"MAKING THE GRADE"

WASHINGTON HIGHER EDUCATION AND THE GLOBAL CHALLENGE

STRATEGIES FOR WASHINGTON STATE

FOR THE WASHINGTON LEARNS STEERING AND HIGHER EDUCATION ADVISORY COMMITTEES

SEPTEMBER 2006

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FOREWORD

Making the Grade, the title of this report, was chosen for the relationship it has to the recommended direction for Washington as it seeks to improve the performance of its higher education systems and advance its place in an increasingly competitive global economy.

In its report, "Rising to the Challenge of Global Competition," Washington's Global Competitiveness Council quoted Governor Christine Gregoire as follows:

> Washington is its own small nation in this new world economy and we are uniquely suited to succeed. We are innovative; we have the human capital, research institutions and the natural resources to take full advantage of the opportunities presented by global trade. I believe the role of government is to support and encourage creativity, innovation, new products, a world class education system and smart investing . . .Neither government nor business can do this alone. But, government can work in partnership with our business, agricultural and educational communities to build our own economic engines.

The dilemmas Washington faces were convincingly described by William Harris, Director General of the Science Foundation Ireland in a speech delivered in February 2006 in Seattle:

> If the technological revolution of our time began in America, led in part by companies and innovators in this state, America seems to have grown complacent with its success. It is at risk of letting the revolutionary development of talent around the world pass it by.
>
> . . . [Is] the investment in education in [Washington] ad hoc, or is it a strategic investment that recognizes today's competitive global realities and challenges the various levels of education to work together for the common good of the state? Does the state challenge its education system at all levels to be responsible by offering a more innovative and timely education than ever before?
>
> . . .

> America . . . is like the proverbial frog in the boiling water: Getting cooked without even noticing. I fear the same is true for Washington State.[1]

The only feasible direction for Washington is upward, building on the progress the state has made. The reference to grade in the title of this report, "*Making the Grade*," is not to 'grades' in the academic sense, although it is pertinent to those, but to the gradients engineers and railway designers confronted in the business of finding ways to move goods and people across the mountains that divided the country (the notice, "Prices slightly higher in the West" will be familiar to anyone raised almost anyplace west of Denver.) It was a tough job, and any locomotive that could not make the grade did not remain for long on the main line. The country would be very different today had the problem not been solved. As for Washington, it seems to be on the right track, but it has some serious climbing to do.

The recommendations of this report are offered accordingly. Some speak of different and dramatically new strategies and investments. Some will require more money. This is where the term 'investment' assumes special importance. This is a new and increasingly popular term when aspects of higher education 'funding' are concerned, different from 'funding,' which connotes sustenance rather than returns.

The title of this report also contains a reference to "higher education." This is deliberate, although the scope encompasses "postsecondary education" in all its splendor. The reasons begin with the awkwardness of the expression 'postsecondary'. It does not roll easily off the tongue, and although it has been around for about 35 years, with its genesis somewhere in the Beltway, it has never really caught on. Americans have never embraced it, and few, whether in or out of education, have accepted it in the sense of a seamless inter-segmental, inter-institutional, inter-process association that unifies all the disparate activities into something of common worth and value, although there has been a lot of talk over the years of that. The expression reeks of jargon, and it seems to sustain the gaps between the things it should include. To many it has become a code word for 'workforce training,' what used to be called vocational education. In this setting "higher education" usually applies to what the colleges and universities do and all matters academic; "postsecondary" applies to everything else.

In this sense rather than bringing equal value and commonality to the parts, it reinforces the existence of *postsecondary* education silos. The

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1 "State of Washington," Remarks of William C. Harris, Seattle, February 6, 2006.

Europeans speak of "Tertiary" education. We are speaking globally in this report, and "Tertiary" encompasses what we like to think of as postsecondary. We could live with that, and maybe in time we will. But for now, 'higher education' is used to encompass all this: its purposes include the preparation of people for careers, whether as poets or plumbers, or both.

The Washington Learns Higher Education Advisory and Steering Committees [with the official name of the advisory committee -- Higher Education -- so noted] have made the elimination of systemic silos a *cause celebre*. We support the campaign.

THE STUDY TEAM

This report is the product of a team effort. Each member played an important or lead part on at least one assigned component. Individual contributions and draft papers were reviewed by all members of the team; suggestions were offered and modifications were made accordingly. These papers then were blended into this report, so much so that it may be difficult to separate the initial contributions from the homogenized result, but it is nonetheless important to recognize the roles performed by the individual members of the project team. They are:

Dr. William Chance, Project Manager and Principal Researche::

William Chance is Executive Officer of the Northwest Education Research Center (NORED). He is former Executive Director of the Washington Temporary Committee on Education Policies, Structure, and Management; former Deputy for Academic Affairs and occasional interim Executive Director of the Washington Council on Higher Education; and former legislative staff with the Ohio General Assembly's legislative council. His project assignments included funding systems, governance related to fiscal policy, and expanded access. Chance also served as project manager for the project and among other things was responsible for melding material and writing the draft and final reports.

Peter Blake, Principal Researcher -- Governance Related to Fiscal Policy, with particular attention to the Virginia Model, and the Social and Economic Benefits of Education:

Peter Blake is former Secretary of Education for the Commonwealth of Virginia under Governor Mark R. Warner. Prior to that, he was Deputy Secretary of Education in that state. He previously worked on the staff of the House Appropriations Committee of the Virginia General Assembly with primary responsibilities for higher education and transportation. Before the General Assembly, he worked for the State Council of Higher Education for Virginia, the coordinating board. Presently he is the Deputy Chancellor for workforce programs with the Virginia Community College System. In the present report, Peter focused on governance, and funding policy, with particular attention to the Virginia Performance and Accountability Agreement Model and other governance alternatives. He also assisted with the review of social and economic benefits of education.

Dr. Jack Daray, Technical Advisor and Lead Researcher -- K-12 Cost Component of the Chalkboard Project:

Dr. Jack Daray currently provides consulting on education policy and finance to the Seattle and Spokane School districts and has been retained by the Microsoft Corporation to develop approaches for Microsoft's assistance to

American higher education in the era of global economic competition. He is a former staff member of the Washington House Appropriations Committee, Deputy Director with the HECB, and Budget Director and Policy Associate with The Evergreen State College. Dr. Daray also is a former Assistant Professor in the Department of Government, University of Puget Sound. In the present endeavor he served as lead researcher on the K-12 portion of the Chalkboard Project and as a technical advisor on the study responsible for advice and guidance on funding policy matters and data sources and interpretation.

James M. Furman, Senior Project Advisor:

James M. Furman is former Executive Vice President and emeritus member of the Board of Directors of the John D. and Catherine T. MacArthur Foundation. He also is a former Executive Director of Washington's first coordinating board, the Council on Higher Education, former Executive Director of the Illinois Board of Higher Education, and former Executive Vice-President of the Ohio Board of Regents. He served as a senior project advisor for the present study.

Dr. Donald E. Heller, Project Team Member – Tuition and Costs of Instruction:

Dr. Heller is Associate Professor and Senior Research Associate for the Center for the Study of Higher Education at Penn State University. Prior to his appointment at Penn State, Dr. Heller was a member of the faculty at the University of Michigan and a visiting lecturer at the Amherst and Boston campuses of the University of Massachusetts. He served as principal researcher responsible for the portion of the study concerned with tuition and student financial assistance policies.

Dan Keller, Technical Advisor and Lead Researcher -- Cost of Instruction Models and Higher Education Instruction Costs

Dan Keller is former Associate Director for Financial Affairs with the HECB and, before that, Senior Executive Policy Coordinator and Program Coordinator and Program Analyst with OFM. He served as lead researcher on costs of instruction models and the higher education cost dimension of the "Chalkboard" project; he also served as technical advisor on Washington budget and higher education funding issues.

Dr. Richard Lutz, Researcher -- K-20 Systems and Pre-Postsecondary Workforce Training:

Dr. Richard Lutz is an expert on workforce training at the secondary education level, with extensive experience in Washington State. He is a former school district superintendent. Prior to that, he was Assistant Superintendent of the Port Townsend School District responsible for curriculum, special education,

and career, vocational, adult workforce, and alternative education. Before that, he was Coordinator of Career, Industrial, Vocational, and Computer Education for the Everett School District. He also served as a member of the central agency vocational education staff when the technical colleges were under the Office of the Superintendent of Public Instruction. Dr. Richard Lutz conducted the research on "seamless education alternatives" in other states and P-20 systems.

Dr. Anne-Marie McCartan, Senior Project Advisor:

Dr. Anne-Marie McCartan is President of the Northwest Campus of Pima College in Tucson, Arizona and former Provost and Dean of Faculty of Richard Bland College of The College of William and Mary in Virginia. She also was vice chancellor for Academic Services and Research for the Virginia Community College System. She served as a senior advisor for the present study.

Dr. Paul Sommers, Principal Researcher --Workforce Training Funding and the Social and Economic Benefits of Education:

Dr. Paul Sommers is a member of the faculty at Seattle University and a former member of the research faculty at the University of Washington. He is an economist and a recognized expert in workforce training analysis and policy, with particular expertise in Washington and the Pacific Northwest. Dr. Sommers served as lead investigator for the workforce training and the social and economic benefits of education components of the study.

Dr. William Zumeta, Principal Researcher -- Enrollment Planning, Expanding Program Access, and Higher Education Governance as it Relates to Fiscal Policy

Dr. William Zumeta is Professor of Public Affairs and Higher Education at the University of Washington, serving on the project team while on sabbatical leave during 2005-06 with the National Center for Public Policy and Higher Education. He has studied and written extensively on public and private higher education both in Washington and nationally, most recently on the alignment of the fiscal system and public policy. Dr. Zumeta served as lead investigator for the capacity review components of the study and provided astute advice throughout.

Acknowledgment of their contributions also is called for in the case of others who were not actual members of the research team but who assisted in many ways. They include the staff of Washington Learns, Sarah Reyneveld, Shanon Byrne, Dana Richardson, and, of course, Ann Daley, the Executive Director. Marc Webster and Debora Merle of OFM also provided invaluable support and advice, as did Irv Lefberg and Carol Jenner, who are with the population forecasting division of that agency. Debbie Frankle of the National Center for Public Policy and Higher Education was especially helpful with data, charts and information, and patient in helping us work through technical problems

we sometimes encountered. Staff of other agencies, including the HECB, SBCTC, WTECB, COP, ICW, the public four-year institutions, and the Legislature also provided innumerable contributions and insights.

Another organization, The National Collaborative, provided invaluable assistance throughout. Most notably were Dennis Jones and Aims McGuiness of NCHEMS, which is part of the Collaborative, who shared thoughts and data on their experiences in Washington during the course of a Collaborative Policy Audit in which this state served as one of five pilot study states. Members of our study team met with these two and other members of the NCHEMS staff over the course of a two day visit to the NCHEMS office in Boulder. Many of the concepts advocated in this report, not the least of which is a public agenda for higher education, trace to this earlier work and those subsequent conversations.

A special note of gratitude is expressed to Dennis Heck, Chair of the Washington Learns Higher Education Advisory Committee, and to the members of this committee, Chris Alejano (UW student), Bernal Baca (Yakima Valley CC), Jim Bricker (SBCTC Board member), Phyllis Campbell (Seattle Foundation), Ray Flores (North Seattle CC), Sally Jewell (CEO REI and UW board member), Sharon Kinley (NW Indian College), Ray Lawton, CEO Spokane Printing; Whitworth trustee), Susannah Malarkey (Technology Alliance), Diana Mamerto Holz (Green River CC), Michael Mills (Morrison International Construction), Steve Mullin (Washington Roundtable), Michael Pavel (WSU), Michelle Reid (Port Angeles School District), Robert Segura (Tacoma CC), Betti Sheldon (former state Senator), Jane Sherman (WSU), David Spangler (former St. Martin's College President), Tim Stensager (Franklin-Pierce School District), Elizabeth Street (CWU), Beth Thew (Spokane Regional Labor Council, WTECB member), John Warner (Boeing, WWU trustee), Rep. Phyllis Kenney (D, Seatte), Sen. Cheryl Pflug (R., Issaquah), and Senator Craig Pridemore (D., Vancouver). The advisory committee received monthly progress reports as the study progressed, posed any number of pertinent and engaging questions, and developed their own findings and recommendations on matters of special significance. These are summarized at the appropriate places in the present report.

Many others, both in- and out-state, were interviewed and gave freely of their time and opinions, and still others offered advice on various aspects of the report while it was in development. Some prefer not to be identified; most would not mind. The names are too numerous to list here, but they know who they are, and so do we.

Most of these people influenced the study with their papers and opinions, but none, of course, is responsible for the conclusions we offer, or for any mistakes or omissions in or from the material that follows. We acknowledge this help with much gratitude.

Finally, one additional note here about the report's organization: it is a very detailed document (although it has barely skimmed the surface of the information and data pools). Hence, the "concluding chapter," containing findings and recommendations, has been brought forward from its more natural place at the end of the report. The rest of the report unfolds in what we hope is logical order.

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THE REPORT IN BRIEF

[*Note: This chapter is a summary of the full document, which follows immediately after. It also is published separately as a "Report in Brief." Hence, it is both an Executive Summary and an independent document. Those who may wish to proceed directly to the full report may wish to skip this chapter.*]

In its report, "Rising to the Challenge of Global Competition," Washington's Global Competitiveness Council quotes Governor Christine Gregoire as follows:

> Washington is its own small nation in this new world economy and we are uniquely suited to succeed. We are innovative; we have the human capital, research institutions and the natural resources to take full advantage of the opportunities presented by global trade. I believe the role of government is to support and encourage creativity, innovation, new products, a world class education system and smart investing . . . Neither government nor business can do this alone. But, government can work in partnership with our business, agricultural and educational communities to build our own economic engines.

The dilemmas the state faces were convincingly described recently by William Harris, Director General of the Science Foundation Ireland in a speech delivered in Seattle:

> If the technological revolution of our time began in America, led in part by companies and innovators in this state, America seems to have grown complacent with its success. It is at risk of letting the revolutionary development of talent around the world pass it by.
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> . . . [Is] the investment in education in [Washington] ad hoc, or is it a strategic investment that recognizes today's competitive global realities and challenges the various levels of education to work together for the common good of the state? Does the state challenge its education system at all levels to be responsible by offering a more innovative and timely education than ever before?

. . .

> America . . . is like the proverbial frog in the boiling water: Getting cooked without even noticing. I fear the same is true for Washington State.

According to the *Chronicle of Higher Education* [June 2005], in May 2006, five countries -- Armenia, Azerbaijan, Georgia, Moldova, and Ukraine -- were admitted to the Bologna Process, a program aimed at harmonizing higher-education systems across Europe. "This action means that 45 nations are now committed to the creation of the European Higher Education Area -- a region of shared academic standards, in which the universities play a central role in promoting Europe's culture and development." Participants in the process include all 25 members of the European Union, "which is trying to become the most competitive knowledge-driven economy in the world by 2010. . . The objectives include the synchronization of degree structures, with a first degree cycle of three years culminating in a bachelor's degree, and a second cycle for master's and doctoral degrees."

The water is heating up. The only feasible direction for Washington is upward, building on the progress it has made. The title of the report, "*Making the Grade*," was chosen accordingly.

The study purposes are based on the Washington Learns Steering Committee's statutory mandate to:

> *Develop recommendations for a new postsecondary education funding structure that identifies (1) how best to distribute current dollars and (2) whether additional funding is necessary to achieve Washington's higher education goals.*

To place the review in a global context, nine comparison states, Washington is the tenth, were selected to help establish metrics, (benchmarks), for where Washington is, where it needs to go, and for measuring its progress, or regress. These are called *Washington's Global Challenge States* [GCS]. The group includes the top eight states on the New Economy Index [NEI, 2002]:

- Massachusetts (1)
- Washington (2)
- California (3)
- Colorado (4)
- Maryland (5)
- New Jersey (6)
- Connecticut (7)
- Virginia (8)

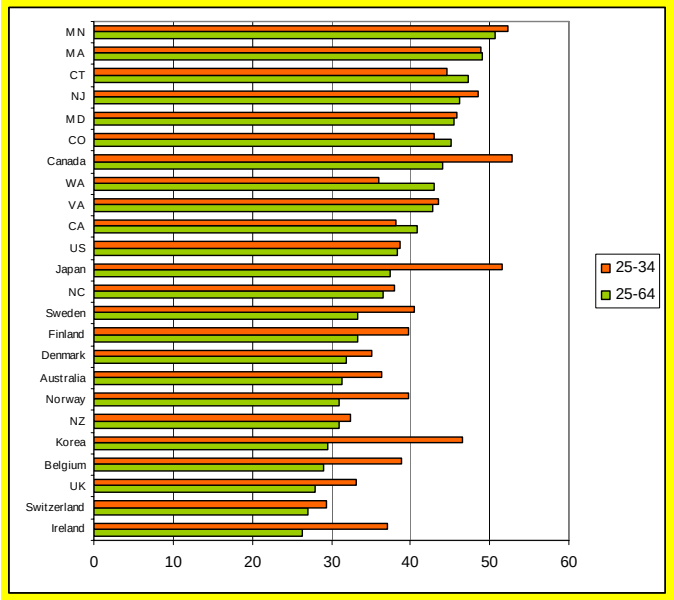
Plus:

- Minnesota (rank 13)

- North Carolina (rank 26)

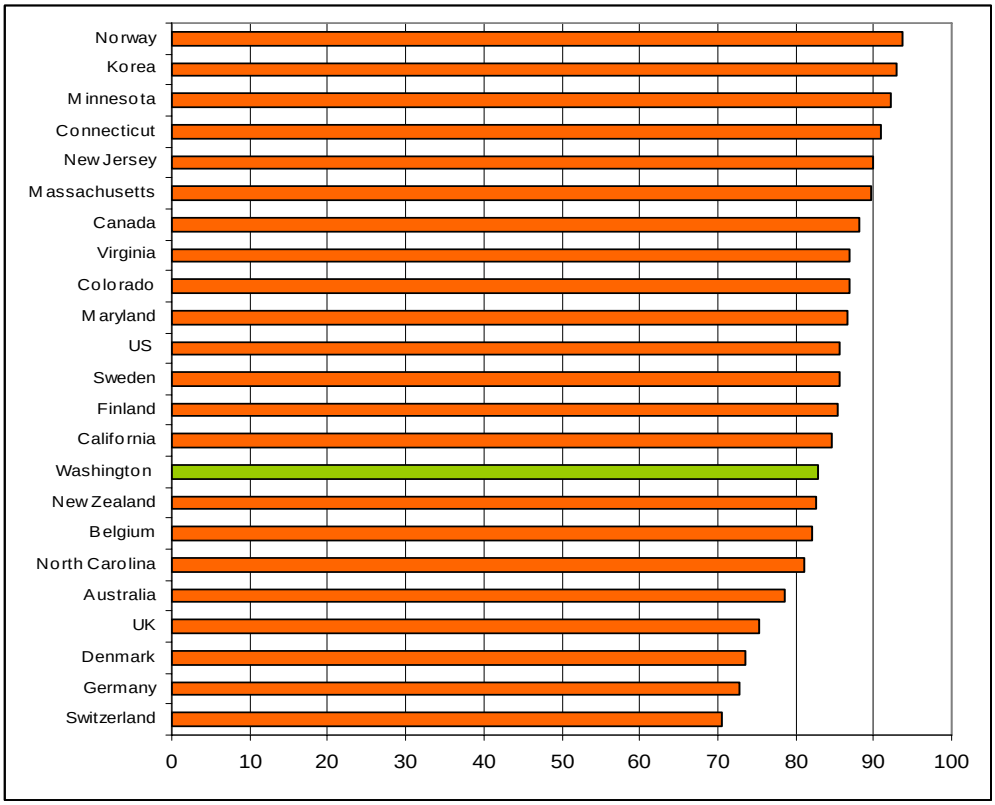
Washington and the U.S. have been at this for a while, so some of this state's numbers look pretty good. But a large percentage of the educated population is composed of people in the older age groups. An emerging theme of the global competition story concerns what is happening with the young segments: we are slipping in this department. The trend among adults age 25 to 34 years, compared with age 45 to 54 years, is shown on the following chart. The differences are significant.

Percent Adults with a College Credential 2003: Ranked by 25-64 Year-Olds
SOURCES: CENSUS AND OECD



Slippage also is apparent in the comparisons of young adults with a high school diploma. Washington ranks 14th 'globally' on this measure, behind eight of the nine comparison states. Here the graph includes both OECD nations and Global Challenge States:

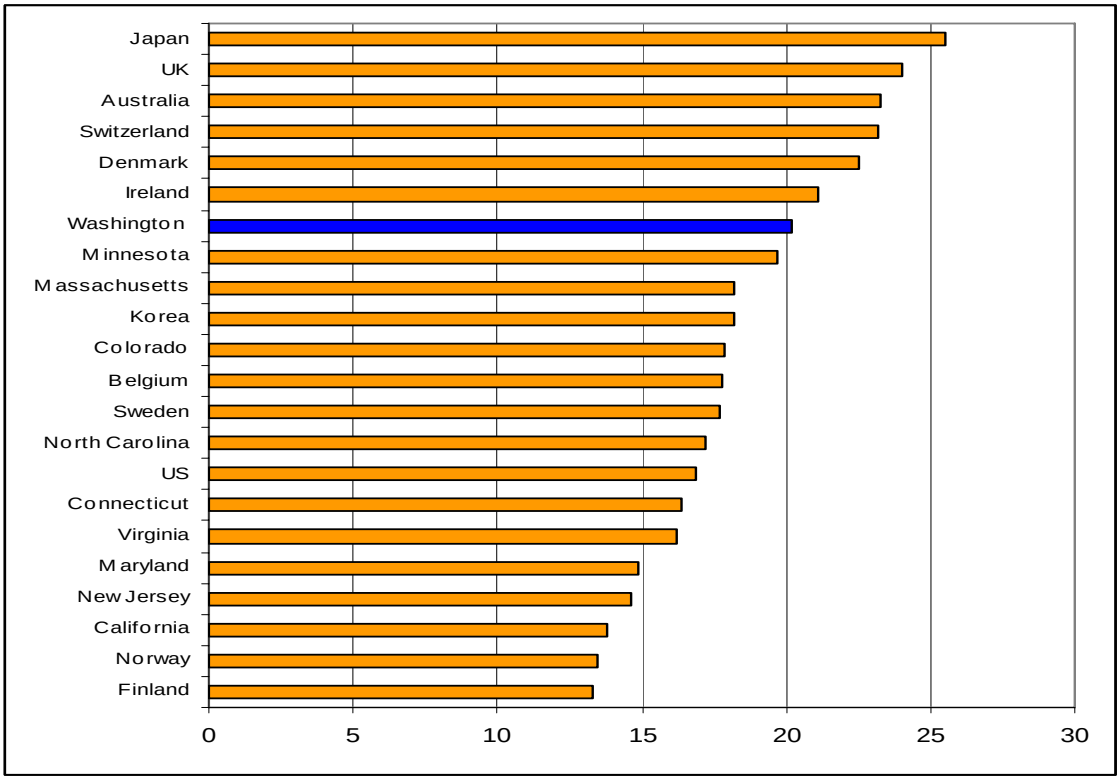
Percent 20-24 Year-Old Population with a High School Diploma (Including GED)



Washington does a little better in terms of the percentage of 18-24 year-olds enrolled in college, but is still behind Korea and Massachusetts. This state's exceptionally strong community college performance is a significant factor in this aspect of its performance.

The state is relatively competitive in terms of degree conferrals to enrollments, a measure of productivity. While behind Japan, Great Britain, Australia, Switzerland, Denmark, and Ireland, it leads the GC States and ranks well above the U.S. average. It leads the GC States on undergraduate degrees per undergraduate enrollment. It does well with the students it has. The problem for Washington, if it wishes to increase its overall numbers in this respect, is one of getting more people into higher education at the front end. This will require imaginative efforts and investments.

NUMBER OF UNDERGRADUATE DEGREES AWARDED PER STUDENTS ENROLLED IN UNDERGRADUATE DEGREE PROGRAMS
SOURCE: WAGNER; IPEDS, 2003



The issue of investments in education also brings up the matter of research and development funding. State spending for R&D in Washington and the GC States on a per capita basis in 2002 looked like this:

R&D EXPENDITURES FROM STATE AND LOCAL FUNDS
2002, PER CAPITA AND RANK
SOURCE: NSF

State	Per Capita	Nat'l Rank
California	$6.92	26
Colorado	$4.89	39
Connecticut	$4.30	42
Maryland	$11.05	14
Massachusetts	$5.94	35
Minnesota	$11.65	12

New Jersey	$6.12	34
North Carolina	$14.40	6
Virginia	$9.63	18
Washington	$2.87	47
GCS Avg.	$7.77	
U.S. Avg.	$7.95	

Washington trails everyone, including the nation, except for Alabama (51), Arizona (48), North Dakota, and West Virginia, on this measure. This is one instance in which there are a lot of 'Global Challenge States.' When the issue is R&D expenditures, Washington may not always be playing in the league it likes to think it is. The exception is the University of Washington. The rest of the state, in terms of funds from federal sources and funds from industrial and institutional sources, is hovering around the national average. When the subject is R&D funds from state and local sources, Washington really is not even at the table.

The following quote from *Postsecondary Education Opportunity* is worth repeating here:

> In nearly all of the industrial democracies of the world, populations of working class adults are rapidly becoming better educated. In some countries, such as Korea, Spain, Iceland, Norway, Canada, New Zealand, Ireland, France, Australia, Denmark, Sweden, United Kingdom, and Belgium, these gains are far greater than they are in the United States. If these gains continue over the next decade and beyond, then these countries will eventually have better educated workforces than will the United States. Norway may be the first country to surpass the United States in the proportion of its 25 to 29 year old population with at least a bachelor's degree. Korea, Spain, Ireland, and other countries could follow thereafter.

Washington needs to do much better. Nearly 25 years have passed since the education alarm call was sounded by the National Commission on Education Excellence in its report, *A Nation at Risk*. Higher education dodged the bullet in 1983 when the attention settled on K-12 education. American higher education was implicitly exempted, as people believed the United States led the world on all of the comparative indicators, as it probably did. Nothing lasts forever, and higher education's time has come. The new focus questions effectiveness in virtually all of the values it purports: Access, Affordability, Accountability, and

Accomplishment. It would be nice to think otherwise, but the risk the National Commission was concerned about has increased.

With attention, commitment, and effort, Washington could regain its place and even prevail in the global race, and that would be a good thing, but it could lose that race and with it another at home. Higher education contributes economic and social returns, benefits that accrue both to the individual and to the public. Awareness of this is crucial to the case for investments and equitable answers to the question of who must pay.

Benefits include a private dimension (increased earnings over the course of a lifetime), and others that are less direct: “disposition toward law observance,” “understanding of the basic principles for cultivating physical and mental health,” and “progress in human quality, freedom, justice, security, order, and religion” are among them. An educated public can help keep health care costs down (college grads take better care of themselves), increase economic progress (create jobs and companies), and provide increased tax receipts (they make more money and pay more taxes), to say nothing of the importance of an educated public to the civic culture and the success of this democracy. The essentiality of an educated population and workforce to effective competition in the global economy is one of the realities that led to the call for this study, but it is hardly the only one. Percentages such as those on the following list acquire special meaning:

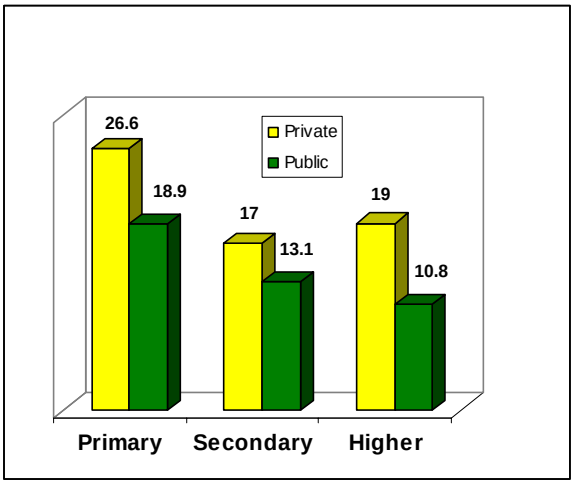
- While 24.4% of families living below the poverty level have less than a high school diploma, this is the case with 2.4% of those with a bachelor's degree or above. (Census)
- Although infant mortality rates are also associated with race and ethnicity, they decrease proportionately with education attainment for all reported racial and ethnic categories. (NCHS)
- Two-thirds of those with a bachelor's degree or higher regularly wear seatbelts while driving, compared with 39% of those without a high school degree. The figure for high school graduates is 41%, and for those with some college, 51%. (American Journal of Public Health)
- Of those women who were unmarried and had a child in the past year, 45.6% had not finished high school, 30.3% had graduated from high school, 19% had some college, and 6.1% had a bachelor's degree or higher. (Census)
- 73% of those with a bachelor's degree or above; 55% of those with some college; and 36% of those with a high school diploma knew what the first ten amendments to the U.S. Constitution are called, compared with 7% of those who had dropped out of high school. (NCES)

- 52% of those with a bachelor's or above; 44% of those with some college; 33% of high school graduates; and 19% of those without a high school diploma performed an ongoing community service during the year. (NCES)
- 91% of those with a bachelor's or above; 80% of those with some college; 68% of high school graduates; and 51% of those without a high school diploma voted in a recent national or state election. (NCES)
- 71% of male offenders and 83% of female offenders in the Washington prison system score at less than the 9th grade level on basic skills tests. 50% of offenders were unemployed prior to incarceration. (Washington Department of Corrections)
- 87.1% of the adults in Washington have a high school diploma, compared with 32% of the Washington State prison inmates. (Washington Department of Corrections)
- 85.5% of Temporary Assistance for Needy Family recipients have 12 or fewer years of education. (Department of Social and Health Services)

Education can be thought of as an investment much in the manner of physical capital or stocks and bonds. Individuals and the public make these investments, expecting an economic return in the form of higher wages and social benefits from the graduates. The higher wages generate higher tax payments: what goes around comes around.

This is the case in the United States and globally. A review of 73 countries in 2004 found that social returns compared to public investments in education ranged from 19 percent at the primary level to 13 percent at the secondary level, and 11 percent for higher education.

RETURNS TO INVESTMENT IN EDUCATION IN 73 COUNTRIES



Recognition and appreciation of how education plays out on almost every level of human activity is essential. The cost is a load we all must share, both individually and collectively. The study is predicated on this assumption.

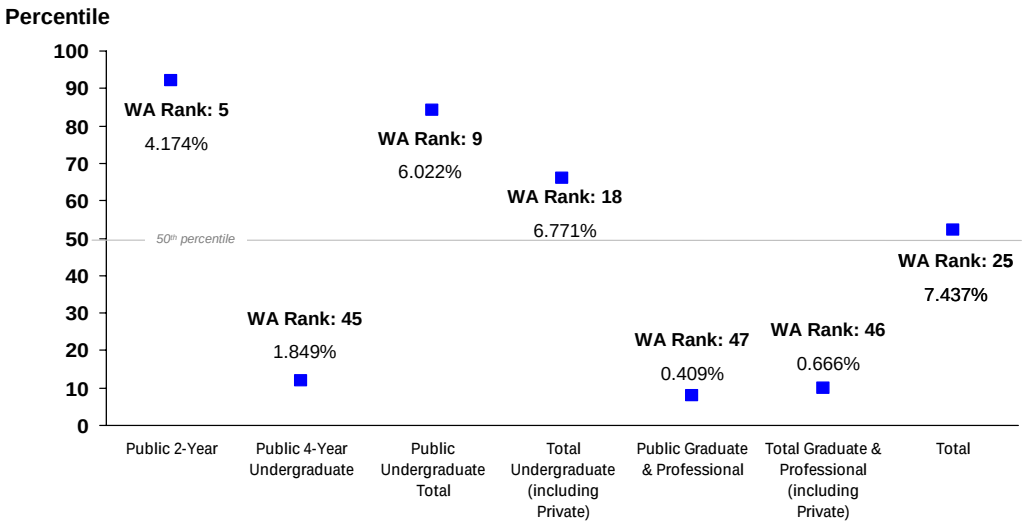
The report is organized around the specific topics identified in the call for the study. Some of these are macro in scope; others are more specific and detailed. The recommendations summarized in this summary for the most part are those directed to the former.

ENROLLMENT NEEDS AND DEMANDS

The following figure shows Washington's standing among the states in higher education participation at the different levels. Washington's large two-year college sector is represented in its high ranking in participation at this level (fifth) and in total public undergraduates (ninth). But the state ranks 45th in public four-year undergraduates and 18th in total undergraduates, including the private sector. At the graduate and professional level Washington is in the bottom five states whether or not private institutions are included. When these disparate performances are aggregated, the state's standing is right in the middle at 25th among the states. There has been little change in these rankings over the more than twenty years since the HECB and its predecessor agencies first noticed them and sought to inspire substantial improvements.

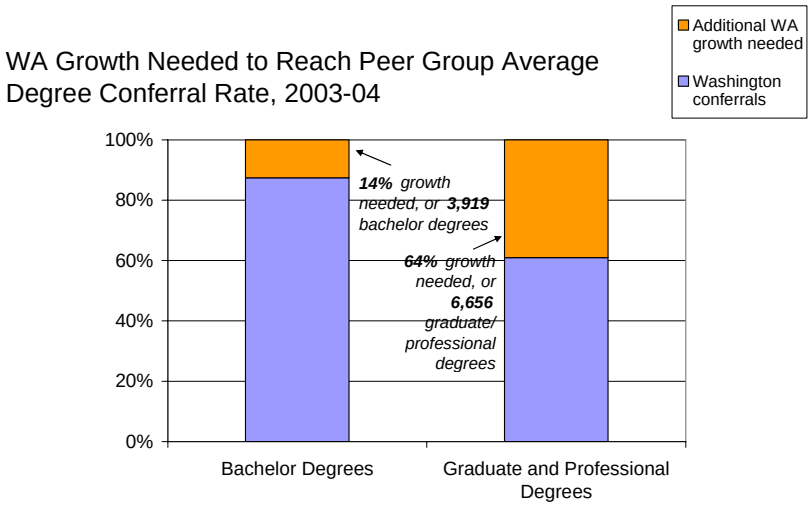
Participation Rate: State Rankings, Fall 2002 Enrollment

Population 18 & over, includes students who are residents of other states plus foreign students



Source: NCES Digest of Education Statistics 2004, Table 198. U.S. Census Bureau. (Based on slide created by OFM)

Washington needs to advance its degree production performance at the baccalaureate and graduate levels. To reach the Global Challenge State averages, this state would need to increase its bachelor's degree production by more than 3,900, or nearly 14%, and its graduate/professional degree output by over 6,600, or about 64%. Since a bachelor's degree is normally a prerequisite for admission to graduate school, the graduate degree shortfall provides a further indirect impetus to increase bachelor's production (although graduate students can be more easily recruited from other states than can undergraduates).



Sources: Digest of Education Statistics, Census Bureau

The Global Challenge States approach to goal setting also is built upon degree output, but we feel it has a more compelling rationale in terms of competitiveness than simply extrapolating past growth trends into the future.

⇒ A logical approach to goal setting might work as follows.

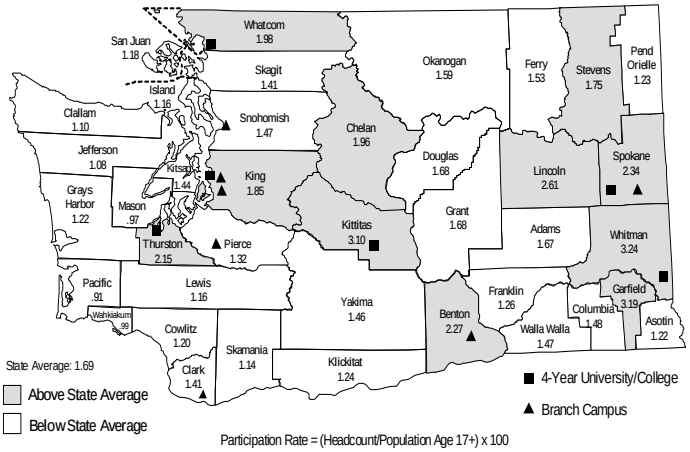
- For the community and technical college sector, the state should seek to at least maintain its current high ranking and degrees-to-young-population ratio, supplemented by specific responses to identified needs in fields showing a current and projected shortfall relative to employer demand as identified in the recent joint (HECB, SBCTC, WTECB) agency report.
- For bachelor's and graduate/professional degree production goals, we suggest initially targeting the average of the Global Challenge States, which implies gearing up for substantial increases in enrollment capacity and degree production. These would need to be carefully planned in terms of academic coherence in program configurations, linkages to probable labor market and student demands, and physical facilities, faculty and other capacity issues.

- Identified high demand fields should have priority and may require extra resources for high cost fields (e.g., computer science) and in some cases special incentives to attract students, e.g., expanded loan forgiveness options to attract and retain math and science teaching candidates, perhaps field-specific fellowships at the graduate level, and salary increments for teachers with ESL and science and mathematics capabilities after they enter the profession.

