public net tuition per FTE jumped to \$2,204 in 2007, an increase of almost 24% in five years. It should be noted that they calculate net tuition differently.

For example, do not adjust for Pell Grants. They also adjust the figures for cost of living and enrollment mix differences and use a different price index to control for inflation. Either way, both methods indicate that there has been significant growth in net tuition: SHEEO estimates the growth from 2002 to 2007 was 23.9%, our estimate for growth from 2000 to 2004 was almost 19%.

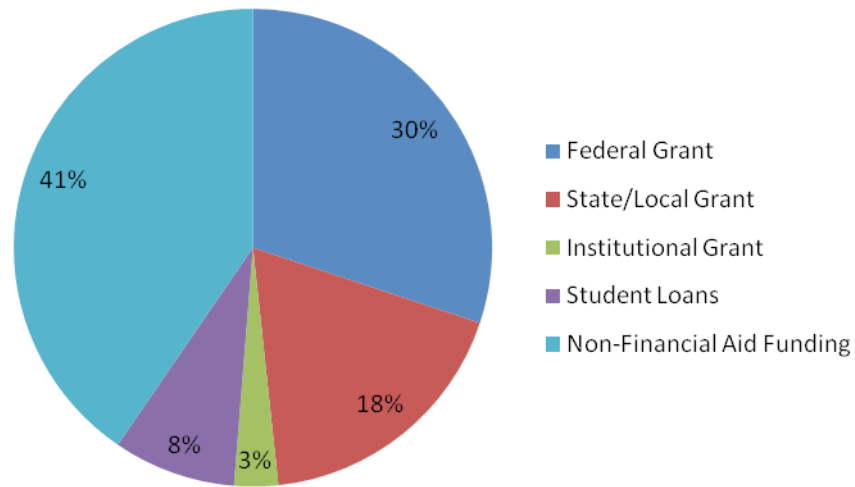
How Can Students Afford to Attend?

The previous section showed that tuition, whether published, net school, or net student, has been increasing rapidly. With more and more students enrolling in college, how can they afford these ever increasing tuition charges?

Charts 17, 18 and 19 show where the funding comes from for the average student. For 2-year schools, the pie represents the average tuition and required fees at the type of school, and at 4-year schools, the pie represents the *total cost of attendance*, which includes tuition, fees, room and board. The slices represent the magnitude of each of the sources of funding. Note that “Student loans” only account for the loans that a student takes out through the schools financial aid office, thus they do not include many of the private student loans that have been getting so much attention lately. In addition to out of pocket payments, the category “Non-Financial Aid Funding” includes any outside funds that the school does not know about, such as private scholarships not awarded by or reported to the school.

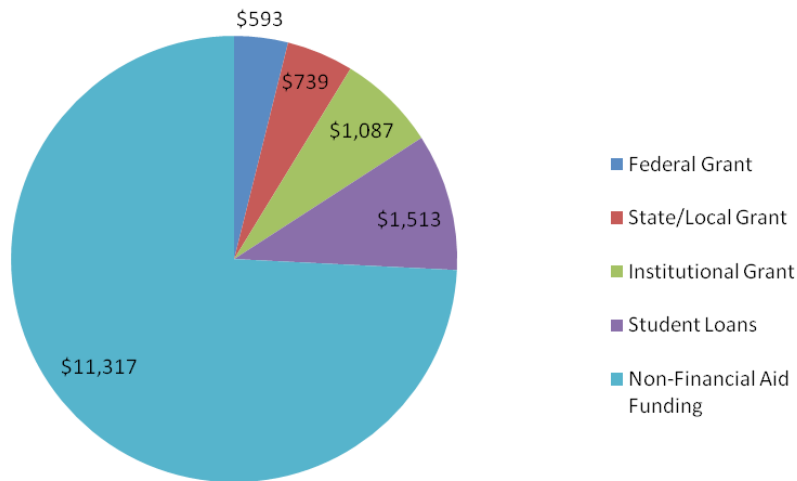
At 2-year schools, federal grants cover 30% of the cost of tuition and fees, on average. State/local/institutional grants cover another 21%. Students rely on loans for another 8%, which leaves an uncommonly large (for 2 year schools) portion of tuition and fees, 41%, to be found outside of financial aid packages. Note that Chart 17 excludes room and board charges. It can be argued that these costs are part of living expenses one would occur if not in college, so they do not represent part of college expenses. However, they are true expenses for college students, and do add to the financial burden of attendance.

CHART 17
AVERAGE FINANCIAL AID BY SOURCE FOR 2004: 2 YEAR WASHINGTON SCHOOLS, FTE ENROLLMENT WEIGHTED



Source: IPEDS, CCAP Calculations.

CHART 18
AVERAGE FINANCIAL AID BY SOURCE FOR 2004: 4 YEAR PUBLIC WASHINGTON SCHOOLS,
FTE ENROLLMENT WEIGHTED



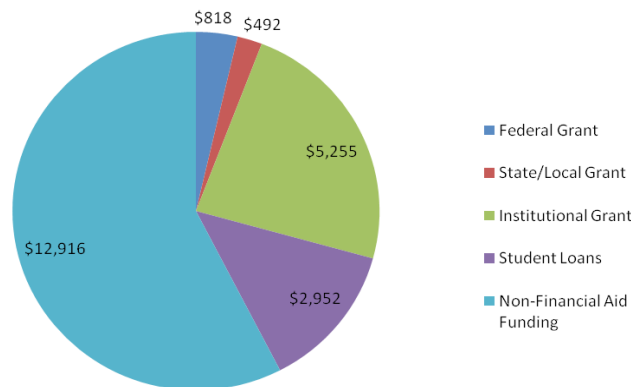
Source: IPEDS, CCAP Calculations.

At 4-year public Washington schools, federal, state/local, and institutional grants together only account for 16% of the total cost of attendance. In addition, students borrow \$1,513 in loans, on average, bringing the total for the financial aid to just over 25%. This means that the typical student needed to find \$11,317, almost three quarters of the cost of attendance, in non-financial aid funding if they wish to attend a 4-year public school in Washington.

At 4-year private Washington schools, federal and state/local grants combined are about the same as at 4 year public schools, though they cover less of the total cost of attendance. Institutional grants are much larger than at public schools, and together with federal/state/local grants cover almost 30% of total costs. Students took out about twice as much in loans, \$2,952. However tuition is higher at private schools, so in spite of the much larger financial aid packages (largely due to more institutional grants and more student loans), students at private schools need to find almost \$13,000 in outside funding to cover the cost of education.

One of the most surprising things about this is that the financial burden on students is not that much higher for students at private schools than for those at public schools. While they do take out more in student loans (\$2,952 compared to \$1,513) and must find more outside funding, (\$12,916 compared to \$11,317), the difference is much smaller than in most other states. Typically, public universities within a state provide a much more affordable education than the private institutions, and from the published tuition figures, one would expect that to be the case in Washington as well. But when all is said and done, the cost of attending a public school in Washington is not that much less than the cost of attending a private school. This may not be the case for much longer (recall that from 2000 to 2004, the financial burden on students increased by more than five times as much at private schools as it did at public ones). But that doesn't alter the fact that neither are particularly affordable for many students, which is probably one of the main reasons so few lower income Washingtonians graduate from 4 year schools.

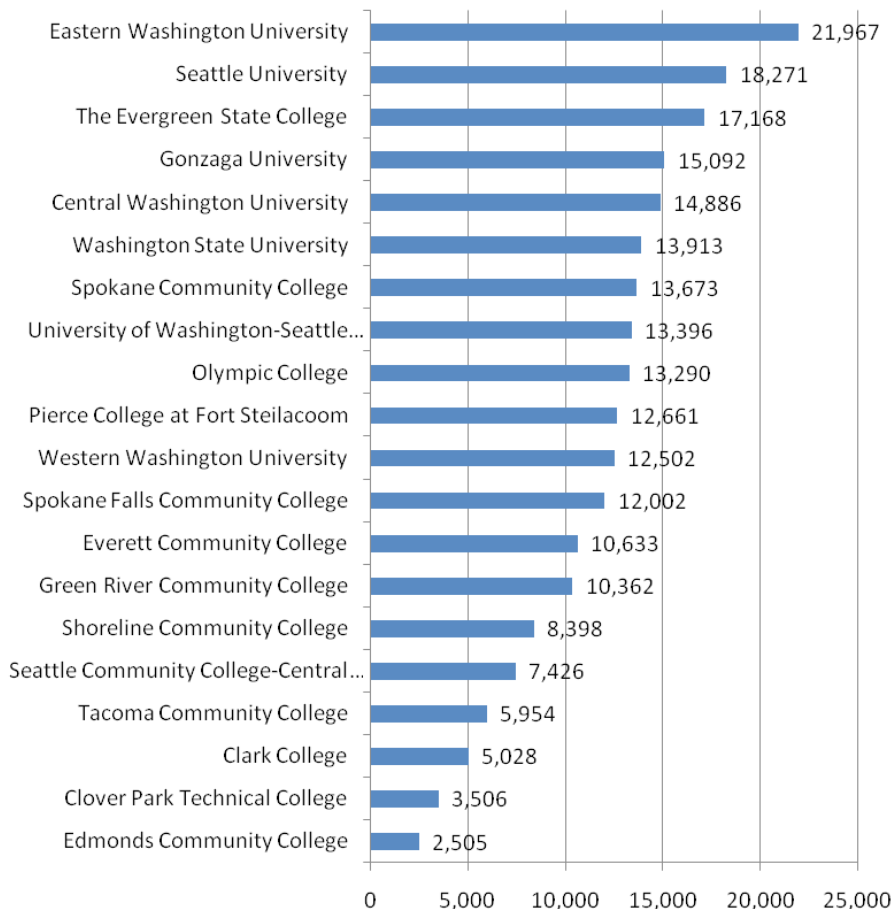
CHART 19
AVERAGE FINANCIAL AID BY SOURCE FOR 2004: 4 YEAR PRIVATE WASHINGTON SCHOOLS,
FTE ENROLLMENT WEIGHTED



Source: IPEDS. CCAP Calculations.

Given the increasing importance of student loans, it is quite revealing to examine the student loan debt of students at graduation. Chart 20 is constructed from the reported average student loan taken out by students (not including private loans). It reports the estimated average debt of students that take out loans, assuming that they take out the average loan each year, and graduate in four years. Keep in mind that the proportion of students taking out loans varies considerably by school, and these calculations are not an average across all students, but only those that took out loans. It is interesting to note that despite similar tuition charges at some of the schools, the estimated student debt at graduation is very different. For instance, note the wide variation in debt among 2-year schools, with the debt of Spokane students being more than twice as much as at most other 2-year schools.

CHART 20
ESTIMATED DEBT OF THE TYPICAL BORROWER*



*Assumes the student borrows the average amount each year and graduates in 4 years

Source: IPEDS.

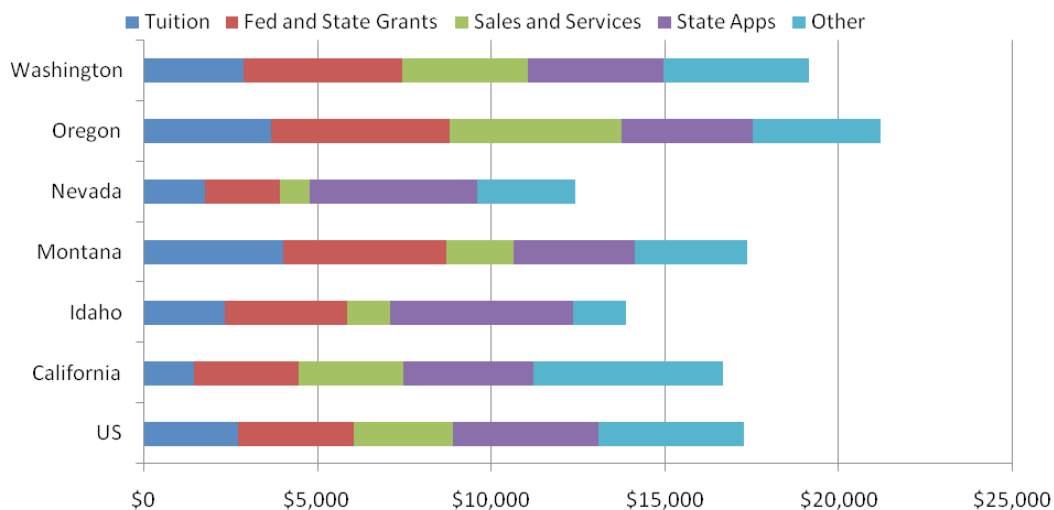
Where Do Schools Get Their Money?