⇒ Assuming a policy commitment to achieving ambitious participation and enrollment/degree goals is made, whether using the Global Challenge States approach or that of the HECB in its 2004 Strategic Master Plan, the HECB and OFM should work with the institutions to further specify enrollment plans and costs, including capital costs, so as to create a statewide program for achieving the goals over a reasonable period of years. Approval of the plans should involve the governor, legislature, and key nongovernmental stakeholders, in addition to these agencies. This should serve to raise the visibility and credibility of the program and guide policymaker actions.

⇒ The state's major strategy for expanding enrollments needs is to build up the research universities' branch campuses. Given fiscal constraints it is important that this expansion be as cost-effective as possible, which implies that these campuses' expansion plans need to put them on a cost per student trajectory that is, as scale increases, close to the comparable figures for the state's comprehensive universities. If any branch campus fails to draw state resident students in line with established plans, its further expansion of facilities, faculties and the like should be rethought.

Participation rates in Washington counties always have been uneven, often closely associated with the proximity of institutions and programs, and the urban character of the county. The state's branch campus and outreach efforts have been directed at the problem.



Central Washington University and the other comprehensive universities, Eastern and Western, The Evergreen State College and Washington State University, have begun to offer programs collaboratively with the two-year institution on community college campuses in underserved areas. This model has shown itself as a way to serve local needs in a state as large and spread out as Washington. Also, specialized programs on this model have been successfully offered in metropolitan areas where the nearby university was not programmatically equipped to serve the need. The numbers are still relatively modest, however, and much of the development has occurred without explicit per student funding; rather it has come out of the universities' base budget allocations.

⇒ The state should provide more incentives to find and respond to these types of markets by providing such funding based either on the HECB's identification of unmet regional needs or in response to documentation by a university of its own evidence of need and probable demand and support from the community or technical college partner. Once demand is proven to be consistent and sufficient, consideration of modest facilities proposals on the community college campus should be permitted. Such a process needs to be monitored to minimize unnecessary program duplication in metropolitan areas and to help ensure adequate quality of programs to be mounted with very limited pertinent resources, e.g., in outlying areas.

⇒ Approaches the state could use to expand capacity in needed fields through direct relationships with qualified independent institutions include contractual relationships and scholarships equal to the average state FTE subsidy for students in the program field, which would follow students, who would be allowed to apply it at any Washington institution, public or independent, offering admission to a program in the designated field. Assuming the presence of unused capacity, the program could offer the advantage of responsiveness to cyclical needs without a heavy up-front infrastructure investment and loss of time as existing programs are expanded. It also might be operated on an RFP basis, in which case institutions could bid to provide program slots. As an example, an RFP program to increase the number of degrees earned by Hispanic or other under-represented population groups could allow the resources of qualified institutions, public and private, profit and non-profit, to be brought to bear. The programs could be on- or off-campus, based on a community college campus, or other configurations.

Increasing participation rates markedly, dramatically improving the inflow, rather than simply waiting for students to enroll, will require aggressive outreach

efforts to the lowest-participating population groups (especially those that are growing fast), ample financial aid, and, most important, much stronger alignment of K-12 improvement efforts with higher education's curricula, standards and placement assessments. Without creating more college-ready high school students, it will not be possible to enroll or successfully graduate many more young people.

Attention also must be directed to the movement of students through the system. There were 14,600 transfers of community and technical college students to public and private senior institutions in 2004-05. Forty-one per cent of bachelor's degree awardees in Washington's public institutions are community college transfers. The number of transfers has slowly grown in recent years roughly in proportion to the entry cohorts in the two-year colleges. In order to improve baccalaureate production, transfer rates need to increase. Promising steps to this end include efforts to work closely with interested private four-year institutions, the creation of appropriate transfer tracks for students headed for specific university technical majors, and progress toward the creation of a web-based advising system that would allow community college students to determine on their own how their courses match transfer requirements at the public (and some private) four-year colleges and universities.

⇒ The state should encourage the transfer tracks that have recently been developed to attract students and move them to transfer and efficient baccalaureate completion. If the concept of specialized tracks proves generally successful, it should continue to be expanded to more applicable majors.

⇒ Relationships between community and technical colleges and accredited private four-year colleges and universities, including reputable for-profit institutions, should be encouraged. The private sector has seen the greatest recent growth in numbers of transfers from the public two-year colleges and some of these institutions have been leaders in designing baccalaureate programs tailored to the needs of Associate of Applied Science graduates. Private institutions should be actively welcomed into groups planning for specialized transfer tracks, AAS transfer, and more general transfer articulation planning such as for the web-based advising system.

⇒ The legislature should provide the funding required to make the web-based advising project fully operational.

⇒ The present Bachelor of Applied Science pilots, including both the BAS degrees to be offered entirely by community colleges, and the University Centers program, are promising. They should be evaluated to determine which approach is efficacious in which settings in the Washington context.

Student attraction, degree completion success and employer response all need to be tested. The results of the evaluation will be important, but we do not believe efforts to identify needs, refine the concept, and develop new program proposals should be halted until the results of the evaluation are in. Rather, these should be allowed to proceed to the launching point to allow rapid implementation pending a positive study finding.

The Office of Adult Literacy in the SBCTC estimates that the enrollments in these programs represent only about one-tenth of the generally low-skilled population in need of these services and the number has not increased much in many years. In recent years OAL and SBCTC have developed an innovative approach, called Integrated Basic Education and Training, or I-BEST, that is producing dramatically better results in terms of achievement, completions and transitions to further training and education with this key population. It works by integrating ABE or ESL into workforce training curricula, thereby enhancing student motivation and speeding learning.

⇒ The I-BEST model is promising in an area of great social need. It should be evaluated for cost-effectiveness, taking into account the fact that course dropout rates may be substantially reduced. Substantially improved performance in preparing low-skilled adults for the modern workforce should pay off in reduced dependency and associated pathologies, a better prepared workforce, and increased tax revenues.

⇒ How well community college transfers perform at the receiving institution is a subject that is not systematically tracked by colleges. Such information could increase each college's attention to how well its transfers were prepared. The present emphasis is on how many students transfer rather than on how many succeed. Tracking could be done on an individual college basis system-wide, or it could be included in an integrated student tracking data system, which could ultimately permit such a measure to be constructed and fed back to community colleges for improvement.

Distance education has the potential to play an important role in expanding access to higher education in Washington and in reducing at least the capital costs of some enrollment growth to the extent students can be partially or fully served without using classrooms and other campus facilities. Funding for support of distance education course development in the sciences and for the regular revision of on-line course materials in general is needed.

⇒ The state should encourage colleges to utilize distance learning technologies to reach out to new student groups and to reduce the demand for campus-based facilities. To encourage more distance learning courses for primarily campus-based students that could

eventually save on capital expansion costs, the state should devise an arrangement to share a part of such cost savings with institutions showing increases in this area of activity as an incentive. Beyond this, financial incentives for faculty distance education course development efforts and distance learning technology upgrades are needed. Such incentives should apply to reasonable course revision schedules as well as initial course development. Special efforts may be needed in the laboratory sciences where the development of appropriate materials is more complex.

Washington's approach to identifying and addressing enrollment needs and distributing them among institutions, sectors, and modes of instruction is lacking in synchrony. This type of loosely coupled process alone will not be adequate to mobilize and sustain an effort to substantially expand participation and degree production to meet the types of goals suggested by the global challenge in higher education.

While OFM is the official population forecast agency, and its projections factor most directly into the biennial budgets, over the years others have entered the forecasting business, most notably the HECB and the WTECB. OFM's participation rate model is the base standard, but by using different projection models keyed to their missions--master planning in the case of the HECB, and workforce planning in the case of the WTECB--different results are obtained. The institutions and sectors, e.g., SBCTC, also develop enrollment forecasts.

Since none of the models is perfect and almost never agree, this can lead to competition -- a condition we refer to as 'dueling methodologies' - and confusion. The results often take the form of 'projections as policy artifacts' rather than representations of true student demand.

Washington's situation is less one of technical capacity than of distribution of that capacity across organizations, governmental and institutional, with disparate missions and responsibilities. These determine both the choice and shape of projection models. Competition can be a good thing, but when it comes to competition among agencies with policy responsibilities, confusion is an inescapable result, and the policies that make it through the appropriations process may be neither the most important nor the most synoptic.

⇒ Greater inter-agency collaboration in the development of policy-based enrollment goals should be sought. Other states have relied on collaborative approaches and enrollment conferences wherein institutional representatives meet with state officials to arrive at a consensus forecast. This approach should be pursued here.

⇒ Even if the state chooses not to move beyond the present approach to enrollment planning, we urge that the population-based projection take into account population and participation trends by ethnicity, in addition to age and gender, because the most rapidly growing ethnic groups, Latinos and Asian-Americans, have substantially different participation rates than the general population.

At the two-year institutions, where relatively precise matches can be made between occupations and fields of study, two areas stand out with enduring shortages when the number of program completers is compared to the state's projections of demand by occupational field: construction and health care. SBCTC also reports that its completers meet about 85 percent of employer demand in professional and technical fields for which the colleges have certificate and degree programs.

At the baccalaureate level, precise matches between academic majors and occupations are more difficult. Indeed, one-to-one matches are possible in only a handful of programs. Broader judgments about the adequacy of degree production to meet employer needs have to be made using aggregated estimates of demand in occupations judged to require a bachelors degree, and large groups of degrees granted in liberal arts, science, and business majors that cannot be associated with any particular occupation. This is not a bad thing, as people with such degrees enter the workforce and gain successful careers in large numbers.

Increased general baccalaureate production is not a solution in highly technical fields. Some of the fields in which the supply coming from the state's four-year institutions seems inadequate relative to projected demand include Engineering, Computer Science, Architecture, Health, and research and technical fields.

Washington has some of the best information for workforce programs in the country. Analysts working on evaluations of adult education and displaced worker programs consistently point to the quality of the data available from administrative sources concerning workforce outcomes for training program participants. Program managers at the colleges and SBCTC can make adjustments and investment decisions based on these data, and legislators can be assured that the dollars they allocated to these programs have been well invested.

⇒ While national studies suggest that similar claims could be made for baccalaureate programs, the universities do not collect or publish comparable reports and policy makers do not have precise information readily available about how many graduates stay in the state, what industries they are working in, or where they are working. This deficiency

should be corrected through use of administrative data or other mechanisms. Asking the universities to utilize a matching system similar to that used in the community college system is a relatively low cost option to provide more information about how well the universities are meeting employer needs in various industries.

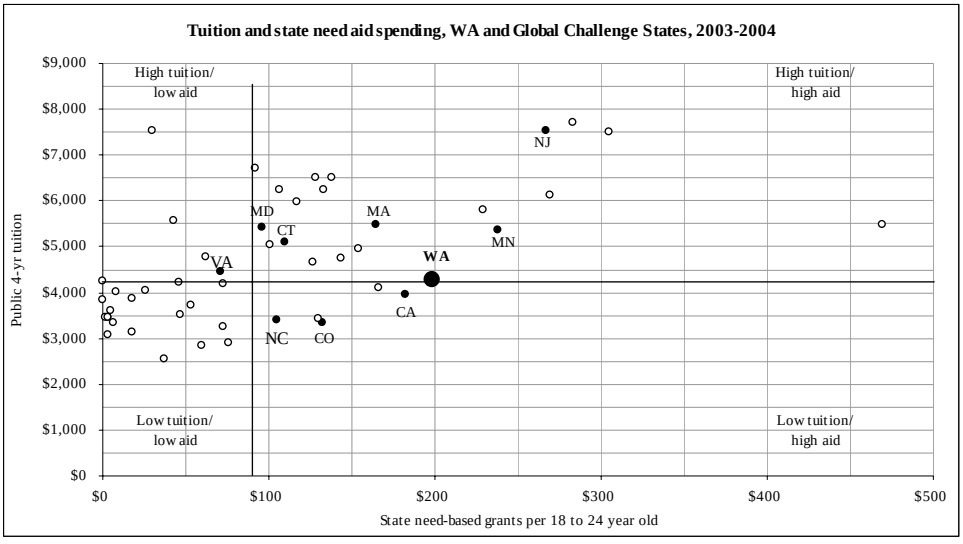
TUITION AND FINANCIAL AID

Over the last two decades, the shares of total revenues received by public higher education institutions across the country have changed, with the portion provided by the states and federal governments decreasing and the portion provided by students and families increasing. With few exceptions, this has happened largely through fiscal expediency rather than explicit policy decisions on the part of governments. It has unfolded through a process of incremental displacement of one funding source for another as enrollment demand and economic fluctuations occurred, not often in harmony.

Washington is a moderate (medium) tuition/moderate-aid state. Washington is in the middle of the four quartiles formed by tuition charges and aid spending on the next graph. While its four-year institution tuition rate (averaged between the University of Washington and the comprehensive universities) is just about the national average, its need-based aid per student is greater than the national average. Half of the GCS: MD, CT, MA, NJ, and MNare in the high aid-high tuition group. California, CO, and NC are considered comparatively low tuition-high aid states. Washington is closest to this cluster. All of the GCS except for VA are on the high aid side of the graph.

NEED-BASED GRANT SPENDING PER CAPITA AND FOUR-YEAR TUITION PRICES, 2002

(INDICATING WASHINGTON STATE'S COMPARATIVE PLACEMENT)



In terms of tuition charges, in comparison with the ten Global Challenge States, Washington ranks third from the bottom, i.e., third from the lowest, above North Carolina and Colorado research university rates. It also is about 30 percent below the GCS average. It is almost ten percent below the national average for institutions of this type.

Washington ranks fourth from the bottom in comprehensive university rates, with California, Colorado, and North Carolina maintaining lower rates for these institutions. Washington is 26 percent below the GCS average, and 15 percent below the national figure.

In the case of the community and technical colleges, Washington ranks squarely in the middle of the GC States, and barely 0.4 percent below the national average. Washington community college tuition is relatively higher in the comparison group setting than is the case with the two university sectors.

While Washington is among the nation's leaders in state-funded aid, its resident tuition rates in four-year institutions are below the national average (largely because other states have increased their rates in recent years faster than has Washington). This indicates that the state should consider increasing tuition rates at slightly higher than average rates in the coming years. Increases in tuition, however, should be accompanied by and linked with increases in both state and institutionally-funded grants.

⇒ We recommend that tuition rates in the four-year universities be increased to achieve greater parity with counterpart institutions in the Global Challenge States.

⇒ Washington community college tuition is relatively higher in the comparison group setting than is the case with the two university sectors. We do not recommend an increase for this sector at this time.

⇒ We also recommend that differential pricing rates among institutions, for example the University of Washington, Washington State University, and the comprehensive universities and branches, be used as incentives to attract students to the latter institutions to take advantage of available capacity.

⇒ Tuition increases at the research universities, especially the UW, are likely to feed perceptions that the institution is too costly for low-income students. In the event of this or any other increase in tuition, the University should commit to holding these students harmless by providing them enough institutional aid (in addition to their state aid) to offset any tuition increases that exceed the inflation rate.

Either by keeping student charges low or by providing need-based student financial aid to low-income students, most states have pursued the higher

education values of access and affordability. High percentages of students in all of the Global Challenge States receive some assistance. In Washington the number approaches two-thirds of the first-time, full-time students. This is below the national and GCS averages, however, which are 77.1% and 71.8%, respectively. With 17.5% of these students receiving state aid, Washington is below the national and GCS averages on this score as well.

Washington has intransigent student pipeline issues that require dramatic new approaches to how it uses tuition and student financial aid policy. According to national data, Washington ranks at the bottom of the GCS group in its ability to get students from the ninth grade through college.

THE STUDENT PIPELINE
MOVEMENT OF 9TH GRADERS THROUGH COLLEGE
GLOBAL CHALLENGE STATES

SOURCE: NCHEMS, YEAR 2000 DATA

State	For every 100 Ninth Graders	Graduate from High School	Enter College	Are Still Enrolled Their Sophomore Year	Graduate within 150% Time
Massachusetts	100	75	52	41	28
Connecticut	100	77	48	37	26
Minnesota	100	84	53	38	25
New Jersey	100	86	55	40	24
Virginia	100	74	39	30	20
Colorado	100	71	37	26	18
North Carolina	100	59	38	28	18
Maryland	100	73	40	30	18
Washington	100	71	32	22	18
California	100	69	33	22	17
GCS Avg.	100	74	43	31	21
United States	100	67	38	26	18

Affordability and perceptions of its absence among students with higher education potential are important considerations. Tuition charges and student aid are the state's most promising strategies for correcting the problem.

⇒ Washington is slightly above the national average in the average amount of state aid, $1,559 versus $1,522, but it is below the GCS average ($1,607). In terms of percent of total state grant aid that is *need based*, Washington, 80.2%, trails only California (95.4%) in the rankings in this regard. Again, we believe that any program of tuition increase must be accompanied with equal attention to student aid (e.g., Washington has a history of reserving 25% of any tuition increase for financial aid). Whether

the program represents incremental or synoptic change, this commitment and tradition should continue.

⇒ With respect to student aid and workforce preparation, in this state part-time students do not qualify for the State Need Grant program. We believe this should be changed and the program expanded to include them. According to information provided by the SBCTC, an additional 4,700 part-time workforce training students would qualify if the opportunity to receive such aid were at the same level as for full-time workforce students.

⇒ During the 2006 session, the legislature appropriated $4 million to the SBCTC to create a pilot program called the Opportunity Grant Program. The object is to use student financial aid to get low-income students to the 'tipping point', one year of college level credits and a credential and beyond, by following pathways that provide employment opportunities linked to advancements in education attainment. The grants provide student support packages that provide for expenses, such as tuition, books, fees, childcare, transportation, etc. Although we look forward to the results of the pilot test, we also believe the effort is much too modest and possibly in some danger of dilution. We recommend that sufficient funding be provided to at least double the size of the pilot effort.

⇒ Washington needs to get more people into and through college. Indiana's 21st Century Scholars Program offers scholarships to a targeted group of high school students, those who qualified for free and reduced price lunches in 8th grade and who maintain at least a C average in high school, along with certain other eligibility requirements. The program makes the commitment of a full-tuition scholarship to these students when they are still in middle school. It also combines the scholarship support with assistance in helping the students to prepare for college academically and socially. Because of the narrow focus on disadvantaged students, the budget costs have been modest and predictable. We recommend that Washington establish a similar program here, in effect using a portion of the State Need Grant program for such an early commitment program with a full tuition waiver program for students who meet the standards and qualify. This would be known as Washington's 21st Century Scholarship Program.

⇒ There is a second centerpiece to our recommendations. We believe the state should provide a first-year tuition waiver at community college tuition rates for all Washington students who attend a public college or university in this state. In effect this would extend a 13th year of education, in any program, workforce preparation or academic, to all students who wish to

take advantage of it. We recommend that this be known as the Washington Opportunity Scholarship Program.

⇒ As Washington moves in these directions the efforts should be accompanied with a dedicated information program publicizing the state's commitment to low- and moderate-income students and providing specific information about how these programs will affect them. Stated differently, Washington should include a well-publicized roll-out and provide ongoing publicity about the programs, particularly focused on the target population.

Allocating education costs among state funds, tuition, and financial aid, "sharing the cost burden," is a subject identified in the call for this study. A tuition policy linking price to costs of instruction was adopted by the Legislature in 1977 and the policy was continued to the mid-1990s. It appears to have been abandoned when state appropriations declined, leading to reduced instructional costs, and then logically to an imperative to reduce tuition proportionately (as costs go down so would the prices that were linked to them) at the very time the search for additional funds was reaching critical proportions. Washington quietly abandoned the cost sharing model.

⇒ A return to a policy of cost sharing in the form of statutorily set shares of the cost of education – among the student (and family), state, and institution is not recommended at this time. Washington has moved past the shares that used to apply and is unlikely to return soon. Moreover, few of these policies have been successful (i.e., the compact always seems to get broken in bad fiscal times). We do recommend, however, that the HECB cost study that began as part of this model be continued and that tuition rates be monitored in this context accordingly.

FUNDING HIGHER EDUCATION

In terms of the Global Challenge State rankings on 2006 appropriations for higher education per capita and per $1000 of personal income, Washington ranks fourth, both in terms of appropriations vis-à-vis personal income and appropriations per capita. Washington also ranks 25th nationally in terms of the appropriations per $1000 of personal income rankings. It rises to 19th nationally when ranked on a per capita appropriations basis.

⇒ Washington should establish, in statute, the top tier of the Global Challenge States as the financial 'metric' for support per student and, with a mix of state and local revenues, move toward that standard over a period of time established by the Legislature. At no time should the mixture of revenues per student be less than the previous year unless the Global Challenge States experience an overall drop in total revenue per student.

There are special problems the state needs to address. Faculty salaries are one. Washington ranks next to last among the Global Challenge States and well below this peer group and the national averages on average salaries overall for faculty on 9/10 month contracts in public institutions. The state is losing ground relative to the other Global Challenge States with respect to faculty salaries in four-year institutions. Washington has moved from next to last to last in terms of the average salary of full professors in these institutions. During the same period it fell an additional six percent behind the average of the GC States. We believe that this is an issue the state must address.

⇒ The study involved a review of different funding models. A formula funding approach is the one we felt had the greatest potential here, although Washington has employed and moved away from formulas in the past, they can be a useful tool. We recommend reconsideration of formula funding. Simplicity is important. We believe the main questions that need to be addressed in a formula are:

- The differences between institutional types with respect to
- Faculty/student ratio by level
- Salaries needed to be competitive
- Depth of library and instruction support resources, including technology.
- By focusing on these three main drivers it should be possible to engineer a simple formula and then round it into a macro. If this is done, it should be done collaboratively. The formulas need to be rolled up into something that is easy to understand.

⇒ The institutions should be challenged to revisit the old ratios and explain why they are needed, and whether new ones might be more appropriate. The object would be to round the figures into clear understandings of the dollars per FTE that would be required to attain and sustain a high quality educational endeavor. Records of the reasons why particular decisions were made on ratios should be maintained. The result should be FTE funding that represents baseline quality criteria. The cost of providing it would then be distributed among the major fund sources (state, student, and other). This would not only add a qualitative dimension to the quantitative enrollment projections, but it would instill more predictability into the process. Students and institutional administrators would know that if the contribution from one fund source declines, the other fund source will need to increase to maintain these quality standards. There is another reason for this: to establish some common basis for accountability

systems and estimating future costs as part of the Performance and Accountability Agreement program recommended later in the report.

⇒ Consideration also should be given to incorporating some component of performance funding to address issues of excellence or particular aspects of public policy on the margin.

⇒ The best approaches to funding higher education are those which are combinations. This occurs when the state appropriations define and provide adequate funding for the core activities of the institution—instruction, academic support, student services, administration, plant maintenance, and so on. Beyond this "base funding" should be categories which identify the state's prime goals, such as economic development or access for disadvantaged students—and then funds should be provided to encourage institutions to pursue these goals. We believe that this approach, performance funding, also has great potential and recommend its consideration here.

The HECB cost study results have been used for years as a data source for cost-based policies and funding purposes, e.g., funding levels for new enrollments, quality enhancement funding, informing students of state subsidies for higher education, among others; we recommend that they continue.

⇒ We suggest that consideration be given to enhancing the utility of the HECB cost studies by:

- Allocating tuition separately from state support, with allocation proportional to the overall share that tuition supports the total cost of instruction, by discipline, and reflecting the differential tuition rates by student level;
- Identifying the amount of endowment and other institutional-generated support that goes into each discipline;
- Identifying the amount of additional non-tuition fees paid by students that are used for instructional support; and
- Identifying the value of tuition waivers; by level and discipline where appropriate.

GOVERNANCE AND FISCAL POLICY

Washingtonians have accepted the case that education investments are crucial to the state's future. Much of the data suggest, however, that if they believe this is what has been accomplished they are misguided. The situation must improve, and viewing state funding as a form of investment, identifying priorities for focusing that investment, and allowing institutions to manage their affairs while holding them accountable for results, are places to start. This

requires definition, communication, discussion, and agreement. A Public Higher Education Agenda is both the essential and missing ingredient if funding policy is to be anything more than a matter of spending more money incrementally or rearranging allocations.

⇒ We believe that a Public Higher Education Agenda should be defined and established. Our view of the priorities to be included in the Public Agenda includes:

- Position Washington for successful competition in the Global economy by defining a public agenda and focusing strategies on a long-term and steady approach to its accomplishment, and aligning funding programs with public policies.
- Expand access to higher education in all of its dimensions, especially at the front end.
- Preserve affordability through tuition and student financial aid policies.
- Recognize that higher education has individual and societal benefits and beneficiaries, and weigh the distribution of the cost burden, i.e., the individual and public shares, tuition, appropriations, and student financial aid, accordingly.
- Increase participation and productivity in workforce preparation programs, defined as applying to all upper education levels and responding to Washington industry and commerce's needs for graduates in shortage fields.
- Preserve and build upon Washington's prominence as a magnet economy that attracts educated and trained people from other areas, but also recognize the essential importance of opportunities for Washington residents to get the education they need.
- Increase higher education's potential for productivity through collaborative and cooperative planning, with special attention to the college readiness of high school students.
- Expand the state's forecasting capacity to permit more issue-relevant, collaborative, and effective program planning.
- Address the capacity of the state's higher education coordinating board to engage in effective, collaborative, long-term policy research.

- Increase production capacity with imaginative programs to tap into the full range of education resources, public and private, classroom and other.
- Increase responsiveness and capacity through the extension of managerial flexibility and managerial autonomy to institutions.

⇒ In recent years, states have begun to seriously consider delegation of managerial authority to their institutions in efforts to improve their capacity to adapt and respond to new economic conditions. Such delegation requires that institutions work within a framework that provides incentives to address state and regional higher education needs in accordance with their missions. It also provides an accountability structure that conditions the continuance of this managerial autonomy on their performance in the accomplishment of the Public Higher Education Agenda. As Washington considers options to refocus its higher education system, Virginia's experience with college and university restructuring is instructive. It offers a model that we recommend be employed here. This would be called the Washington Achievement and Accountability Agreement program.

⇒ Fiscal stability is an important principle for administrators in higher education. This has prompted efforts to establish institution rainy days funds in some states. This is a reserve account that can be used to soften the effects of funding reductions. One possible approach to this as part of the Achievement and Accountability Agreement would be to allow institutions to legally carry-forward funds from one biennium to the next, provided an established share is placed in the reserve account until the appropriate total is reached. Another possibility is a share of new tuition revenue set aside for this purpose. A program of institutional rainy day accounts should be pursued in Washington.

Much of the discussion about fiscal policy efficacy of the governance system devolves to the Higher Education Coordinating Board. This is both a coordinating board focused essentially, but not exclusively, on the four-year sector, and an organization with significant program administration responsibilities.

⇒ A considerable part of the information and data this study has relied upon and used came from the coordinating board. At the same time, we cannot escape the impression that the board has become marginalized. We recommend that efforts to correct this begin with mission clarification, in this case a transfer of the HECB's program administration responsibilities to a separate agency, a Higher Education Services Office, which would be created for this purpose and staffed by the same people who presently staff these programs.

⇒ Our next recommendation concerns the composition of the HECB itself. Here we look back to the original Council on Higher Education, which had a remarkable record of agency effectiveness. That board was composed of nine citizen members appointed by the Governor with the advice and consent of the Senate, four legislators (two from each house, one from each caucus), the Director of OFM, the OSPI, the chair of the Council of Presidents, the Chair of ICW, the director of the SBCTC, and, now called, the director of the WFTECB. This placed at the table the representatives of the groups most interested in and directly affected by the Board's deliberations and policy recommendations. We believe it also improved the agency's salience and reduced much of the inter-agency friction and conflict we encountered during the course of the study. We recommend that such a membership roster be adopted. We also recommend that the solution be revisited and evaluated no more than ten years after its formation.

TRANSITIONS AND P-20

⇒ Consideration should be given to the formation of a P-20 Council in Washington, with certain conditions, the most prominent of which is its treatment as a temporary entity with an initial life of five years, with the opportunity to extend based on continued evidence of need at the end of the period. Such a Council might take the form of an Education Cabinet, in which case it might also be a forum for an Education Management and Accountability Program, modeled on the present GMAP program for state agencies. Representation on the Council should include at least the Governor, the SPI, OFM, the COP, the SBCTC, the HECB, and the WTECB. It would be staffed by people in these organizations.

⇒ The Council should direct the establishment of an integrated student data system that would span sectors and survey and develop an inventory of practices and programs to increase efforts and activities in the following areas and hold sectors accountable for results. More specifically, it would:

- Address P-20 curricula alignments;
- Develop and implement predictors of student success from level to level;
- Expand P-20 guidance efforts, including on-line guidance assistance;
- Eliminate impediments to credit transfer throughout the system;
- Create articulation agreements and pursue equitable funding for programs such as Running Start;

- Ensure that opportunities for such programs as Advanced Placement and the International Baccalaureate are available in all high schools throughout the state, urban, suburban, and rural, rich district and poor;

- Oversee and direct the establishment of an integrated student data system for all of Washington education.

⇒ We have been impressed with what we have learned about the California State University [CSU] College Readiness program. This is a collaborative effort with the high schools by which, in effect, students are given the opportunity on a voluntary basis to take a college readiness test in their eleventh year. The test is equivalent to the system placement test, and passage assures that students will not need to take the placement test when they arrive on campus and that remediation will not be needed. Should they not pass the test, they have time available while still in high school to remedy the deficiency before moving on to college. We recommend that such a program be considered here.

⇒ On the subject of admissions, the universities have separate application processes even for their own branch campuses. One must apply separately to each institution, even if applying to both the parent university and a branch. A common application form and process, at least within multi-campus systems, and a form that would be universal to all state college institutions, should be considered as a way of simplifying admissions and, possibly, increasing access.

⇒ Washington utilizes separate budgets for each of the major education sectors (e.g., K-12 and higher education). There is no "Education" budget, so if one wishes to think of Education as a unified policy paradigm, e.g. P-20, the efficacy of the divided governance and fiscal structures immediately is a problem. We recommend that the state regularly employ an Education Budget Overlay on the order of the "Chalkboard Project" developed in Oregon.

These are the major recommendations of the report. Again, these and other initiatives are discussed in greater detail in the chapters that follow and constitute the body of this report.

"MAKING THE GRADE"

WASHINGTON HIGHER EDUCATION AND THE GLOBAL CHALLENGE

RISING TO THE TEST: INTRODUCTION

"The agenda for Washington should not be a 'higher education,' or 'K-12,' or 'early learning' agenda; Washington needs a 'human capital' agenda."

Dennis Jones and Aims McGuiness, NCHEMS

This report addresses Washington's higher education funding and enrollment policies. It brings together the findings of extensive data and literature reviews and analyses organized around the major themes of the study. Thus, it is based both on the study research program and on data from a number of disparate sources, not all of which agree on specifics or interpretations.

Some things are easy. Washingtonians treasure their colleges and universities. In one recent public opinion poll, 84% expressed confidence in their public colleges and universities and believed these institutions make significant contributions to the state’s economy

These people are well out in front of the rest of the nation on this assertion, as shown by a national version of the same poll, which reported that 76% of that universe felt this way.

Other indicators speak to the importance of higher education in different ways. Washington ranks second in the nation on the 2002 New Economy Index, surpassed only by Massachusetts in the scoring. The New Economy Index ranks states on the strength of indicators considered important to effective competition in the new economic setting. Among the features that make up the overall score are employment in information technology jobs (Washington ranks 2), percent of population online (rank: 7), utilization of digital technologies in state government (rank: 2), Workforce education (education attainment: advanced degrees, bachelor’s and associate degrees in the workforce, rank: 11), and scientists and engineers as a percentage of the workforce (rank: 11). The NEI rankings serve as the list from which the states used for comparison purposes in the present study are drawn, a subject discussed in greater detail below.

Other positive signs can be mentioned. Although the Census data do not establish where the education was acquired, a subject of some significance to planners in this state, Washington ranks with the top ten states in high school graduates as a percentage of the population age 25 and over (89.1%), above the national average of 87%. With respect to the percentage that has completed a bachelor's degree or higher, at 28.8% the state also ranks above the national average (28%), although given the comparatively high rate of in-migration of college graduates, the figure may not be all that impressive, especially as an indicator of Washington's degree production accomplishments.

According to the National Center for Public Policy and Higher Education's [NCPPHE] 2004 national higher education report card, *Measuring Up*, Washington does well on three dimensions: Preparation for College (B-), College Completion (an A- grade; the state does well with its four-year institution retention and completion rates), and the Social Benefits of an educated populace (also an A- grade; again, a high proportion of Washington residents have a bachelor's or higher degree).[2]

Washington does less well on two others. It gets a C grade for College Participation (proportion of working-age adults enrolled in college-level education), and a failing grade, an F, for College Affordability (share of average family income required for a college education; notably, 35 other states also receive a failing mark, and an additional eleven receive a D on this subject; six of the ten Global Challenge States, however, receive a passing grade). According to the Center, "Over the last decade, the share of income needed to pay for college expenses after financial aid has increased from 19% to 27% at [Washington] community colleges and from 20% to 31% at public four-year institutions."[3] The failing grade for Affordability drove Washington's Report Card GPA to 1.9, or slightly less than a C.[4]

Equally troubling are reports that employers seeking people with bachelors and graduate degrees have difficulty finding qualified job applicants (67%). Unfortunately, the issue is pervasive and the problem is not limited to

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2 2004 Washington Report, p. 8.

3 Ibid.

4 The NCPPHE does not calculate a GPA. The Washington GPA described here was calculated on the basis of the following grade values, with the total divided by 5: A = 4.0; A- = 3.75; B+ = 3.25; B = 3.0; B- = 2.75; C+ = 2.25; C = 2.0; C- = 1.75; D+ = 1.25; D = 1.0; D- = .75; F = 0. The reason that the National Center does not use a cumulative GPA is because the categories may not be equivalent in value. This also may be an argument against the use of a cumulative GPA to measure college work, usually composed of courses of disparate difficulty.

people with credentials at this level. The percentage of employers reporting difficulty finding employees with bachelors and advanced degrees is about the same as the percentage of employers encountering difficulty finding people with vocational associate degrees (68%). Finding people with vocational *certificates* (53%) and those with some college but not a certificate or degree (35%) also is problematic. [5]

Issues of this nature are the basis for the call for a study of funding, enrollment and governance policies and approaches that led to this report.

The state has a lot of information and a lot of experience with these matters, although few appear to be satisfied with its accomplishments. Nevertheless, Washington always has been a pioneer in the development of management systems. Thus, the state has a lot of practice in higher education policy development and experimentation, and it has employed, and often moved beyond, many of the funding, planning, and management techniques being discussed or utilized in other states. For example, formula funding, budget and cost analysis methods, tuition based on cost-sharing principles, performance and accountability programs, enrollment projection models, and many other techniques all have places in this state's recent history. There is a substantial base on which to build, but it also is a base that must be examined and understood openly, avoiding the "been there, done that" adage that effectively precludes consideration of ideas that might have been considered ahead of their time.

These are some of the considerations that help shape the study and the approach. There are others, among them the study charge.

The Scope of the Study

The study purposes are based on the Washington Learns Steering Committee's statutory mandate to:

> *Develop recommendations for a new postsecondary education funding structure that identifies (1) how best to distribute current dollars and (2) whether additional funding is necessary to achieve Washington's higher education goals.* [6]

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5 Washington Workforce Training and Education Coordinating Board 2003 employers poll, cited *ibid*.

6 Engrossed Second Substitute Senate Bill 5441 requires the Washington Learns Steering Committee to coordinate the studies called for by the bill. The enactment also requires that the Steering Committee's comprehensive study of higher education include (but not be limited to):

The scope of work is described under two major task headings: Capacity Analysis and Funding Analysis. The Funding Analysis also encompasses a review of the effectiveness of the state's higher education governance structures to implement state funding policies.

These categories bring together the public's important higher education issues, most of which fit within a framework formed by a group of "A" words: Access, Affordability, Accountability, and Accomplishment. They also bring higher education concerns about Sufficiency, Stability, and Quality, along with those of employers and employees, actual and potential, into the equation. When the balance is proper, when all are in proper Alignment (another "A" word), like a Rubik's cube, the solution presents itself (although, it must be said, some of us have never been able to align a Rubik's cube.)

A further instruction to consider recently completed reports of state agencies is indirect testament to the fact that when it comes to higher education, Washington is an expertise and data rich state.

A number of agencies have important roles to perform and their initials and acronyms [still another A word] abound in this report. The Office of Financial Management [OFM], the Legislative Evaluation and Accountability Committee

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> "Options for creating a new funding system; the number and distribution of enrollments at two and four-year institutions of higher education needed to meet demographic and work force training needs; methods of determining the cost of instruction in various program areas; methods for developing common articulation of lower division work; the appropriate share of the cost of instruction that should be funded through tuition, general and state subsidies, and financial aid; providing for smooth transitions from high school to college, including dual credit options and adequate preparation for college-level coursework; identifying strategies and associated costs to increase opportunity for access to baccalaureate degrees at public institutions of higher education; identifying incentives to optimize research conducted by public universities and colleges that has the potential to stimulate the economy and address economic and social issues related to Washington citizens; options for using existing capacity in independent colleges and universities; a review of higher education governance as it relates to fiscal policy for higher education; and options for coordinating capital and operating appropriations."

The legislation's reference to K-12/higher education transitions and related matters is notable. The concept of "seamlessness," or a K-20 system, a subject of interest to the Washington Learns Steering Committee, is an additional factor. It is important that efforts be made to coordinate the K-12 and higher education funding studies whenever practical and feasible. This research takes these considerations into account, and, as will be seen, adds a K-20 dimension to the study scope.

[LEAP], the Higher Education Coordinating Board [HECB], the State Board for Community and Technical Colleges [SBCTC], the Workforce Training and Education Coordinating Board [WTECB], the legislative fiscal and policy committees and their staff members, and such associations as the Council of Presidents [COP] for the four-year public institutions are among the more prominent.

Since the study mandate also speaks to the need to consider the independent colleges and universities when addressing capacity, the Independent Colleges of Washington [ICW] come into play.

The Washington Learns Steering Committee also is exploring aspects of a P-20 arrangement; this brings the Office of the Superintendent of Public Instruction [OSPI], and the Steering Committee's K-12 interests into the picture.

National and Regional organizations and repositories such as the National Center for Public Policy and Higher Education [NCPPHE], the National Center on Higher Education Management Systems [NCHEMS], the State Higher Education Executive Officers Organization [SHEEO], Grapevine [an Illinois State University higher education research and data center], the Western Interstate Commission on Higher Education [WICHE], and others have comprehensive data bases that are used to compare Washington's levels of effort with those of other states and with national averages. The National Collaborative, an association composed of NCHEMS, NCPPHE, and ECS, was mentioned earlier. As part of an earlier policy audit, the Collaborative was able to define and focus most of the higher education issues that continue to draw attention.

Thus, the work of the National Collaborative offers a useful starting point for the study at hand. Their report also describes a model Public Higher Education Agenda for this state. This influenced the drafters of the Scope of Work for the present study, and, hence, the study itself.

The Findings of the National Collaborative

The Collaborative commenced its Washington review with a preliminary Public Agenda that focused on several needs. Its action statements were these:

1. Address the mismatch between capacity and need brought about by population growth, a need to improve college participation and to increase degree production at the certificate, associate, and baccalaureate levels, and improve geographic accessibility.

2. Improve responsiveness to workforce needs and reduce dependence on in-migration, with particular attention to several fields: teaching, nursing, engineering, and computer science, and improve basic workplace skills (especially among young adults).

3. Improve performance of secondary school students (especially math).

4. Increase the amount of part-time and continuing professional education.

The Collaborative pursued these issues via data analysis and interviews in Washington and arrived at a number of findings, many of which are relevant to the present study and are used at the appropriate places in this report. It recommended that Washington policy makers consider changes that address five major issues:

- Conflict between the increasing demand for access to community colleges and universities and their capacity to meet that demand
- Need for more upper level courses and bachelor's degrees throughout the state
- Problems with transfer from community colleges to universities
- Uneven relationships between the public school and higher education systems
- Insufficient attention to adult basic education, English as a Second Language (ESL), and General Educational Development (GED) preparation

The Policy Audit report notes that approaches to these and other issues in Washington (many of which are not new) "often are uncoordinated and occasionally even in conflict with one another; many good ideas are floating around and many others have been implemented to some degree. But they appear to be what one higher education observer calls 'random acts of excellence,' solutions undertaken with the best of intentions that are, nonetheless, incoherent. "

The Collaborative suggested Washington needed to deal with (1) the inadequacy of the present funding mechanisms for higher education; and (2) the need for clear differentiation of responsibilities so it is apparent what organization or other entity is responsible for developing and advancing the Public Agenda for higher education in the state.

They also recommended that Washington "devise a new financing policy for higher education that would treat state support of institutions, revenues from students, and student financial aid in comprehensive and integrated ways." The policy should:

- Emphasize incentives for institutions (individually or in collaboration with each other) to address state priorities as expressed in the Public Agenda.

- Create and sustain capacity of state institutions consistent with their missions and the needs of the state. Funding for necessary increases in capacity should be part of the finance policy.

- Make higher education affordable to residents of the state, considering pricing (tuition and fees) and student financial aid along with state support. These are three inseparable parts of the whole.

- Reflect a realistic assessment of the capacity of the state to fund higher education.

Finally, the Collaborative noted that if this program is correct, it must:

- Be accepted as a long-term agenda, transcending terms of office, political divisions, and institutional loyalties.

- Engage all providers of postsecondary education in the state—public and private, two- and four-year institutions.

- Be pursued through conscious alignment of all the available policy tools—policy leadership, finance, accountability, and regulation.

- Encourage a collaborative approach to addressing problems.

- Have easily understood benchmarks to gauge progress.

The Washington Learns Higher Education Advisory Committee's working groups also have listed principles and assumptions respecting issues of particular importance to them. These include high demand programs, and tuition and student financial aid, and transitions between levels. These principles and assumptions are summarized and highlighted later in this report in the appropriate sections.

Together these helped establish the strategic framework for the study, and considerable effort has been devoted to the task of finding alternatives that fit within it. Attention turns now to the present study, starting with an examination of Washington's place in the Global Economy, a subject of great interest to the members of Washington Learns and of vital interest to the accomplishment of an effective higher education strategy.

"MAKING THE GRADE"

WASHINGTON HIGHER EDUCATION AND THE GLOBAL CHALLENGE

RISING TO THE TEST: THE GLOBAL VENUE

Washington's economic competitors are not Oregon, Colorado, or California, but countries such as Norway, Korea, China, and Sweden.

Governor Christine Gregoire

"We need to wipe the smugness from our faces."

Anonymous Interview Respondent

WASHINGTON AND THE GLOBAL CHALLENGE

In May 2006, five countries -- Armenia, Azerbaijan, Georgia, Moldova, and Ukraine -- were admitted to the Bologna Process, a program aimed at harmonizing higher-education systems across Europe.[7] "This action means that 45 nations are now committed to the creation of the European Higher Education Area -- a region of shared academic standards, in which the universities play a central role in promoting Europe's culture and development. " Participants in the process include all 25 members of the European Union, "which is trying to become the most competitive knowledge-driven economy in the world by 2010 . . . [O]bjectives include the synchronization of degree structures, with a first degree cycle of three years culminating in a bachelor's degree, and a second cycle for master's and doctoral degrees."

The water is getting hotter.

Washington's Global Competitiveness Council quoted a recent National Academy of Sciences report, "Rising Above the Gathering Storm," to describe the nature of the task:

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7 *The Chronicle of Higher Education*, "Europe's Effort to Standardize Higher Education Now Includes 45 Nations," from the issue dated June 10, 2005

- "In the United States, only 15 percent of undergraduates receive their degrees in natural sciences or engineering. In other countries, [the percentages are much higher]: Singapore (67%), China (50%), South Korea (38%), and France (47%).
- "Federal funding for research in the physical sciences as a percentage of Gross Domestic Product [in the U.S.] was 45% lower in 2004 than in 1976. At the same time, our competitors, such as China or South Korea, are drastically increasing research.
- "In 2005, only four U.S. Companies ranked among the top ten corporations that were granted patents by the U.S. Patent and Trademark Office.
- "U.S. publication in science and engineering has remained constant since 1992, while total world science and engineering publication has increased by 40%. Western Europe, Japan, South Korea, Taiwan, China, and Singapore account for much of the increase."[8]

The comparison states selected to help establish metrics for where Washington is, where it needs to go, and benchmarks for measuring its progress, or regress, were chosen with such thoughts in mind.

WASHINGTON'S GLOBAL CHALLENGE STATES

This Comparison Group – *Washington's Global Challenge States* [GCS] -- is composed of the top eight states on the Progressive Policy Institute's New Economy Index [NEI, 2002], which, in ranked order, are:

- Massachusetts (1)
- Washington (2)
- California (3)
- Colorado (4)
- Maryland (5)
- New Jersey (6)
- Connecticut (7)
- Virginia (8)

Plus:

- Minnesota (rank 13)
- North Carolina (rank 26)

8 "Rising to the challenge of global competition," March 2006, p. 4

The last two states were added at the suggestion of the Washington Learns Higher Education Advisory Committee. The NEI ranks states on the basis of indicators of their potential to perform in the new economy. These are arranged in five clusters:

- Knowledge jobs
- Globalization
- Economic Dynamism and Competition
- Transformation to a Digital Economy
- Technological Innovation Capacity

Washington's overall score on the NEI is 86.2 out of a possible 100.

Washington is above the national average in terms of education attainment measured in degrees (the Census data do not identify *years* in formal education, but organizes the education attainment data around *degrees and levels* of education, population age 25 and over) in progressive order, 'high school graduate,' 'some college,' 'bachelor's degree,' and 'advanced degree.'

The state ranks above the national average in each case.

	HS Grad or more	**Some College or more**	**Bachelor's Degree or more**	**Advanced Degree**
Washington	87.1	62.2	27.7	9.3
National Average (2000 Census)	80.4	51.8	24.4	8.9

The Organization for Economic Cooperation and Development [OECD] maintains data from member countries at a national level of detail (the US and other nations). The OECD, however, uses *years* of education rather than degrees or levels, so comparisons necessitate interpretation.

The following table summarizes OECD data on education attainment expressed as the average number of years of education (2003) for selected nations. On the OECD scale the United States ties Norway for first place. On this measure, OECD is looking at attainment 'based on the normal length of education programs," meaning completion of secondary school. The OECD figures for selected members of the organization on the years of formal education are as follows:

EDUCATION ATTAINMENT EXPRESSED IN AVERAGE NUMBER OF YEARS IN FORMAL EDUCATION
2004
SOURCE: OECD

United States	**13.8**
Norway	13.8
Denmark	13.6
Germany	13.4
Canada	13.1
Australia	12.9
Switzerland	12.8
United Kingdom	12.7
Sweden	12.5
Japan	12.4
Soviet Republic	12.4
OECD Average	11.8
France	11.5
Italy	10.0
Turkey	9.6

The next table is the result of our attempt to fit Washington into a comparative setting based on 'college degrees.' Among the top 11 OECD countries, the United States ranks eighth in percent of the young work force (Ages 25-34) with college degrees.[9]

9 The Washington figure is composed of the total percentages of this age group with associate, bachelors, and higher degrees, which seem to apply generally to the OECD's "Tertiary Education Types B, A, and Advanced Research Programs".

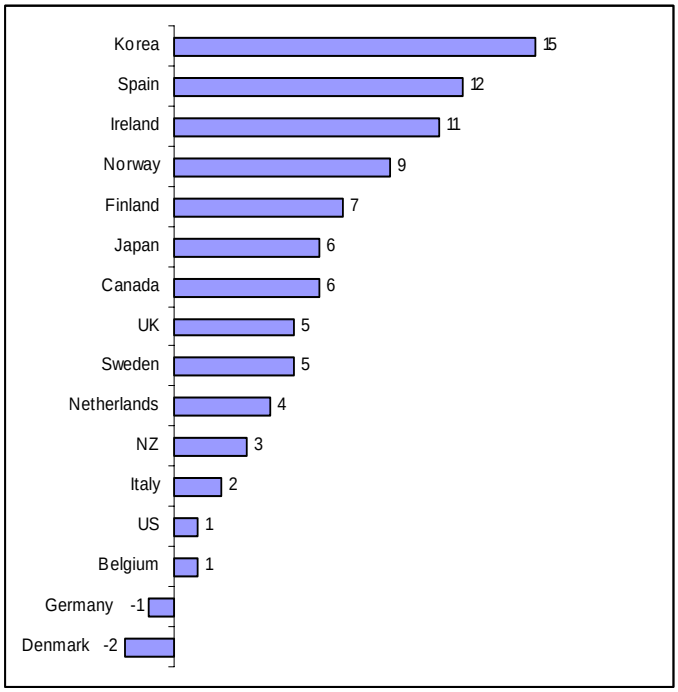
PERCENT OF THE YOUNG WORKFORCE (AGES 25 TO 34) WITH COLLEGE DEGREES -- US AVERAGE AND TOP TEN OECD COUNTRIES

Canada	52.8%
Japan	51.6%
Korea	46.6%
Washington	**44.9%*** **
Sweden	40.4%
Finland	39.8%
Norway	39.8%
Belgium	38.9%
United States	38.7%
Spain	37.5%
France	37.4%
Ireland	37.1%

*** Combined associate and bachelors and above.

Washington and the U.S. have been at this for a while, and a large percentage of the educated population is composed of people in the older age groups. An emerging theme of the global competition story, however, concerns what is happening with the young segments. The U.S. is slipping in this department. The trend in age 25 to 34 years adults compared with age 45 to 54 years, is shown on the following OECD table; the list of countries has been abridged for this display.

PERCENT CHANGE IN POPULATION WITH A BACHELOR'S AGE 25 TO 34 COHORT COMPARED TO AGE 45 TO 54 COHORT 2002, SOURCES: OECD AND POSTSECONDARY EDUCATION OPPORTUNITY



The U.S. standing should be an issue of national concern. In the words of Tom Mortenson of Postsecondary Education Opportunity, an organization devoted to monitoring and analyzing such things, who was considering this information in 2004, "Some of the data suggest that the U.S. has a well-educated working age population. Other data indicate that other countries are making far greater progress than is the U.S. in higher educating their population for the globally competitive Human Capital Economy. The static picture looks far better than the dynamic picture."[10]

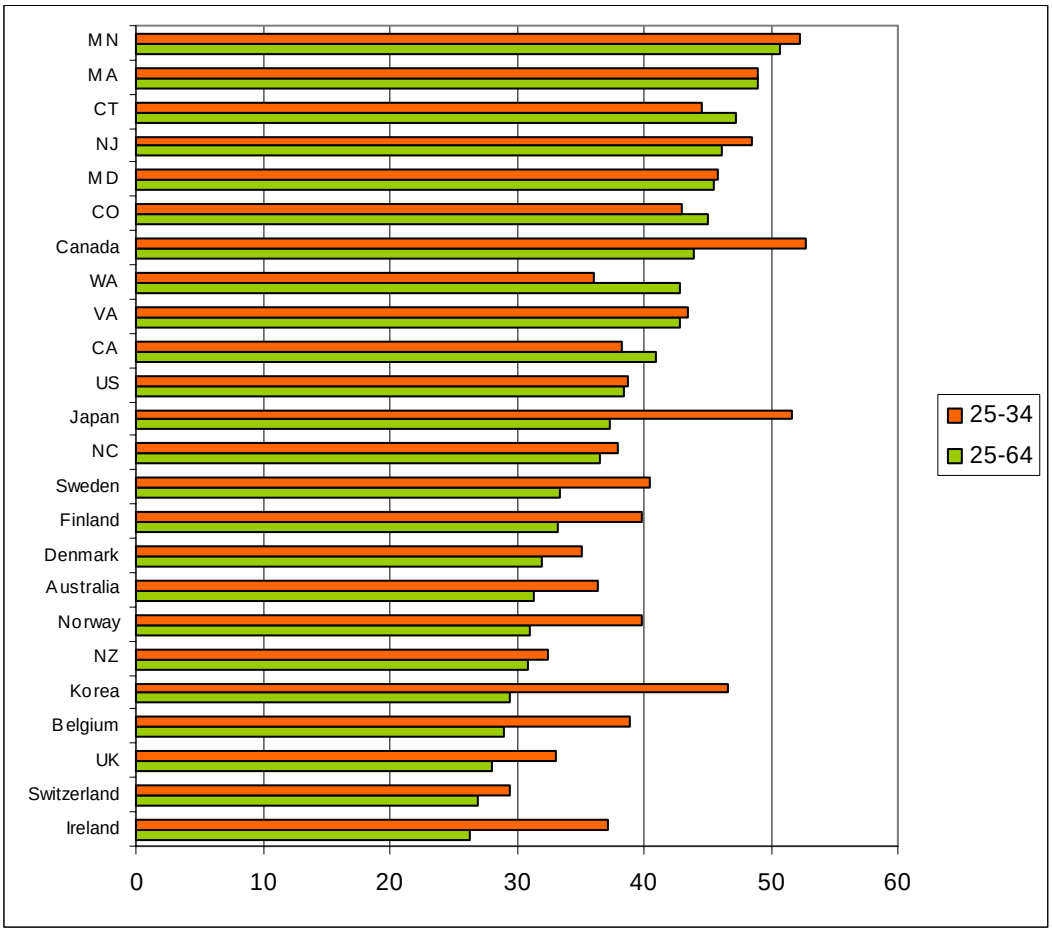
The dynamic picture is suggested by the change in the percentage of younger adults, age 25-34 with college degrees: the figure is 1% for the U.S.; it is 15% for the leading nation in this regard, Korea. This, rather than adult education attainment overall, is the more important indicator.

10 *Postsecondary Education Opportunity*, October 2004, p. 15

Thus, compared with some of our global competitors at one level, the total adult population -- the 25 to 64 year-old population -- the United States does well. Compared on another, the young adults -- the 25 to 34 year old population -- slippage is starting to show. The difference is important, for it is this latter group that will drive the comparisons in the years ahead.

The next chart shows how the GCS, including Washington, stack up internationally among both age groupings.

PERCENT ADULTS WITH A COLLEGE CREDENTIAL 2003: RANKED BY 25-64 YEAR-OLDS
SOURCES: CENSUS AND OECD

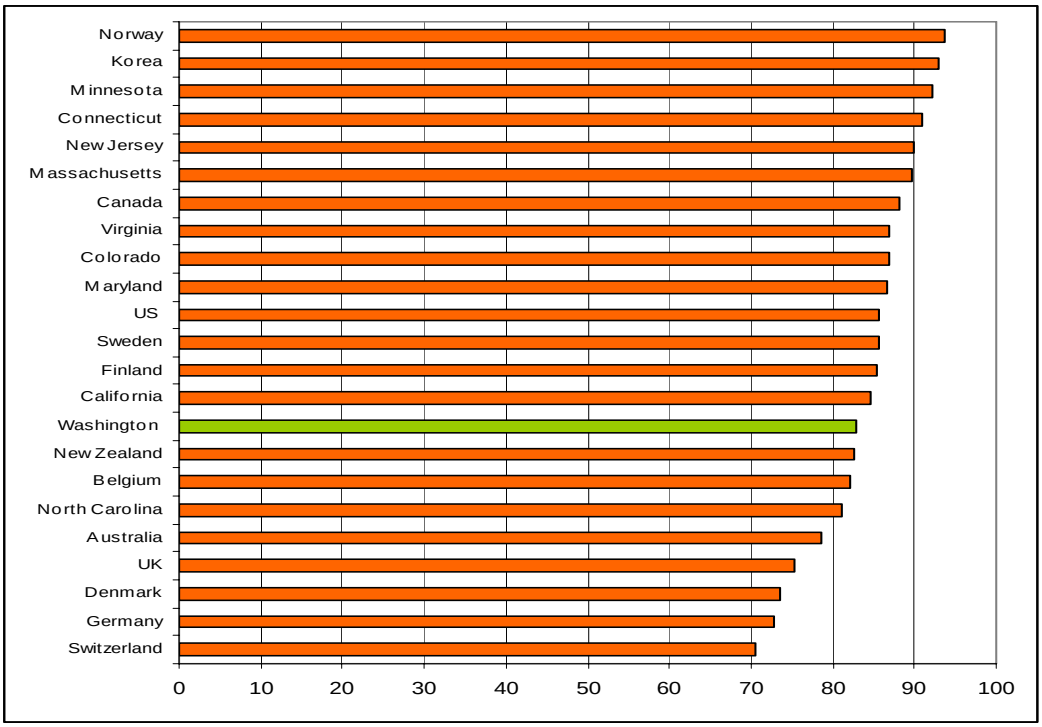


The OECD also ranks member countries on the basis of the number of years a five year-old can expect to be formally enrolled in education during his/her lifetime, noting that neither the length of the school year nor the quality of education is necessarily the same in each country.

Number of Years of Ed.	**Nation**
21	Australia (21.2)
20	Sweden (20.1), United Kingdom (20.4)
19	Iceland (19.2), Belgium and Finland (19.7)
18	Norway (18.2), Denmark (18.3), New Zealand (18.6)
17	Germany, Hungary, and Poland (17.2), Netherlands (17.3), Spain (17)
16	France, Italy, and the **United States (16.8)**, Portugal (16.9), Czech Republic (16.6), Ireland and Switzerland (16.7), Austria (16.1), Korea (16.4), Greece (16.5)
15	Slovak Republic (15.3)
14	Luxembourg (14.8)
13	Mexico (13.2)
12	Turkey (12.0)

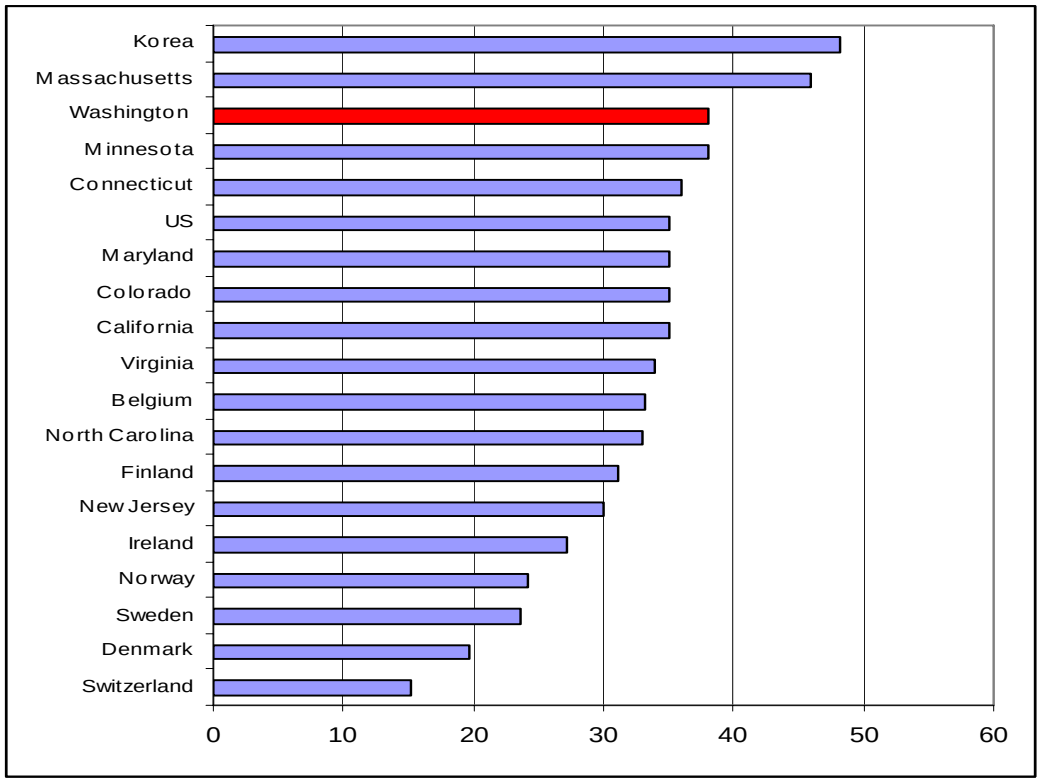
Slippage also may be apparent in the comparisons of young adults with a high school diploma. Washington ranks 14th on this measure among the OECD sample, and behind eight of the nine other comparison states. The following graph includes both OECD nations and Global Challenge States:

PERCENT 20-24 YEAR-OLD POPULATION WITH A HIGH SCHOOL DIPLOMA (INCLUDING GED)
SOURCE: CENSUS AND OECD, 2003



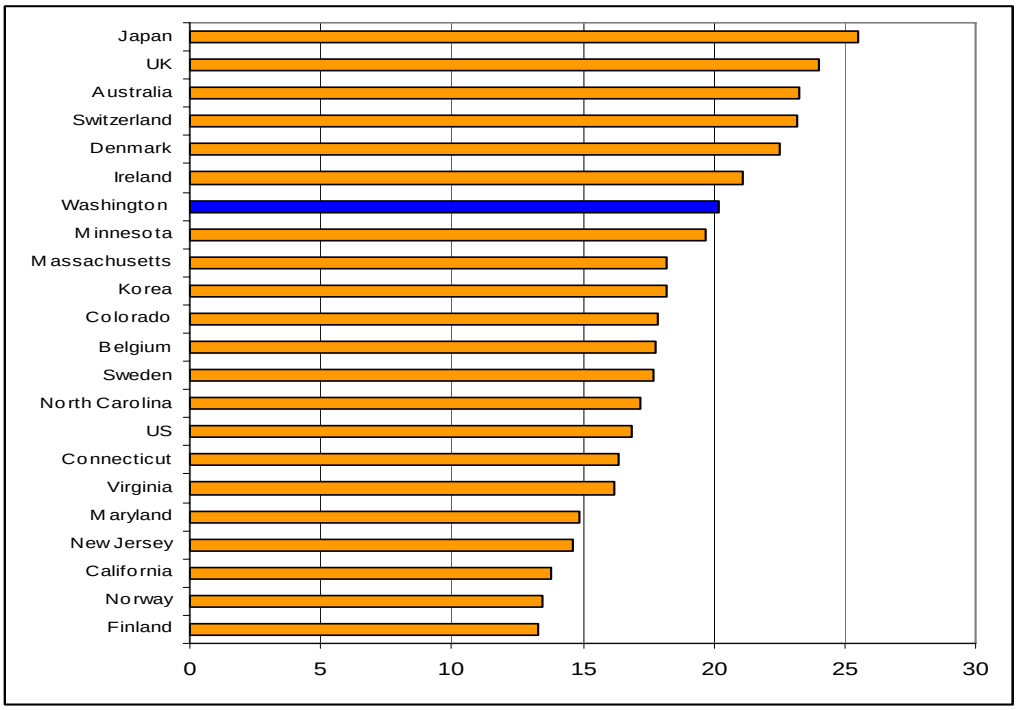
Washington does a little better in terms of the percentage of 18-24 year-olds enrolled in college but is still behind Korea and its only superior in the NEI rankings, Massachusetts. Washington's exceptionally strong community college performance is a significant factor in this performance and its placement on this chart.

PERCENT OF POPULATION AGES 18-24 ENROLLED IN COLLEGE (ALL LEVELS)
SOURCES: 2003 IPEDS, OECD



The state also is relatively competitive in terms of degree conferrals to enrollment productivity. While behind Japan, Great Britain, Australia, Switzerland, Denmark, and Ireland, it leads the GC States and ranks well above the U.S. average in this regard. Stated differently, its institutions are comparatively productive. We lead the GS States on undergraduate degrees per undergraduate enrollment.

NUMBER OF UNDERGRADUATE DEGREES AWARDED PER STUDENTS ENROLLED IN UNDERGRADUATE DEGREE PROGRAMS
SOURCE: Wagner; IPEDS, 2003



State/International comparisons on student performance, e.g., higher education test scores, are hard to come by for a number of reasons, not the least of which is the use of national samples, which in the case of the U.S. do not lend themselves to dis-aggregation to individual state figures without losing their statistical validity. The nation's rank [scores of 15 year-olds] on average mathematics and reading test scores, however, is disquieting. America trails the international sample in mathematics performance and test scores measuring reading literacy.

The issue of investments in education also brings up the matter of research and development funding. In the words of the people at NCHEMS: "These data measure the competitiveness of the states, and the postsecondary institutions within them, in generating cutting-edge research that is associated with a strong economy and high paying jobs. They measure research and development expenditures in the areas of medicine, science, and engineering and include only the R&D expenditures generated by postsecondary institutions (not including federal labs). . ." Spending for R&D in Washington and the GC States) in 2002 looked about like this:

TOTAL R&D EXPENDITURES, TOTAL AND BY CAPITA
GCS AND US AVERAGE
2002
TOTAL SPENDING INCLUDES ALL SOURCES, FEDERAL, STATE, LOCAL, INDUSTRIAL, AND INSTITUTION
SOURCE: NSF, CENSUS

State	Total R&D (000)	R&D Per Capita	Nat'l. Rank
California	$4,323,987	$124.97	19
Colorado	$564,479	$127.39	17
Connecticut	$492,794	$143.48	9
Maryland	$1,638,869	$304.28	2
Massachusetts	$1,558,338	$243.45	3
Minnesota	$462,220	$92.73	34
New Jersey	$607,702	$71.40	43
North Carolina	$1,114,275	$135.79	11
Virginia	$595,276	$82.71	39
Washington	**$697,563**	**$116.13**	**22**
GCS Avg.		$144.23	
US	$32,213,590	$112.90	

Washington's national ranking, 22nd, is not outstanding; it is slightly above the national average in per capita research expenditures but trails the GCS average. It ranks seventh in the GCS group on Total R&D Expenditures. "Total Expenditures" on the table is composed of funds from Federal, State and Local, Institutional, and Industry sources. Examined separately, they change somewhat, starting first with Federal research funds.

R&D EXPENDITURES FROM FEDERAL FUNDS
2002, PER CAPITA AND RANK
SOURCE: NSF

State	Per Capita	Nat'l Rank
California	$71.47	20
Colorado	$97.61	5
Connecticut	$94.68	7
Maryland	$221.07	2
Massachusetts	$176.76	3
Minnesota	$53.04	28
New Jersey	$31.65	43
North Carolina	$77.83	16
Virginia	$46.52	34
Washington	$80.72	12
GCS Avg.	$95.14	
U.S. Avg.	$66.16	

These figures reflect total federal R&D expenditures for the state, not those applying to individual institutions such as the University of Washington, which ranks among the top research universities. The state ranks fifth in the group on this measure, and, while above the U.S. per capita average, it trails the GCS average.

Per Capita expenditures for R&D from state and local sources are the subject of the next table:

R&D EXPENDITURES FROM STATE AND LOCAL FUNDS
2002, PER CAPITA AND RANK
SOURCE: NSF

State	Per Capita	Nat'l Rank
California	$6.92	26
Colorado	$4.89	39
Connecticut	$4.30	42
Maryland	$11.05	14
Massachusetts	$5.94	35
Minnesota	$11.65	12
New Jersey	$6.12	34
North Carolina	$14.40	6
Virginia	$9.63	18
Washington	$2.87	47
GCS Avg.	$7.77	
U.S. Avg.	$7.95	

The change is dramatic. Washington trails everyone, including the nation, except for Alabama (51), Arizona (48), North Dakota, and West Virginia on this measure. This is one instance in which there are a lot of 'Global Challenge States." Federal funding is keeping this ship afloat. With Washington ranked 47th on state and local R&D funding, one could argue that the state is not carrying its load, or, put a little differently, protecting the investment.

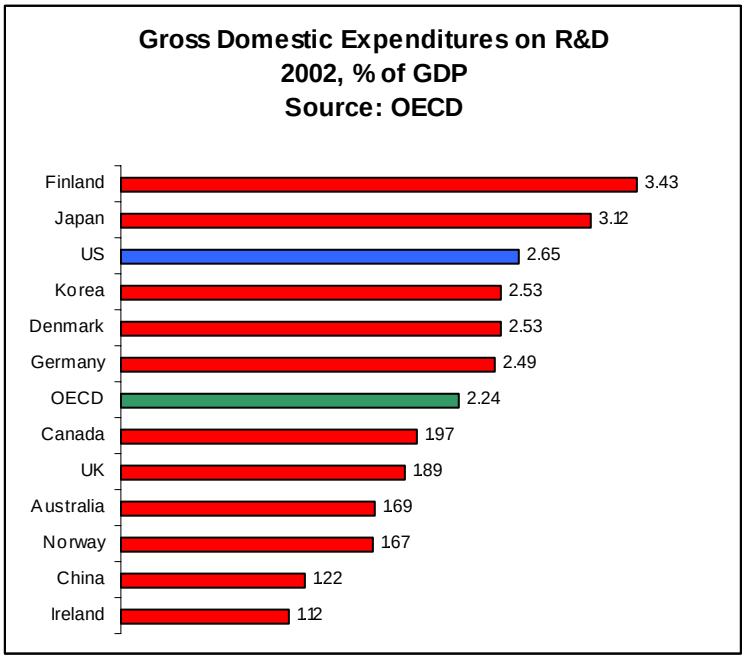
One more table on this subject, in this case measuring R&D funds from industry and institutional sources, completes the picture.

R&D EXPENDITURES FROM INDUSTRY AND INSTITUTIONAL SOURCES
2002, PER CAPITA AND RANK
SOURCE: NSF

State	Industrial Sources Per Capita	Nat'l Rank	Institutional Funds Per Capita	Nat'l Rank
California	$7.31	17	$27.34	18
Colorado	$6.53	24	$12.67	45
Connecticut	$7.00	18	$21.68	25
Maryland	$13.34	5	$39.16	3
Massachusetts	$23.97	2	$12.23	46
Minnesota	$5.31	33	$16.01	41
New Jersey	$3.96	41	$20.21	29
North Carolina	$20.43	4	$18.39	33
Virginia	$6.37	26	$15.14	43
Washington	$7.97	15	$21.15	27
GCS Avg.	$10.21		$20.39	
U.S. Avg.	$7.70		$22.77	

Overall, when the issue is R&D expenditures, Washington may not always be playing in the league it likes to think it is. The exception is probably the University of Washington, which again is a leading public university nationally in this respect. In comparison with the rest of the states, in terms of funds from federal sources and funds from industrial and from institutional sources, Washington is hovering around the national average. When the subject is R&D funds from state and local sources, it really is not even at the table.

In terms of the global competition, the U.S. continues to do well, but skidding is apparent. In 1991, U.S. expenditures on R&D equaled 2.71% of its GDP. By 2002 the figure had declined to 2.65%. Meanwhile, the OECD average rose from 2.2% to 2.24%. The 2002 figures for the U.S. and selected OECD countries are shown on the next table.



These data and tables speak for themselves. The following quote from *Postsecondary Education Opportunity* is a good one on which to end this brief overview:

> In nearly all of the industrial democracies of the world, populations of working class adults are rapidly becoming better educated. In some countries, such as Korea, Spain, Iceland, Norway, Canada, New Zealand, Ireland, France, Australia, Denmark, Sweden, United Kingdom, and Belgium, these gains are far greater than they are in the United States. If these gains continue over the next decade and beyond, then these countries will eventually have better educated workforces than will the United States. Norway may be the first country to surpass the United States in the proportion of its 25 to 29 year old population with at least a bachelor's degree. Korea, Spain, Ireland, and other countries could follow thereafter.[11]

Washington needs to do much better. Nearly 25 years have passed since the education alarm call was sounded by the National Commission on Education Excellence in its report, *A Nation at Risk*. Higher education dodged the bullet in 1983, when the Commission's attention was on K-12 education and the concern was with education quality. American higher education was implicitly exempted,

11 *Postsecondary Education Opportunity*, October 2004, pp. 15-16.

and it was the conventional wisdom that the United States led the world on all of the comparative indicators.

Nothing lasts forever, and higher education's time has come. The focus has shifted, and the emphasis is on virtually all of the major facets that affect it: access, funding, quality, and productivity. The risk the National Commission was concerned about has not diminished; it has grown, and it has spread.

"MAKING THE GRADE"

WASHINGTON HIGHER EDUCATION AND THE GLOBAL CHALLENGE

RISING TO THE TEST: INVESTMENTS IN HIGHER EDUCATION: WHO BENEFITS?

With attention, commitment, and effort, Washington could regain its place and prevail in the global race, and that would be a good thing, but it could win that race and lose another at home. While a strong case for assertiveness in higher education policy can be made in global and other economic competition terms, it is not the only one. Higher education contributes both an economic return and societal benefits as well, proceeds that accrue both to the individual and to the public. Understanding of this is crucial to the case for investments, answers to questions about who must pay, and agreements on an equitable distribution of the costs of higher education among the individual, in this case the student--and the public--in this case, the state.

The benefits of education include a private dimension (increased earnings over the course of a lifetime), and they contain others that are less direct: "an educated public can help keep health care costs down (college grads take better care of themselves), raise levels of economic development (they create more jobs and companies), and increase tax receipts (they make more money and pay more taxes),"[12] to say nothing of the importance of an educated public to the civic culture and success of this democracy. The essentiality of an educated populace and workforce to effective competition in the global economy is the subject of the preceding chapter. Now the focus is on benefits that apply closer to home.

In the terminology of economists, "externalities" are phenomena that arise when economic impacts are not confined to producers and consumers of a product or service. In the case of higher education, utilization of educated and skilled workers by employers leads to productivity increases that spread the benefits of higher education beyond the immediate workplace. For example, in a complex study reported in the *Journal of Economics*, Enrico Moretti determined

12 Jon Gertner, "Forgive Us Our Student Debts," *New York Times Magazine*, June 11, 2006.

that a one percent increase in the percentage of college graduates in a city is associated with externality, 'spin-off,' effects on the wages of other city residents in the following magnitudes:[13]

- 1.9 percent wage increase for high school dropouts,
- 1.6 percent wage increase for high school graduates,
- 0.4 percent increase in the wages of college graduates.