While much of the commentary in the public focuses on tuition, it turns out that tuition is not a dominant source of revenue for schools in the US in general, and Washington schools are no exception. Chart 21 shows the magnitude of the various sources of revenue. The first thing to notice is that Washington public schools are affluent compared to those in neighboring states and the nation as a whole. In fact, Washington schools have the second most revenue per student, after Oregon, of any state in the region.

As you can see, Washington schools generate about the same amount of revenue through tuition as the national average, even though Washington schools have more overall revenue. Much of the difference comes from the relatively large component of federal and state grants. Another area where Washington (and Oregon) stands out is the large part of revenue derived from sales and services, about \$3,600, which means that Washington schools derive about \$750 more revenue from sales and services *per student* than the average school in the nation.

It is revealing to note that Washington schools only receive 74 cents in tuition revenue for every dollar of state appropriations that they receive. This accounts for the loud noises that schools make about potential cuts in appropriations, and indicates that schools are much more responsive to legislatures than they are the students, who are their nominal customers.

CHART 21
REVENUE PER STUDENT BY SOURCE, PUBLIC DEGREE GRANTING INSTITUTIONS, 2003-2004

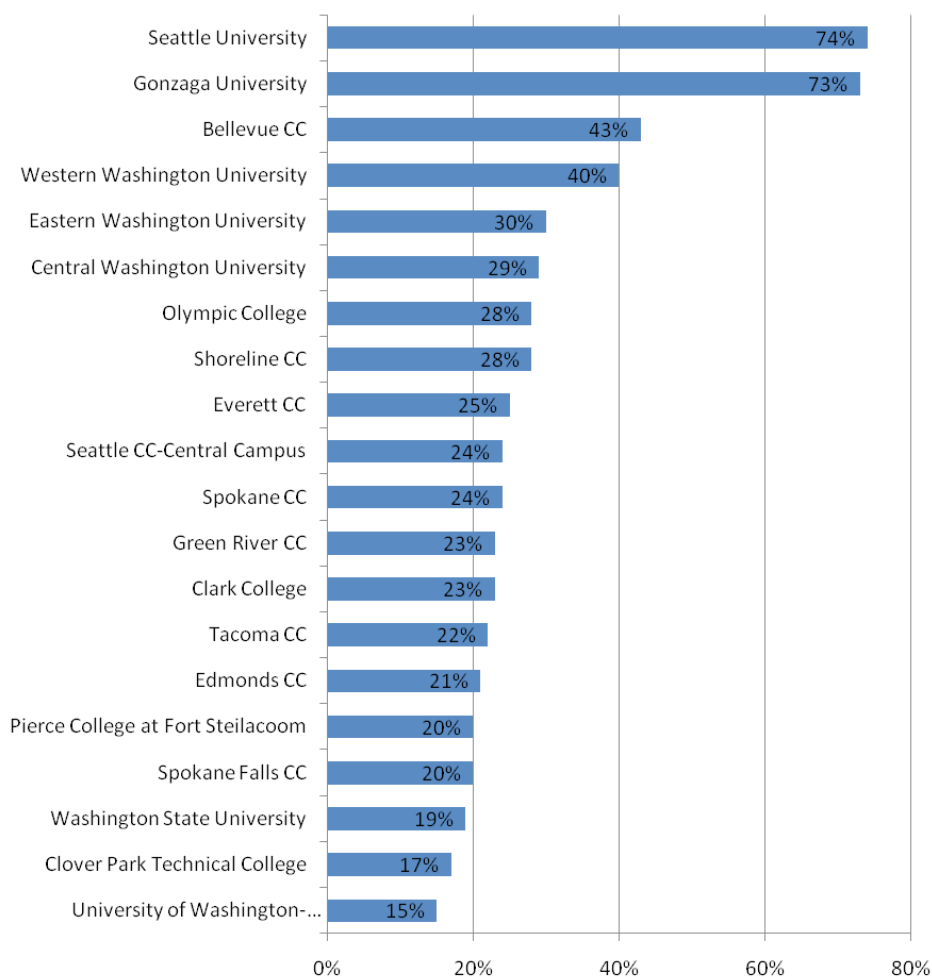


Source: Digest of Education Statistics. CCAP Calculations.

Looking at the tuition revenue for each of the schools separately (see Chart 22), it is clear that tuition is not a dominant source of revenue for most schools. In fact some schools such as Washington State University and the University of Washington get less than a fifth of their core revenue from tuition charges. Others, like Gonzaga and Seattle, get almost three quarters of their core revenue from tuition.

Given the small size of tuition as a percent of core revenue at most schools, even large increases in tuition revenue would not have a proportional impact on total revenue. In other words, while changes in tuition can have a dramatic effect on students, they would not have dramatic effects on the overall finances of most of the schools unless they were truly substantial in magnitude.

CHART 22
TUITION AND FEES AS A PERCENT OF CORE REVENUES, 2004



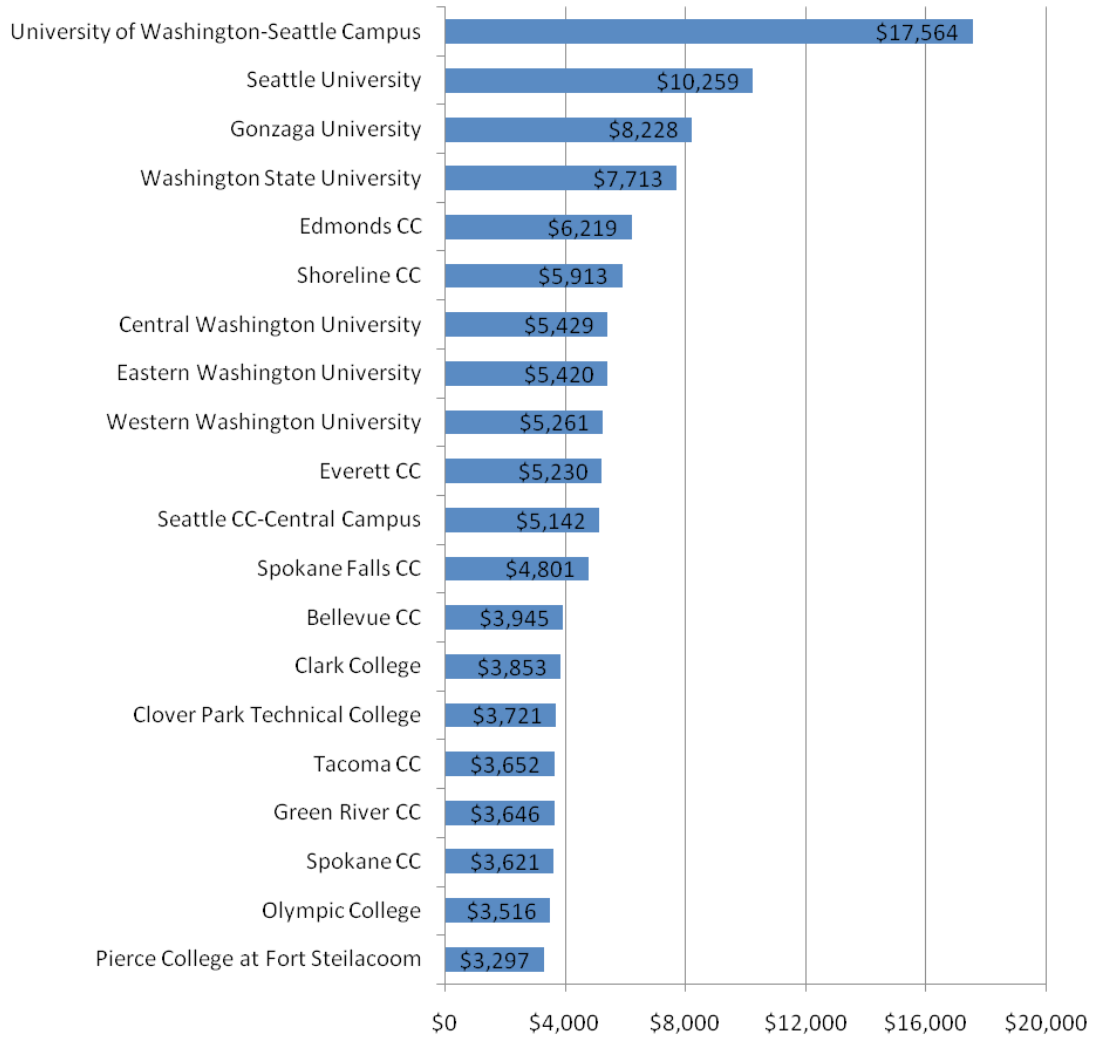
Source: IPEDS, CCAP Calculations.

What do schools spend the money on?

Now that we have a sense for the source of funds for schools, we can look at how all this money is spent. Instructional costs per student, shown in Chart 23, vary widely. For instance, instructional costs per student are \$7,713 at Washington State University, and \$17,564 at the University of Washington. This is based on self-reported data from the schools to the U.S. Department of Education, and it should be noted that some of the discrepancies between institutions may reflect differences in how certain expenditures are categorized by the institutions themselves. Nonetheless, even with this caveat, the inter-institutional variations in spending are enormous, even if one confines the analysis to public institutions. Does the huge differential between Washington State and University of Washington imply that students get more than twice as much instruction at the University of Washington? Our surmise is that the answer is probably not. The University of Washington may or may not have smaller class sizes, which would require more instructors, but one thing that they definitely have is more distinguished (and costly) professors. It is important to note that they distinguish themselves primarily through their research, not through their teaching. Thus some “instructional costs” likely include research activities, at least those funded by the institution through low teaching loads for faculty (data on faculty teaching load are not published, to our knowledge, another sign of a troubling lack of transparency in the operations of universities).

Part of the answer for such large disparities is no doubt related to graduate instruction, which is vastly more costly than undergraduate instruction. What does it cost to train a graduate student at the University of Washington? The available data do not tell us, but it is plausible that it often exceeds \$50,000 a year. The taxpayers of Washington might ask: are we overdoing our subsidization of graduate education, particularly since a large portion of graduate students are probably non-Washingtonians, and will not continue to live in the state after graduation? While graduate education brings prestige, and often federal research grants, given the extremely high costs, is all of it justifiable on cost-benefit grounds?

CHART 23
INSTRUCTIONAL EXPENSES PER STUDENT (FTE), 2004

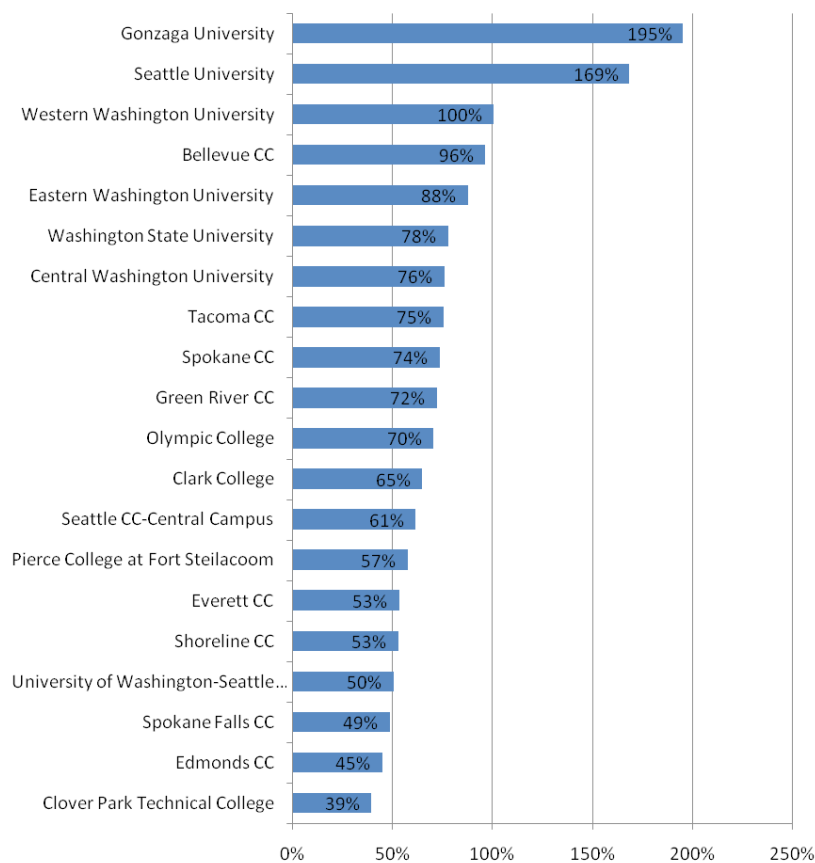


Source: IPEDS. CCAP Calculations.