Moretti also determined that manufacturing plants located in cities with high levels of college graduates have greater productivity than plants located in cities with lower levels of educational attainment among the population. He concluded that a one percent increase in a city's share of workers with a college degree is associated with a 0.5 to 0.7 percent increase in productivity. These productivity differences, in turn, are associated with higher wages in the cities with more college graduates.

Such studies demonstrate that regions with more college graduates as a percentage of the workforce have higher wages, higher productivity in manufacturing plants, and higher rates of income growth in recent decades.

The personal benefits of education also are important and fairly easy to describe. For one, average personal income corresponds closely with level of education accomplishment. The higher one goes up the education ladder, the higher will be the expected income. This is almost inarguable, although the argument is not complete in itself. Personal benefits do not end there, of course, but extend into virtually all facets of life.

Practically all who have researched and written on the question of ' Who Benefits?' agree that the benefits of higher education include individual and social forms. Howard Bowen, who may have written the seminal book on the subject, includes "Disposition toward law observance" among the citizenship qualities on his list of higher education benefits. He also considers health amelioration among the effects he attributes to higher education. In this case, "Understanding of the basic principles for cultivating physical and mental health," and "Knowledge of how and when to use the professional health care system," are among the qualities listed.[14] Similarly, "Progress in freedom, justice, security, order, religion, health, and so on" exemplifies one of the features of advancement of social welfare for Bowen.

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13 "Estimating the Social Return to Higher Education: Evidence from Longitudinal and Repeated Cross-Sectional Data," 121 2004, 175-212.

14 *Investments in Learning,* 1997, Johns-Hopkins Press; initially printed in 1977, by Jossey-Bass; Forward by Michael S. McPherson and Morton Owen Schapiro.

Crime rates also enter into the conversation. Bowen notes that crime is less prevalent among college students then other youths. Incarceration rates are another indicator, since prison populations contain disproportionately fewer residents who have completed high school or college. Bowen speculates that to the extent that education produces jobs, it may inhibit the type of violent criminal activity that "flourishes in conditions of economic desperation."[15] Thus, a variety of social impacts have been associated with higher education levels, including reduced crime rates, higher voting rates, volunteerism, etc.

Given the costs associated with incarceration, Lance Lochner concluded that a one percent increase in male high school graduation rates nationwide would result in public sector savings of $1.4 billion, or $2,100 per high school graduate.[16] Steven Steurer and others extended this argument to the education of prisoners, using data from Maryland, Minnesota, and Ohio.[17] Major results of the study include a 29 percent lower re-incarceration rate for participants in education programs.

Robert Putnam[18] also sees a connection between education and law observance, although education may not be the strong predictor that it was for civic participation (e.g., voting). He argues that states with good social capital have proportionately fewer murders ("This inverse relationship is astonishingly strong – as close to perfect as one might find between two social phenomena.") In his view, states rich in social capital tend to be wealthier, better educated, and more egalitarian in their distribution of income.

It is in such a context that phenomena such as the following acquire special meaning:[19]

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15 Bowen, *op. cit*., p. 157.

16 Lochner, Lance. "The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports". *The American Economic Review*, 94 (1):155-189, October 2003

17 Steurer, Stephen J., Linda G. Smith, and Alice Tracy. "Education reduces crime: Three-state recidivism study". Report for Office of Correctional Education, U.S. Department of Education by Correctional Education Association, Lanham, MD, September 30, 2001.

18 Putnam, Robert. *Bowling Alone: The Collapse and Revival of American Community*. New York, Simon and Schuster, 2000

19 A brief note may be in order here. Economists and others seem to like to spend a lot of time searching for causality, e.g., trying to determine whether a variable such as education *causes* certain results. Searching for causality in such cases could be a waste of time. How many years have been spent searching for the cause of cancer, or diabetes, or any of a hundred or more diseases in the very rigorous health science field? A causal link between smoking and lung cancer has yet to be established. It may be that all that is needed or possible is a strong enough

- Males with some college (57%) or a bachelor's degree or more (59%) remain economically active from birth for a greater portion of their lives than those with less than a high school degree (49%). (Bureau of Labor Statistics)
- While 24.4% of families living below the poverty level have less than a high school diploma, this is the case with 2.4% of those with a bachelor's degree or above. (Census)
- Among men aged 22-49 who are unable to work, 6% have not graduated from high school; 0.4% have a bachelor's degree or above. (Bureau of Labor Statistics)
- 73.8% of those with a bachelor's or higher degree have visited a dentist within the past year, compared with 38% of those with less than a high school degree. (NCHS)
- Although infant mortality rates are also associated with race and ethnicity, they decrease proportionately with education attainment for all reported racial and ethnic categories. (NCHS)
- Two-thirds of those with a bachelor's degree or higher regularly wear seatbelts while driving, compared with 39% of those without a high school degree. The figure for high school graduates is 41%, and for those with some college, 51%. (American Journal of Public Health)
- Of those women who were unmarried and had a child in the past year, 45.6% had not finished high school, 30.3% had graduated from high school, 19% had some college, and 6.1% had a bachelor's degree or higher. (Census)
- 25% of those with less than a high school education knew that it was the Supreme Court, rather than Congress or the President, that determines if a law is constitutional; 78% of those with a bachelor's degree or more knew this. (NCES)
- 73% of those with a bachelor's degree or above; 55% of those with some college; and 36% of those with a high school diploma knew what the first ten amendments to the U.S. Constitution are called, compared with 7% of those who had dropped out of high school (NCES).
- 52% of those with a bachelor's or above; 44% of those with some college; 33% of high school graduates; and 19% of those without a high

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correlation between a variable and a result to allow predictions. This seems to be what we have here.

school diploma performed an ongoing community service during the year. (NCES)

- 91% of those with a bachelor's or above; 80% of those with some college; 68% of high school graduates; and 51% of those without a high school diploma voted in a recent national or state election. (NCES)
- 67.2% of those with a bachelor's or above; 56.9% of those with some college; 40.4% of high school graduates; and 29.9% of those without a high school diploma report they do volunteer work, with the amount of hours volunteered each week rising progressively with attainment level. (Independent Sector Survey)
- 71% of male offenders and 83% of female offenders in the Washington prison system score at less than the 9th grade level on basic skills tests. 50% of offenders were unemployed prior to incarceration. (Washington Department of Corrections)
- 87.1% of the adults in Washington have a high school diploma, compared with 32% of the Washington State prison inmates. (Washington Department of Corrections)
- Less than 20% of Washington's offender populations have a verified high school diploma. (Washington Department of Corrections)
- 85.5% of Temporary Assistance for Needy Family recipients have 12 or fewer years of education. (Department of Social and Health Services)

Education can be thought of as an investment in much the same manner as stocks and bonds. Individuals and the public make these investments, expecting an economic return in the form of higher wages and social benefits from the graduates. The higher wages generate higher tax payments to government, providing a financial return that exceeds the government costs of providing education.

Washington's reliance on a sales tax rather than a personal income tax complicates efforts to measure the return from increased earnings, but using Census data it is possible to arrive at some estimates of sales tax payments, as shown on the following table.[20] The data are reported for households, the earnings are national averages (rather than specific to Washington), and the education attainment levels do not correspond perfectly with others used in this report. The estimates while approximate are nonetheless informative.

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20 According to staff of the Department of Revenue, statistics on the amount of taxes paid by education attainment level have not been compiled.

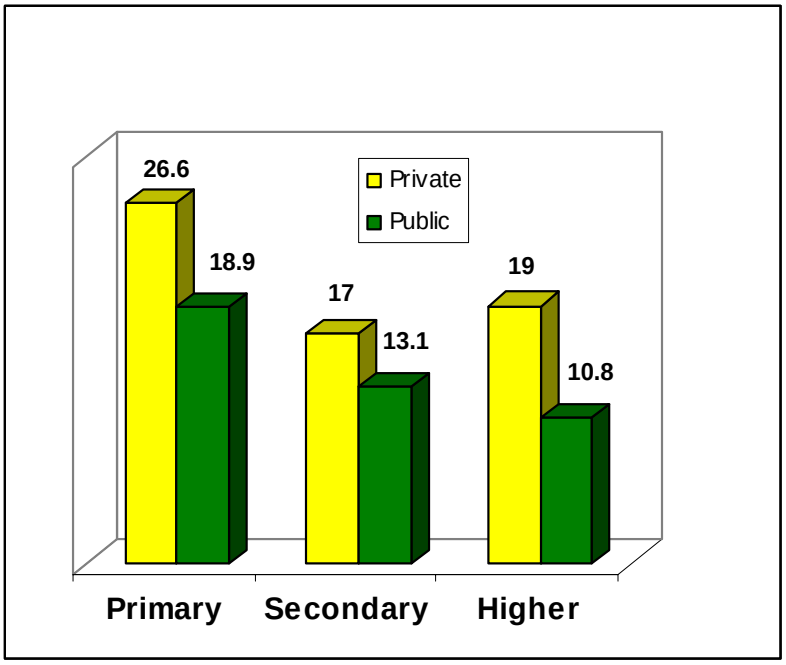
	< than HSG	HSG	Some, incl. /AA	BA	MA & +
Income Before Taxes	**$22,852**	**$30,628**	**$34,918**	**$45,367**	**$52,188**
Household Income Before Taxes	**$24,390**	**$37,743**	**$46,720**	**$70,137**	**$86,693**
Unit Head Income % of Total Income	**93.70%**	**81.10%**	**74.70%**	**64.90%**	**60.20%**
Avg. Annual Unit Expenditures	$24,081	$33,041	$40,340	$53,678	$61,757
% of Income Spent	99%	88%	86%	77%	71%
% of Unit Head Income Spent	105%	107%	115%	118%	118%
% of Household Income Spent	99%	88%	86%	77%	71%
Income Spent on Sales Taxable Items	$21,172	$30,362	$41,484	$48,207	$56,563
Percent Household Income Spent on Sales Taxable Items	86.80%	80.40%	88.80%	68.70%	65%
Estimated Sales Tax @ 6.5%	**$1,420**	**$1,974**	**$2,696**	**$3,133**	**$3,677**

The table does not address such things as property taxes, also an important revenue source in this state, but it seems clear that once public and private costs are properly taken into account, there is a positive and substantial rate of return on education investments.

This is not only the case in the United States. A review of 73 countries found that social returns compared to public investments in education ranged from 19 percent at the primary level to 13 percent at the secondary level, and then to 11 percent for higher education.[21]

21 Source: Psacharopoulos and Patrinos, 2004, p. 112

RETURNS TO INVESTMENT IN EDUCATION IN 73 COUNTRIES



In the United States, the estimated net discounted economic benefits of a bachelor's degree for men are $338,465 greater than for those who exited the education system with just a high school diploma; they are $250,380 greater for women. These benefits correspond with a combined public and private rate of return on investment of 11.7 percent for men and 11.6 percent for women.[22]

VALUE OF A BACHELOR'S DEGREE

	Men	Women
Costs (Ages 18 to 21)		
Tuition, fees, government appropriations	$60,000	$60,000
Foregone earnings	70,592	57,292
Total costs	130,592	117,292
Total costs, discounted at 4 percent real interest rate	123,250	110,696

22 Hill, Kent, et al. *The Value of Higher Education: Individual and Societal Benefits*. L. William Seidman Research Institute, Arizona State University, Tempe, AZ, October 2005.

Benefits		
Earnings with a high school diploma	1,734,824	1,243,838
Earnings with a four-year degree	3,012,522	2,202,327
Differential in earnings	1,268,698	958,489
Earnings differential discounted at four percent	461,715	361,075
Net present value of a bachelor's degree	338,465	250,380
Internal rate of return	11.7%	11.6%

Recognition and appreciation of how education plays out on almost every level of human activity is essential to an understanding of who should bear the costs. The obvious answer is that this is a load we all must share, both individually and collectively. The related question is whether the investment is worth it. The evidence on that is positive, whether the investor is the individual or society.

"MAKING THE GRADE"

WASHINGTON HIGHER EDUCATION AND THE GLOBAL CHALLENGE

RISING TO THE TEST: ADDRESSING NEED AND DEMAND

"If we do not find ways to move more people through the pipeline we will be wasting our time talking about increasing degree production."

Interview Participant

"It is a matter of capacity, unless we have or find more it will be like trying to grow flowers on stone."

Interview Participant

THE NATURE OF HIGHER EDUCATION NEED AND DEMAND

Considerable growth in higher education over the past few decades has occurred in Washington by virtue of population expansion and the increased capacity gained from a sustained higher education investment and development process that began in the late 1960s. The latter includes formation of the state community college system, the creation of The Evergreen State College, the re-designation of Central, Eastern, and Western from state colleges into comprehensive universities, the development of university branch campuses in the late 1980s, and the re-constitution of the vocational-technical institutes as postsecondary technical colleges (and their inclusion in the community college system).

The progression is entering a new phase, marked by the transformation of branch campuses into four-year institutions, the appearance of university centers on community college campuses, experimentation with baccalaureate programs in community colleges, and renewed efforts to identify and respond to regional needs, most recently and currently in the Everett region.

Viewed retrospectively, this aspect of performance is impressive. Had it been viewed *prospectively* in its present splendor, however, it well might not have happened: in the culture of today the cost implications probably would have proved overwhelming. Enrollment growth in Washington has occurred.[23] For the period between 1991 and 2004, Washington ranked 7th in the country in the percentage change in public higher education FTE enrollments, with slightly over 40%. The U.S. average was 21.8%. Only Nevada, Utah, Mississippi, Arkansas, Louisiana, and Idaho experienced greater proportionate increases than Washington. Nevada's increase was 86.9%[24].

This is an impressive record. But when considering such numbers, however, one also must keep in mind that Washington has positioned itself to be an especially high participation state *at the two-year level*, where it ranks fifth nationally. The comparatively low average FTE costs and the high level of activity in the community and technical colleges affect the average FTE appropriations figure, creating fairly low unit funding and FTE figures not mirrored by many other states. California is the most similar to Washington among the Global Challenge States in this regard.

Washington is less active, proportionately, at the four-year level; different metrics are cited, but according to OFM, Washington ranks 45th overall in four-year participation (also according to this source, the state ranks 46th in participation at the public sector graduate and professional levels.)[25] This standing seems to have remained relatively constant for several decades. In 1980, for example, the then Council on Postsecondary Education calculated the state's four-year participation ranking at 47th.[26]

We believe this situation needs attention. So far Washington has not been able to solve the problem, but doing so while continuing its impressive sub-baccalaureate effort is crucial to the state's success in the new global setting.

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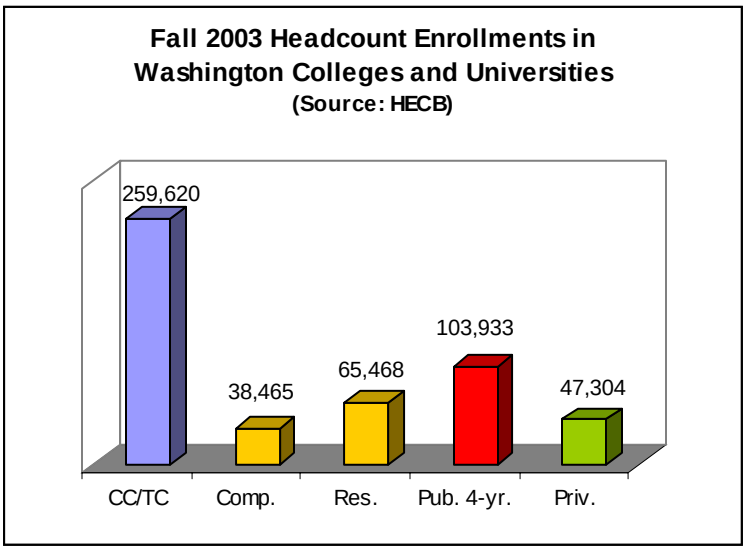
23 A 1980 CPE report entitled "The 7% Solution," suggests that an admirable enrollment goal for Washington would be attainment of a headcount enrollment in public institutions that would be equivalent to 7% of the age 15-65 population. This figure was above the apparent then current rate but considered attainable. Washington has advanced well beyond that level: using HECB figures, headcount enrollment in 2002 equaled 8.6% of this age group. If enrollments in independent institutions are included, the figure advances to 9.6%. Note that the referent is headcount enrollments, not FTEs.

24 SHEEO, *op. cit*., p. 27.

25 *Higher Education Trends and Highlights*, March 2005, p. 8

26 Chance and Uhlman, "An Enrollment Model for Washington State, the Seven Percent Solution," 1980. This report appears to be out of print.

Headcount enrollments, the numbers of students who enroll and attend classes, also accord with this overall pattern. Headcount enrollments are distributed among the major providers in Washington in the proportions shown on the following chart:



Enrollment rates reflect cycles in the state's population. Economic conditions also are an important influence, as they affect potential students' alternative opportunities in the labor market and, thereby, enrollments. A strong economy and a good job market divert students, especially entering first-timers, from the colleges and universities. Bad times tend to have the opposite effect.

Both of these play-out strongly in terms of community college effort. According to OFM, in 1970 (the year the state community college system became operational), enrollments in public two-year institutions represented 47 percent of the total [27] In 2004 the community college share had increased to 52 percent.[28] Meanwhile, in that system the share held by younger students declined from about five percent to around 4.5 percent as older students, those over age 30, began to participate in greater numbers.

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27 Community colleges -- then largely junior colleges and vocational institutes -- have been operational in Washington, generally under the purview of local school districts, since the 1920s. Centralia College, then Centralia Junior College, believed to be the first such institution, was established in 1926. Perhaps a variant of the form, the state's comprehensive universities, Central, Eastern, and Western, were established as normal schools -- two-year teacher preparation schools -- in the 1890s.

28 OFM, *op. cit.*, p. 1.

The community/technical college clientele is different than the usual university population, as it includes both students in workforce preparation programs along with displaced workers in retraining programs, adult basic education students, and others seeking a new or different start. The age shift is a hallmark of the success of that system's ability to accomplish much of what it was intended to do.

With respect to the future, OFM has estimated that nearly 21,500 FTEs over the 2004 base will need to be added to the public higher education system by 2010 to keep pace with projected population growth. This is a conservative estimate, based as it is on a continuation of current service levels in the face of a global competitive challenge that suggests increases in participation rates will be essential. Even so, by 2020, some 35,332 FTEs will need to be added. In terms of funding implications, the institutions will need to add about 3,000 FTEs per year to maintain the present participation rate through 2011-12. After the baby-boom cohort passes through prime college age that year, the annual increments are projected to decrease, although decreasing increments still imply growth.[29]

As noted, enrollment levels are affected by economic change, rising as the economy slows and job opportunities decline and dropping as the economy heats up and job opportunities expand and compete with college applications. The contradiction is that funding is also affected by economic change, especially in the context of Washington's tax structure (reliance on sales and B&O taxes with no income tax): revenues drop as the economy slows and rise when the economy picks up (also pointing out the importance of rainy day funds, a subject touched on later in this report).

The typical pattern is one in which the higher education system experiences funding cuts in the midst of enrollment pressure. The counter-cyclical effects of the economy on enrollment levels, on the one hand, and funding, on the other, are familiar to policymakers in all states, although maybe a little more so here. Thus, this phenomenon is not unique to Washington, but it helps to explain the variance between funding and enrollment patterns over time.

There are three principal funding sources for higher education: State Appropriations, Tuition and Fees, and Institution Funds ("All Other," which includes Grants and Contracts and Gifts, among other funds).. Washington does not utilize local tax support for its community colleges, although about half of the states do.

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29 *Idem*, p. 6.

The three operate in concert: if the flow from one source is constricted, it must be made up from another if service levels are to be maintained. Thus, state funding reductions, for example, translate rapidly and probably most directly into pressure on tuition. In effect, when allowed to do so, tuition and fee increases compensate for and dampen state appropriation cuts. When the economy and the revenue [tax] streams improve, legislatures may attempt to play catch up and return to an earlier balance, but this tends to be more a value than a practice, as tuition rates rarely return to the *status quo ante*. The pattern accounts for much of the public anxiety about affordability and lower-income families being forced out of higher education,a very important issue that probably both affects public support and reduces higher education as a feasible option for low income students.

QUANTIFYING NEED AND DEMAND

Each state employs some systematic method to project enrollments. Washington utilizes current participation rates, population change, and high school graduations as the principal variables. The projections are 'conservative' in the sense that the future they describe is what it would be by carrying forward present participation rates applied to the state population forecast for the years of interest. The participation rate is the number of persons in a particular age group enrolled in public or private higher education per 100 persons in that age group.[30]

Thus, although many believe Washington has a higher education access problem, the current methods of forecasting do not make it clear if it does, or if it does, how big a problem it is. On this point, in its Fall 2004 report on the Applications Match Study, wherein agency staff with the help of the institutions tracked the experiences of applicants for admission that term, OFM stated that 52,409 undergraduate applicants submitted 66,758 applications to public four-year institutions in Washington [an average of 1.27 applications each]. Of the 37,777 resident applicants, 24,478 [65%] were enrolled in a four year [public or private] institution, and 3,839 [10%] were enrolled that fall in a community college [total of 75%].

The remaining 25% [9,460] were not enrolled. Of these, 5,164, [55%] were offered admission but did not enroll here, and many are assumed to have enrolled in institutions in other states. Some 2,168 applications were withdrawn or considered incomplete. Those who were denied admission by at least one public four-year institution and not admitted by another totaled 2,128. Thus,

30 Irv Lefberg, "Presentation on Population Trends and Enrollment Projects, and Funding Outlook" (OFM, August 4, 1995), p. 12.

between 1,642 [4.3%] and 1,853 [4.9%] qualified applicants [i.e., who met admissions requirements] were denied admission and not enrolled in another institution during that term.[31] These numbers are informative but they should not be interpreted to mean the state needs only to make room for 4.9% additional students. Moreover, the numbers relate to those who were sufficiently motivated to apply. Those who did not apply, including those who might have done so if not discouraged by price or perceived feasibility, would not have shown up in these numbers.

There are many reasons why potentially qualified students do not get to the stage of completing an application to a public institution, and some of these are addressed elsewhere in this report. Effective demand for higher education is influenced by pricing policies, geographic placement of institutions and programs relative to population, labor market conditions, changing characteristics of the population (especially shifts in the age, income and ethnic mix), and K-12 preparation. Thus, if capacity is not located where the people are, or the population mix shifts toward groups with a history of substantially lower participation rates, *absent active policies to counteract these effects*, enrollment demand is likely to slacken. This may make higher education easier for the state to finance in the short term, but it is likely to erode economic and social vitality in the long term.

WASHINGTON'S APPROACH

Since the late 1960s, Washington has built much of its response to enrollment needs on a “2+2” model that assumes many students will begin their postsecondary studies at a community college, transferring if desired to a four-year college or university for roughly the final half of a baccalaureate degree.

This approach has the advantage that two-year colleges offer lower division (essentially the first and second years of college) courses at somewhat lower overall cost than most four-year institutions and at substantially lower tuition cost to the student. Also, these colleges are distributed widely around the state, enhancing opportunities for postsecondary participation on a proximity and cost effective basis. Thus, Washington stands near the top among the American states in the percentage of its public sector students enrolled in the two-year

31 *OFM, A Perspective on Unmet Demand,* Fall 2004.

sector (64%),[32] and it accomplishes a high rate of participation at this level compared to other states.

Washington's strong community college performance is one of the defining characteristics of its higher education system. Such reliance places a lot of emphasis, however, on inter-institutional articulation and the facile movement of students from one segment to the next. Many feel that the state's performance in this regard is mixed; some, less charitable, describe it as lackluster.

Few systematically track by college how well their transfers actually do in terms of baccalaureate attainment. Such information could increase each college's attention to how well its transfers were prepared, not just to whether they transferred. The emphasis now, in other words, is on how many students transfer and much less so on how many succeed in earning a bachelor's degree. Tracking could be done on an individual college basis system-wide, or it could be included in an integrated student tracking data system, which could permit such a measure to be constructed and fed back for improvement. The subject of an integrated date system is considered again later in this report.

At the four-year level, Washington has a relatively large share of its public [four-year] sector students enrolled in research universities, 62% in Fall 2005, and relatively few in its comprehensive universities and liberal arts college (38%),[33] a configuration that tends to elevate average per student costs across the four-year sector. The heavy concentration at the research universities has increased somewhat in recent years as enrollment limits on the University of Washington have been eased, and as both it and Washington State University have opened and expanded branch campuses.

It is not clear how much this pattern corresponds with other GC States, since comparison data tend to be aggregated into categories such as "public four-year institutions," which combine the different types, although it is likely that a pre-disposition to enroll in research universities is fairly common in the United States, and it is definitely the case in Washington. [Funding patterns among sectors within the 4-year segment, prepared as part of the present study, are described in the chapter on funding later in this report.]

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32 Public 2-year participation rates for each state were calculated by dividing public 2-year enrollments by total enrollments in public institutions. Enrollments used were those for Fall 2004 from the National Center for Education Statistics*, Digest of Education Statistics 2005* (Table 195).

33 Figures include state-funded FTEs and are calculated from Office of Financial Management Fall 2005 Higher Education Enrollment Reports.

In some respects the comprehensives have lagged behind the research universities on the mission development curve. Washington's comprehensives became universities in the late 1970s; previous to that they were state colleges, authorized to offer only a limited range of programs at the graduate level (MA, MS, and MEd). Authority to offer professional master's degrees (e.g., MBA, MPA, etc.) followed within a couple of years of the name change. All of this was part of a larger, if ad hoc, strategy to make these institutions more attractive to students and to relieve some of the pressure on the research universities. An enrollment cap on the University of Washington also was part of the program, as were different tuition levels for the different types of institutions (based, in turn, on ascribed shares of the costs of instruction for the different institution types, described later in this report). These efforts realized some success, but probably not as much as had been hoped except perhaps at Western Washington University.

During the 1970s, the CHE interviewed University of Washington 'turn-a-ways' to determine where they ultimately went. Out-of-state research universities were the second choice for some; WSU was the choice of others. The independent colleges of Washington ranked third. Community colleges came in fourth (students would attend them with the prospect of transferring into the UW later). The then state colleges came in last, although some ranked higher than others. Things have changed since then, but additional attention to incentives to make these and other institutions (such as branch campuses) attractive to students from throughout the state could increase capacity at lower cost than expansion of the research universities, provided, of course, that the branches get their unit costs down, as called for elsewhere in this report.

The independent institution sector, at least that part concentrated at the four-year level in Washington, is smaller than the national average (enrolling about 14% of all students compared to around 23% nationally),[34] but it has grown at least proportionally to the public sector in recent years. This pattern has been facilitated by the state's provision of need-based financial aid accessible to students in independent (private, nonprofit) as well as public colleges and universities.[35]

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34 *Digest of Education Statistics 2005* (Table 195).

35 Washington provided $158 million in student aid in 2003-04, ranking second in grant aid per undergraduate student among western states and fifteenth nationally, according to the National Association of State Scholarship and Grant Programs, *35th Annual Survey Report on State-Sponsored Student Financial Aid, 2005*.

Additionally, private, for-profit institutions [some of which in Washington, e.g., City University, Henry Cogswell,[36] Bastyr, are listed as 'nonprofit' in the federal IPEDS reports], although comprising a comparatively small sector, have grown at a rapid rate in recent years. According to 2005 IPEDS data furnished by the HECB, enrollments and degree conferrals in these institutions were the following:

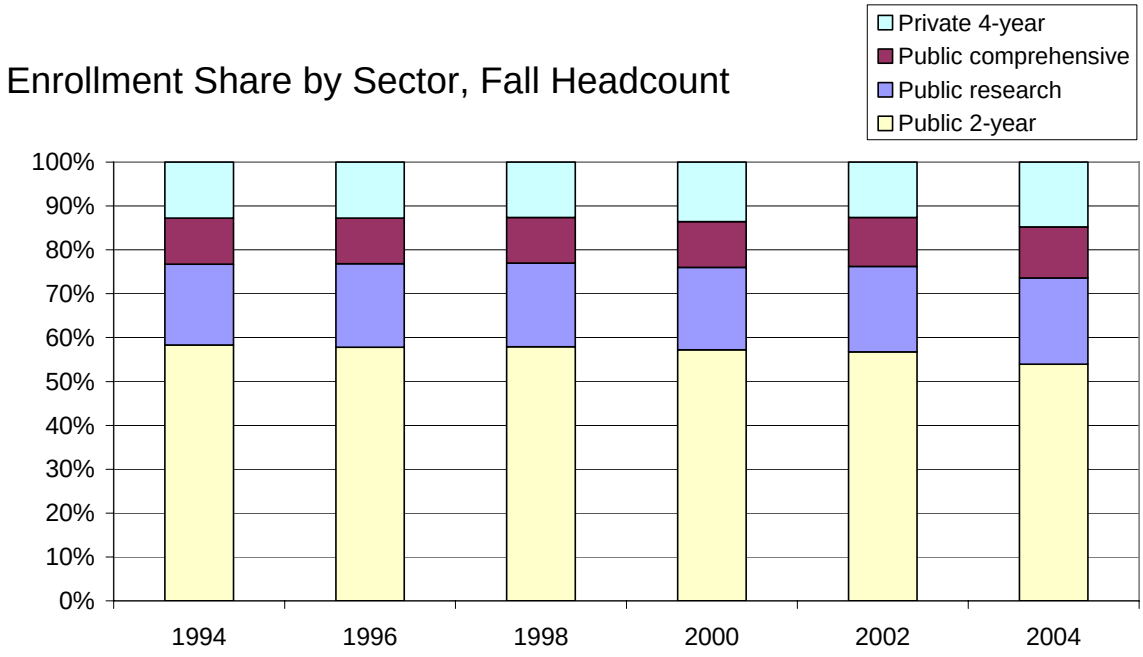
HEADCOUNT ENROLLMENTS IN WASHINGTON "PROPRIETARY" DEGREE-GRANTING INSTITUTIONS
2005
Source: IPEDS, HECB

	HDCT Total	**HDCT UG**	**HDCT GRAD**
FOR PROFITS			
Argosy University - Seattle	364	40	324
Art Institute of Seattle	2493	2493	
Crown College	290	290	
DeVry	1289	1145	144
Digipen Inst. Of Tech.	414	405	9
International Inst of Design & Technology	N/A	N/A	N/A
ITT Technical Inst.	591	591	
ITT Technical Inst.	501	501	
ITT Technical Inst.	348	348	
NW College of Art	N/A	N/A	N/A
Univ. of Phoenix, Seattle	2197	1707	490
Univ. of Phoenix, Spokane	232	187	45
"PROPRIETARY" NON PROFITS			
Bastry	603	245	358
City University	4254	1882	2372
Cogswell	229	229	
TOTALS	**13085**	**10063**	**3742**

Unlike some other states, Washington's private sector, referring in this case to members of the Independent Colleges of Washington [ICW], enrolls a

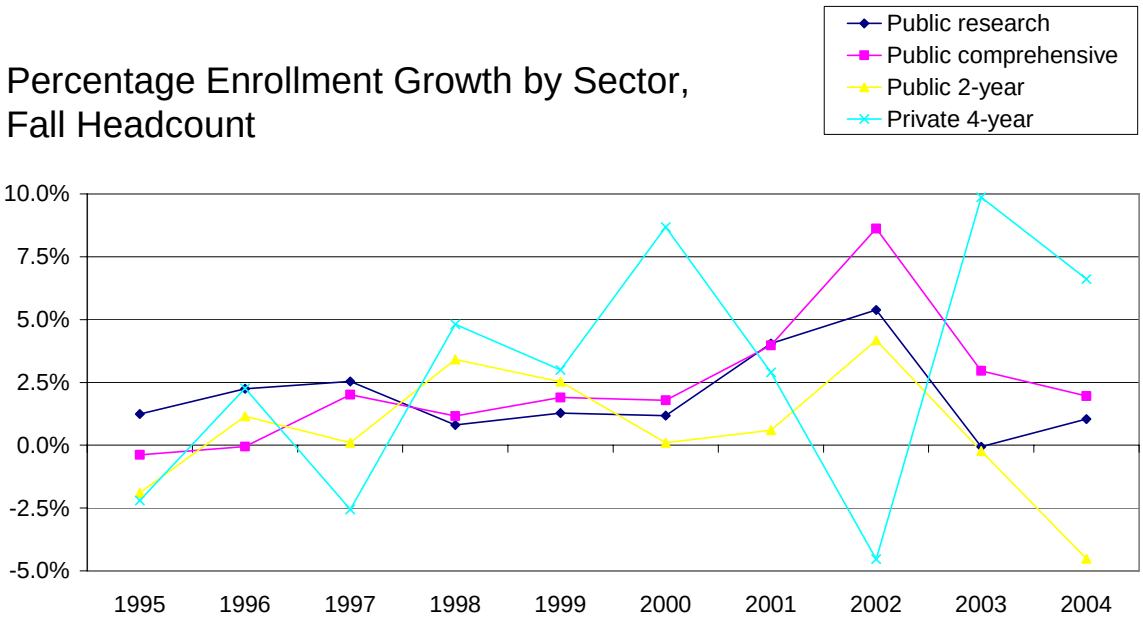
36 Henry Cogswell College, in Everett Washington, ceased operations shortly after the draft version of this report was released. The following announcement appears on its web page: "We are saddened to announce the closure of Henry Cogswell College in Everett, Washington. On June 23, 2006, the College's governing board made their decision to close the college effective August 31, 2006, having concluded that the College is in a financial crisis and that enrollment at the College will continue to decline over the coming year. "

relatively high percentage of state residents.[37] The next two figures depict the relative size of the different sectors of the state's higher education system and recent growth patterns.



Source: Digest, IPEDS, SBCTC
Notes: Public 2-year data are state supported enrollments as reported by SBCTC, which vary no more than 8% from IPEDS public 2-year enrollment totals in any year.

37 The member institutions are: Gonzaga University, Heritage University, Pacific Lutheran University, Saint Martin's University, Seattle Pacific University, Seattle University, University of Puget Sound, Walla Walla College, Whitman College, Whitworth College



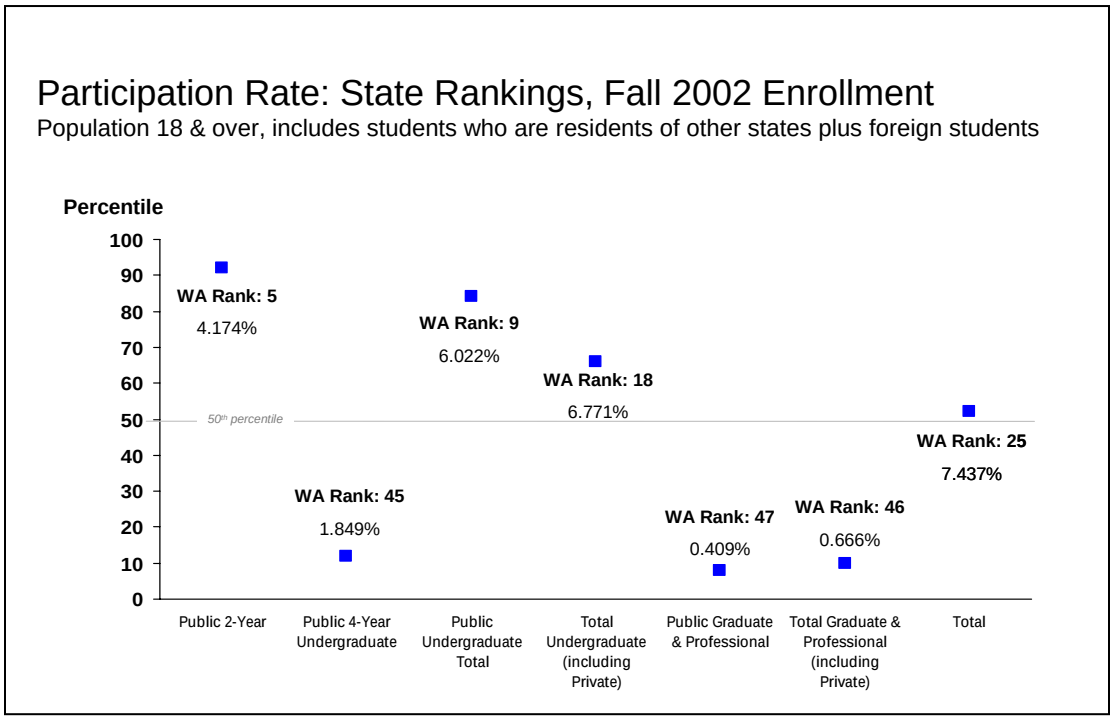
Source: Digest, IPEDS, SBCTC
Notes: Public 2-year data are state supported enrollments as reported by SBCTC, which vary no more than 8% from IPEDS public 2-year enrollment totals in any year. Public research and comprehensive university enrollments were imputed for 1999 using total public 4-year enrollments from IPEDS.