It is interesting to examine how much of instructional costs are covered by tuition and fee revenue at various schools (see Chart 24). Again, one is struck by the vast differences, even at seemingly similar schools. Tuition charges at the University of Washington only cover about half of instructional costs, whereas at Gonzaga, they cover instructional costs almost twice over. At Western Washington, tuition exactly covers instructional costs.

This raises an interesting question: why is instruction largely financed by tuition charges at Western Washington, but not at the University of Washington? The answer, hinted at in Chart 23, is that instructional costs vary much more than tuition costs. But instructional costs don't vary primarily based on the quality or quantity of the undergraduate education offered, but rather based on the amount of research conducted by faculty and the extent of graduate programs. While external grants and federal research money offsets some of these extra costs, it would appear that Washington taxpayers are still left picking up much of the bill.

CHART 24
TUITION AND FEE REVENUE AS A % OF INSTRUCTIONAL EXPENSES, 2004



Source: IPEDS. CCAP Calculations.

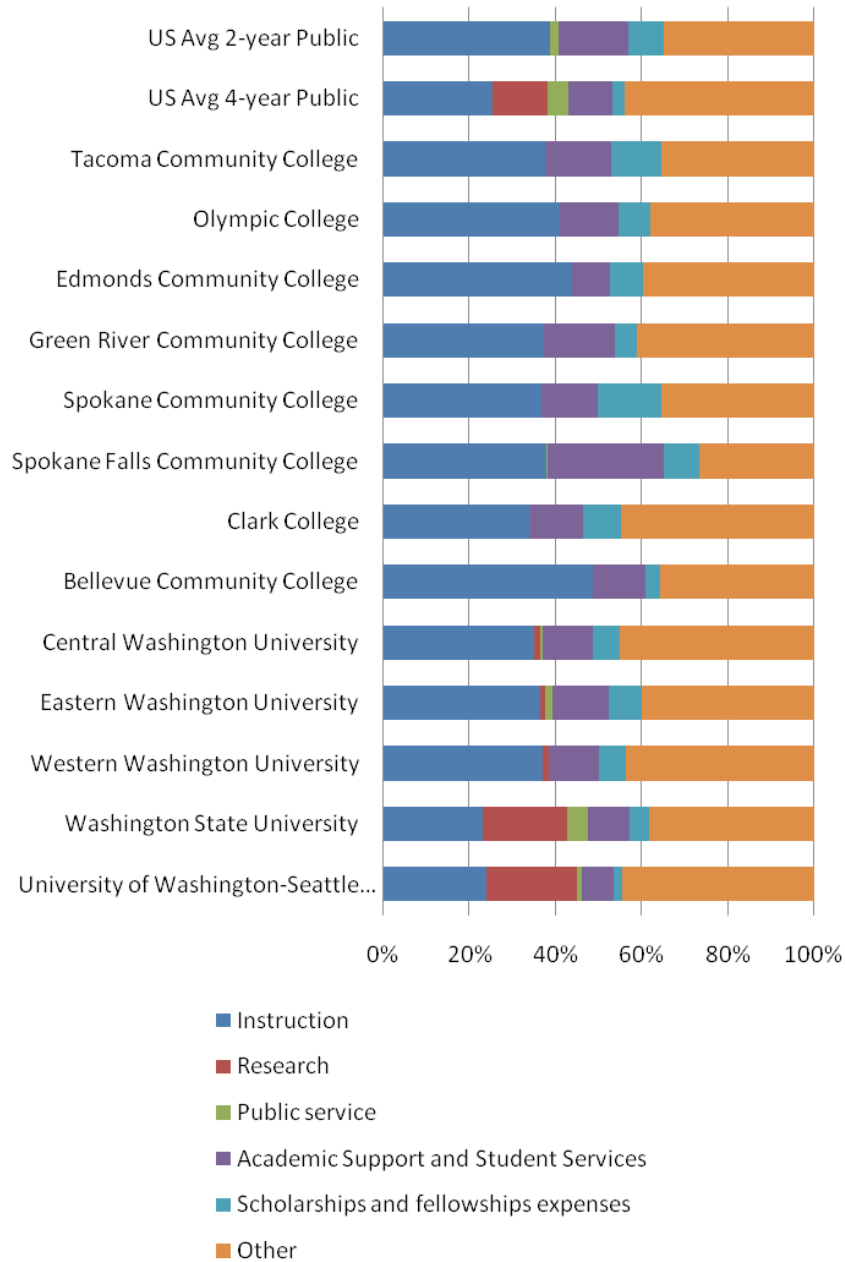
Chart 25 breaks down the expenditures of schools by category. It should be noted that the breakdown between instruction and research is not as clear as one might think. Research refers to “expenses associated with activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit within the institution. The category includes institutes and research centers and individual and project research.” What this means is that most professors salaries are counted under instruction, even though for many of them, the majority of their time is spent on research. We also need to clarify what falls into the category of “Other.” The category includes institutional support, operation and maintenance of plant, depreciation, auxiliary enterprises, hospital services, independent operations, and other expenses deductions.

Unfortunately, many schools, especially private ones, do not report their expenses broken down by category. Nevertheless, we can gain some important insight by examining those that do.

The first thing to note from Chart 25 is the shockingly low percent of expenditures that goes toward instruction, especially in light of the fact that much research is counted as instruction. At both Washington State and the University of Washington, not even a quarter of all expenditures go towards instruction. Even at 2-year schools, the figure rarely reaches even 50%. Instruction appears to be almost a secondary claimant on scarce resources at many institutions. Equally surprising is that the other category accounts for so much of spending. At Central Washington University, close to 50% of all spending goes towards “other.” While some spending within this category is certainly wise, 50% seems unreasonably high in the absence of uncharacteristic circumstances.

It seems clear that institutions of higher education, both nationally, as the US average figures attest, and within the state of Washington, have strayed from their mission, which is to educate students through instruction. Even the best performing community colleges in this regard only spend half of their funds on their core function. Given this sad state of affairs, it should not be surprising that schools are constantly seeking more funds by rising tuition. They are treating students, their customers, as cash cows to fund a multitude of “auxiliary enterprises” and “independent operations.”

CHART 25
CORE EXPENDITURES OF WASHINGTON SCHOOLS, FY 2005



Sources: Digest of Education Statistics, IPEDS. CCAP Calculations.

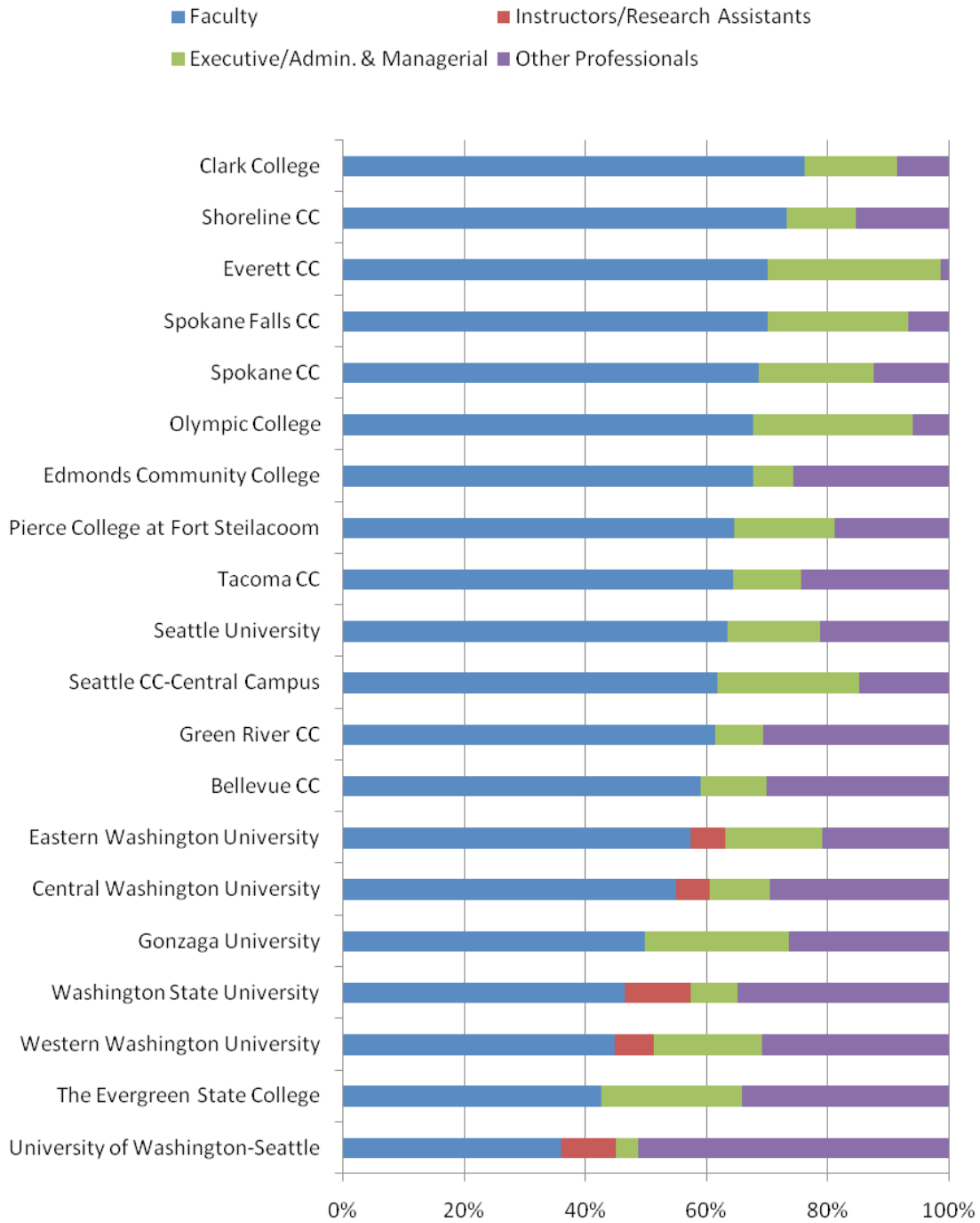
If so little money is spent on instruction, where is the rest of it going?

So if large chunks of money are not going to instruction where is the money going? One thing we can look at is the proportion of staffing levels by position. Chart 26 shows the staffing level of schools by position. The “Other professionals” category includes non-faculty professionals, technical, paraprofessional, clerical, secretarial, skilled craftspersons, service, and maintenance staff.

While some caution is warranted in drawing conclusions, (medical schools for example require many staff other than faculty) Chart 26 clearly shows that faculty are not as dominant among the staff as one might expect. At 4 year schools, on average faculty do not make up even 50% of the workforce. At 2-year schools on the other hand faculty routinely reach 60% of staff and Clark College even approaches 80%.

Instruction and Research assistants make up a noticeable chunk of the labor force at many of the 4-year schools. This hints at another trend worthy of noting, the increasing tendency for classes to be taught by assistants rather than the faculty. Another point to emphasize is that the category of executive/administrative/managerial staff is surprisingly large. Chart 27 takes a closer look at this category, reporting the number of executive staff per student in 1993 and 2005.