The Office of Financial Management keeps track of higher education participation rates and the state's standing relative to others. This practice has a solid rationale in the knowledge-based economy in that the level of higher education participation signals to employers and residents, both current and prospective, important information about competitiveness in the increasingly key area of producing an educated workforce and populace. OFM also forecasts population growth and regularly combines these forecasts with the participation rate information to provide a forward-looking context for state-level enrollment planning and budgeting. The HECB, from the time of its first Master Plan in 1987, has set ambitious participation rate goals, but the state's performance with respect to accomplishing these goals has been at best mixed. Overall patterns have not changed very much.

The following figure[38] shows Washington's standing among the states in higher education participation at various levels. Again, the state's large two-year college sector is reflected in its high ranking in participation at this level (fifth) and in total public undergraduates (ninth), as well at its comparative low performance

38 This data and graphic were prepared by OFM's forecasting unit from the sources indicated. The rankings are based on Fall 2002 enrollments.

in public four-year undergraduates. At the graduate and professional level Washington is in the bottom five states, whether or not private institutions are included. When these disparate performances are aggregated, the state's standing is in the middle of all of the states.



There has been little change in these rankings over the more than twenty years since the HECB and its predecessor agencies first noticed them and sought to inspire substantial gains. It is thus not clear that the Board's goals have had much effective force in deliberations about the allocation of the state's budgetary resources beyond supporting efforts to generally meet the enrollment implications of population growth.

With the exception of the intentional planning and development of the UW and WSU branch campuses beginning in the late 1980s--the development, funding, and enrollment growth of which have run substantially behind the original plans - enrollment planning and allocation seems to get most of its impetus from the institutions.[39] They, including the State Board for Community and Technical Colleges speaking for the two-year sector, indicate at the time of budget preparation the enrollments they would like in the upcoming biennium,

39 HECB efforts to forge ambitious statewide enrollment targets have not generally fared well with the legislature in the face of perceived fiscal constraints.

based upon what they feel they can attract and handle at the desired level of quality with the resources they think it likely they can secure in the budgetary process. Historic enrollment shares also play a role, especially in allocation between the two-year and four-year sectors; the overarching variables are the fiscal climate and OFM's projection of enrollments needed to maintain current participation rates.

Overall enrollment growth is thus a somewhat unpredictable function of population growth as reflected in the numbers of young high school graduates, the condition of the state's budget or spending limit requirements, and space constraints (which have played an increasing role as state capital budgets for higher education have lagged).[40]

Individual institutions' enrollment patterns are further affected by their attractiveness to applicants - geography plays a significant role here, along with program configuration and national reputation - physical facility limitations, and their internal strategic decisions regarding desired growth.

In short, there has been no consistent central leadership in this process and there have been only sporadic and relatively short-lived efforts at mobilization of substantial new resources for investment.[41] This type of loosely coupled process alone will not be adequate to mobilize and sustain an effort to substantially expand participation and degree production to meet the types of goals suggested by the global challenge in higher education.

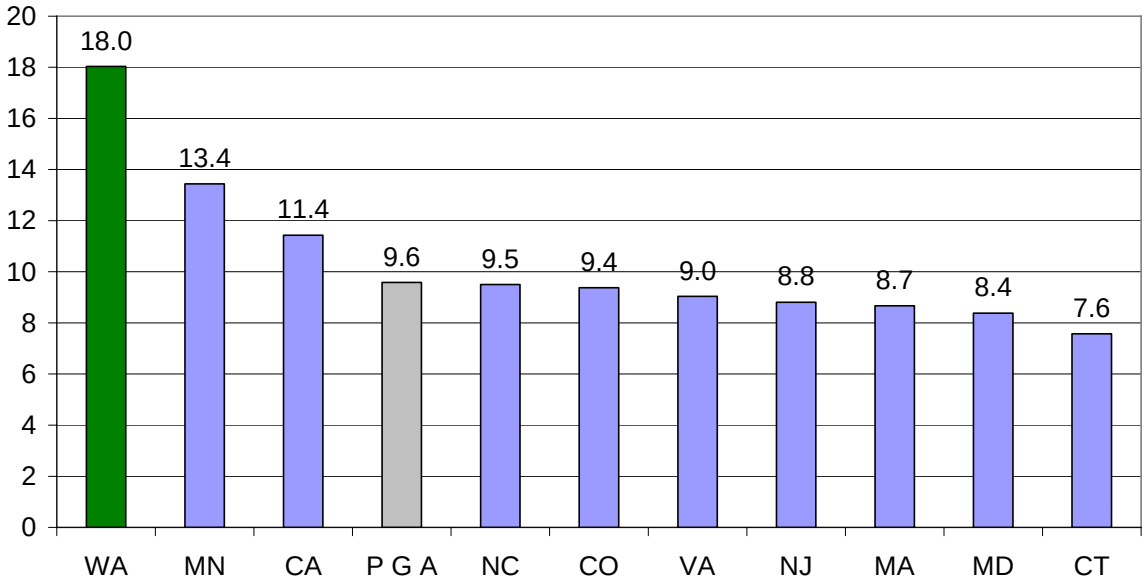
GLOBAL CHALLENGE STATE COMPARISONS

The next three figures illustrate how Washington ranks among the GCS group in the latest year available, 2003-04, on a measure of higher education *attainment* (based on degrees awarded at the three standard levels, not just participation or enrollment) per 1,000 population of younger adults, ages 20-34. We feel this indicator provides a good measure of the *outputs,* or results, of states' higher education systems in effectively serving their emerging populations around the time they fully enter the workforce. The age range is extended to 34 to encompass the fact that more young people beyond the traditional age group are now seen in higher education, particularly but not only at two-year and graduate levels. Degrees awarded by private colleges and universities are included.

40 University of Washington, *Investing in Washington's Future: Capital Facilities Investment Models for Washington's Higher Education System*, January 2006.

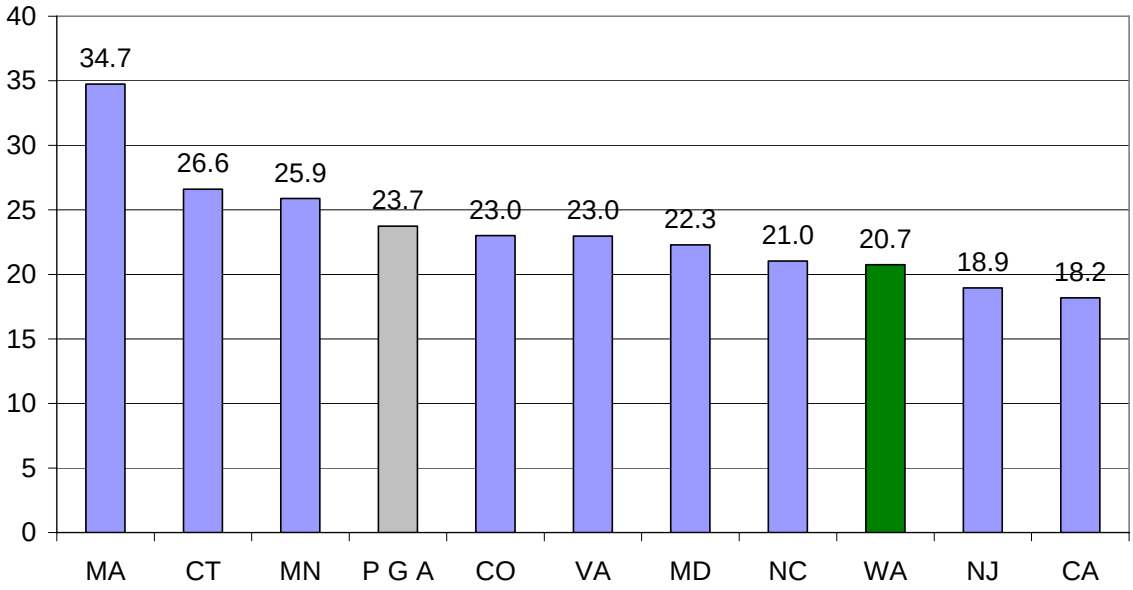
41 Branch campus initiation was clearly an exception to this pattern at least for a while. The development of the state's community college system was an earlier such case.

Associate Degrees Awarded
Per 1,000 Population Age 20-34, 2003-04



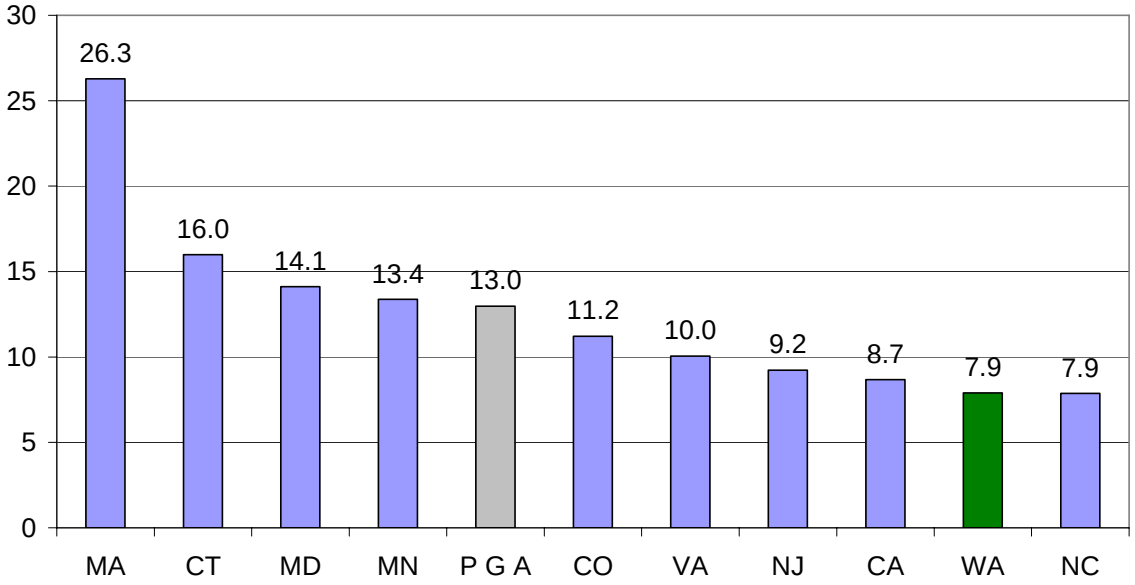
Sources: Digest of Education Statistics, Census Bureau

Bachelor Degrees Awarded
Per 1,000 Population Age 20-34, 2003-04



Sources: Digest of Education Statistics, Census Bureau

Graduate/Professional Degrees Awarded
Per 1,000 Population Age 20-34, 2003-04



Sources: Digest of Education Statistics, Census Bureau

Clearly, Washington performs impressively in associate degrees awarded (in 2003-04) per 1,000 population aged 20-34, ranking first among the Global Challenge States by a wide margin and some 88% above the average of these states.[42]

At the bachelor's degree level, however, the state drops to eighth in rank and falls about 13% below the Global Challenge State average and considerably further behind the leaders.[43] In graduate and professional degrees, very likely the wave of the future in many fields, Washington's performance is quite poor,

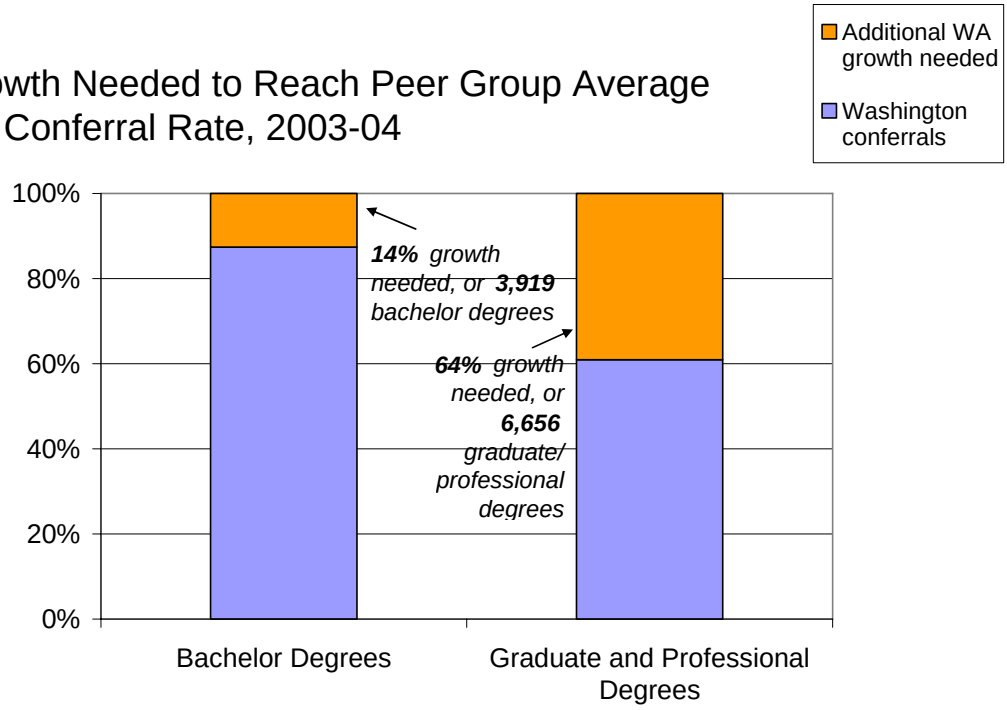
42 Washington likely benefits here from the close correspondence between associate degree requirements and the requirements for transfer to senior institutions reflected in the widely used Direct Transfer Agreement. In some other states' community colleges, student incentives to complete the associate degree are weaker. Also, states' 2-year systems vary in their emphasis on associate degrees in comparison to shorter-term vocational certificates.

43 It should be noted that the two leading states, Massachusetts and Connecticut, both have proportionally very large private college and university sectors and these schools attract many out-of-state students. This is not the case in Washington and is not true to the same degree in any of the other Global Challenge States.

tied for last place with North Carolina and about 39% below the peer state norm.[44]

Washington needs to improve its performance especially at the baccalaureate and graduate levels. To reach the Global Challenge State averages, this state would need to increase its annual bachelor's degree production by more than 3,900, or nearly 14%, and its graduate/professional degree output by over 6,600, or about 64%. Since a bachelor's degree is normally a prerequisite for admission to graduate school, the graduate degree shortfall provides a further indirect impetus to increase bachelor's production (although graduate students can be more easily recruited from other states than can undergraduates).

WA Growth Needed to Reach Peer Group Average Degree Conferral Rate, 2003-04



Sources: Digest of Education Statistics, Census Bureau

If Washington's competitive position in this key strategic resource in the knowledge-based economy and society, i.e., highly educated people, is to be improved, new resource investments will almost certainly be required, and new and dramatic solutions to pipeline issues will need to be tested. These must

44 Forty-two percent of the graduate and professional degrees granted in Washington were awarded by private colleges and universities. Thus, the public sector output is very low comparatively speaking.

necessarily be accompanied by careful allocation and efficient and accountable use of funds. The Washington Learns process provides an opportunity to build understanding and ownership of the needs and to put mechanisms in place to plan and oversee such investments. Here three alternative approaches to conceptualizing statewide enrollment goals are considered.

The Current Participation Rate model, "the status quo alternative," takes current participation rates by age and sex and applies them to OFM's population forecasts for the future. To the extent there are effective statewide enrollment targets in the budgeting process, this seems to be roughly how they are derived, judging from our understanding of the state budgeting process and the long-term near stability in participation rates.[45]

OFM's forecasting unit develops this type of current participation-based enrollment projection formally every two years. The latest projection was done in November 2004, using participation rates by age and sex from Fall 2004.[46] Since the population is expected to grow considerably over the next few years, OFM projected a need for increased enrollments of around 21,500 by 2010 simply to maintain current participation rate levels: 12,706 in the community and technical colleges and 8,785 in the public universities and The Evergreen State College.

Even if the state chooses not to move beyond this status quo approach to enrollment planning -- and later we will recommend both that it should and suggest programs to do so -- we urge that the population-based projection take into account population and participation trends by ***ethnicity***, in addition to age and sex, because the most rapidly growing ethnic groups, Latinos and Asian-Americans, have substantially different participation rates from the general population.

In any case, the OFM projection provides an important and longitudinally useful baseline for considering the implications of policy changes and should certainly continue to play a role in providing context for enrollment policy and budget planning.

In part as a response to legislative interest in ensuring that degree production, as well as enrollment needs, are attended to, the HECB's 2004 *Strategic Master Plan* expressed its goals in terms of both degrees and enrollments. It made calculations of the need for enrollments in 2010 by

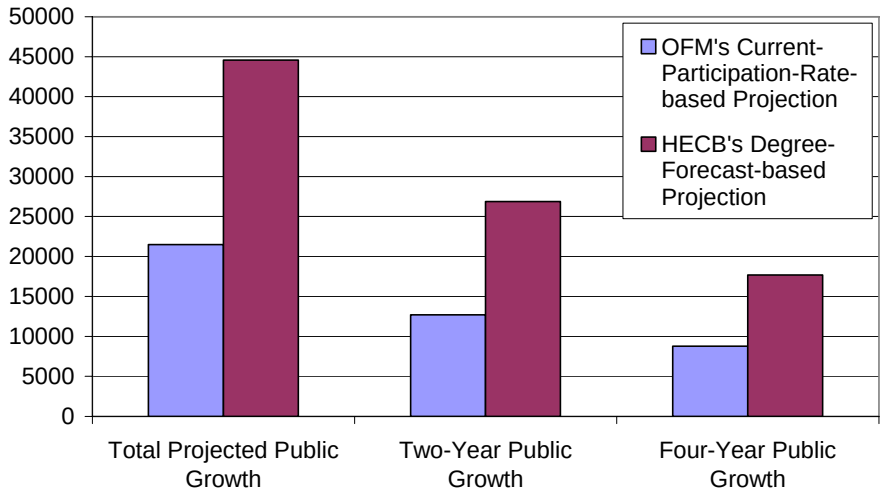
45 OFM, *2005 Washington State Higher Education Trends and Highlights*, March 2005, pp. 4-6.

46 OFM, *Public Higher Education Enrollment Projections*, November 2004 (current participation rate projections).

extrapolating trends in degree production by level from 1990 to 2004 and applying historic ratios of enrollments to these degree growth projections.[47]

It was assumed that degree output should simply continue to grow at historic rates. The result, in comparison to OFM's current participation-based projection (which uses only population growth to drive enrollment increases) is shown on the following graphic. The HECB projection produces six-year increases in enrollment needs that are more than twice as large as the projection of the status quo policy, growth of around 45,000 compared to 21,500.[48] This relationship is similar for both the two-year and the four-year sectors.

OFM and HECB Enrollment Increase Projections, 2004-2010



Sources: HECB, *State and Regional Needs Assessment* , February 2006 (Revised) and OFM *Public Higher Education Enrollment Projections* , November 2004.

In addition to producing enrollment targets that are substantially more ambitious than the current-participation-plus-population-growth approach, this method has certain advantages by virtue of its use of degrees as a key building block. First, it allows for modifications based on labor market analyses of needs for degrees in particular fields (e.g., high demand fields), which is helpful since labor markets generally demand degreed graduates rather than enrollments per

47 HECB, *State and Regional Needs Assessment Report*, February 2006 (revised), page 3.
48 *Ibid*., page 140.

se. Second, it highlights the relationship between enrollments and degrees, which relates to productivity or "systemic efficiency."

Notably, in their presentation to the Steering Committee, Representatives Cox, Jarrett, and Priest called for an enrollment plan based on a goal involving a 20 percent increase in annual baccalaureate and graduate degree production between 2002 and 2015. The base rate totaled 24,200. Their goal would increase this to slightly more than 29,000.[49]

The Global Challenge States approach to goal setting also is built upon degree output, but we feel it has a more compelling rationale in terms of competitiveness than simply extrapolating past growth trends into the future.

We think a logical approach to goal setting might work as follows.

- For the community and technical college sector, the state should seek to at least maintain its current high ranking and degrees-to-young-population ratio, supplemented by specific responses to identified needs in fields showing a current and projected shortfall relative to employer demand as identified in the recent joint agency [WTECB, SBCTC, and HECB] report.[50]
- For bachelor's and graduate/professional degrees, we suggest initially targeting the average of the Global Challenge States, which implies gearing up for substantial increases in enrollment capacity and degree production. These would need to be carefully planned for in terms of academic coherence in program configurations, linkages to probable labor market and student demands, and physical facilities, faculty and other capacity issues.
- Identified high demand fields should have priority and may require extra resources for high cost fields (e.g., computer science) and in some cases special incentives to attract students, e.g., expanded loan forgiveness options to attract and retain math and science teaching candidates and perhaps field-specific fellowships at the graduate level.

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49 "What Should We Expect for Washington Learns for Higher Education?" September 14, 2005, p. 4.

50 Higher Education Coordinating Board, State Board for Community and Technical Colleges, and Washington Training and Education Coordinating Board, *A Skilled and Educated Workforce: An Assessment of the Number and Type of Higher Education and Training Credentials Required to Meet Employer Demand*, January 2006.

The average of the Global Challenge States may present a moving target, but the approach has merit in that it provides a reasonable indicator of what Washington's true competitors are achieving in these critical areas linked to fundamental competitiveness in the modern world; it is ambitious while being hard to dismiss as unrealistic.

The fact that the target will tend to move somewhat from year to year is not a great problem, since there is no need to hit it precisely (which would be impossible in any case). The target is likely to rise, which is also positive since it provides a competitiveness-based incentive to improve performance. Once the state has met the average of the Global Challenge State targets, it could set the benchmark higher to improve its competitiveness further [e.g., some members of the Washington Learns Higher Education Advisory Committee have suggested the GCS 75th percentile as the goal; the funding implications of both are discussed in greater detail in the Funding Chapter that appears later in this report.]

Finally, it should be clear that increasing participation rates markedly, rather than simply waiting for students to enroll, will almost certainly require aggressive outreach efforts to the lowest-participating population groups (especially those that are growing fast), ample financial aid, and, most important, much stronger alignment of K-12 improvement efforts with higher education's curricula, standards and placement assessments. Without creating more college-ready high school students, and without further incentives to encourage students who might not otherwise consider higher education, it will not be possible to enroll or successfully graduate many more young people.

DEGREE PRODUCTION INCENTIVES

As is standard practice in higher education budgeting, Washington funds its colleges and universities on the basis of enrollments (at least at the margin, i.e., for increments of students, on a Full-Time Equivalent, FTE, basis) rather than degree production. We do not propose to change the basic features of this approach. We also note as context that Washington's institutions compare well with those in other states on indicators of degree productivity in relation to enrollments[51] and dollars spent.[52] Still, it may be possible to catalyze further

51 Washington received an "A-" in the category of degree completion performance in the 2004 version of the National Center for Public Policy and Higher Education's *Measuring Up: The National Report Card on Higher Education.* It was one of four states with this grade while six states received an "A".

improvements via modest incentives as has been tried in a few other states (e.g, Tennessee, Oklahoma, Missouri in the 1990s).

Degree production approaches that should be considered include:

- An incentive grant program to fund promising ideas for improving degree completion rates with appropriate accountability reporting; and
- A "performance incentive" that ties money to institutions' gains.

We note that the latter approach requires the institution to marshal any resources required to make changes ahead of the availability of any rewards and may tend to favor schools that have not already made substantial improvements in this area in the past.

In any case, care must be taken to ensure that the rewards do not induce institutions to simply tighten admission standards, which could have undesirable impacts on various indicators of accessibility. Also, experience in other states has shown that these types of programs work best when the resources provided are separate from base budget and enrollment funding and are commensurate with the improvement goals sought.

ENROLLMENT NEEDS AND DISTRIBUTION

Washington's approach to addressing enrollment needs and distributing them among institutions, sectors, and modes of instruction has been lacking in synchrony. Enrollment ceilings, authorized FTE funding levels, differential tuition and admissions standards are in place or have been used, but as a general rule they are not presented as coordinated tactics aimed at the accomplishment of a distribution system as part of an overall strategic plan. We believe this needs to change.

The following figure depicts "effective capacity" in Washington relative to current enrollments of the existing campuses and sites[53] with their present facilities, the major constraints on further growth, and, in the far right-hand

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52 National Center for Higher Education Management Systems, *A New Look at the Institutional Component of Higher Education Finance: A Guide for Evaluating Performance Relative to Financial Resources*, December 2005.

53 Central Washington University's six "university centers" based on community college campuses are included with the CWU main campus in the top section of the table. According to figures provided by the university, these centers, all of which now have dedicated space, enrolled 1,176 FTE students in 2004-05. There are plans to add as many as 14 additional upper division bachelor's programs over the next three years, which would initially enroll about 290 students.

column, the institutions' established growth limits. For the sake of completeness private institutions are included as well, utilizing data on their capacity from a spring 2004 HECB survey. The table is based on information provided primarily by the HECB.

Enrollment and Capacity

Institution	**State Funded FTE** (2004-05)	**Actual FTE** (a) (2004-05)	**Effective Capacity with Current Facilities**	**Immediate Constraint on Further Growth**	**Planned Growth and/or Institutional Growth Limits**
Central Washington University (all sites)	7,999	8,885	9,819	No Facilities Constraint	9,819
Eastern Washington University (includes EWU-Spokane)	8,269	9,126	9,633 + 1,320 = 10,953 (b)	Faculty Offices	12,495 (c)
The Evergreen State College (includes Tacoma site)	3,933	4,120	3,933 + 411 = 4,344	Class Labs/Faculty Offices	5,500 (d)
University of Washington, Seattle	32,857	33,383	35,726	Faculty Offices	38,410
Washington State University	18,480	19,146	18,480		25,250
WSU, Pullman		17,954		Class Labs/Faculty Offices	23,000
WSU, Spokane/ICNE		1,192		Class Labs/Faculty Offices	2,250
Western Washington University	11,364	11,713	12,500 (e)	Physical Limit of Site	12,500
TOTAL, MAIN CAMPUSES & INDICATED SITES	82,902	86,373	91,822		103,974
University of Washington, Bothell	1,265	1,344	1,800	Multiple	6,000
University of Washington, Tacoma	1,544	1,630	2,007	Multiple	5,901
Washington State University, Tri-Cities	675	672	675	Multiple	1,799
Washington State University, Vancouver	1,228	1,339	1,228	Multiple	3,645
TOTAL, BRANCH CAMPUSES	4,712	4,985	5,710		17,345 (f)
Private Not for Profit (ICW) (g)		29,977			33,299 (g) - 38,977 (h)
Private Not for Profit (Other) (g)		5,752			8,432
Private For Profit (g)		6,597			11,543
TOTAL PRIVATE SECTOR		42,326			53,274 - 58,952
TOTAL	**87,614**	**133,684**			**174,593 - 180,271**
Community and Technical Colleges	121,163	123,015	121,163 (i)	Multiple, including	Not Available

Private Two-Year or Less	n/a	8,001		modernization	Not Available

(a) Enrollments reported do not include self-support and contract enrollments at the public colleges and universities.
(b) New building underway at Cheney will provide offices to permit this enrollment of 9,633. Current capacity figure not available for EWU-Spokane so institutional growth limit of 1,320 is used here.

(c) Includes 11,175 at Cheney and 1,320 at Spokane.

(d) Includes 5,000 at Olympia and 500 at Tacoma.

(e) Reflects new classroom building near completion.
(f) Total capital cost of full build out to service these enrollment levels was estimated by the HECB in January 2005 at $550-600 million. The campuses' own estimates summed to $637 million.
(g) Estimates based on Spring 2004 HECB Survey of Private Institutions in Washington State. FTE enrollment estimates for 2002-2003 academic year. Capacity based on projected FTE in 2009-2010 academic year.

(h) Possible growth in ICW schools between 2004-2005 and 2012-2013 given increases in state financial aid to fund additional students. Based on ICW Capacity Survey 2004.

(i) From SBCTC. By HECB space use standards, SBCTC capacity is only 84,122.

Sources: *State and Regional Needs Assessment Report*, WA HECB, February 2006 (Revised), OFM Budget Driver Report 2004-05, Branch Campus Self-Study Reports

While the effective capacity figures represent efforts to capture physical facility capacity, in some cases the assumptions behind these estimates, e.g., about adequacy of present facilities, remain subject to to further discussion. Also, it must be noted that growth would require per student operating support as well as capital investments in the areas shown.

Even the *Effective Capacity with Current Facilities* column may be too optimistic once well-established patterns in student enrollment choices are taken into account – that is, without special incentives, some main campuses and smaller sites may not be able to attract all the students that could be accommodated with their current facilities.

Taking this into account (along with some questions on the part of the University of Washington about its ability to take all the students shown in the Effective Capacity column given the configuration of some existing facilities) the difference between current state-funded enrollments (column 1) and true additional current effective capacity of the six main campuses (plus the smaller additional sites that cannot readily be broken out), i.e., subtracting the main campus subtotal in column 1 from that in column 3, probably reduces the roughly 9,000 suggested to the neighborhood of 4,000-5,000. To reach the nearly 104,000 total for main campuses in the far right "*Planned Growth/Growth Limits*" column would require additional investments in facilities, as shown in the "*Constraints on Further Growth*" column.[54]

Turning to the research universities' branch campuses, according to their 2004 self-studies, the two University of Washington branches together could handle about 1,000 additional students within their existing facilities. The two WSU branches have reached their present physical capacity. If all four campuses were to be fully built out, according to their campus plans, they could accommodate about 11,650 more students in addition to this first 1,000. The institutions and the HECB estimated that capital costs for these projects would sum to the $550-600 million range as of 2004. The target dates for reaching the branches' enrollment goals vary by campus but stretch out as far as 2020.

In considering the merits and pace of branch campus expansion, we believe the following points also are relevant.

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54 In addition, a series of recent legislatively directed studies of the condition of higher education capital facilities by the Joint Legislative Audit and Review Committee suggest very substantial "preservation" needs and acknowledge that there are significant "modernization" needs as well (JLARC higher education facility studies, 2003-2006).

- According to the HECB 2005 report, mandated by the Legislature, the branches are judged to be well received by their communities and they represent considerable investment by the state already dating back to the late 1980s. There are established plans and expectations for their continued growth and development.
- The branches are located in or very near to regions with four-year college participation rates below the state average (*The Future of Washington's Branch Campuses*). Also, all but WSU Tri-Cities are in areas where population driven enrollment pressures are expected to be strong.
- The branch campuses accept many community college transfers and existing policies say this should continue as they grow, ,as is reflected in "proportionality" agreements.
- The legislature has recently opened the branches to freshman and sophomore enrollments for the first time, although at WSU Tri-Cities this has been only in a limited way. This step may well expand the student markets for these campuses by opening them up to students who are looking for a full four-year experience at one institution, particularly place-bound students with few other options. It should also improve bachelor's completion rates, which, according to some national studies, are generally higher for students who start at four-year rather than two-year campuses[55] in no small part because of the inherent complexities of navigating different systems and locations. It is too early to tell how attractive the branch campuses will prove to be to lower division students, as the initial application cycle is not yet complete.

In addition to substantial capital costs, branch campus growth may imply relatively high per student operating costs. The HECB calculated in its 2005 *Future of the Branch Campuses* report that to date upper division instructional costs per student had run at least as high as those at the research universities' main campuses and several thousand dollars higher than at the comprehensive universities and TESC. At the lower division level, the research university main campuses' costs are calculated to be similar to the comprehensives, but the HECB questions whether the branches can achieve the same economies of scale and use of graduate teaching assistants that limit unit costs at Seattle and

55 Doyle, William R. (2006.) "Community college transfers and college graduation: Whose choices matter most?" *Change, 38* (3).

Pullman. For their part, the universities maintain that increased numbers of students will permit larger classes and, once core faculties are fully in place, some economies can be achieved via more use of non-tenure-track faculty. Also, branch campus faculty are generally hired with a greater expectation for teaching and less for research than is true of the main campus, so the number of courses or sections taught per faculty should be larger. Finally, remaining differences in costs per student between branches and comprehensives may be fully or partially offset by higher research university tuition rates so the cost difference would not be fully borne by the state budget.

Nonetheless, budgetary policies should work to ensure that, at scale, branch campuses' per student costs – and certainly costs to the state budget - should not substantially exceed those at the comprehensive universities at the same level of study.

Based on recent trends and institutional expectations, additional capacity in the private baccalaureate sector appears to be considerable – in the range of 11,000 to 16,600 additional students, depending upon assumptions about the growth of Need Grant funding. This estimate encompasses schools outside the Independent Colleges of Washington members, including for-profit institutions, which have been growing rapidly.

It is noteworthy that growth of this magnitude in the private sector represents an important contribution to meeting the state's needs and, expansion of Need Grant funding notwithstanding, will assuredly cost the state much less per student than comparable growth in the public sector.

In response to a request for information for this study, the ICW surveyed its membership and provided the following figures on the potential for additional capacity in the high demand fields in these independent institutions. The figures (compiled spring 2006) apply to the 2006-2016 period, and they assume that sufficient student financial aid would follow the student.[56]

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56 ICW, the survey questions were: 1. Please estimate, by discipline (nursing, math teachers, science teachers, special education teachers, bilingual teachers) how many more students you could accommodate over the next 10 years if sufficient financial aid were to follow the students. Please break it down by graduate and undergraduate if possible/appropriate. We don't formally define "sufficient financial aid", but assume our state programs continue to grow. 2. Please estimate, by discipline (above), how many more students you could accommodate over the next 10 years if the state government contracted for more – for this question, assume each student came with an additional $5000 in aid. Please also break them down by graduate and undergraduate.

Teacher Preparation (math, science, special education, bilingual) 6 of 10 colleges reporting

1. 3020
2. 6800

Engineering (all disciplines) 3 of 5 colleges reporting

1. 1300
2. 2000

Math/Science disciplines 3 of 10 colleges reporting

1250

Nursing 3 of 6 colleges reporting

1. 63
2. 87

Computer Science 2 of 8 colleges reporting

650

The survey identified a total of 6,283 spaces in the indicated fields that would be available if financial aid followed the student. If contracts for spaces were the vehicle, the figure increases to 10,787. Institutional limiting factors identified by the respondents included current science facilities and clinical space for nursing.

The 'proprietary' degree-granting institutions apparently do not have an organization for their institutions on the order of the ICW. The President of the now erstwhile Cogswell College in Everett Washington, Dr. William Pickens, was contacted in regard to these institutions' capacity to accept Washington students. While not presuming to speak for the others, he offered this opinion:

> The State of Washington could increase the opportunity for students to enroll in engineering, technology, and business programs by contracting with colleges and universities, such as Henry Cogswell College. These contracts could identify a certain number of students at a given reimbursement rate or provide funds to start new programs in cutting-edge areas of technology . . .
>
> The State [could consider] a pilot program to purchase services offering opportunity for engineering and technology students who

> have no realistic options elsewhere. State costs should be less than those involved in building a new public campus or [expanding] existing engineering and technology programs.[57]

Thoughtful consideration should be given to approaches the state could use to expand capacity in needed fields through more direct relationships with qualified independent institutions. Contractual relationships have been mentioned. This also is an area in which a scholarship system may have utility. A scholarship equal to the average state FTE subsidy for students in the program field could follow students, who would be allowed to apply it at any Washington institution, public or independent, offering admission to a program in the designated field.

Assuming the presence of unused capacity, such a program could offer the advantage of responsiveness to needs operating on a cyclical basis without a heavy up-front infrastructure investment and loss of time as existing programs are expanded. It also might be operated on an RFP basis, with public institutions given a right of first refusal, after which all institutions could compete to provide program slots.

Commensurate expansion of state-funded student aid is likely to be a cost-effective investment in this context. The HECB should monitor particularly the less established private institutions to be aware of the nature of their offerings and to ensure that the quality of offerings and information and service to students is appropriate. As an example, a Request for Proposal (RFP) program to increase the number of degrees earned by Hispanic or other under-represented population groups could allow the resources of qualified institutions, public and private, profit and non-profit, to be brought to bear. The programs could be on- or off-campus, based on a community college campus, or other configurations.

According to the HECB, using its space standards, the community and technical colleges are regarded as enrolled substantially beyond their physical capacity. We note here that the HECB standards are an area of disagreement with the SBCTC, which utilizes a different protocol. The C/TCs' effective capacity is given as current budgeted enrollment on the above chart and the HECB figure is noted in a footnote. These colleges are in the midst of executing a capital plan that calls for capital budgets in excess of $500 million per biennium through 2014 for both modernization and expansion of capacity. They feel this will enable them to grow significantly in enrollments; exactly how much is unclear. Their ability to

57 E-mail message from William Pickens to William Chance, May 2006.

find capacity to increase enrollments in the past has proved elastic. Some of this "extra" (beyond formula) capacity comes from aggressive scheduling of early morning and late evening classes to serve student markets that include many working students who must attend classes at such times.

In sum, the state has options to increase baccalaureate enrollments in existing public institutions by approximately 16,000-17,000 FTE above current levels, but most of these new enrollments will require investments in capital as well as per student operating support. (They also will require substantial front-end efforts directed at the student flow pipeline, a subject discussed later in this report.) If private institutions' reports are accurate, another 6,000 to 11,000 could be accommodated by existing institutions in this sector, depending upon expansion of state-funded student financial aid or the use of other approaches, such as contracts or a scholarship system (Note: these figures are from the 2006 survey conducted as part of this study; in their 2004 survey of ICW, the HECB placed the range at 11,000-16,000.)

OPTIONS REGARDING THE CAPACITY OF EXISTING INSTITUTIONS

Assuming a policy commitment to achieving ambitious participation and enrollment/degree goals is made, whether using the Global Challenge states approach or that of the HECB in its 2004 Strategic Master Plan, the HECB and OFM should be explicitly authorized to work with the institutions to further specify enrollment plans and costs, including capital costs, so as to create a statewide plan for achieving the goals over a reasonable period of years.

Approval of the plans should involve a broader group representing the governor, legislature, and key nongovernmental stakeholders in addition to these agencies; this also is a subject visited later in this report. This should serve to raise the visibility and credibility of the recommendations and to guide policymaker actions.

The state's major strategy for expanding enrollments needs is to build up the research universities' branches. Given fiscal constraints it is important that this expansion be as cost-effective as possible, which implies that these campuses' expansion plans need to put them on a cost per student trajectory that is, as scale increases, close to the comparable figures at each instructional level for the state's comprehensive universities. If any branch campus fails to draw state resident students in line with established plans, its further expansion of facilities, faculties and the like should be rethought.

The subject of branch expansion prompts an observation about admissions processes. The universities have separate application processes even for their own branch campuses. One must apply separately, even if applying to both the parent university and a branch. A common application form and process at least within multi-campus systems, and a form that would be

universal to all state college institutions, should be considered as a way of simplifying admissions and, possibly, increasing access.

University Programs on Community/Technical College Campuses

As indicated, branch campus enrollment expansion is comparatively costly and, although the branches are generally well located in relation to needs; even at full enrollment it is likely that the four of them will not effectively serve all parts of the state fully enough to raise participation rates sufficiently in some low-participation or rapidly growing areas. The 34 community and technical colleges, however, are widely distributed around the state and are already serving as a platform for the expansion of baccalaureate capacity to such places.

Central Washington University and the other comprehensives, The Evergreen State College and Washington State University, have begun to offer programs collaboratively with the two-year institutions on community college campuses in underserved areas. There are at least two dozen such locations across the state. The process often begins with a few upper division courses followed, if successful, by a certificate or degree program. If demand is more than a one-cohort phenomenon, an ongoing degree program may be established after HECB review. Up to a point, faculty may come, via commuting, from the university's main campus or be adjuncts housed part time at the community college.

Properly aligned with local needs [i.e., programs tailored to the education and training needs of residents and employers], this can be a cost-effective approach, as existing classroom and other space can be used. In many cases, demand has eventually justified the creation of more permanent faculty and staff, generally overseen from the main university campus, and dedicated space. There remain synergies with the co-located community college campus, library, certain services, dining facilities, parking, etc. thus reducing the ancillary costs, and the model is particularly attractive to students who begin their studies at the co-located community college.

This model has shown itself as a way to serve local needs in a state as large and spread out as Washington. Also, specialized programs on this model have been successfully offered in metropolitan areas where the nearby university was not programmatically equipped to serve the need. The numbers are still relatively modest, however, and much of the development has occurred without explicit per student funding; rather it has come out of the universities' base budget allocations.

The state should provide more incentives to find and respond to these types of markets by providing such funding based either on the HECB's identification of unmet regional needs or in response to documentation by a university of need and probable demand and support from the community or

technical college partner. Once demand was proven to be consistent and sufficient, consideration of modest facilities proposals on the community college campus could be permitted. Such a process would need to be monitored to minimize unnecessary program duplication in metropolitan areas and to help ensure adequate quality of programs to be mounted with very limited complementary resources, e.g., in outlying areas.

Substantial additional needs in the Snohomish-Island-Skagit (SIS) counties region have now been fairly well documented, and an additional legislatively directed study is underway.[58] The area suffers from under participation related to lack of close access to a four-year institution while also facing considerable population growth. It is likely that one recommendation that will emerge from the study is a "university center," probably based at Everett Community College [ECC], where construction to serve this purpose is already underway. The center would be designed to serve as the site for delivery of upper division and even graduate programs to be offered under contract by various universities. ECC projected enrollments in this university center range from 700-1,500 FTE by 2015, depending upon the pace of expansion permitted by funding. As proposed by ECC, the model also would include one or more satellite sites at community colleges in the more distant parts of the service region as well as distance education targeted to these regions.[59] This approach may be subsumed by one of the more expansive options currently under study by MGT and NBBJ, which contemplate a new four-year campus in the Everett area, whether affiliated with an existing institution or free-standing, enrolling in the range of 7,000-8,000+ undergraduate and master's-level students by 2025.[60]

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58 HECB, *State and Regional Needs Assessment Report*, February 2006 (revised); NBBJ and MGT of America, Inc, *Interim Status Report: Assessment of the Higher Education Needs [of the] Snohomish, Island, and Skagit Counties Area*, December 2005; Everett Community College, *Higher Education Opportunity in the NSIS Region, Preliminary Report*, November 2005.

59 Everett Community College, *Higher Education Opportunity in the NSIS Region, Preliminary Report*, November 2005.

60 See NBBJ and MGT of America, Inc*., Higher Education Needs Assessment for Snohomish, Island and Skagit Counties,* Town Hall Meeting presentation, May 2006, available at: http://www.hecb.wa.gov/research/issues/documents/SpringTownHallPowerPointPresentation-Final.pdf; and MGT of America, Inc., *Summary of Alternatives to Respond to the Defined Needs of the Snohomish, Island, and Skagit Region,* May 3, 2006, available at: http://www.hecbwa.gov/research/issues/documents/SISAlternatives.pdf. Among the leading options are a free-standing comprehensive public institution with a polytechnic focus; a free-standing comprehensive without such a special focus; and the same types of institutions but with affiliations with an existing school. The latter types would have smaller target enrollments by about 1,250 FTE, with the difference being in the number of lower division students. (The

The need for additional enrollment capacity in this region seems clear enough and the Everett site makes sense -- as long as there is substantial locally-based service to communities relatively far from Everett -- as the city is the largest population center in the region, and there is strong community and employer support for increased upper division and graduate opportunities. It appears that appropriate data-driven studies are underway and that a broad range of options is in the process of surfacing. We simply note at this juncture that reasonable projections of enrollment demands should include attention to outreach efforts to a population that has participated in higher education at relatively low rates in the past. Governance issues should also be considered closely.

With respect to the proposed new four-year campus models, policymakers will need to consider the relative merits of an entirely autonomous campus built *de novo* in comparison to something more like the branch campus models with which the state already has some experience. Also, the polytechnic campus, one of the options under consideration, would be a departure for Washington and would likely require particularly careful planning and matching to area needs. The idea of a polytechnic institution is not new in Washington, and California, Oregon, and other states have them. In this state the response to such needs has focused on the two research universities (which have statutory major lines in Engineering and other relevant programs) and the technical colleges. In view of the growing importance of engineering and science programs, the traditional response could be revisited. In any case, if a decision is made to move in the direction of a polytechnic institute, we believe that attention should be given to the technical colleges, although none are located in Everett, as potential candidates for this role.

Distance Education

Distance education has the potential to play a growing role in expanding access to higher education in Washington and in reducing at least the capital costs of some enrollment growth to the extent students can be partially or fully served without using classrooms and other campus facilities. Distance education credits are less than 2% of all credits at Washington's four-year universities[61] and have been stagnant in recent years.[62] At the community and technical colleges

"missing" lower division students would in the latter cases be accommodated in existing 2-year colleges.)

61 The figures are higher for Washington State University, which has six distance education degree programs.

62 HECB, *Key Facts about Higher Education in Washington*, January 2006, page 14.

there has been significant growth, and distance education credits now represent about 6% of the total. Approximately 25% of C/TC distance education credits are taken by “distance-only” students, who are probably students who would not otherwise be enrolled. State Board officials report, however, that some of the initial impetus created by state funding of the statewide network and support for initial course development has waned, as these funds have largely dried up. Funding for support of distance education course development and for the regular revision of on-line course materials is needed.

The state should encourage colleges to utilize distance learning technologies to reach out to new student groups and to reduce the demand for campus-based facilities. To encourage more distance learning courses for primarily campus-based students that could eventually save on capital expansion costs, Washington might seek to devise a mechanism to share a part of such cost savings with institutions showing increases in this area of activity as an incentive. Beyond this, financial incentives for faculty distance education course development efforts and distance learning technology upgrades, when available, have also proven effective in the C/TC system and might work in the universities as well. Such incentives should apply to reasonable course revision schedules as well as initial course development. Special efforts may be needed in the laboratory sciences where the development of appropriate materials is more complex, but leading institutions in this field (e.g., Britain’s Open University) have demonstrated that it is possible.

Improve Transition Performance

The subject of inter-sector transition, transfer, or 'articulation' arises at several places in this report. Improving transfer rates continues to be essential in a state with an extensive two-year college system. It also is an important aspect of the state's "pipeline performance."

Using year 2000 data, NCHEMS prepared a national chart from which the following data on performance in the Global Challenge States are drawn:

THE STUDENT PIPELINE
MOVEMENT OF 9TH GRADERS THROUGH COLLEGE
GLOBAL CHALLENGE STATES

SOURCE: NCHEMS, YEAR 2000 DATA

State	For every 100 Ninth Graders	Graduate from High School	Enter College	Are Still Enrolled Their Sophomore Year	Graduate within 150% Time
Massachusetts	100	75	52	41	28
Connecticut	100	77	48	37	26
Minnesota	100	84	53	38	25
New Jersey	100	86	55	40	24
Virginia	100	74	39	30	20
Colorado	100	71	37	26	18
North Carolina	100	59	38	28	18
Maryland	100	73	40	30	18
Washington	100	71	32[63]	22	18[64]
California	100	69	33	22	17
GCS Avg.	100	74	43	31	21
United States	100	67	38	26	18

The states are ranked on the table in the order by which those who enter college graduate within 150% of expected time, or six years. Washington ties for sixth place with Colorado, North Carolina, and Maryland in this respect. It ranks last in the percentage that enters college right after high school. It also is below the national average in this regard. It ties with California for last place in the percentage that are still enrolled their sophomore year. As stated several times in

63 The SBCTC staff estimated this figure to be 45, rather than 32, which would rank Washington fifth in this respect, and above both the GCS and the national averages. They estimated the next figure in the row, still enrolled in their sophomore year, as 31 rather than the 22 reported in the draft report. The reason given for the apparent disparity was SBCTC's under-reporting of the number of students coming into the SBCTC system.

64 The SBCTC staff commented on the earlier appearance of a Washington graduation figure of 16 on this table, which was based on NCHEMS' material, and which appeared in the draft version of this report, with a recommended recalculation that would increase the 150% completion rate to 22.5% of ninth graders. This figure appeared unduly high. Nevertheless, it was discussed with NCHEMS' staff, who noted that there had been problems with previous Washington data reports (i.e., data reports to NCES provided by the SBCTC via the HECB.) The figure was recalculated collaboratively [NCHEMS and NORED] and the figure of 18 was derived and is used on the present version of the table.

this report, if we cannot get students through high school and into college and keep them there, we clearly cannot improve baccalaureate degree production levels.

There were 14,600 transfers of community and technical college students to public and private senior institutions in 2004-05.[65] Forty-one per cent of bachelor's degree awardees in Washington's public institutions are community college transfers.[66] The number of transfers has slowly grown in recent years roughly in proportion to the entry cohorts in the two-year colleges.

In order to improve baccalaureate production, however, transfer rates need to increase. Some promising steps to this end are underway, including efforts to work closely with interested private four-year institutions, the creation of specialized transfer tracks for students headed for specific university majors,[67] and progress toward the creation of a web-based advising system that would allow community college students to find out on their own how their courses match transfer requirements at the public (and some private) four-year colleges and universities.

Community and technical colleges also are seeking ways to increase the low rate of transfer of students with Associate of Applied Science degrees, which are degrees basically designed to prepare students for direct entry into the workforce rather than transfer. A study by SBCTC indicates that there is substantial student interest and employer demand for baccalaureate degrees for some of these graduates to better prepare them for advanced practice or management positions in their field.[68] Among the approaches authorized for pilot projects are: (a) contracts with public universities to offer Bachelor of Applied Science degrees, based on two-year college campuses, that are customized to the needs of a particular group of AAS graduates and their employers; and (b) BAS degrees that are offered entirely by the two-year college.

We have several recommendations to offer in this important area.

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65 L. Seppanen, "Improving Students' Transition Among Postsecondary Institutions." Prepared for March 23, 2006 Washington Learns Transitions Subcommittee meeting, page 1.

66 *Ibid*., page 4.

67 These include the Associate in Science-Transfer (AS-T) degree for would-be math, science and engineering majors; 11 Major Ready Pathways (MRP) newly designed for specific majors; and the efforts described below to articulate Associate in Applied Science degrees with new Bachelor of Applied Science degrees.

68 SBCTC, *Baccalaureate Enrollment Growth Needed to Meet Educational Needs of Technical Associate Degree Graduates.* Research Report No. 05-1. April 2005.

- The state should encourage and evaluate the success of the specialized transfer tracks that have recently been developed in attracting students and in moving them to transfer and efficient baccalaureate completion. Some such evaluations are underway or in the planning stages. Their results should be used and, if the concept proves generally successful, it should continue to be expanded to more of the applicable majors.
- Relationships between community and technical colleges and accredited private four-year colleges and universities, including reputable for-profit institutions, should be encouraged. The private sector has seen the greatest recent growth in numbers of transfers from the public two-year colleges and some of these institutions have been leaders in designing baccalaureate programs tailored to the needs of Associate of Applied Science graduates. Private institutions should be actively welcomed into groups planning for specialized transfer tracks, AAS transfer, and more general transfer articulation planning such as for the web-based advising system.
- The legislature should provide the funding required (around $1.5 million according to our sources) to make the web-based advising project fully operational.
- The present Bachelor of Applied Science pilots, including the BAS degrees to be offered entirely by community colleges and the University Centers program, are promising. They should be evaluated to determine which approach is efficacious in which settings in the Washington context. Student attraction, degree completion success and employer response all need to be tested.[69] The results of the evaluation will be important, but efforts to identify needs, refine the concepts, and develop new program proposals should be permitted to proceed during the evaluation to allow to rapid implementation pending a positive study finding.

Adult Basic Education and English as a Second Language

According to the state's Office of Adult Literacy [OAL], which is based at SBCTC, two-thirds of the 70,000 or so annual enrollments in these courses are in

69 Many of these concerns are considered in Floyd, D.L, Skolnik, M.L. and Walker, K.P. (2005.) T*he Community College Baccalaureate: Emerging trends and Policy Issues.* Stylus Publishing, Virginia.

ESL, and this share has been growing. This reflects the population trends in the state, where Latino and other non- or limited-English-speaking populations are growing fast.

The OAL estimates that the current enrollments represent only about one-tenth of the generally low-skilled population in need of these services and the number has not increased much in many years. For a long time the effectiveness of these programs was in question, as student educational progress was slow and course completion rates and transitions to further education or training were low. Probably partly as a result, state and federal funding stagnated. In recent years the OAL and SBCTC have developed an innovative approach, called Integrated Basic Education and Training, or I-BEST, that is producing dramatically better results in terms of achievement, completions and transitions to further training and education, with this key population. It works by integrating ABE or ESL into workforce training curricula, thereby enhancing student motivation and speeding learning. There is hope that a substantial number can be retained in college to the point where they reach the "tipping point" for future success in attaining a living wage job and stability represented by completion of at least a full year of college level work and a certificate.[70] The I-BEST model is, however, relatively expensive per enrolled student since it requires both a basic skills and a workforce education instructor to be present in many of the classes and to work together to design appropriate curriculum.

The I-BEST model is promising in an area of great social need where there has been little success in the past. It should be more thoroughly evaluated for cost-effectiveness, taking into account the fact that course dropout rates seem to be substantially reduced. Several year follow-ups of students experiencing this model and comparison groups will be needed to establish the extent of its effectiveness. If its cost-effectiveness proves out, the model should be widely diffused, which will likely require some organizational changes to facilitate the integration of faculty and instruction across basic skills and workforce education. In the end, substantially improved performance in preparing low-skilled adults for the modern workforce may justify increased state investment in reaching more of the needy population since the investments would pay off in reduced dependency and associated pathologies, a better prepared workforce, and increased tax revenues.

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70 SBCTC. *Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Longitudinal Student Tracking Study*. Research Report No. 06-2. April 2005. This study describes the "tipping point" empirical research.

Washington faces a global challenge in terms of economic competitiveness and general societal preparedness for the modern world, with its rapid pace of technological and social change. Postsecondary education and training are a key resource in meeting the associated demands. We have suggested that the state would do well to measure and meet this challenge head-on by seeking levels of higher education participation and degree attainment achieved by other leading technology-oriented states. We have shown what this would mean in terms of increased numbers of degrees and have analyzed the state's capacity to produce them. Finally, we have offered recommendations as to how the state might make the most of its institutions, their creative energies, and inter-institutional collaborative relationships to achieve ambitious goals cost effectively. Washington will surely need to employ all these resources to achieve the educational results its people require to prosper.

"MAKING THE GRADE"

WASHINGTON HIGHER EDUCATION AND THE GLOBAL CHALLENGE

RISING TO THE TEST: HIGH DEMAND PROGRAMS AND WORKFORCE TRAINING

The Washington Learns Higher Education Advisory Committee's Enrollment Sub-group prepared the following list of considerations it felt should be taken into account when considering the high demand program issue:

There are High Demand fields at both the baccalaureate and sub-baccalaureate levels for which special attention should be paid and effort extended.

The dynamic nature of the state's economy makes it difficult to make accurate long term predictions or forecasts about High Demand fields. But there are some areas for which we know there will be High Demand for several years to come. Examples include computer science and nursing. There are others.

At the baccalaureate level, the need to build institutional capacity requires a long term commitment (perhaps even statutory) to increase High Demand field output in strategically selected areas. That capacity building should take the form of increasing the reimbursement or funding for students in those High Demand fields above the average.

At the sub-baccalaureate level, High Demand fields are even more difficult to accurately forecast. Nonetheless, some structural and long term commitment still makes sense and may take the form of a dedicated fund.

Some High Demand fields may also require efforts to stimulate student demand (it is counter productive, for example, to increase institutional capacity if there are no students seeking admission). This may take the form of conditional Tuition or Loan Forgiveness programs which have proven effective in the past.

As in other areas of our work, any approach to High Demand needs to be holistic. For example, our efforts to increase enrollment in math or science fields must begin long before a student enters college.

Where private colleges and universities have the capacity to support High Demand enrollments and where it is cost effective to support that in some form, the state should do so.

Institutions and systems of higher education are economic engines and major economic resources and drivers for the communities and regions in which they are located in almost every sense of the term. They also contribute to

economic development in the form of the people they prepare for fruitful careers, their research, and the funds they attract from federal and private sources, and this is naming only the more obvious. Most of all, they are essential players with great potential in any comprehensive economic development program.

Washington is not the only state considering a strengthened relationship between higher education and economic growth and vitality. Indeed, virtually all are doing so. The State Higher Education Executive Officers (SHEEO) association annually surveys its members on the most important higher education issues of the day. Workforce preparation and economic development were ranked third and fifth respectively among the 26 listed. “Adequacy of state financial support” ranked second, a position it has occupied for a number of years.[71] Economic priorities and concerns for sufficiency of funding, in other words, are endemic to higher education in all of the states, and reports and initiatives on the magnitude of these can be found in most. They may differ in style and action, but they agree on the importance of a higher education-state economy connection.

This is the case in Washington as well, although here the present focus seems to be more sharply on program productivity stated in terms of graduates and organizational issues. The Washington Learns Steering Committee’s interest in such matters as increasing baccalaureate and graduate degree production is an example.

Washington ranks seventh among the GCS in baccalaureate degree production per 100 high school graduates six years earlier, and below both the GCS and national averages in this regard. The following table lists this activity first for the public institutions and then for all institutions, the latter being a reflection of the Washington Learns Committee’s interest in both public and private colleges and universities. The conferral figures are for 2002-03. The high school graduation numbers are for 1997-98, a proxy for the entering freshman class.

71 **"**Issue Priorities and Trends in State Higher Education**," 2002**

BACCALAUREATE DEGREE PRODUCTION PER 100 HIGH SCHOOL GRADUATES
RANKED BY PUBLIC INSTITUTION FIGURES
SOURCE: NCES

Rank	State	2002-03 Bachelor's Degrees Awarded as a Percent of High School Graduates Six Years Earlier
1	MA	76.1%
2	CO	66.2%
3	NC	62%
4	GCS	53.5%
5	VA	52.3%
6	US	51.8%
7	CT	51.2%
8	MD	48.4%
9	**WA**	**47.2%**
10	MN	47%
11	CA	45.7%
12	NJ	38.7%

Washington's figure for this period, 47.2%, is slightly less than the 50% figure reported on the table in the previous section. So there is some variance among the different data sets, although the larger picture does not change.

Washington would have had to graduate 3,631 more students to match the above GCS average; 2650 more would be required to match the national average. Short of that, Washington's does not seem to be and would not likely to be a very enviable accomplishment. Actually, Washington's baccalaureate degree production vis-à-vis its high school graduates is mediocre -- it needs to focus more attention on this. If Washington's ratio of baccalaureates to high school graduates, 34.1 in the public sector, had matched Colorado's, 49.0, an

increase of 14.9% percentage points, the state total for the year on the above chart would be about 9,000 greater.

The obverse of this also is true: raising production goals will not mean much unless something is done to increase what is happening at the front-end of the production process. Three reasons for the low baccalaureate performance in this state are the pipeline issue, the large two-year sector emphasis, and the net out-migration of students.

The subject of college graduates is an important planning issue for Washington. According to the HECB *Strategic Master Plan for Higher Education*, the state needs a coordinated strategy to increase the responsiveness of its colleges and universities. The HECB calls for an increase of 300 per year above current levels in the number of students who earn degrees in high demand fields, bringing the annual totals to 1,500 per year by 2010. Baccalaureate production in general also is stressed (presented as part of a resource allocation model).

The Plan calls for the number of degrees to be earned at public and private institutions to equal the following levels by 2010. The table also lists current [2001-02] production levels and the percentage increase that would be required.

DEGREES BY LEVEL TO BE EARNED IN WASHINGTON PUBLIC AND PRIVATE INSTITUTIONS

SOURCE: HECB STRATEGIC MASTER PLAN

Level	HECB Figure	Current	% Change
Graduate Degrees	11,500	8,205	40
Bachelor's Degrees	30,000	24,257	24
Associate Degrees	27,000	19,566	38

The allocation of this improved degree production responsibility by sector is shown on the following table, also from the Strategic Master Plan:

	Public Share	**Public Goal**	**Private Share**	**Private Goal**
Graduate (11,500)	57%	6,555	43%	4,945
Bachelor's (30,000)	76%	22,800	24%	7,200
Associate (27,000)	96%	25,800	4%	1,200

These figures accord generally with the present distribution of effort among the sectors, and the HECB assumption appears to be one of growth at similar rates and retention of historical shares. The Board also considers these goals in terms of enrollment impacts (e.g., 3.05 FTEs per graduate degree; 3.73 per bachelor's degree based on historic ratios). The net effect at the graduate and bachelor's levels would be 105,000 annual student enrollments (FTE) by 2010. The various "production" increases in the community and technical college system (for all related functions, transfers, workforce, and improved literacy skills) would require 165,000 students in that sector. Washington's present FTE enrollment is about 280,000.

There also is another point worthy of mention. Washington is one of 14 states that bring in more people with bachelor's degrees then leave. This is not necessarily a matter of implicit or explicit policy. For any of a number of reasons, economic, social, cultural, and environmental, the state operates as a magnet for people with college degrees. There is little it can or should do to reduce or otherwise control this, and there is no reason why it would want to do this anyway. It ranks fifth nationally in this regard (1990-2000 figures). Six of the 14 states with positive bachelor's degree migration, including Washington, are GC States.

INTERSTATE MIGRATION OF ADULTS WITH A BACHELOR'S OR HIGHER DEGREE
25-64 YEAR-OLDS
NET POSITIVE STATES
1990-2000

GCS Shown with an *

State	**Net Bachelor's Degrees Increase Through Migration (In Thousands, Rounded) 1990-2000**
Florida	193
Georgia	167
Colorado*	106
New Jersey	82
Washington*	**74**
Arizona	67
Nevada	64
North Carolina*	58

Texas	44
Virginia*	33
Oregon	21
Maryland*	20
California*	-72

Source: Census, IPEDS, higheredinfo.org

When viewed in terms of the ratio of net migration (%) to bachelor degrees conferred for the same period, Washington slips to seventh place. The percentage figures for the positive migration are these:

RATIO OF NET MIGRATION TO THE NUMBER OF BACHELOR DEGREES PRODUCED
1990-2000

State	**Net Bachelor's Degrees Increase Through Migration (In Thousands, Rounded) 1990-2000**
Nevada	189%
Georgia	63%
Colorado*	54%
Florida	42%
Arizona	39%
Idaho	36%
Washington*	34%
New Jersey*	33%
North Carolina*	18%
Oregon	16%
Virginia*	11%
Maryland*	10%
Texas	8%

California*	-6%
Utah	-34%
South Dakota	-42%
North Dakota	-66%

Source: Census, IPEDS, higheredinfo.org

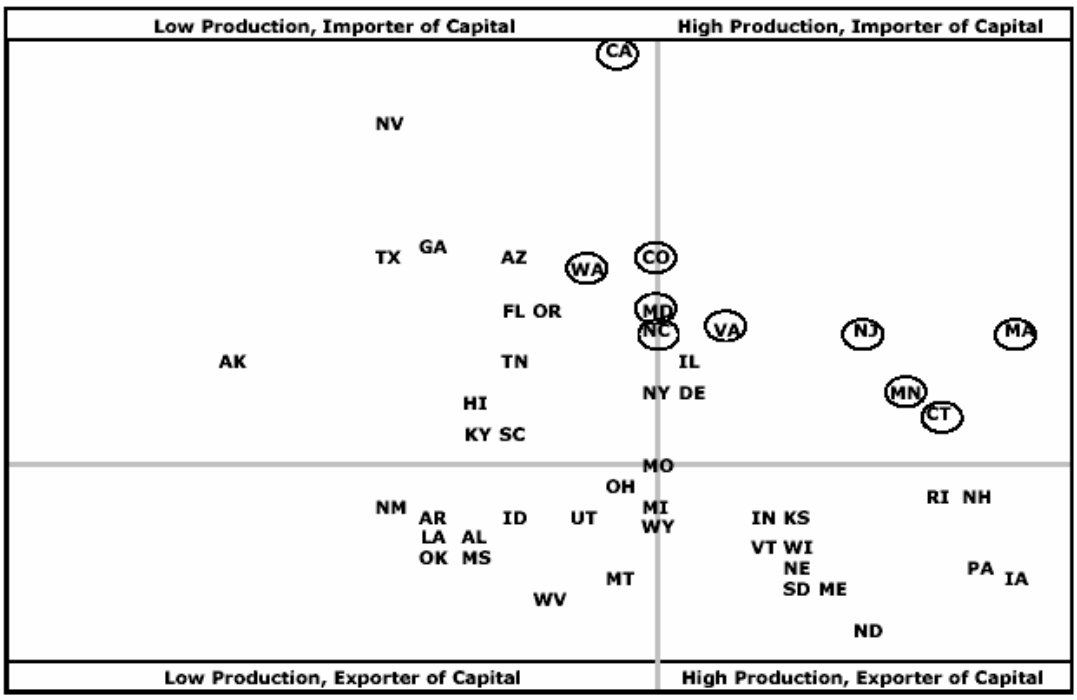
According to the Census Bureau, estimated net migration into Washington totaled nearly 60,000 during the period 1995-2000, the period for which such data were last compiled. Those with college degrees comprised about half. Those with bachelor's degrees represented about 30%. Computer specialists, engineers, health professionals, college teachers, life scientists, school teachers, counselors and social workers were among the leading fields on the list.[72]

Washington is one of the states classified as "Low [baccalaureate] Producers and High [Baccalaureate] Importers," and, along with California. Colorado, Maryland, and North Carolina, is on the cusp between low and high producing states. Virginia, Minnesota, Connecticut, New Jersey, and Massachusetts are high producers.

All ten of the GC States are represented among the strong importers. All are drawing substantial numbers of people who earned their baccalaureate degrees in other states, some of which fill in where local production is low (e.g., Washington) and some of which augment their own high production values with people educated in other states. It may not be an explicit policy, but it is a *de facto* one. Washington's pattern vis-à-vis other states is illustrated on the following NCHEMS graphic:

72 Washington Estimated Net Migration with Positive Earnings by Age Group, Occupation, and Education Attainment

States Ability to Produce Graduates vs. Ability to Keep and Attract Graduates (2000)



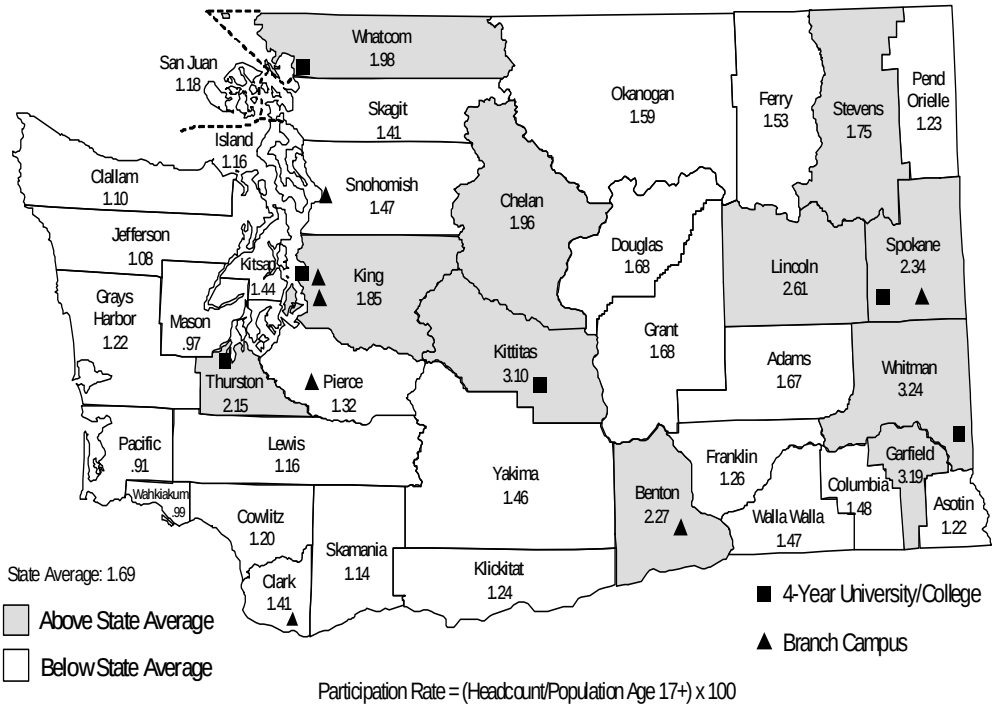
As a high import/low production state, Washington needs to pay much more attention to its levels of effort. As the global demand for educated people escalates, employers here may find it more costly to 'import' such employees, and smaller firms may not be able to do so successfully at all. In any case, bringing educated people into the state provides it with an important competitive advantage, one that will be dulled, however, if the people who live and go to school here cannot get into and through education programs and earn the credentials they need to compete with the in-migrants for attractive jobs, or if the magnets which attract educated people to the state move to others or weaken.

Students graduating from high school are the traditional source of college students. As described earlier, OFM projects enrollments in institutions of higher education in the state based on demographic information and records showing a fairly constant participation rate in higher education by young men and women. This component of demand is more easily forecasted than employer's needs, but even it is subject to shifts over time in accordance with economic factors. Whether present economic signals will lead to another upward shift in higher education participation is not clear, but many signals from the labor market suggest that this would be a rational decision for students and policymakers. In addition, more adults may want to come back to college to retrain for a new

occupation or to improve their skills as labor market conditions shift rapidly in a globalized economy.

The following map demonstrates variation in participation rates among the counties in Washington. Participation tends to be higher in counties with a four-year education institution, higher in urban areas and lower in rural counties. These variations may be attributable to differences in skill requirements in local labor markets, and they may reflect the reality of place-bound students who cannot reasonably commute to an existing four-year institution and who cannot afford to move to a county with such a college or university.

Proximity is an obvious factor, but its influence varies by type of institution and family income. Nationally the median distance to a community college for attendees is 26 miles (1999 figure); for a public university it is 86 miles; and for a private university it is 292 miles. Proximity as a determinant is influenced by family income: the median distance for four-year institution students with parental incomes of less than $10,000/year is 61 miles; for students with parental incomes of $150,000 to $200,000, it is 147 miles.[73]



73 *Postsecondary Education Opportunity*, May 2006.

EMPLOYER DEMAND

Employers also are an important part of the demand picture. Since the mid-1970s, employers have been hiring progressively greater numbers of college educated workers. Skill requirements for some jobs also have increased as computer technology, sophisticated logistics planning, and complicated service requirements have been adopted by employers to increase productivity, penetrate distant markets, and realize benefits from global supply chains. At the margins, employers have been hiring workers with a college degree for jobs that could perhaps were performed by a high school graduate or someone with some college but less than a baccalaureate degree at an earlier time. Such 'credential displacement' is typical of the national economy, perhaps best exemplified by the shift away from high school diplomas to vocational certificates, and associate and bachelor's degree. In many professional fields the pattern continues as the master's degree displaces the baccalaureate degree as the essential credential for entry and practice.

Early academic observers of this phenomenon worried about "credentialism" leading some employers to hire too high on the education ladder; wiser competitors might hire less skilled workers and achieve a cost advantage that would eventually lead to an over supply of college graduates and wage deterioration for the college-educated workers.[74] The last thirty years of labor market history, however, have disproved this theory; employers have increasingly rewarded college-educated workers with higher wages relative to those with lesser education. They may be seeking new hires who can later be promoted to more demanding positions, workers with flexibility and problem solving capabilities to help the company survive in a rapidly changing marketplace, or there may be broad and hard to define skill requirements associated with a college education that are not picked up in the occupational definitions used to analyze labor market patterns.

At the two-year institutions, program advisory boards, composed of employers and workers from program relevant industries, have assisted faculty in defining regional needs for new workforce programs. These institutions have a strong reputation in Washington and elsewhere for being entrepreneurial and responsive to local employer needs. At the four-year institutions, the record with respect to meeting specific employer needs is less clear and certainly more spotty. The state has responded to some degree to employer demand, providing funds for high demand programs in several recent legislative sessions, but

74 Freeman, Richard. *The Overeducated American.* New York: Academic Press, 1976.

leaving decisions about what programs to offer and the content of specific programs largely to the universities and their visiting committees and accreditation bodies, with the review of new program proposals by the HECB.

REGIONAL DEMAND

Regional authorities and organizations also seek a higher education presence to provide a local supply of highly skilled workers, to aid employers with specialized technical problems that faculty and students may be able to resolve, to seed new firm formation, particularly in high tech fields, and to change the culture and make an area generally more attractive to other employers and residents. These demands lie behind the current discussion about a possible university presence in Everett and points north and were factors in the earlier decisions to create branch campuses of the University of Washington and Washington State University. The last source of demand, to make an area more attractive, is in a sense predictable: probably authorities in every city would like to have a college or university campus. Population densities do not support cost effective solutions at small scale, however, and some of the regional universities have at times experienced difficulties in attracting students. Hence, the state has tended to proceed cautiously in establishing new campuses, particularly for four-year institutions. Learning centers affiliated with four-year institutions, which rely heavily on distance education technology, are the latest response crafted to meet higher education needs in smaller communities.

PERSISTENT NEEDS

Despite such responses to student, employer, and regional demand for higher education, the evidence suggests continuation of some persistent unmet needs. At the two-year institutions, where relatively precise matches can be made between occupations and fields of study, two areas stand out with enduring shortages when the number of program completers is compared to the state's projections of demand by occupational field: these are Construction and Health Care. The SBCTC also reports that its completers meet about 85 percent of employer demand in professional and technical fields for which the colleges have certificate and degree programs, which may imply continuation of a residual demand.