CHART 26
STAFF BY POSITION, 2005



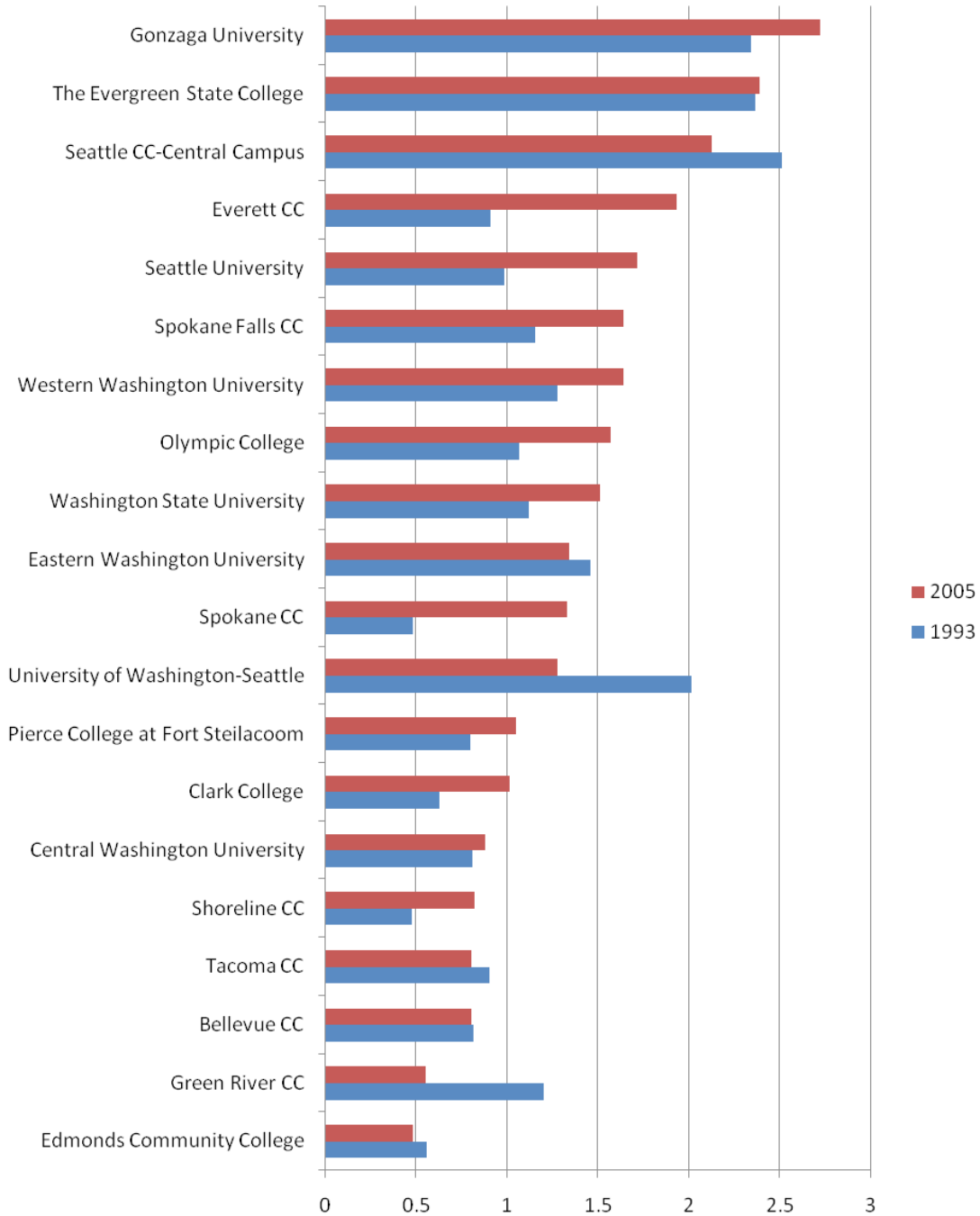
The change in executive/managerial/administrative staff per 100 FTE students from 1993 to 2005 is shown in Chart 27. At a majority of schools the presence of such staff significantly increased, more than doubling at Everett and Spokane, and showing significant increases at Seattle University, Spokane Falls, Western Washington, Olympic, and Washington State University. The salaries of these added staff members tend to be quite expensive, which of course drives up university costs. Yet, a sizeable number of schools experienced a reduction in the size of executive and administrative staff, the most impressive reductions occurring at the University of Washington and Green River. Other schools within Washington should take note of these cost cutting measures and increased efficiency. However, we have some concerns about the accuracy of this data. It is self reported, and the classification of administrative and executive staff could change over time even within a single institution as the individuals doing the reporting change.

With this huge caveat in mind, we ask: Why is it that there are over four times more administrative staff per student at Gonzaga than at Edmonds? And why have administrative staffing levels increased rapidly at Washington State while they have decreased at the University of Washington? There may be reasonable explanations, but nobody seems to even be asking the schools to explain themselves.

Keeping in mind the fact that the largest increases in enrollment occurred at 2-year schools, it is interesting to note that executive/managerial/administrative staff levels per student are generally lower at 2-year schools. Thus it is not only possible, but rather common for schools to expand while increasing support staff less than proportionally or not at all. Based on these data, those schools which are experiencing greater productivity for their executive/managerial/administrative staff are the schools that are increasingly educating more and more students.

Unfortunately, the U.S. Department of Education database does not allow us to provide timely analysis more recent than 2005, but it will be very interesting to see what happened in later years. Again, some possible differences in how schools define administrative staff suggest that these data should be interpreted with some caution.

CHART 27
EXECUTIVE/MANAGERIAL/ADMINISTRATIVE STAFF PER 100 FTE STUDENTS



Source: IPEDS, CCAP Calculations.

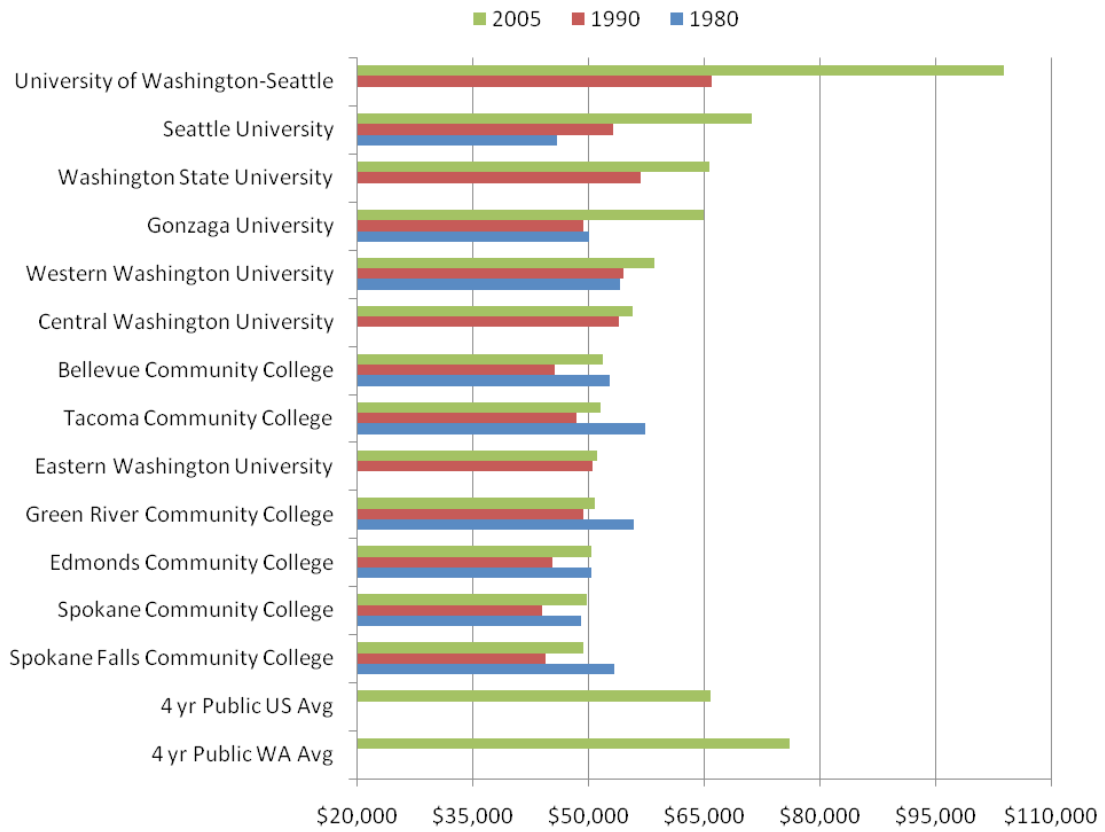
Faculty Salaries

Of course, one of the biggest expenses for schools is faculty compensation. Chart 28 shows that inflation-adjusted faculty salaries at most community colleges have seen little change in the last 25 years. Some faculty, such as those at Tacoma and Green River, have even seen decreasing salaries once we account for inflation. However, most 4-year schools have seen substantial increases. In the 15 years from 1990 to 2005, salaries increased by 57% at the University of Washington, 34% at Seattle University, 16% at Washington State, and 32% at Gonzaga. While faculty salaries have not increased dramatically, and are not out of line with rising professional salaries in general, combined with the rising fringe benefit expenses, they suggest that faculty costs have probably risen between 30-40 percent in the past 15 years or so at 4-year schools.

We can also examine what has happened to the number of faculty at schools. Chart 29 shows that for most schools, FTE faculty per student was relatively constant at community colleges and increased slightly at most 4-year schools (they declined at Gonzaga).

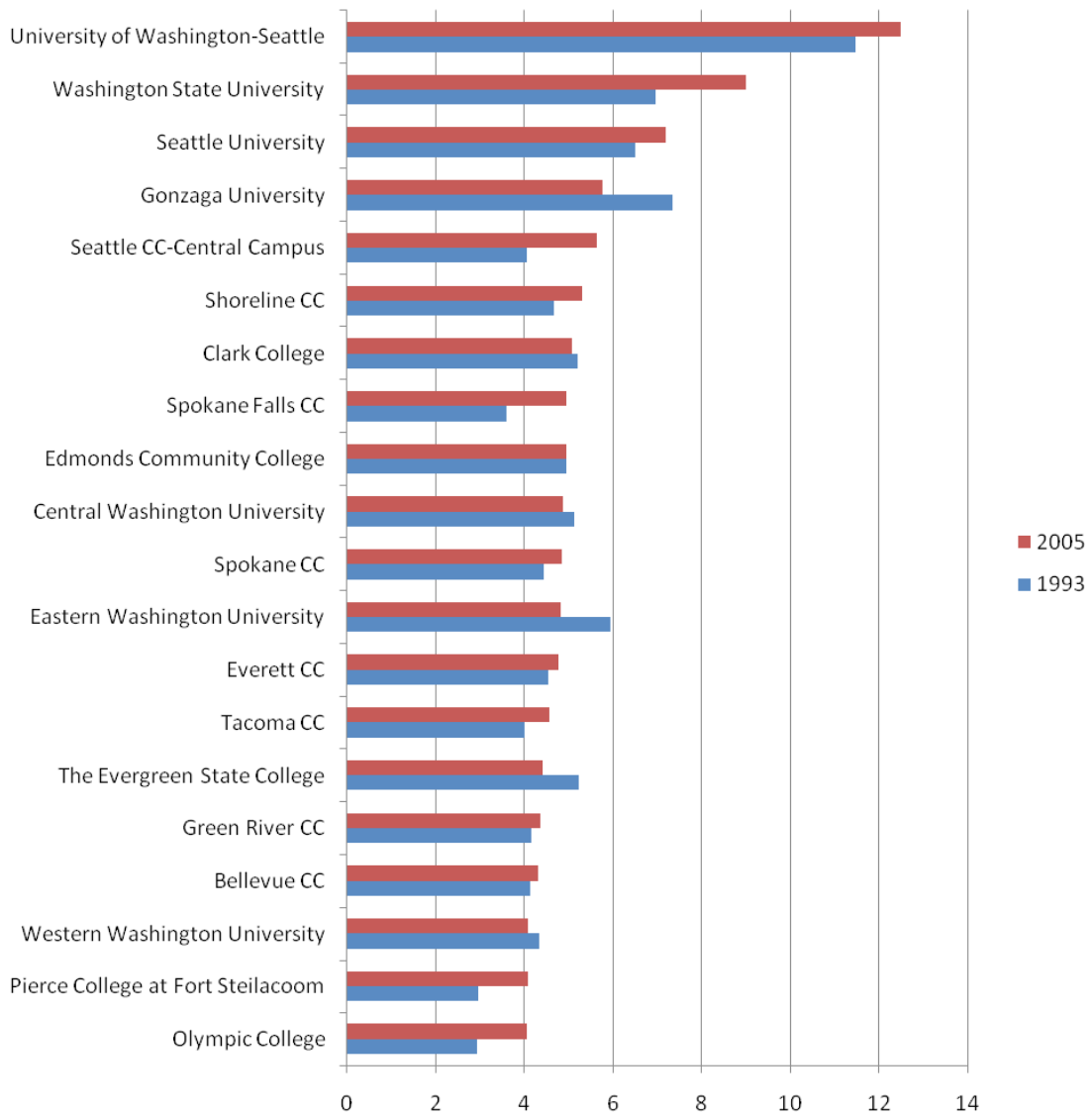
All this combined suggests that faculty are being paid more to provide less instruction. Rather than “doing more with less”—the hallmark of productivity advance—Washington faculty at 4 year schools seem to be “doing less with more.” The fall in the productivity of faculty (with respect to teaching), combined with higher salaries, is certainly one reason that tuition has been increasing, but cannot explain much of the explosion in tuition by itself. From 1990 to 2005 tuition increases of 108% at 2-year schools, 100% at 4-year public schools, and 69% at 4-year private schools have greatly outpaced increases in faculty salaries and changes in faculty staffing levels.