DEMAND-SUPPLY BALANCE IN CONSTRUCTION

	Projected Annual Openings, 2005-2010	**Annual Completions**	**Completions as Percent of Annual Openings**
Carpenters	1063	169	16%
Construction	364	14	4%

laborers			
Electricians	582	155	27%
First line supervisors	449	0	0%
Plumbers	381	75	20%

DEMAND-SUPPLY BALANCE IN HEALTH CARE

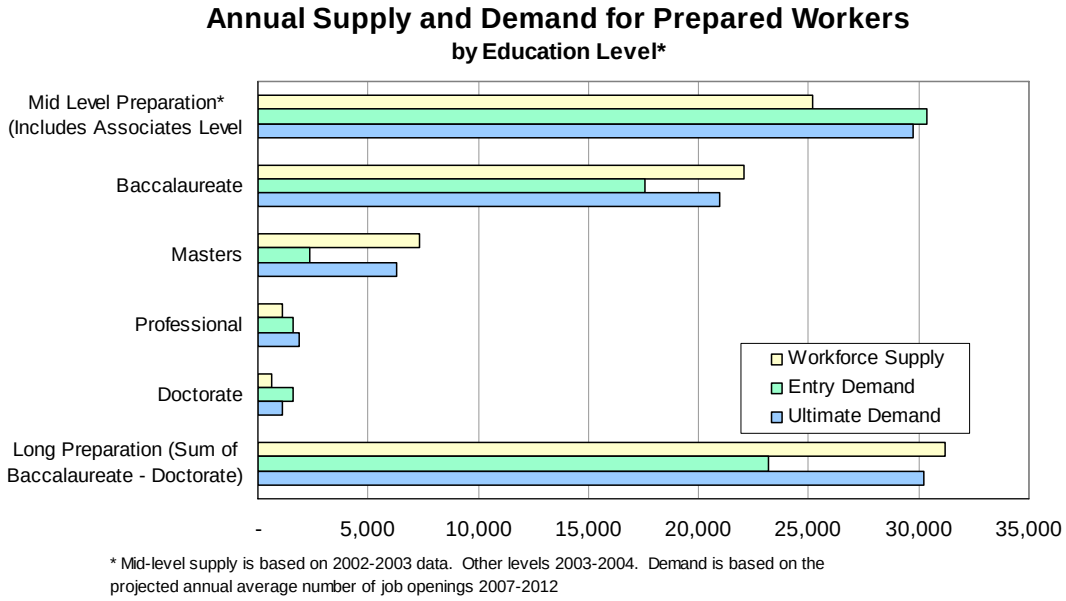
	Projected Annual Openings, 2005-2010	**Annual Completions**	**Completions as Percent of Annual Openings**
Registered nurses	2116	858	41%
Nursing aides	802	363	45%
Medical secretaries	507	177	35%
Medical assistants	563	262	47%
Dental assistants	442	252	57%

At the baccalaureate level, precise matches between academic majors and occupations are more difficult. Indeed, one-to-one matches are possible in only a handful of programs. Broader judgments about the adequacy of degree production to meet employer needs have to be made using highly aggregated estimates of demand in occupations judged to require a bachelor's degree, and large groups of degrees granted in liberal arts, science, and business majors that cannot be associated with any particular occupation.

As the following figures show, the total number of bachelors degrees granted annually is approximately equal to the projected demand in occupations that require at least that level of education.[75] This aggregate balance must be

75 Source: WTECB, HECB, SBCTC. Entry demand in this figure refers to the minimal level of education required to enter an occupation, while ultimate demand refers to the level typically achieved by incumbents in an occupation. This distinction is made to cover situations such as

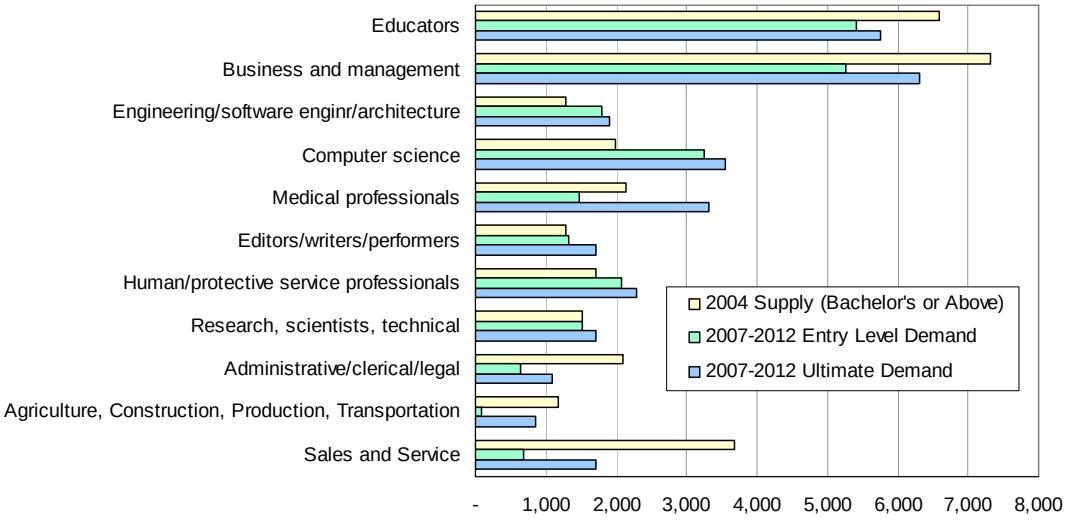
tempered by the long run record of increasing utilization of bachelor's degree holders by employers, their compensation of bachelor's degree holders in comparison to workers with lower levels of educational attainment, and the persistent trend of degreed individuals moving into the state to accept jobs from employers who want highly educated workers. The education requirement ratings are very conservative relative to these employer practices, and the actual demand for workers with bachelors or graduate degrees seems to be higher than the occupational data system suggests.



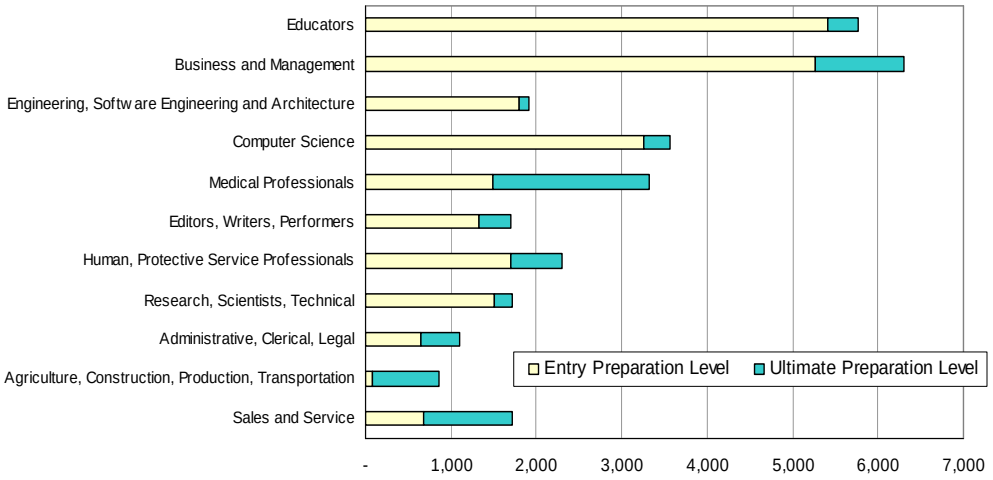
* Mid-level supply is based on 2002-2003 data. Other levels 2003-2004. Demand is based on the projected annual average number of job openings 2007-2012

registered nurses, an occupation that can be entered with an associates degree, but many incumbents go on to earn a bachelor's degree to move ahead in the profession.

Long Preparation Supply and Demand by Occupation
2004 Supply of Workers with BA or higher, and Employer Demand



Projected Annual Job Openings for Workers with a Baccalaureate Degree or Higher, by Occupation: 2007-2012



The above figures, prepared collaboratively by the WTECB, HECB, and SBCTC, also demonstrate more than sufficient supply at the master's degree level, but substantial shortages in the local supply compared to projected job openings for professional and doctoral degrees. The market for a Ph.D. holder is effectively national in scope, making a state level imbalance of less concern than a national imbalance would be. Very advanced technology life science and computing companies in Washington, however, have a strong demand for Ph.D.s

in relevant fields, and stronger degree production in those may aid economic development. For professional degrees in law, business, and other fields, the market may be closer to home at regional and state levels, making these imbalances important to address.

Despite the qualified picture of aggregate balance at the bachelor's degree level, there are apparent shortages in some professional fields. Some of those in which the supply coming from the state's four-year institutions seems inadequate relative to projected demand in specific occupations are shown in the table below. They include Engineering, Computer Science, Architecture, Health, and research and technical fields. The in-migration of large numbers of workers with bachelor's degrees from other states, as well as persistent complaints from employers such as Microsoft who hire mainly degreed workers, suggest that degree production could be increased in a number of baccalaureate fields without saturating in-state labor markets with degreed workforce entrants.

	Degree Production as Percent of Employer Demand
Training for initial entry into the occupation	
Engineering, software engineering, and architecture	67%
Computer science	56%
Additional training after entry into the occupation	
Health	65%
Editing, writing, performing, protective service	75%
Research, scientific and technical	89%

In addition, a study by the Technology Alliance suggests that startup companies are less able to recruit workers with critically needed skills in software development and biotechnology from distant locations than established firms such as Microsoft or Amgen. Thus, by producing too few degrees in selected high tech fields, the state may be hampering new firm creation and growth.

A final point about bachelor's degree issues relates to high school graduates who leave the state to pursue a degree in another state. About 16 percent of students going on to college do so in another state. Many of the most gifted students leave because there is only one university they will consider if their options include major research universities and the most distinguished colleges around the country. With limited seats at the University of Washington, the state may be permanently losing some of its best and brightest, since these students may not return to Washington after graduating.

According to net freshmen migration figures for 2004, Washington ranked 44th among the states; i.e., during that year, 1,376 more freshmen left to attend college elsewhere than came in.[76] Figures for the GC States are these:

FRESHMEN NET MIGRATION

2004

Source: IPEDS, *PSE Opportunity*

State	Net Migration	National Rank (Incl. DC & PR)
NC	**7,831**	**3**
MA	**4,658**	**6**
VA	**3,521**	**11**
CO	**929**	**27**
WA	**-1,376**	**44**
CT	**-2,260**	**46**
MN	**-2,739**	**47**
CA	**-3,292**	**48**
MD	**-7,048**	**50**
NJ	**22,600**	**52**

It is worth noting that there is an economic value realized by the state for freshmen student in-migration. In Washington it represents about .15%, below the U.S. average, .24%, ranking the state 45th in the country on this measure. Studies in other states make the point that college graduates are highly mobile all over the country, and a substantial proportion of college graduates will routinely

76 *Postsecondary Education Opportunity*, May 2006

and normally consider a job in another region of the country after college. Employers sometimes reinforce this tendency through participation in on-campus recruitment events at larger universities in many parts of the country. Recently the UW Alumni Association reported,

> More than 300,000 University of Washington alumni live in all 50 states and 131 countries. In the U.S., there are 186,893 UW alumni living in Washington. California is second with 22,214, while Oregon is third with 9,704. On the lean end, you will find only 116 Huskies in West Virginia and 123 in South Dakota. On the international front, Canada leads the way with 987 UW alumni, while Japan is second with 859 and Taiwan third with 535. Would you believe that in the following countries, one UW alumnus resides: Afghanistan, Albania, Azerbaijan, Belize, Benin, Bermuda, Bhutan, Brunei, El Salvador, Greenland, Laos, Madagascar, Mawai, Mauritius, Monaco, Netherlands Antilles, Swaziland, Syria, Tasmania, Trinidad & Tobago, Ukraine, Yemen and Zaire.

Thus, the issue of employer demand is difficult to reduce to a precise estimate of how many new graduates in each field are needed, although the case for more people with bachelor's degrees is clear.[77] In part, through Washington's investments in higher education capacity, the state is sending a signal to employers who desire employees with college degrees. The labor market for such employers is better in a state that is making those investments, and worse in a state that is not. Thus, the policy decision about how much the state should invest must be made in part by comparing Washington to other states that are perceived as peers or competitors in industries that are expected to grow and provide a larger job base in the future.

The signals employers provide through their hiring and compensation decisions can be interpreted best if good information is available about where students get hired and what they earn after they leave the state's colleges and universities. The table below shows estimates of program costs and benefits to both participants and society as a whole for several workforce programs.

77 As noted elsewhere in this and other reports, especially those prepared by the WTECB, the workforce supply-demand issues are not limited to the bachelor degree and above but apply as well to post-high school training and preparation for people at the sub-baccalaureate, and sub-associate degree levels.

DISCOUNTED BENEFITS AND COSTS OF WASHINGTON'S EDUCATION AND TRAINING SYSTEM, BY PROGRAM

Program	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost
JTPA II-A	$ 200	$ 360	$ 4,438	$ 3,384	$52,428	$ 360	$21,450	$3,384
JTPA II-C	-2,500	343	1,865	2,325	29,819	343	6,793	2,325
JTPA III	4,250	12,175	960	2,575	68,485	12,175	21,867	2,575
Comm. College ABE	2,818	278	-2,060	983	5,911	278	405	983
Comm. College Job Preparation	4,179	4,493	1,885	6,916	117,849	4,493	34,891	6,916
Comm. College Worker Retraining	1,941	16,630	1,385	4,692	59,300	16,630	20,222	4,692
High School Career and Technical Education	2,747	0	902	870	60,050	0	11,186	870

Source: Hollenbeck and Huang. 2003. "Net Impact and Benefit-Cost Estimates of the Workforce Development Program in Washington."

Washington has some of the best information for workforce programs in the country. Analysts working on evaluations of adult education and displaced worker programs consistently point to the quality of the data available from administrative sources concerning workforce outcomes for training program participants. Program managers at the colleges SBCTC can make adjustments and investment decisions based on these data, and legislators can be assured that the dollars they allocated to these programs have been well invested. ·While national studies suggest that similar claims could be made for baccalaureate programs, Washington's universities do not collect or publish comparable reports and policy makers do not have precise information readily available about how many graduates stay in the state, what industries they are working in, or where they are working. This deficiency should be corrected through use of administrative data or other mechanisms. Asking the universities to utilize this matching system is a relatively low cost way to learn a lot more about how well the universities are meeting employer needs in various industries.

Data of this sort enable rate of return analyses that would strengthen the argument for more capacity in the higher education system – analyses in other states show economic rates of return of 8-14 percent per year of additional

higher education, plus other social benefits. Rates of return on education investments are considered later in this report, and they are the subject of a companion study conducted for Washington Learns.[78]

The subject of workforce education is difficult to grasp in its entirety, as at the higher education (post high school) levels it entails programs at the certificate, diploma, associate, bachelor, graduate, and professional levels. Moreover, even describing them in such "credential" terms misses important components, such as apprenticeship programs, that do not lend themselves to such classification schemes. Focusing on one part, e.g., college degree programs, as some allege this report has done, evokes concerns that another and some believe more significant component, non-degree and sub-degree programs, receives short shrift. The converse also applies: advocates of traditionally defined workforce preparation programs (i.e., sub-degree programs) sometimes display little patience for the degree programs, frequently dismissing those that do otherwise as 'elitist.'

In this study we have tried to argue the point that all qualify for the workforce designation, and all are needed in greater number and capacity in Washington.

Nevertheless, both Washington Learns and NORED have been charged with paying insufficient attention to non-degree endeavors. One aspect of the perceived omission was noted in an August 8, 2006 letter from David Harrison, Chair of the WTECB, to Washington Learns, from which the following quotation is taken:

> " . . . [T]here remains one hugely consequential final matter we need to raise. That issue is general enrollment increases for workforce training.
>
> "In Washington, the evidence is clear that there is a sizeable shortage of completers of workforce training programs at the C/TCs, private career schools and apprenticeship programs compared to the number of job openings at that level of training. Among other places, this research has been used in the POG process as a key measure. The shortage is not limited to a few fields as might be addressed through an RFP process by allocating funds to high demand fields.
>
> "In our state employer survey, about 50% more employers report a shortage at the sub-baccalaureate level as at the baccalaureate level. Maintaining

78 Paul Sommers, etal., *The Returns on Education Investments*, May 2006.

current participation rates will not close this gap, a fact recognized by past blue ribbon looks at higher education.

"This issue may have become less the matter of focus within Washington Learns because of the understandable use of inter-state comparisons. However, Washington's high ranking in community college participation rates says little about how we compare to other states in terms of workforce training. Workforce training is just one of three parts of the C/TCs' enrollments. And the C/TCs are just one of the three providers of workforce training (private career schools and apprenticeship programs being the others).

'There [are] no data on the other states' enrollments in private career schools or apprenticeship programs, just one reason why the inter-state comparison provides insufficient guidance on the issue of increased workforce enrollment.

'[The WTECB's] yearly employer surveys provide excellent evidence of this need. We urge you to re-examine what must be said about workforce training enrollment and to not set a policy direction which could inadvertently turn the state away from increased efforts to close this skill gap."

A recent (Summer 2006) California report summarized the policy-level need in the following concise statement:

"Invest in regional workforce and economic development strategies to build prosperous communities and competitive industries. Expand funding and incentives for regional workforce planning and industry-based partnerships; link workforce and economic development initiatives; leverage private and public resources."

This, and the other four recommended strategies in *California's Edge: Keeping California Competitive, Creating Opportunity* report, are worthy of consideration here and are offered in that vein, and with a small reminder that California is one of the Global Challenge States.[79]

It was noted earlier that apprenticeship programs in particular often get lost in the conversations. A few words on these special programs in Washington may help.

APPRENTICESHIP PROGRAMS

Apprenticeship is another form of postsecondary education, combining paid work experience with classroom or laboratory training in one of 600 different

79 California's EDGE Campaign, www.californiaedgecampaign.org.

fields recognized by the Washington State Apprenticeship Council. Minimal state investment is required, since employers pay much of the training cost and provide training at the job site.

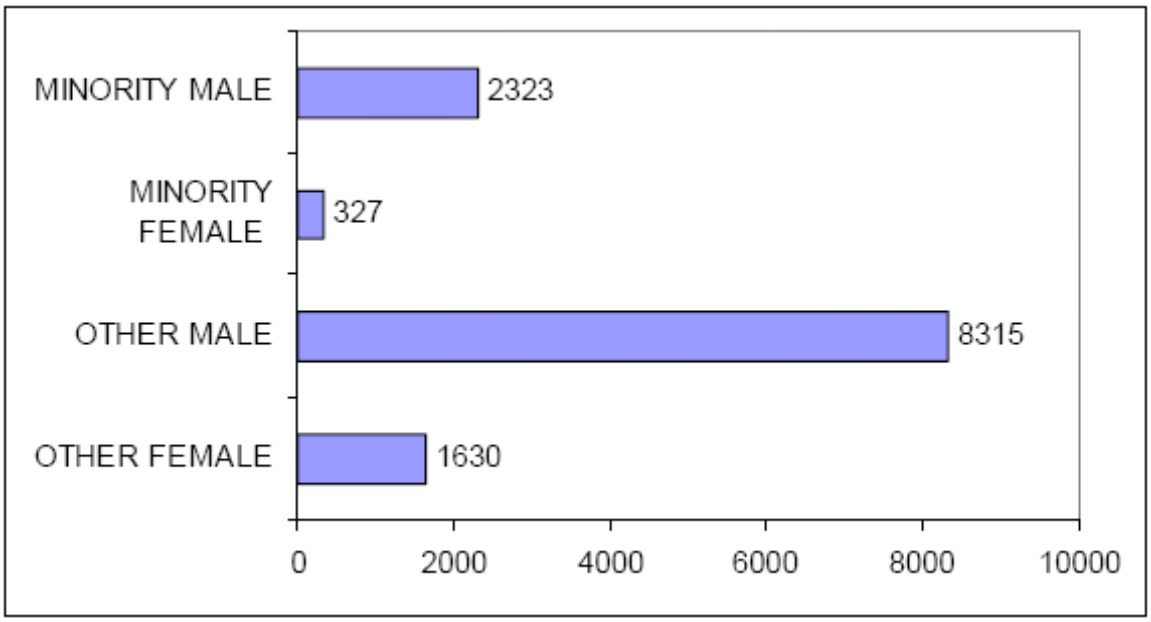
The system is supported by the community and technical colleges, which provide classroom instruction to support the on-the-job components. The program is managed by the Washington State Apprenticeship Council, which approves standards for programs and also approves local or trade area training committees that operate the various programs. The local or trade area training committees typically include union and employer representatives.

There were 12,595 persons actively engaged in apprenticeships in 2005. A total of 21% of these apprentices were from minority racial or ethnic groups, and almost 16 percent were women. A total of 1,437 apprentices completed their training and were awarded certificates in 2005, of which 17 percent were minorities and 8 percent were women. Most of the completions were in construction trades (300 electricians and 91 carpenters) with a few in a wide variety of other fields such as shipyard boilermakers (7 completions), stationary engineers (3 completions), and aircraft machinist (1 completion).

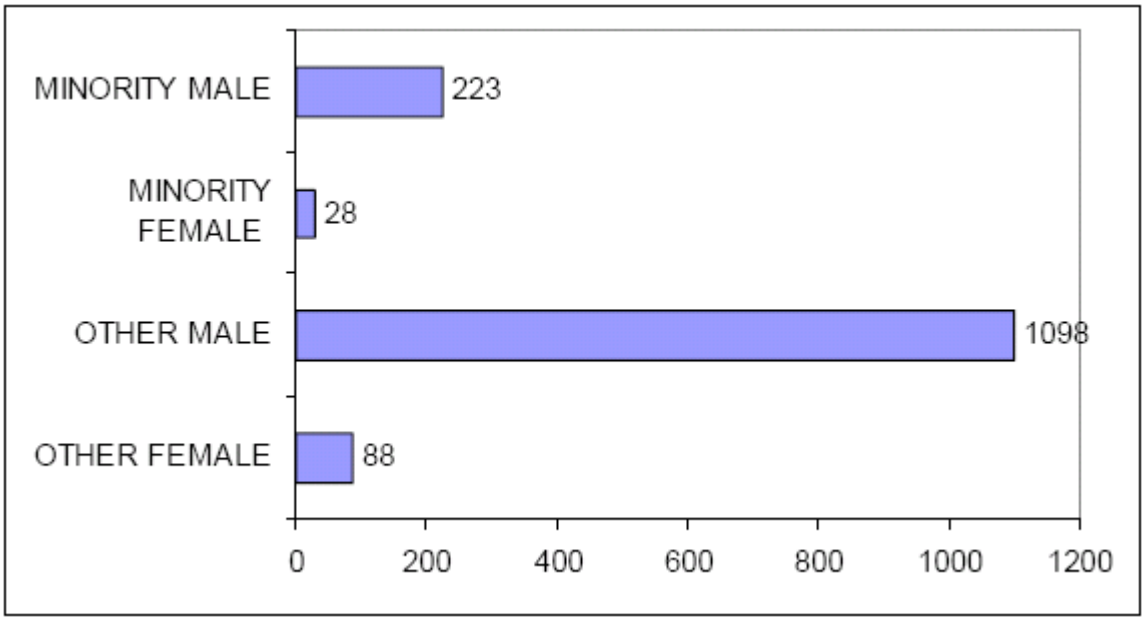
Apprenticeship is an “earn while you learn” program. The median wage for apprentices in 2005 was $31,380, and journeymen earned an average of $45,789.[80]

80 Ibid, p. 1.

Active Apprentices in 2005



Apprentices Receiving Completion Certificates in 2005:



New apprenticeship programs have been established in recent years. During 2005, for example, new programs were approved for in-home caregivers,

shipwrights, and industrial maintenance millwrights. In fields where both theoretical knowledge and practical hands-on skills are needed, apprenticeship has proven to be an excellent method of education. The percentage of minorities pursuing apprenticeships, as well as the participation of women participating in fields formerly occupied almost entirely by men, indicates the potential of this model for increasing diversity in the workforce. The "earn as you learn" aspect also makes this model very accessible for individuals who might have difficulty taking time away from work to pursue college studies.

Notably, funding for these programs comes from the employees and employers. Out of the 12,000 apprentices, the STBC only partially funds about 7000. Apprenticeship should be considered as an eligible form of higher education in connection with policy recommendations in this report, including the "13th year" option. Since apprentices do not necessarily attend college full time at any point in their apprenticeship, a modified form of the 13th year benefit would need to be devised for persons actively pursuing an apprenticeship, to allow use of this benefit over an extended period of time consistent with an apprenticeship program's utilization of community or technical college instruction.

A study dated August 9, 2006 by apprenticeship consultant Ed Madden offers four recommendations concerning these programs to the Department of Labor and Industries:[81]

1. Apprenticeship should have separate objectives distinct from the community college system because of the required 'employer-employee relationship' and variety of labor laws, employment rules and regulations and business cycles that are exclusive to apprenticeship.
2. Use a minimum of 10% of WIA funds currently used for Incumbent Worker and Skills Panels to provide incentives to sponsors of Washington Registered Apprenticeships.
3. Identify rules, policies, or requirements of state licensing and accreditation agencies that impeded or create barriers for existing or expansion of Registered Apprenticeship opportunities.
4. Include standardized information for Registered Apprenticeship in the catalogs of all community and technical colleges.

81 Apprenticeship Objectives for High Skills, High Wages.

One additional note on workforce preparation is appropriate here before moving on. It concerns students who must participate in such programs on a less than half-time basis. Washington's tuition and financial aid programs are subjects of the next chapter, but this may be a better place to note that such part-time students do not meet the eligibility requirements for the State Need Grant Program. We believe this should be reconsidered and offer the following recommendation somewhat out of sequence:

> Workforce preparation has been a strong theme in this report. Presently, part-time students do not qualify for the State Need Grant program. There is a great deal of interest in opening the program for part-time (less than half-time) students in workforce training programs. According to information provided by the SBCTC, an additional 4,700 part-time workforce training students would need aid if the opportunity to receive it were at the same level as for full-time workforce students. We recommend consideration of such a change in the eligibility requirements.

At this point attention turns to the aspects of higher education access and funding in Washington, starting with a review of the interplay between the state's higher education access policies and tuition and financial aid.

MAKING THE GRADE

WASHINGTON HIGHER EDUCATION AND THE GLOBAL CHALLENGE

RISING TO THE TEST: THE INTERACTION OF TUITION AND STUDENT FINANCIAL AID

The Washington Learns Higher Education Advisory Committee discussed student access and tuition and financial aid at some length during its meetings. The following are the consensus points that emerged.

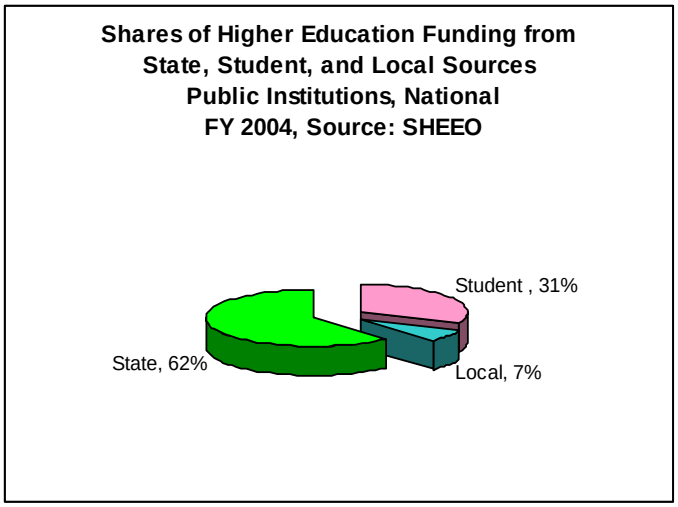
Higher Education Advisory Committee Discussion Points

- Tuition is integrally related to an overall funding scheme. Therefore, absent an understanding of the total approach to funding, any discussion of tuition is necessarily quite limited.
- Past practices of enabling tuition increases, the proceeds of which are at least partially supplanted by legislative appropriation should not be a feature of our approach to tuition.
- In overall terms, tuition increases exceeding inflation growth, such as we have experienced in the last several years, cannot be sustained indefinitely without harming students, our colleges and universities and efforts in economic development.
- Tuition levels should not be prohibitive.
- Realistically, tuition revenue is a necessary and important ingredient in our efforts to fund higher education.
- We have a tradition of differentiated tuition that in some fashion should continue.
- Tuition forgiveness programs have been and can continue to be an effective tool in strategic areas.
- There are parts of our society -- such as students from low income households, non-English speaking students, and students of color – whose expanded participation in post secondary education is important to everyone. Tuition policy can be a part of that effort although the overall approach needs to be holistic.
- Some bold new program such as the Indiana Scholarship program (used here for example purposes only!), has merit.
- Any new program needs to be easy to explain.

TUITION AND FINANCIAL AID TRENDS

Student tuition and fee charges constitute one of the three major sources of revenue for public colleges and universities. The other two are state appropriations and institutional funds (e.g., grants and contracts, gifts, federal funds, etc.). The three operate more or less in a *pas de trios* in the sense that diminishment in one triggers need for more from the others if fiscal stability and workloads are to be sustained. This interplay accounts for much of the activity in tuition during recent years and, by extension, for many of the increases in student financial aid as a mitigating policy as state appropriations contracted.[82]

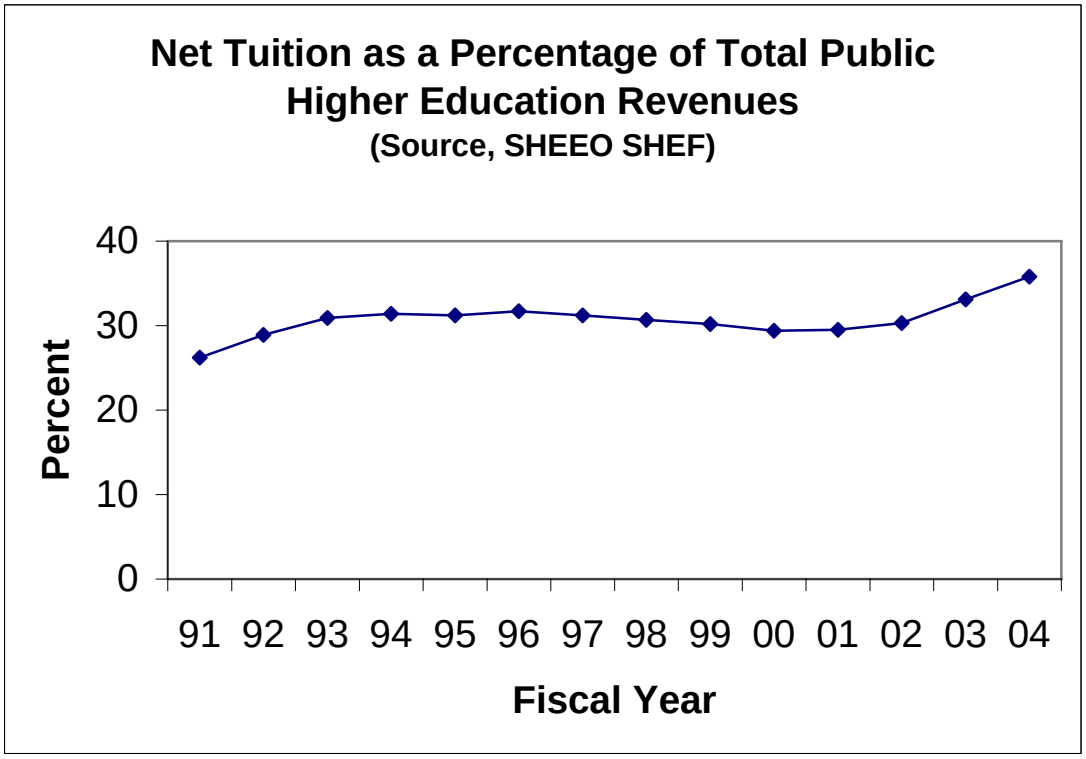
In 2004, state and local governments provided $69.4 billion to higher education. State tax appropriations accounted for 84.4 percent of this total. Gross tuition and fees totaled $38 billion (FY 2004). After subtracting state-funded student financial aid and institutional discounts and waivers, the net tuition revenue was $31.5 billion, bringing the combined funds from state (62.1%), local (6.7%), and student sources (31.2%) to $100.9 billion.[83] The distribution is depicted on the following chart.



82 See Dennis Jones, NCHEMS, "Financing in Sync – Policy Brief," NCHEMS, in WICHE, Policy Insights, October 2003. According to the author, ". . . [M]ost public institutions get the vast majority of their unrestricted operating revenues from only two sources – the state and students. Other sources provide funds for specific (restricted) purposes, but only states and students underwrite, in any significant way, the ongoing operations of the institutions."

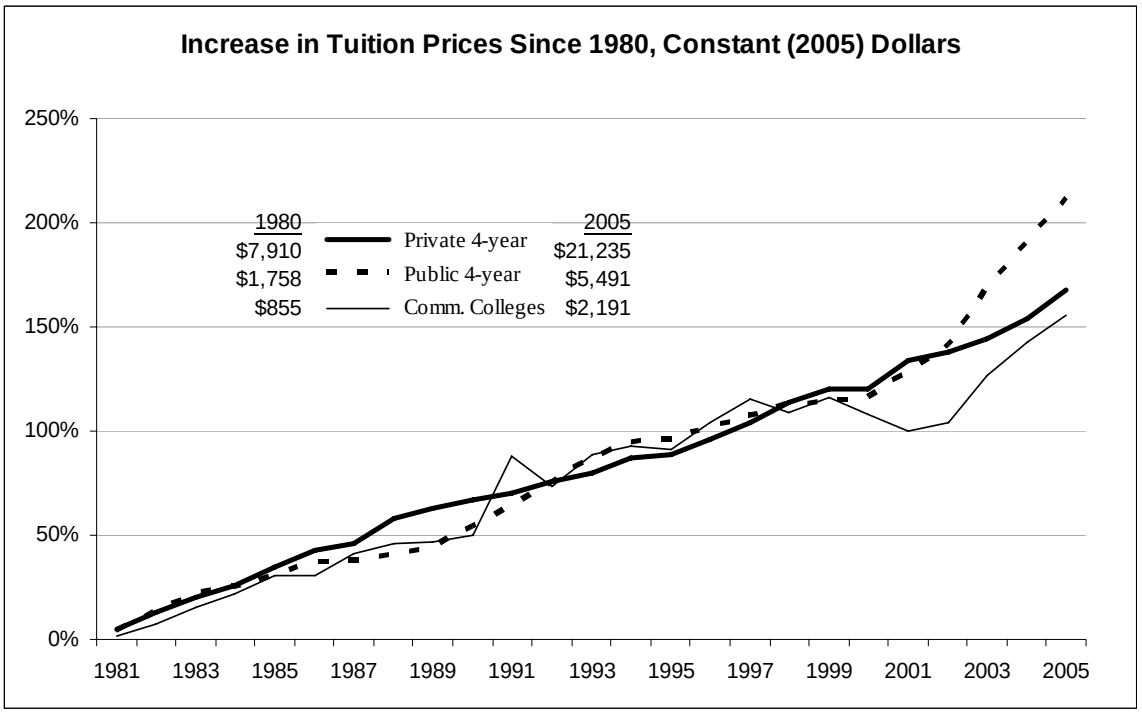
83 State Higher Education Finance 2004, *op. cit*., p. 15.

Tuition is a big player in all of this. In terms of the national pattern, after remaining relatively constant, even declining slightly, for several years, it has drifted upward, as represented on the following national trend line.[84]

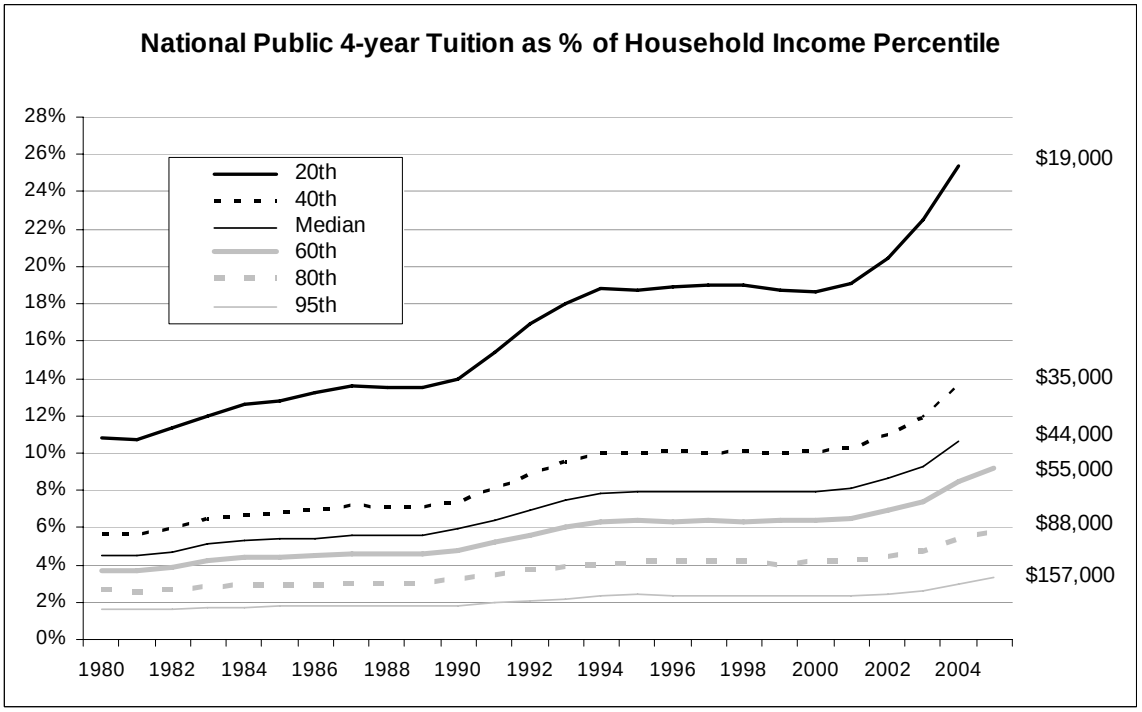


The pattern also is apparent in the curves describing the change in constant 2005 dollars since 1980; it applies to all sectors, public and private, four-year and community college. In the present decade, tuition has increased most rapidly in the four-year public higher education sector.