CHART 28
AVERAGE FACULTY SALARY, REAL (2005 \$), 9/10 MONTH



Source: IPEDS, Bureau of Labor Statistics. CCAP Calculations.

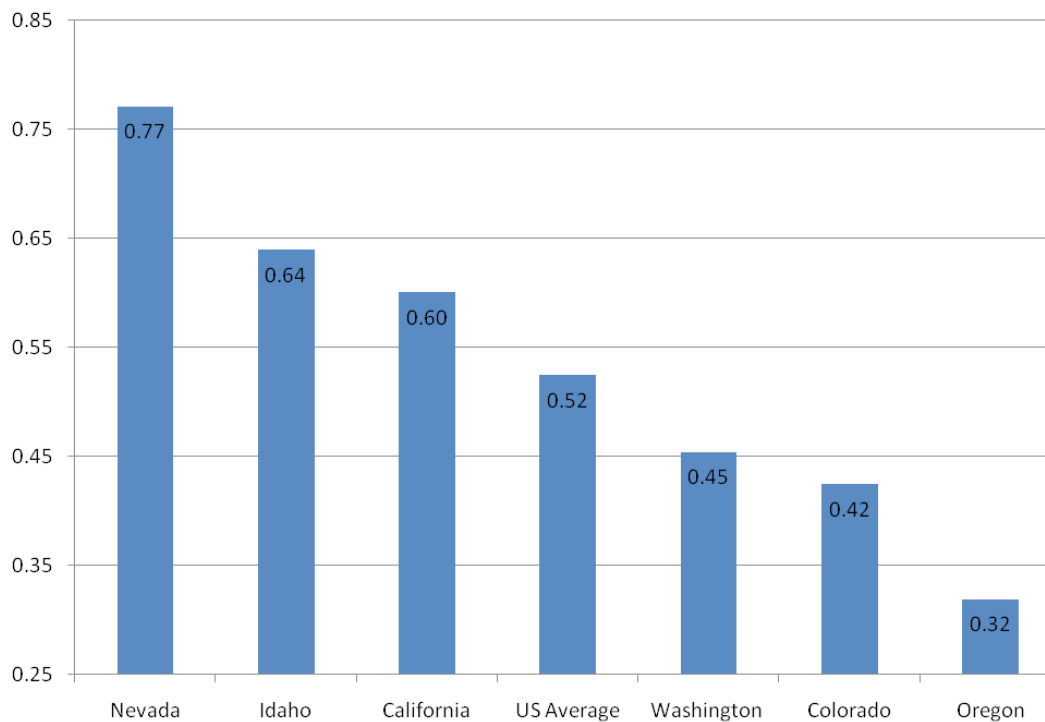
CHART 29
FTE FACULTY PER 100 FTE TOTAL STUDENTS, 1993 & 2005



Source: IPEDS, CCAP Calculations.

Since the cost of a university education for students comes largely in the form of tuition, one would expect that student tuition dollars should largely be spent to pay the salaries of the faculty members actually teaching them. After all, universities have a number of revenue sources (see Chart 21) besides tuition that help finance other areas such as new building, sponsored research, etc. However, an interesting exercise is to observe the ratio of a school's tuition revenue to faculty salary outlays. Evidence shows that faculty salaries are only a modest expense of tuition revenues. During the 2004-2005 school year, nationwide the salaries of full-time faculty accounted for only 52 cents of every tuition dollar at public schools, and only roughly 26 cents per tuition dollar at private schools. Charts 30 and 31 below show that Washington has been even less diligent in spending student tuition on faculty salaries than both the national average and most neighboring states. In fact, per dollar of tuition revenue, 55 cents at public and 78 cents at private institutions are used for something other than paying the professors that teach the students.

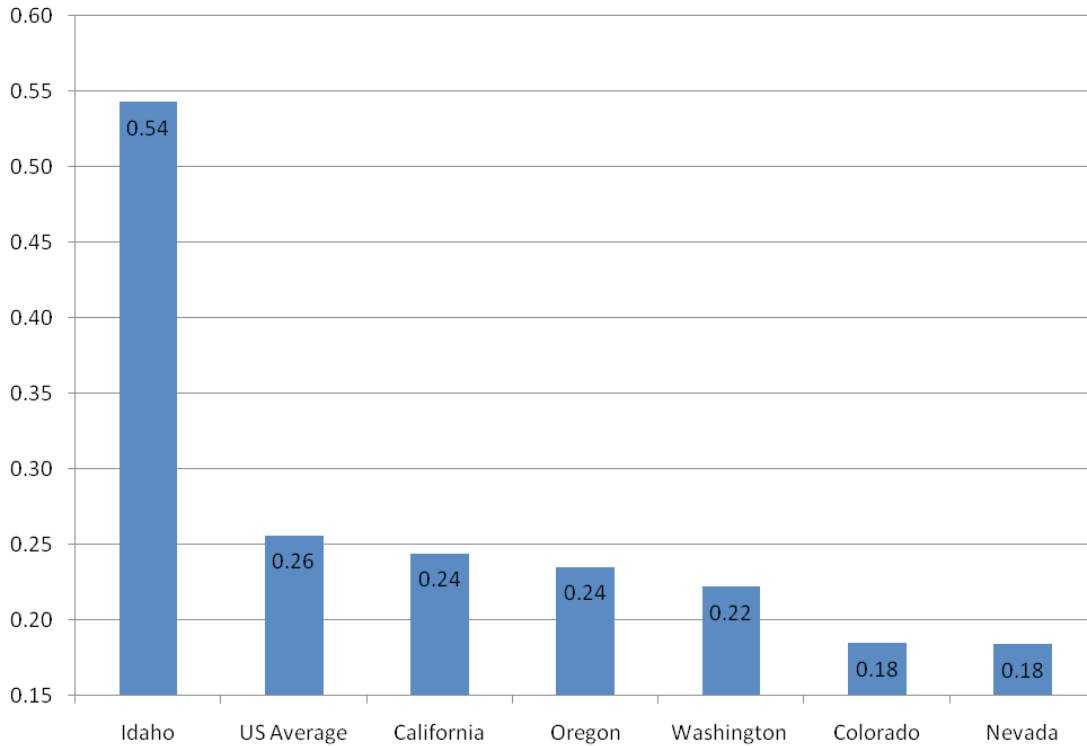
CHART 30
RATIO OF FACULTY SALARIES TO DOLLARS OF TUITION REVENUE FOR PUBLIC 4-YEAR INSTITUTIONS:
WASHINGTON AND NEIGHBORING STATES (2004-05 SCHOOL YEAR)*



*Weighted State Averages

Sources: IPEDS, CCAP Calculations.

CHART 31
RATIO OF FACULTY SALARY TO DOLLAR OF TUITION REVENUE FOR PRIVATE 4-YEAR INSTITUTIONS:
WASHINGTON AND NEIGHBORING STATES (2004-05 SCHOOL YEAR)*



*Weighted State Averages

Sources: IPEDS, CCAP Calculations.

Given these surprising results, we analyzed the extent to which tuition affects faculty salary in a regression, the results of which are shown in Table 6. The results indicate that, nation wide, higher tuition leads to increased professor salaries.¹² For every one dollar increase in average tuition, professor salaries at public institutions increase by two dollars. While other variables certainly play significant roles—namely school size and the state’s political composition—in explaining professor salaries, it appears that economic rent seeking (trying to acquire additional income without additional work effort) is also at work.

TABLE 6
PROFESSOR SALARY REGRESSION RESULTS

Dependent Variable: FULL PROFESSOR SALARY (PUBLIC)
Method: Least Squares
Sample: 150
Included observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	26075.59	16082.87	1.621327	0.1128
Average Public Tuition	2.011977	0.981492	2.049917	0.0470
State Appropriations per FTE	1.462817	0.516790	2.830584	0.0072
Personal Income RPC	0.621130	0.389430	1.594971	0.1186
% Union Membership	-45976.21	27799.67	-1.653840	0.1060
FTE Students	0.058081	0.012164	4.774992	0.0000
Student-Faculty Ratio	931.7130	573.2044	1.625446	0.1119
% Private Enrollment	-13900.79	12191.17	-1.140234	0.2610
% Voting for Kerry	47208.80	21916.64	2.154016	0.0373
Pell Grant Dollars per FTE	-6.354957	3.689424	-1.722479	0.0927
R-squared	0.705111		Mean dependent var	96998.22
Adjusted R-squared	0.638761		S.D. dependent var	13212.94
S.E. of regression	7941.400		Akaike info criterion	20.97442
Sum squared resid	2.52E+09		Schwarz criterion	21.35683
Log likelihood	-514.3606		F-statistic	10.62713

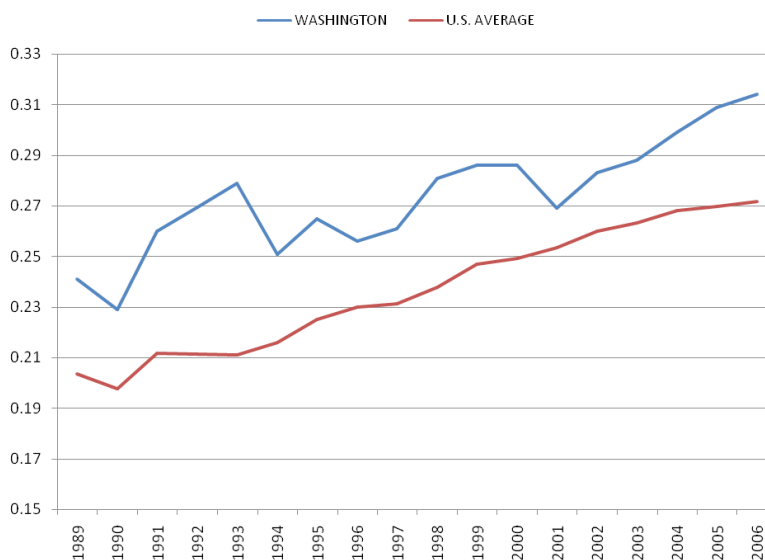
Does the state get its money's worth out of its appropriations?

Student Attainment and Effectiveness of Appropriations

With such enormous spending levels one would expect Washington's population at large to be highly educated, and to an extent this is true. The proportion of a state's 25+ year old population possessing at least a bachelor's degree is commonly referred to as a state's educational attainment rate. In 2006, slightly less than one in three Washington adults possessed college degrees, slightly above the national average of 27.2%. However, it should be kept in mind that the national average is an embarrassing statistic in itself.

Furthermore, it appears as though much of the credit for this achievement is not due to higher education within Washington. The reason for this is that despite having a middle of the road high school graduation rate (70.2% or 31st in the nation), very few high school graduates continue on to college. In fact, only 43.3% do, a rank of 49th in the nation (only Utah is worse in this regard) and far behind the national average of 55.5%. So Washington students "chance for college," found by multiplying high school graduation rates and college continuation rates, is only 30.4%, putting Washington 45th in the nation. In other words, Washington gets their better than average attainment by importing degree holders from other states, not by generating them internally. Why then, is the state spending so much on higher education?

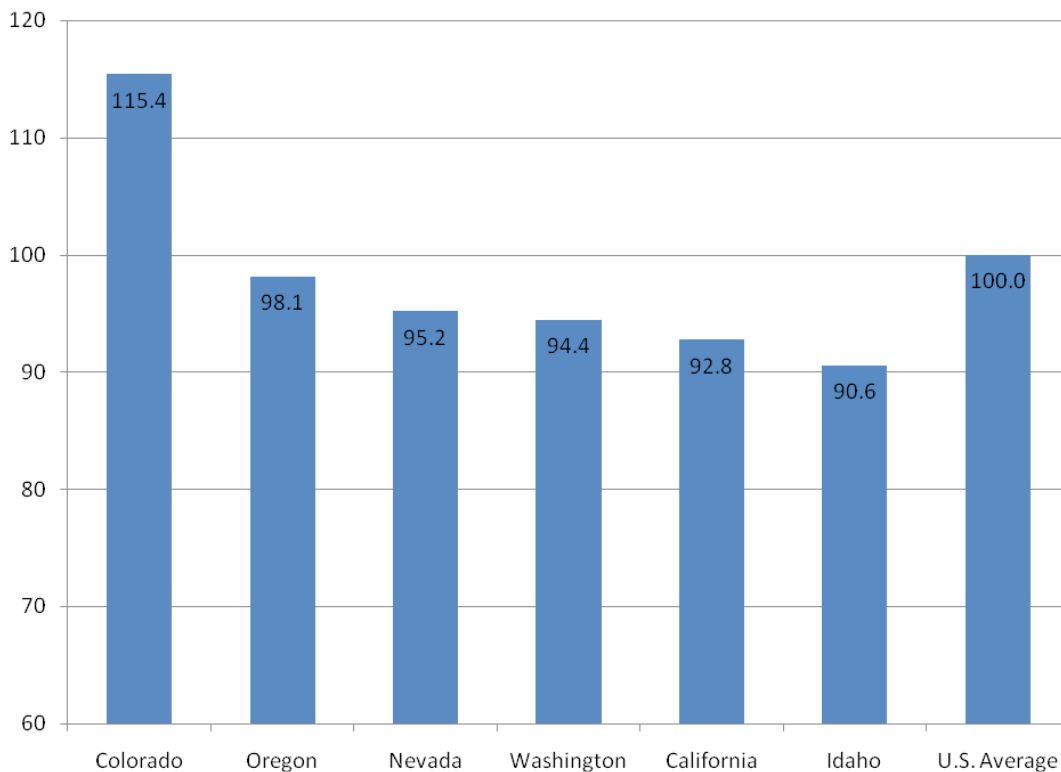
CHART 32
WASHINGTON VS. U.S. AVERAGE: EDUCATIONAL ATTAINMENT, 1989-2006



Source: U.S. Census Bureau, Postsecondary Education Opportunity, Digest of Education Statistics. 1992 data derived using linear interpolation.

To measure the effectiveness of a state's appropriations in maintaining a high educational attainment level among its population, we have calculated a statistic called the "Appropriations Effectiveness Ratio." This is an index figure calculated by dividing a state's attainment rate by the amount of state appropriations per capita devoted to higher education. It is then indexed around a national average of 100. As is evident from Chart 33, Washington's index score of 94.4 falls well below the national average and most peer states.¹³ In other words, the state of Washington spends significantly more money on higher education to increase the percent of the adult population with a degree than Colorado, Oregon, Nevada, or the average across the nation.

CHART 33
WASHINGTON & REGIONAL PEER STATES, APPROPRIATIONS EFFECTIVENESS INDEX, 2006



Sources: Grapevine Data System Illinois State University, U.S. Census Bureau. CCAP Calculations.

One of the reasons for such poor attainment is undoubtedly the terrible graduation rates at most colleges. While the average for Washington schools beats the national average comfortably, the national average itself is frightfully low – and that allows students six years to graduate from a four-year college. Overall, fewer than 6 in 10 Washington students actually graduate from college within 6 years of enrolling. This suggests that vast resources are being wasted trying to educate people who are unwilling or unable to exploit the opportunities of higher education. The sharp variation in

graduation rates suggests the cost effectiveness of schools cannot be ascertained by the look at per student spending data alone –the inputs into learning (cost of schooling) has to be related to outputs (whether students graduate, and ideally what they learned). It is quite shocking that only 41% of students graduate from Northwest, while more than 86% graduate from Whitman.

TABLE 7
WASHINGTON: 6-YEAR GRADUATION RATES OF SELECTED PUBLIC AND PRIVATE INSTITUTIONS
COMPARED TO STATE AND NATIONAL AVERAGES (2005)

Selected Public Institutions	2005	Selected Private Institutions	2005
University Of Washington-Seattle	74.3%	Gonzaga University	78.4%
Washington State University	63.2%	Northwest University	41.0%
Western Washington University	64.8%	Pacific Lutheran University	66.0%
Central Washington University	51.6%	Seattle Pacific University	66.7%
Eastern Washington University	47.8%	Seattle University	63.7%
The Evergreen State College	55.7%	University Of Puget Sound	72.9%
		Walla Walla College	49.5%
		Whitman College	86.1%
		Whitworth College	76.1%
State Average*		57.7%	
U.S Average**		52.9%	

*State Average derived from sample of 20 public and private institutions in the state.

**U.S. Average derived from sample of 1464 public and private institutions.

Source: *The Education Trust: College Results Online. CCAP Calculations.*

16 Ways to Reduce Spending on Higher Education in Washington

This report has suggested that Washington spends a lot on higher education relative to most other states in the Union. However, this abundant spending does not translate into an effective higher education sector, as evidenced by the fact that so few Washingtonian high school students will graduate from a college.

What we have failed to do to this point, however, is delineate some suggestions which can be used to reduce per student expenditure without reducing educational quality. In other words, we have said

productivity is lagging, but have not had specific suggestions how that might change. We remedy that omission below by listing 16 ideas for reducing the cost of higher education in Washington.

First, stop increasing institutional subsidies –indeed begin reducing them.

We have argued strongly that the alleged externalities justifying public subsidies for universities are far smaller than is usually claimed. Similarly, the notion that public subsidies promote economic equality is likewise questionable. The most lavish subsidies per student are concentrated on schools, most notably the University of Washington and Washington State, with comparatively small populations of lower income students. Thus the benefits to taxpayers of the large and growing subsidies to state universities are somewhat dubious, and probably less compelling than providing for other public needs –or even tax relief to Washington taxpayers.

As with health care, a major reason for the cost explosion in higher education is that third parties –such as the State of Washington – pay many of the bills. When someone other than the consumer or producer is providing funds to maintain an operation, there are few if any incentives for the primary parties to want to conserve resources or even improve quality. The non-profit nature of most higher education adds to the problem – there is no “bottom line” that provides goals for providers to achieve.

As other public needs grow, in particular medical care for the aging and indigent, the pressures on state government budgets will accelerate as well. Raising taxes to fund a relatively inefficient higher education sector is not a recipe for economic success. Hence natural tendencies are at work to reduce the higher education share of state budgets; we think this is a good, not bad, thing, because lavish spending has not achieved what its proponents promised.

Second, move to funding students rather than institutions.

There is considerable evidence that when states give money to universities, they use a large portion of the funds for purposes other than those that the policymakers assume the funds will promote. This report has documented this with respect to Washington. In particular, the leading *raison d'être* of most state universities is providing postsecondary training to young residents of the state. In a model where tuition levels are relatively high but where the state provides financial assistance in the form of vouchers or scholarships to students, schools are likely to be far more student oriented. The bias in favor of research and against teaching which prevails in most four-year universities is likely to be modestly reduced. Schools that are tuition driven will try harder to please their clientele – or lose revenues to competitors.

Vouchers can be tailored to meet social objectives. They can be made progressive, as once proposed by Robert Reich.¹⁴ Students from higher income families would receive small or even no vouchers, whereas those from low income families would receive generous scholarships that would lower the cost of college to levels at or lower than under the current system. Done appropriately, the progressive voucher approach can lower state outlays for higher education while expanding student access.

Vouchers can also be made performance-based. They can be cut off after four years of full-time study—providing enormous incentives for students to finish school in a timely fashion. They can be enhanced for superior academic performance. Student subsidies can be made proportionate to the expected gains the students are receiving from the education.

Third, provide market incentives to increase utilization of facilities and equipment.

University physical facilities are typically far less utilized than similar facilities in the for profit sector (either education or non-education related). For example, classroom buildings typically seldom operate at more than 25 percent of capacity in the summer months, or at other vacation periods (breaks at Christmas or in the spring). At many campuses, the facilities are only modestly used on Fridays, early in the morning, or in the evening. As a consequence, the capital costs to universities are higher than they could be with greater facility utilization.

Universities should be encouraged to charge various campus units for use of space. For example, suppose Washington State gives its various units an additional \$10 million a year in budget funds, but makes them pay rent on those facilities – rent that based on previous usage would total \$11 million. Then the central administration would charge high rental charges for use of classrooms from 9 to 4 p.m. on Mondays through Thursdays, but low rents for use at other times. Large offices with nice views would pay higher rents than small inside offices without windows. Units would have to rent space more in non-prime times to stay within the \$10 million of rental funds. Units insisting on providing prime time classes exclusively would have to reduce spending on something else. Units willing to teach lots of off-hours and summer classes could actually make money on the deal –paying less out in rent than the rental allocation. Of course, experience over time would force some fine-tuning in rents, but the idea would provide incentives to use facilities more efficiently. The same could be done with dormitory facilities –charge lower rents for use in summer months than during the year.

Fourth, align tuition charges more closely with demand and supply conditions.

There is always an issue whether state university tuition rates should be set centrally or by leaders at each individual institution. In principle, we favor the latter approach, as the demand for, and cost of, education varies significantly from campus to campus. Beyond that, however, the same thing applies within campuses. A strong case can be made to have differential tuition charges for each college within universities or, more radically, even for each course selected by students. It would cost less to take large lecture classes taught by assistant professors than small senior or graduate seminars taught by senior (and expensive) faculty.

In a free market economy, the price of engineering education would almost certainly be more than that of getting a degree in English. On the supply side, the cost of offering courses in English is relatively low –professors are relatively cheap, and there is virtually no supplemental high cost equipment needed to carry out instruction. Engineering, by contrast, is more costly. Professors are higher paid. There are substantial equipment requirements. On the demand side, since engineers command greater salaries than English majors, we would expect demand to be more robust for engineers. For engineers, demand is high and supply is low at any given price –factors that lead to

high equilibrium prices (where demand and supply are equal). For English majors, supply is high but demand is somewhat lower –factors leading to relatively low equilibrium prices. To try to get some of the efficiency that market signals send, universities might well increase tuition for engineering students, but lower it for English majors.

Of special importance, graduate tuition fees should rise relative to undergraduate ones, since in virtually every discipline the costs of offering graduate instruction is higher –classes are smaller and professors tend to be the most highly paid. The heavy subsidization of graduate education that currently occurs would become more transparent in a system of pricing services more in keeping with market forces.

Fifth, increase the proportion of students attending community colleges.

A significant reduction in per student costs in Washington could be obtained by simply increasing the portion of students attending two year as opposed to four year schools. Costs are dramatically lower per student in the two-year institutions, and an increase in the relative importance of two-year schools would dramatically reduce costs.

This can be illustrated by a little hypothetical but realistic example. Suppose it costs \$10,000 per student to educate community college attendees, but \$20,000 to educate students at four-year institutions. Suppose originally one-third of students attended two year institutions, and two-thirds attended four-year institutions. Suppose over the course of a few years, the ratio became one-half of students attending each type of institution. For every six students, originally it cost \$100,000 to educate them (\$20,000 for the two two-year students, \$80,000 the four four-year ones), or an average of \$16,667 per student. After the shift in enrollment, it costs \$90,000 to educate the same students --\$30,000 the three in two year institutions, and \$60,000 the three in four year schools. Average aggregate per student costs fall 10 percent, to \$15,000 per student.

To some extent, the shift towards two-year schools is already occurring in Washington, but it could be expanded dramatically. The case for doing so is enhanced by the high attrition rates among entering students at all types of institutions, as mentioned above. Lots of students go to expensive four-year schools and then quit or flunk out. There is abundant evidence that things like high school grades and college examination scores (ACT or SAT) are good predictors of success in college. Why not force students with low predicted success to attend two-year schools –or to pay a higher tuition if they insist on attending four year schools right out of high school – and then make it easy for them to transfer to four-year colleges after two years if they have done an acceptable job academically? The mechanics of freezing four-year undergraduate enrollment are easy –simply refuse state subsidies for more than the current level of enrolled students, forcing increases in enrollment to show up in the two-year institutions.

Sixth, make it easy and not-costly to transfer between Washington public institutions.

Following from the previous point, students correctly perceive that it is costly to transfer from college A to college B. Typically, the second institution denies credit for some of the work taken at the first

school –prolonging the student’s education and increasing the cost of a degree. Often the reasons for the denial of credit have little true academic rationale. For example, institution A might require students to take a course in American history as part of its general education requirement, while institution B requires a course in Ethics. A student transferring from A to B must now take Ethics, even though she has a superior background in American history. Both subjects are solid, legitimate parts of a general education curriculum, but a student is, in effect, penalized by the non-conformity of the curriculums of the two schools. New Jersey recently required state schools to accept all courses with passing grades from other state institutions –period. There are some arguments against this, but on the whole we should be promoting greater mobility of students. Greater mobility, in turn, should lead to higher ultimate graduation rates and greater competition between institutions – all good.

There are various ways other than a legislative edict similar to New Jersey’s to address this problem. Schools could work together on a common core curriculum, or at least on a list of courses that are acceptable as replacements for required core courses. Schools could move to a common numbering system –elementary microeconomic theory will be called Economics 1 at all schools, for example.

We are aware that institutions typically resist this recommendation on the ground it infringes on institutional autonomy, and leads to over-centralization of curricular decisions. These claims have some validity. Selective institutions like the University of Washington might think it cheapens their degree if they have to accept two years of credit from two year schools which teach courses that are less rigorous and use less demanding standards to measure performance. And probably some limits need to be placed on transfer of credit to deal with the most egregious possible problems. For example, courses that are remedial in nature and essentially offering material taught in high school should not be subject to transfer of credit (or, we would argue, award of initial credit in the first place). If a student transfers from Education at one school to Engineering at another (which, to be sure, is highly unusual), it is not unreasonable for the second institution to require a bevy of math and science courses traditionally required of all engineering students. Having said all of that, however, there should be a bias in the direction of accepting credit, a policy of liberal transfer, and an acute awareness of the costs that institutional rules have on desirable educational objectives, such as timely finishing of degrees and the promotion of both competition and cooperation between institutions.

Seventh, provide incentives to both students and institutions for timely degree completion.

Earlier, we suggested that with student vouchers, incentives could be provided for good performance, and vouchers could be withdrawn after, say, four years of full-time attendance. Similarly, institutional subsidies should be cut off for all students with greater than four-year attendance. Both of these would encourage timely degree completion.

The problem also exists at two-year colleges and in graduate schools. The long time to complete a Ph.D. degree is a national scandal. Harvard dramatically reduced the time for humanities students receiving a Ph.D. by simply penalizing departments with large numbers of Ph.D. candidates of eight, nine, ten or even more years standing. At the state level, subsidies should be withdrawn for Ph.D. candidates after no more than four years. Charging higher tuition for fifth or sixth year students is another option –these students tend to take large numbers of more costly advanced classes.

Eighth, promote good high school students taking college courses for concurrent credit.

The Advanced Placement program is an excellent opportunity for Washingtonians to take high school courses for college credit, and participation in AP courses should, in general, be encouraged for high school students with reasonably high probabilities for success in AP classes. Beyond that, however, an expanded opportunity for good high school students to take actual college courses during their junior and senior years in high school would potentially save dramatically on college costs, not only to the student, but the taxpayer as well. Some states (Ohio is an excellent example) have generally reported above average college level performance from the thousands of students who annually take college courses while in high school. Incentives need to be placed on colleges to admit such students, and high schools should not be allowed to impede such dual enrollments either directly or through other sanctions.

Ninth, encourage schools to get out of non-academic activities.

Universities and colleges are created to promote the production and dissemination of knowledge and ideas. Yet many schools devote vast resources and energies into doing other things –offering housing services, feeding thousands of students, entertaining the community in various ways, etc. As a rule, most of these activities can and are often provided in highly efficient manners by private providers. It is particularly inappropriate to subsidize these activities from general university funds, or, vice versa, to force students to pay high room and board charges and use surpluses to fund academic programs.

Universities can divest themselves of these programs in a variety of ways. For example, they can sell or engage in long-term lease arrangements with respect to dormitories or contract out food services to private providers. Some activities, of course, have both an entertainment and educational value –music and theater concerts may help students in those areas learn and mature, but also be a revenue source. Intercollegiate athletics are the most controversial area. This study is not the venue to evaluate the efficacy of these programs in detail. It is very difficult to justify on any externality grounds, however, taking funds provided by tuition or taxpayer support and diverting them into intercollegiate athletic programs, and limits on such subsidization may be justified.

Universities should be encouraged to get out of the services delivery business in a variety of areas not mentioned above –building maintenance is a good example. Although it is an academic activity, some schools are achieving savings by contracting out remedial education courses to for profit providers of educational services who specialize in remedial education and can provide the services more efficiently than the school itself can.

Tenth, reevaluate “institutional research” leading to higher teaching loads.

Although good statistics do not exist, over time teaching loads have declined in American higher education. The justification for the decline is usually to allow faculty more time to conduct research. There is no doubt that, in principle, doing research is good. Society advances through new discoveries, new ideas, and even new forms of creative endeavor. Yet research has its costs as well as benefits, and a close scrutiny of much institutionally funded research would show that costs often exceed benefits.

For faculty members, they can demonstrate to the broader national and international community competence through research –tangible publications that demonstrate a desire and an ability to extend our frontiers of knowledge. By contrast, knowledge about teaching competence is localized –there is not much inter-institutional discussion of teaching effectiveness. Hence careers are advanced, and, above all, tenure is gained, by “doing” research. Institutions have lowered teaching loads at great cost. The social goals of affordable instruction are being thwarted by the personal goals of university staff to promote career advancement via lower teaching loads.

The typical professor in the social sciences, humanities, and applied vocational disciplines (education, business, communications, etc.) publishes perhaps one paper a year in a fashion where there are, perhaps, 100 readers. Or, she gives a paper in a session of a professional association attended by, perhaps, 15 or 20 persons. A large majority of academic papers have a very limited audience, and deal with esoteric intellectual points of little relevance to the real world. This is no doubt less true in the natural and physical sciences and probably engineering, but even here there are diminishing returns to research investments.

We are dubious of legislative mandates of, say, a nine hour teaching load for all faculty. Nobel Prize winning researchers should not have to teach a lot and perhaps even nothing at all. Similarly, others have a talent for administration that should lead them to teach relatively little. A one-size-fits-all statutory teaching mandate is not advisable. At the same time, there is nothing inappropriate about providing incentives that encourage schools to teach more. It might even be acceptable to say to the non-research oriented schools that make up the bulk of the state’s higher education system: the average teaching load of full-time faculty with tenure shall be eight (or nine or ten) hours a week or more, and that hefty fines (reduced subsidies) will be imposed on those failing to meet the institutional teaching constraint. Institutions, then, can devise their own methods of meeting the mandate.

Eleventh, Reduce Administrative Staff

The evidence is conclusive that there has been a growth in non-instructional professional type employees in universities –many of whom could be called, roughly, ‘administrators.’ The number of vice-presidents, vice provosts, diversity coordinators, public relation specialists, etc., has soared, growing far faster than enrollments. These persons often perform usual functions, but they are tangential to the institutional mission of instruction and research. Corporate America in the 1970s and early 1980s fought growing international competition by downsizing administrative staffs, becoming leaner. Excessive bureaucracies tend to slow decision-making and make the organization less innovative and successful.

Again, a one-size-fits-all state-directive mandate is probably not wise. But perhaps state incentive payments could induce greater effort to pare administrative costs – even including bonuses to top university officials who demonstrate they can cut administrative costs without impairing the effectiveness of operations.

Twelfth, Reevaluate Use of Very Long Term Employment Contracts

We often read of long-term contracts of coaches for even university presidents that have to be abrogated because of personnel changes. The same thing occurs at a vastly larger level with tenured professors. The issuance of lifetime employment contracts is costly financially. The present value of a lifetime of salary payments and benefits to a newly tenured professor often is in the millions of dollars. Beyond that, tenured faculty members often successfully resist needed changes. Often changing enrollment needs mean a school has too many professors of classics or European intellectual history, but not enough professors with an interest in nanotechnology.

Schools are already hiring a larger proportion of non-tenured faculty, using adjunct instructors and graduate students as well. Whether that is a healthy trend is debatable, but it is propelled by the relatively high cost of tenure track faculty. Tenure does serve an important function – protecting faculty from retribution for their beliefs or their writings. But there are alternative means of offering that protection. Since tenure imposes costs, perhaps faculty demanding tenure should have to pay for it out of a fringe benefit budget of fixed sized provided to each teaching employee.

Again, a law abolishing tenure state-wide would be highly ill advised. Some faculty members probably already sacrifice some income for the job security that tenure provides – and that is fine. Other faculty members are able to provide a diversity of viewpoints about the human condition because of the protection that tenure affords. Nonetheless, perhaps institutions should be incentivized to reduce the proportion of instructional resources going to tenure track faculty.

Some schools have costly arrangements with labor unions that take on the nature of life-time employment contracts. While collective bargaining should be permitted, laws that provide an unlevel playing field for advocates of union and non-union positions should be discouraged, such as laws facilitating political contributions by labor unions without the consent of their membership.

Thirteenth, do more centralization of library facilities.

Many research institutions spend five percent or so of their budget on library resources. In the age of the Internet, going to the library to look in books and magazines has become dramatically less necessary. It is increasingly uneconomic for 15 libraries in a state to buy a given \$50 or \$75 book, or even subscribe to a journal for \$150 a year. The Google digitalization project and cooperative ventures like JSTOR have already had a revolutionary potential impact for lowering costs for publications. Libraries are already become giant Barnes & Nobles/Starbuck type places, with lots of comfortable chairs and computer stations to work, but not primarily a place one goes to derive information uniquely available at that site. Regional libraries serving multiple state universities are probably a good compromise between a radical abandonment of traditional library services and the maintenance of the status quo.

Fourteenth, do more central contracting of purchases.

Often schools can derive meaningful savings by jointly purchasing standardized products needed in large quantity such as computers, toilet paper, and chalk, to cite three examples. Schools should be encouraged to work with others to facilitate joint purchases. However, a costly and vast centralized purchasing bureaucracy would probably raise, not lower, costs, and should be avoided. There are limits to the economies of large scale purchasing.

Fifteenth, eliminate costly duplication of programs.

There are often three history Ph.D. programs located within 50 miles of one another and where market forces demand no more than one or certainly two. Institutional pride leads to a proliferation of courses and programs that sometimes is hard to justify on any rational cost-benefit grounds. It is probably not wise, in general, for a central administrative authority to forbid college A from offering major B, but it is not inappropriate for the state to declare that it is only to provide subsidies for students studying a given subject at no more than one or perhaps two schools, and for competition among the schools to determine which schools can offer the program.

Care must be exercised here. One of the strengths of both the Washington and American system of higher education is a diversity of offering and competition for students. Too much “coordination” of programs can stifle that. Yet when third parties (the state) are paying a lot of the bills, it can demand limits of the offerings of some expensive services. It is legitimate and proper for central coordinating bodies to limit state support in areas where widespread duplication of curricular offerings adds to costs.

Sixteenth, use technology to lower, not raise, costs.

In American business, technology is viewed as a way of reducing costs. In American higher education, it is commonplace for schools to tack on “technology fees,” arguing technology raises costs. That is usually because new technology (e.g., distance learning, computerized instruction) is superimposed on approaches to teaching similar to those used by Socrates 2,400 years ago.

For all their emphasis on research, schools do very little research into which teaching methods are most effective; for example, can hybrid lecture-discussion electronic technology teaching approaches in some cases lead to both higher levels of learning and lower costs. The substitution of capital (e.g., computers) for labor (e.g., faculty) has its limitations, and some human interaction between students and faculty is typically necessary and desirable. Nonetheless, colleges should be nudged into developing more cost-effective technologies. Incentives may be needed to prod reluctant faculty and administrators to act. Noteworthy, for profit schools operate at a far lower cost per student, typically, than do not-for-profit four year schools.

It may well be that progress has been made already in dealing with some of the suggestions cited above. Yet more can be done. Washington has a relatively high cost system of higher education, heavily financed by taxpayers. Reforms are necessary, and the points above are examples of areas where cost reductions can be made.

A Plea for More Outcomes Based Assessment and Transparency

It is extremely difficult to assess the performance of Washington higher education for a simple reason –there is little information on student outcomes. Do students graduating from Washington universities know materially more than when they entered as freshman? Are they better critical thinkers? Have their values improved – a greater sensitivity to the differences between right and wrong, just and unjust? Are they more engaged with society or even their family and friends than before? How are graduates of, say, Washington State University, doing five or ten years after graduation? What, in short, is the “value added” by the college experience? By and large we do not know the answer to that question.

It would seem highly desirable for higher education institutions in Washington (and the nation) to examine students in a fashion that provides some answers to these questions. There are standardized tests of generalized knowledge and/or critical thinking that can be administered: the Collegiate Learning Assessment, even the ACT and SAT administered again at the end of the college career. Even the National Assessment of Educational Progress exams given at age 17 could be administered to see if learning occurred. Similarly, the National Survey of Student Engagement can be used (and is used by many schools) to give us information on what students do while in college –how engaged they are.

In addition, schools can be far more transparent in conveying all sorts of information about their operations generally not reported in an easy to understand fashion. Detailed income statements and balance sheets should be issued annually, audited by outside accounting firms. If the press or a think tank wants to know how many shares of XYZ stock the University of Washington owns, or how much Professor X makes, or what the average teaching load of full professors is, that information should be conveyed promptly and accurately. Information on attrition rates, crime rates, postgraduate vocational success and the like ideally should be obtained and reported.

Students need this information to make more informed decisions as to where to go to school. The public has the right to know how taxpayer funds are being used. Donors have the right to know whether their funds are being used in accord with their intent. Universities are given special privileges, such as taxpayer subsidies, freedom from taxes, independence from political interference, etc. Whether those privileges are being abused or not is difficult to say without a full accounting of how resources are being used. Legislative action to encourage outcomes based assessment and transparency is worth considering, showing sensitivity to the desire of each institution to determine its own mission and goals.

Conclusions

Washington cares about its young people, and their future. This manifests itself in a large degree of public support for its system of higher education. But merely spending money is not enough – the question arises: is Washington getting good value for its public expenditures? This study presents evidence that is in some ways rather disturbing. Washington spends a lot on colleges, but relatively few of its citizens graduate from college. Moreover, the evidence suggests costs are rising

rather significantly over time. Staffs are typically increasing faster than student enrollments. For all the concerns about inadequate state support heard from university leaders, the evidence shows Washington treats higher education more generously than most of its neighbors or other American states, while in some respects it may get less in results.

One of the more common explanations given for tuition hikes lately is that there is not enough government support for higher education, so schools are forced to raise tuition to make up for the revenue shortfall caused by stingy state legislatures. This explanation can certainly not hold. Real and real per capita appropriations for higher education in Washington are higher than for many neighboring states, and in general often have risen concurrently with large tuition hikes.

Moreover, the relatively high appropriations in Washington have not led to low costs for students. Published tuition charges have risen sharply at Washington institutions. Even once we account for all of the federal, state, local, and institutional grants provided to students, the average financial burden (the net student tuition) has increased at 4-year public, 4-year private schools, and 2-year schools. Combined with the fact that spending at schools in Washington tends to be higher than in other states, this indicates that the relatively high levels of state appropriations in Washington have not served primarily to reduce student costs, but rather to increase spending levels at institutions in the state. From FY 2003 to FY 2008, state appropriations for higher education in Washington rose nearly 30 percent, well above both the national average increase of 23 percent and the rate of inflation and population growth in that period.¹⁵ The problem has NOT been a paucity of state funds.

More attention needs to be placed on making higher education less of a burden on both taxpayers and consumers. This paper suggests a number of areas where cost reductions often are possible. Higher education currently lacks the incentives or motivation to make the vigorous changes needed to make higher education a positive force for change and progress within Washington, though we are hopeful that the needed debates and changes will be forthcoming.

Model Legislation – Higher Education



AMERICAN LEGISLATIVE EXCHANGE COUNCIL



Higher Education Sunshine Act

Section 1. Short Title. This act shall be known and may be cited as the “Higher Education Sunshine Act.”

Section 2. Definitions. As used in this act, unless the context otherwise requires:

(A) “Intellectual diversity” is defined as the foundation of a learning environment that exposes students to a variety of political, ideological, religious, and other perspectives, when such perspectives relate to the subject matter being taught or issues being discussed.

Section 3. Annual Report. The [Board of Trustees, Regents, state coordinating council] shall require each public institution under its control to report annually to the Legislature detailing the steps the institution is taking to ensure intellectual diversity and the free exchange of ideas.

(A) The report required in this subsection shall address the specific measures taken by the institution to ensure and promote intellectual diversity and academic freedom. The report may include steps taken by the institution to:

- (1) Conduct a study to assess the current state of intellectual diversity on its campus;
- (2) Incorporate intellectual diversity into institution statements, grievance procedures, and activities on diversity;
- (3) Encourage a diverse variety of campus-wide panels and speakers and annually publish the names of panelists and speakers;
- (4) Establish clear campus policies that ensure that hecklers or threats of violence do not prevent speakers from speaking;
- (5) Include intellectual diversity concerns in the institution’s guidelines on teaching and program development;
- (6) Include intellectual diversity issues in student course evaluations;

- (7) Develop hiring, tenure, and promotion policies that protect individuals against viewpoint discrimination and track any reported grievances in that regard;
 - (8) Establish clear campus policies to ensure freedom of the press for students and report any incidents of student newspaper thefts or destruction;
 - (9) Establish clear campus policies to prohibit viewpoint discrimination in the distribution of student fee funds;
 - (10) Eliminate any speech codes that unduly restrict the freedom of speech; or
 - (11) Create an institutional ombudsman on intellectual diversity, or specifically charge an existing ombudsman with monitoring the state of intellectual diversity.
- (B) The report shall be distributed to the members of the Legislature no later than December thirty-first of each year.
- (1) The report shall be posted on each public higher education institution's web site.

Section 4. {Repealer Clause.}

Section 5. {Effective Date.}



AMERICAN LEGISLATIVE EXCHANGE COUNCIL



Higher Education Accountability Act

Section 1. To expand access to public information and be accountable to the taxpayers of the state of [], each public institution of higher education must annually report to the Legislature and in a prominent consumer-friendly location on its website, the following information on institutional profile, student and faculty engagement, student achievement, and institutional efficiency:

A. Institutional and student profile:

1. Institutional purpose and mission
2. Admissions standards
3. Clear, accurate, comprehensive and annually updated description of the student body profile including, but not limited to,
 - a. Number and percentage of students enrolled by residency
 - b. Incoming students' average ACT or SAT score
4. Tuition, fees and total cost of attendance information
5. Affordability factors to include average student loans, percentage of students receiving financial aid, average financial aid dollars awarded, etc.
6. Crime statistics

B. Measures of Student and Faculty Engagement:

1. Percentage of lower division classes taught by full-time faculty
2. Average teaching load by discipline (i.e. credit hours taught per student)
3. Amount and type of general education courses required for each degree program
4. Criteria for transfer to institution

5. Process for evaluating the effectiveness of each program and their desired student outcomes
6. Clear explanation of student outcomes expected by each program and how they are measured
7. Definition of what constitutes satisfactory academic progress for the institution
8. Percentage of faculty with terminal degree

C. Measures of Student Achievement:

1. Freshman to sophomore student retention rates.
2. Four, five and six year graduation rates. For purposes of this Act, graduation rates shall be based on the federal definition for the freshman-cohort rate (percentage of freshmen who entered during given academic year and graduated within four, five, and six years).
3. Transfer rates
4. Percentage of students taking remedial courses
5. Average time to degree
6. Average scores on externally validated, nationally benchmarked outcome assessments in core areas, including writing, mathematics, and general education, if applicable.
7. Measures of student satisfaction.
8. Measures of employer satisfaction.
9. Average scores on graduate school admission tests including GRE, GMAT, MCAT, LSAT, etc. and/or licensure exams including nursing exams, CPA, teaching, etc.
10. Admission rates for baccalaureate degree recipients into graduate programs.
11. Job placement rates by discipline.

D. Measures of Institutional Efficiency and Fiscal Condition:

1. Percentage of Educational and General (E & G) budget spent on instruction and academic support.
2. Percentage of E & G budget spent on research and public service

3. Percentage of E & G budget spent on student services.
4. Percentage of E & G budget spent on administrative support.
5. Percentage of E & G budget spent on operation and maintenance of facilities.
6. Ratio of administrative staff to total staff.
7. Measures of classroom and laboratory space utilization.
8. General Fund appropriations per in-state FTE student.
9. Total expenditures per FTE student.

Drafting Notes: Legislators should customize Act to account for and utilize existing data collection systems.

Data requested may not be applicable to all institutions in the state and legislators may wish to account for institutional differences.

In implementing the statute, state institutions should agree to and apply uniform reporting standards.

Endnotes

- 1 See <http://colleges.usnews.rankingsandreviews.com/usnews/edu/college/rankings/brief/tlnatudocbrief.php>, accessed February 6, 2008.
- 2 The problems facing Washington are not unique to the state. They are discussed extensively in the report of the Spellings Commission. See The Secretary of Education's Commission on the Future of Higher Education, *A Test of Leadership: Charting the Future of U.S. Higher Education* (Washington, D.C., 2006), available at <http://www.ed.gov/about/bdscomm/list/hiedfuture/index.html>.
- 3 See "Pell Grant Enrollments at America's "Best" Universities and Colleges, FY 2000 to FY 2008," Post Secondary Education Opportunity, December 2007, p. 3.
- 4 See <http://colleges.usnews.rankingsandreviews.com/usnews/edu/college/rankings>
- 5 Ibid., pp.4-8.
- 6 See Intercollegiate Studies Institute's National Civic Literacy Board, *Failing Our Students, Failing America*. Wilmington, Delaware: Intercollegiate Studies Institute, 2007).
- 7 We have examined this issue extremely thoroughly, with increasingly sophisticated models using panel data with well over 1,000 observations. Most of the variables in the model are non-university determinants of growth added for control purposes.—e.g. the results also show that tax burdens and unionization are negatively associated with growth. Variables come from a variety of data sources, most notably the Bureau of Economic Analysis, the *Grapevine* at Illinois State University, and the U.S. Census Bureau.
- 8 Dependent variable data from the *Grapevine* Data System and the Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce. Independent variables come largely from the U.S. Census Bureau and National Center for Education Statistics (NCES).
- 9 Note that in this and other charts utilizing Integrated Postsecondary Education Data System (IPEDS) data, there are gaps in the years. Specifically, the years 1981-1983 and 1999 are not included.
- 10 Note that figures are "FTE weighted." This means that each school's figures are weighted by the proportion of full time equivalent students at the school in the fall of 2005. Thus the number reported is the weighted average, fixing the proportion of students at each school at its 2005 level.
- 11 The trends in Washington are similar to those nationally. See The College Board, *Trends in College Pricing: 2007* and the companion publication, *Trends in Student Aid: 2007*. Both are accessible through the College Board web site at <http://www.collegeboard.com>

- 12 Regression results for inter-state variations among full professor salaries at public 4-year universities. Dependent variable data from the *Digest of Education Statistics* (Table 244). Data for independent control variables is from a variety of sources, notably the *Grapevine* Data System, the Bureau of Economic Analysis, the *Digest of Education Statistics*, Postsecondary Education Opportunity and the U.S. Census Bureau.
- 13 More sophisticated regression results not included here account for other variables in addition to appropriations such as personal income growth, migration rates, poverty levels and household composition, without significantly changing the results.
- 14 Robert Reich, "The Case for Progressive Vouchers," *Wall Street Journal*, September 6, 2000.
- 15 See the Grapevine appropriations survey at Illinois State University, available at http://www.grapevine.ilstu.edu/fifty_state_summary.htm , accessed February 6, 2008.