84 SHEEO, *op. cit*., p. 25. The percentages shown on this graph are not the same as those reported in other parts of the study, but the trend pattern is the point of interest here.

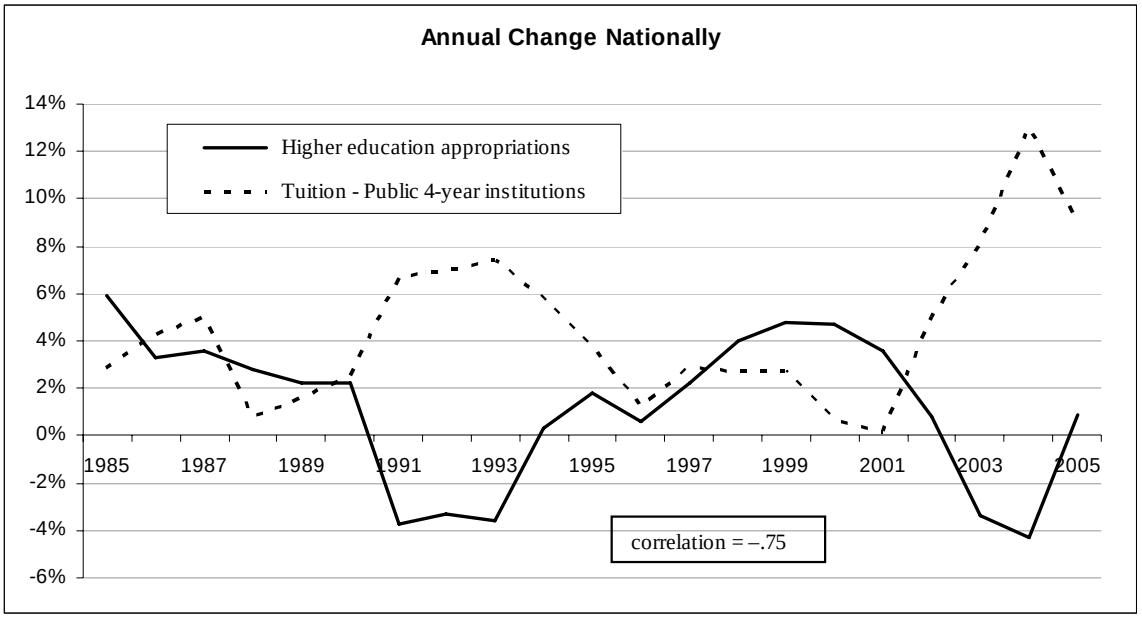


The increase also has affected all income groups, although the curve assumes its sharpest upward trajectory for people in the lowest income groups, particularly those in the lowest twenty percent.

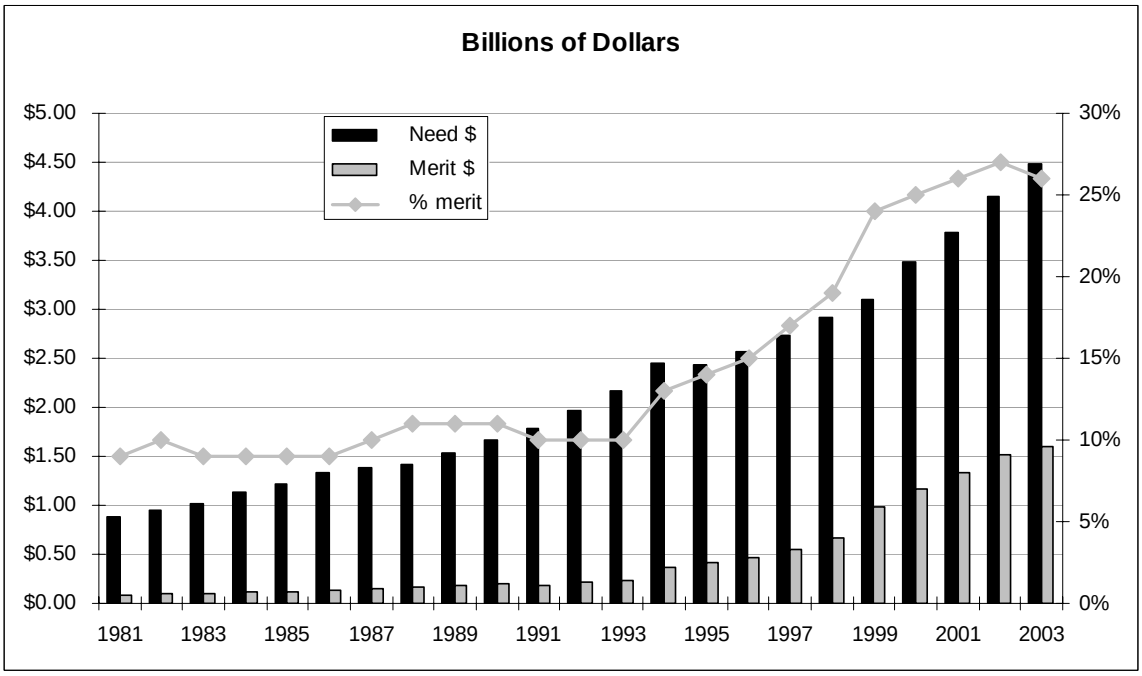


(The figures on the right are the income limits for each group in 2005.)

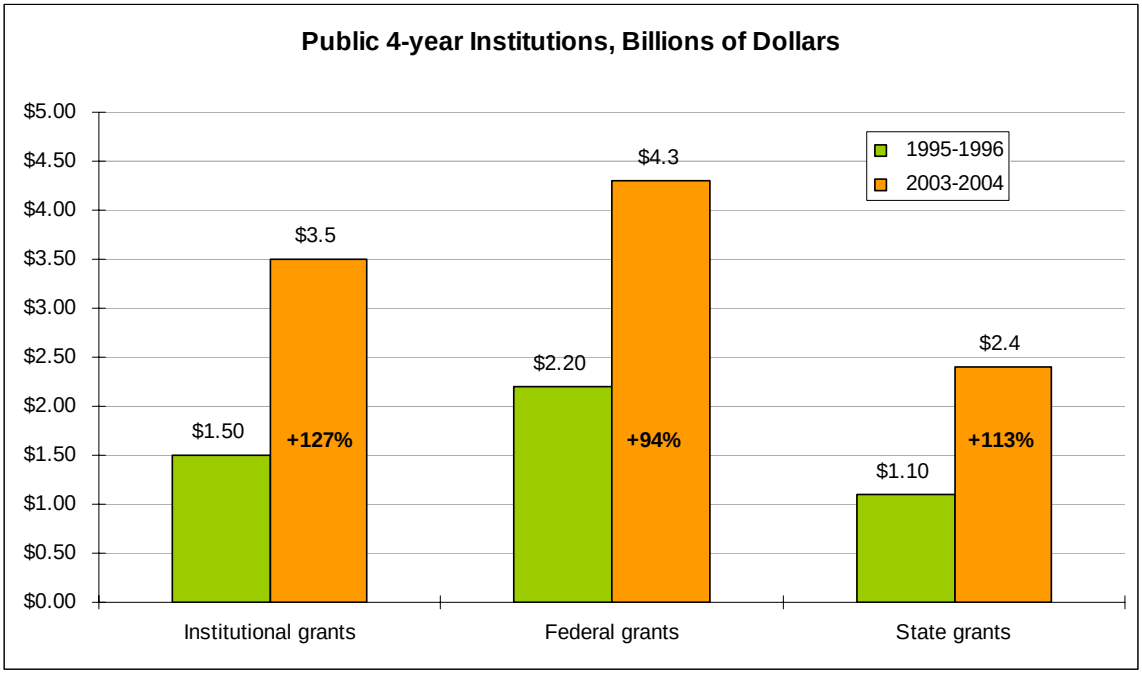
The appropriations-tuition interplay is dramatically apparent when the two lines are plotted against each other, as on the following graph, which compares annual changes in public four-year institution tuition rates with higher education appropriations.



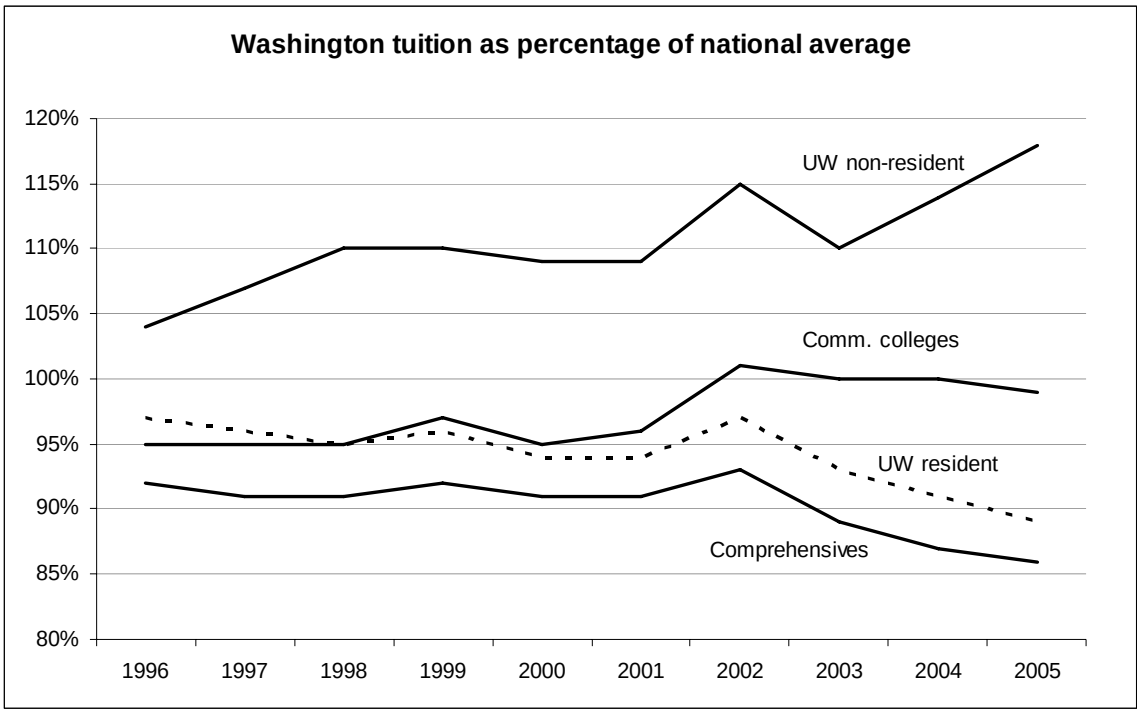
The complexion of student financial aid also has been changing throughout the country. Although need-based aid remains the preponderant form, merit-based aid has been increasing steadily, presently accounting for over 25 percent of the total.



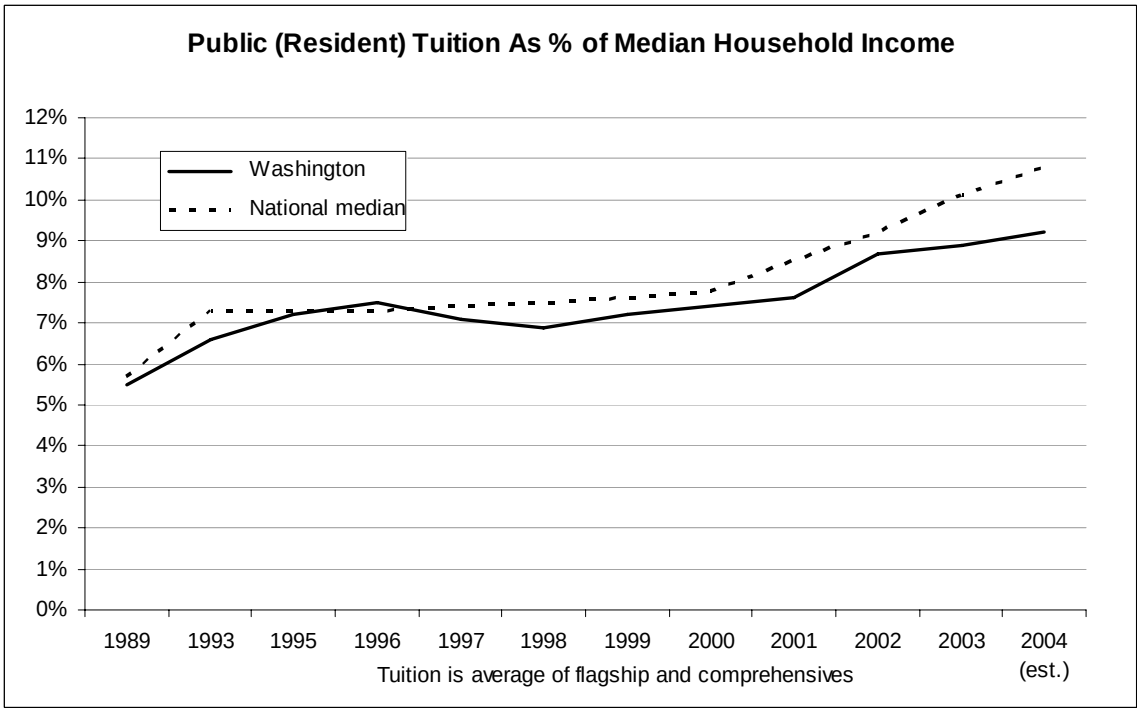
Grant aid from all major sources has increased during the last four years. Again looking at public four-year institutions, the greatest percentage increase has been in institutional aid, followed proportionately by state and federal aid, in that order.



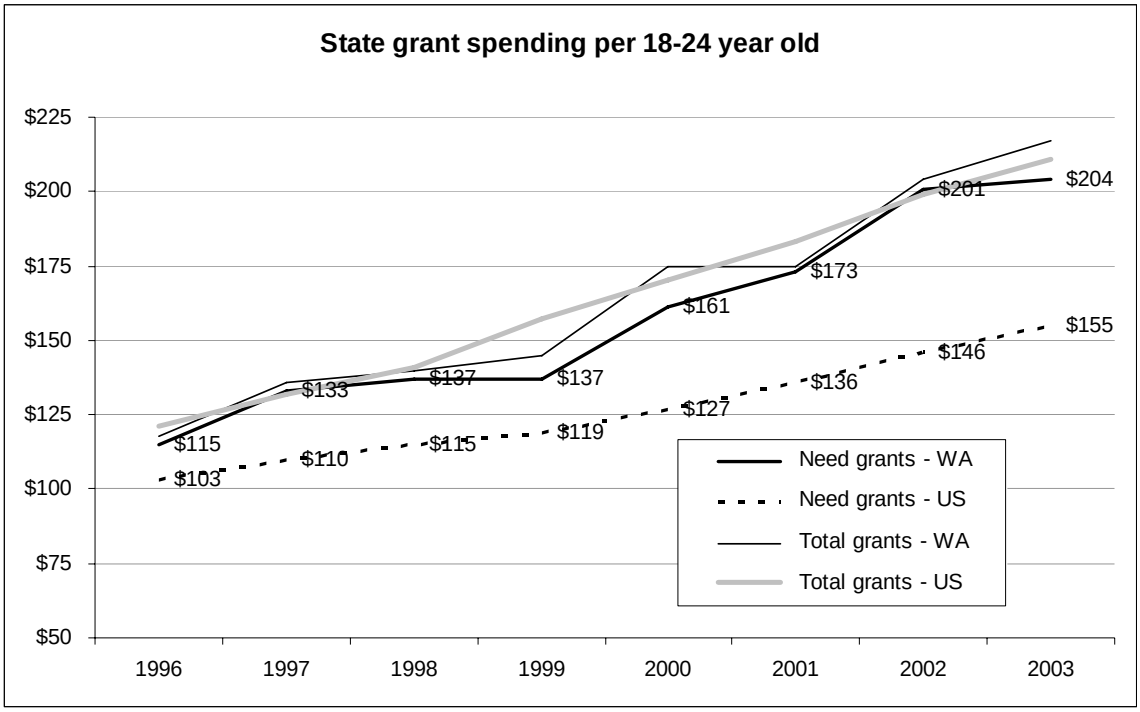
Except for a brief period for the community colleges in 2002, the resident tuition increases in Washington have been less than the national average. Non-resident rates at the UW, however, have been well above the national average for at least the past ten years.



The trend line describing resident tuition increases as a percentage of median household income in Washington mirrors, although it has been generally below, the national pattern (public four-year institutions).



Viewed in terms of its prime audience, 18-24 year-olds, the increases in grants, state-need and other, in Washington and nationally, are depicted by the trend lines on the next graph.



According to SHEEO, net tuition revenue constitutes a relatively small percentage of public higher education revenues in Washington, with the share placed at around 25% (FY 2004; the individual institution and system contributions to this average can vary widely, see the data that appear below). Washington ranks ninth nationally in this respect. Vermont leads the states, with tuition accounting for 78.7% of total revenues there.

Definitions are important, but this much seems clear: over the last two decades, the shares of total revenues received by public higher education institutions across the country have changed, with the portion provided by the states and federal governments decreasing and the portion provided by students and families increasing. There is some reason to believe that, with few exceptions, this has happened largely through fiscal expediency rather than an explicit policy decision on the part of governments. That is, it has occurred through a process of incremental displacement of one funding source by another as enrollment demand and economic fluctuations occurred, not often in synchrony.

In almost any public discourse of funding for public higher education, two areas of discussion reliably can be predicted to surface – the desire for stability of public appropriation support for institutions and the desire for greater predictability in tuition rates.

Public appropriation support for higher education has fluctuated (but only very rarely diminished), but so it has for every other area of state spending. Tuition levels have increased in both small steps and leaps, without pattern. There is no argument to these histories, nor is there with the impression that this has made it more difficult for institutional administrators to make long range plans, and for students and their parents (in most cases) to know what to expect by way of tuition costs five, ten, or even more years downstream. But public funding and public policy, with respect to funding higher education, is more complex than that.

Perhaps the following can add perspective:

- From 1986 through 2005 the CPI for the Seattle, Tacoma, Bremerton area increased almost 88%.
- Per capita personal income in Washington has risen from $15,542 in 1986 to $34,586 in 2005, over 122%.
- On average, gasoline prices nationally have risen from $0.92 a gallon in June 1986 to a current level of $2.94, about 220%.
- In the ten years from 1990 to 2000, median home values in Washington increased from $93,400 to $168,300, just over 80%.
- In 1988 the average annual wage in Washington was $21,000 and rose to $40,385 in 2005, an increase of about 92%.
- In 1986 the marginal tax rate for a married couple earning $50,000 was 38%; by 2005 the marginal rate for this bracket had dropped to 15%.

All of this is to say that many things affect the ability of individuals to meet the increased cost of tuition or of administrators to manage the course of institutions, but both have persevered. It also can be argued, with respect to the almost $4,000 increase in tuition, that this figure is at least mitigated by the magnitude of the average increase in wages, tax savings and related per capita income, not to mention home values, which can be viewed as a family asset.

Although they have increased in recent years, the University of Washington's tuition rates are still less than those of comparable public institutions in other states and those of comparable private institutions. And as noted previously, the direct return on this investment in tuition for college graduates is realized many times over in the course of a lifetime.

Nevertheless, price does have an effect. There is a long and rich history of research studies that have examined the relationship between college tuition prices, financial aid availability, and the decisions that potential students make about enrolling in college. Higher education is like most goods and services in

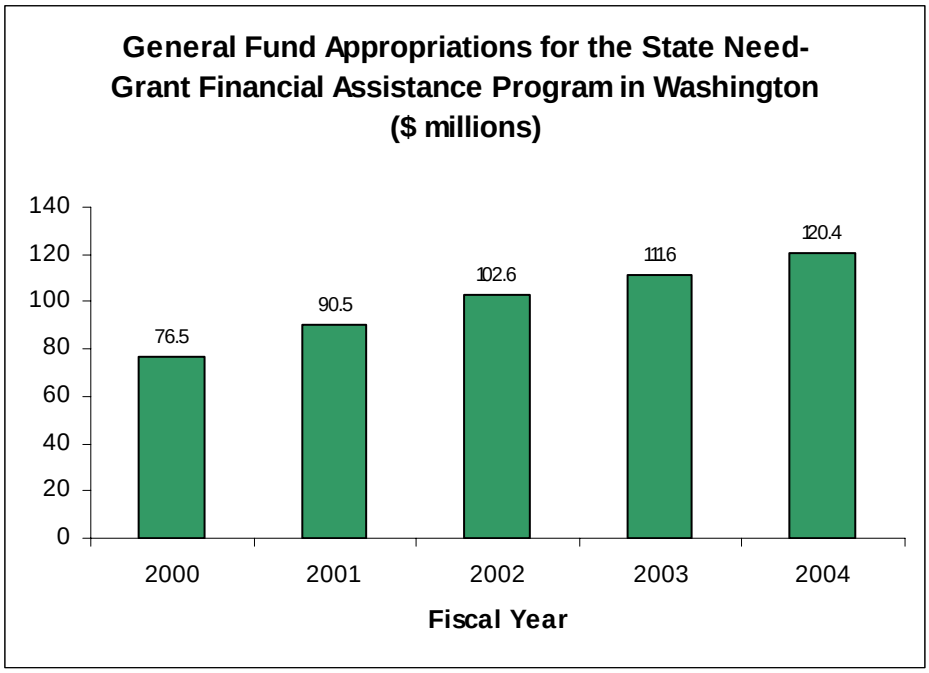
our economy – as its price rises, individuals are likely to consume less of it, all other things being equal.

All other things are not always equal, of course, and the relationship between price and participation is very complex. Other factors affect this, such as availability and magnitude of student financial aid, alternative education options, jobs, etc. The break point, the point at which tuition begins to materially affect access and participation, is difficult to establish, and it does not apply equally to all students. A 1999 national study found that a $205 tuition increase in 1999-2000 prices was associated with an enrollment decrease of 0.5 percent in public four-year institutions; an $184 increase would result in a decrease of 2.3 percent in community colleges.[85]

Tuition, “price,” is the main variable people focus on when they express concerns about college affordability, although most also recognize that the full price of college includes a lot more (books, room and board, etc.). Concerns seem to abate a little when the option of offsetting financial aid for families that may not be able to afford the price is offered. This probably would not apply across all types of institutions, but in this state an American Council on Education poll of Washington adults in 2002 found that 72 percent would support tuition increases at the University of Washington if required by budget cuts, and if offset with increased financial aid for students who cannot afford to pay more.

Financial aid is an essential component of access. General Fund appropriations for Washington’s Need-Grant Financial Assistance program have increased steadily during the past five years, rising nearly 37% over this period:

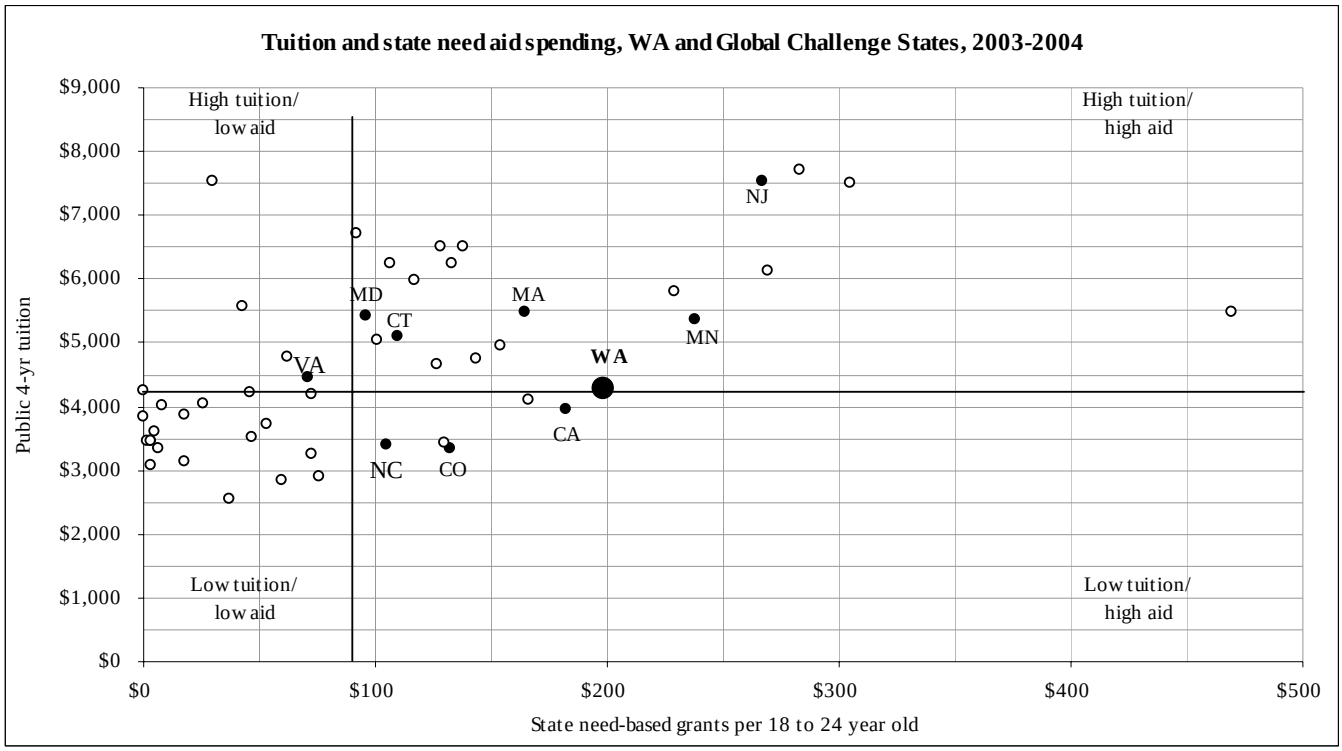
85 Donald Heller, "Tuition Pricing and Higher Education Participation in Colorado" (September 25, 2000), included as an appendix to the NORED report, *Higher Education Governance in Colorado at the dawn of the 21st Century* (November 2000). Heller notes that, "There are a number of caveats to be aware of when considering these findings. First, the reader should remember that these effects are generally consistent when you are examining the behavior of large populations of students. You cannot use these to predict with certainty how a particular policy change may affect the behavior of any single student, or the aggregate behavior of a relatively small group of students, *or even enrollments in a single state*. [Emphasis added.]



Generally speaking, Washington is a moderate (medium) tuition/moderate-aid state. It is in the middle of the four quartiles formed by tuition charges and aid spending on the next graph. While the state's four-year institution tuition rate (averaged between the University of Washington and the comprehensive universities) is just about the national average, its need-based aid per student is greater than the national average. Half of the GCS, MD, CT, MA, NJ, and MN, are in the high aid-high tuition group. California, CO, and NC are considered comparatively low tuition-high aid states. Washington is closest to this cluster. All of the GCS except for VA are on the high aid side of the graph.

NEED-BASED GRANT SPENDING PER CAPITA AND FOUR-YEAR TUITION PRICES, 2002

(INDICATING WASHINGTON STATE'S COMPARATIVE PLACEMENT)



Resident tuition charges in Washington and the other GC States for the different sectors are shown on the following table.

RESIDENT TUITION RATES GLOBAL CHALLENGE STATES

2004-05

SOURCE: HECB

State	Research Universities	Comprehensive Universities	Community/Technical Colleges
CA	$5,956	$2,993	$780
CO	$4,557	$2,951	$2,274
CT	$7,490	$5,630	$2,406
MD	$7,426	$6,252	$2,875
MA	$9,008	$5,556	$3,385

MN	$8,029	$6,098	$3,822
NJ	$8,564	$7,875	$2,771
NC	$4,451	$3,129	$1,216
VA	$6,600	$5,479	$2,006
WA	$5,181	$3,947	$2,313
GCS	$6,726	$4,991	$2,384
US	$5,724	$4,545	$2,324

Washington ranks third from the bottom, above North Carolina and Colorado research university rates. It also is about 30 percent below the GCS average. It is almost ten percent below the national average for institutions of this type. Washington ranks fourth from the bottom in comprehensive university rates, with California, Colorado, and North Carolina maintaining lower rates for these institutions. Washington is 26 percent below the GCS average, and 15 percent below the national figure. Using these figures, a $1,545 increase would bring Washington to the GCS average.

With respect to community college tuition, Washington ranks right in the middle of the 10 GC States and three percent below the group average, and 0.4 percent below the national average. Washington community college tuition is relatively higher in the comparison group setting than is the case with the two university sectors.

State policies oriented toward student funding, e.g., tuition and financial aid policies, can be related to a variety of state goals. The next table lists specific state goals on the horizontal axis and broad categories of student funding policies on the vertical axis. In each box is shown the specific student funding policies that can be utilized in pursuit of particular goals.

This is a work in progress, but the potential for goal conflict is high. Access and Affordability, for example, imply a low tuition policy. State economic growth accords with higher rates. It is difficult to discern just which policies the state has been pursuing with its tuition program from the options on this chart.

	Access	Choice	Affordability	State economic needs	Student academic behavior	Institutional behavior
Tuition rates	Low tuition	Differential rates by inst.	Low tuition; guaranteed tuition rates	High tuition; non-resident tuition	Differential rates by program, level	
Grant aid	Need grants	Need and Merit grants	Merit grants and Need Grants	Merit grants (brain drain)	Merit grants	
Loans		Student loans	Student loans	Loan forgiveness	Loan forgiveness	
Appropria-tions	Subsidize low tuition	Differential approp. per sector; student vouchers	Subsidize low tuition	Targeted appropriations		Performance funding; graduation rate bonuses; charters
Savings and other incentives			Prepaid tuition, 529 plans; tax credits			

The figures so far have aggregated tuition rates for all types of institutions. Variances begin to appear when rates are separated by institution and sector. The following figures are for the 2003-04 academic year, from the HECB's annual tuition and fee reports, which, it should be noted, are national reports utilized throughout the country.[86]

WASHINGTON RESIDENT UNDERGRADUATE TUITION AND FEES 2004-05

(SOURCE HECB)

	UW	WSU	Comp. Univ.	C/TC
Resident Rates	$5,181	$5,154	$3,947	$2,313
GC States Average	$6,726	$6,726	$4,773	$2,385

86 2004-05 Washington State Tuition and Fee Report, p. 14.

Dollar Difference	$1,545	$1,572	$826	$318
% Difference	+29.8	+30.5	+20.9	+3.1

The percentage rate increases by type of institution, according to the HECB, between 2000-01 and 2004-05, were the following:

PERCENT CHANGE IN RESIDENT TUITION AND FEES BY SECTOR AND NATIONAL RANKING BY RATE OF CHANGE, 2000-01 TO 2004-05

(Source HECB)

	%	**Rank In % Chg.**
Flagships/RUs	37.8	31
Comprehensives	36.6	31
Community Colleges	41.0	18

In the case of the flagship universities, the annual rate of change for Washington exceeded the national average one time during this period: from 2001 to 2002 the rate of change was 11.8%, compared to the national rate of 10.1%. This also was the case with the comprehensives (13% compared with 10.5%). In the case of the community colleges this occurred twice, in 2000 to 2001 and 2001 to 2002 (8.4% compared to 4.9%, and 13.7% compared to 8.9%, respectively.)

Washington has employed different approaches to tuition setting in recent times. Since 1999 the institution and system governing boards have been able to set specific rates up to state mandated limits, in effect using a base plus allowable annual incremental change approach. The HECB 2004 Master Plan describes the annual limits for resident undergraduates as the following:

1999-00	4.6%
2000-01	3.6%
2001-02	6.7%
2002-03	(UW,WSU) 16%, (Comprehensives/TESC) 14%, (CTCs) 12%
2003-04	7%
2004-05	7%

In a letter to the Washington Learns Higher Education Advisory Committee Chair, the Executive Director of the HECB, which has responsibility for administering the state's Guaranteed Tuition Program [GET] indicated that its success depended on tuition predictability. Although he based his case on the HECB's plan ("Keeping tuition affordable and predictable"), and his concern in the message was with the prospect of turning tuition authority over to the UW and WSU, others noted that tuition increases have tended to be held to an average of not more than seven percent per year,[87] which they believe is the maximum GET can tolerate. The letter closed with the statement that ". . . it is not our intention to tie tuition in the state to the GET program," but others believe this has happened and that the GET program has been a dominant factor in the state's tuition policy.

In the 2005-07 biennium operating budget (HB 6090) the Legislature continued the 7% mandate for the research universities and reduced the limit to 6% for the comprehensives and to 5% for the community and technical colleges. At the same time, it reduced state support by 25 cents on each new dollar raised by the tuition increase on resident undergraduates (a $17 million reduction in state funds). It also increased funding for the State Need Grant program by $69.7 million, which had the effect of expanding eligibility for the program to 65% of the median family income (up from the then present 55%) to help reduce the impact of the tuition increase.

While Washington is among the nation’s leaders in state-funded aid, its resident tuition rates in four-year institutions are below the national average (largely because other states have increased their rates in recent years faster than has Washington). This suggests that the state should consider increasing tuition rates at slightly higher than average rates in the coming years. Increases in tuition, however, should be accompanied by and linked with increases in both state and institutionally-funded grants.

Thus, we recommend that tuition rates in the four-year universities be increased to achieve greater parity with counterpart institutions in the Global Challenge States.

We also recommend that differential pricing rates among institutions, for example the University of Washington, Washington State University, and the

87 Letter to Dennis Heck, Chair. April 7, 2006

comprehensive universities and branches, be used as incentives to attract students to these institutions and take advantage of unused capacity.

FINANCIAL AID

Any discussion of appropriate shares of the costs to be borne by the major fund sources, and particularly tuition, brings forth a question of how much should be offset through financial aid. For example, under the federal methodology used for calculating financial need in college – the methodology used to determine eligibility for federal Pell Grants and federal student loans – the neediest students are not expected to contribute any of their own or their parents' resources to pay for their education. The full cost of their education is expected to be provided through financial aid -- grants, loans, and work study.

At the time of the 1972 reauthorization of the Higher Education Act, which created what today are called Pell Grants, the grants covered approximately 80 percent of the cost of education – tuition, fees, room, board, books, and related expenses – at a public, four-year institution for the neediest students. The expectation was that the remaining 20 percent would be provided through some combination of state and institutional financial aid. In practice, however, few high-need students today see the full cost of their education provided through financial aid, at least not without significant borrowing from both federal and private loan providers.

As with other funding shifts, this state of affairs does not seem to have occurred through explicit policy prescription.[88] As tuition costs have risen over the last two decades, need-based grants – from either the federal government or states – have not kept pace. In a 2002 report titled *Empty Promises: The Myth of College Access in America,* the federal Advisory Committee on Student Financial Assistance found that the neediest students in public four-year universities – those from families with incomes below $25,000 – faced unmet financial need totaling approximately $4,000 per year. With the recent rise in tuition prices nationally, and lack of a concomitant rise in need-based aid, this amount has continued to increase.

Yet, either by keeping student charges low or by providing need-based student financial aid to low-income students, access, affordability in this case, is

88 A 2004 NORED study of funding and enrollment policies in 12 states for the NCSL and NCPPHE, found that most were turning to tuition increases to make up the shortages between funding limits and enrollment increases, although several also were utilizing measures to provide students and families with promises either of tuition stability or price predictability.

both a national and a statewide higher education hallmark and an essential part of any funding mechanism.

There are reasons other than equity for pursuing access for low-income students. A 2005 study of the experiences of state need-grant recipients and non-recipients who graduated from independent colleges and universities in Minnesota and Washington in 2002 found that upon graduation both groups reported the same annual earnings and nearly identical rates of employment, job satisfaction, graduate/professional school enrollment, and living independently from their parents. Both groups also took the same amount of time on average to complete their degrees. State grant recipients reported the same high levels of satisfaction with their college experience as the full population. The college experience, made possible by the state aid programs, virtually eliminated the income differences between low-income and other students. The family income differences between the two income categories at the beginning of the college experience were $37,000 in Minnesota and $32,000 in Washington. Some of the major findings of the study are displayed on the following table:[89]

POST-COLLEGE EXPERIENCES ARE SIMILAR FOR STATE GRANT RECIPIENTS IN MINNESOTA AND WASHINGTON

	Minnesota		**Washington**	
	SG	**No SG**	**SG**	**No SG**
Average Personal Working Income (Full-time)	$27K	$27K	26K	27K
Currently Employed	81%	84%	79%	84%
Working Full-Time	68%	71%	60%	68%
If Working Full-Time				
- At least somewhat satisfied with job	85%	82%	82%	89%
- Current job requires a degree	57%	56%	59%	62%
- Employment related to major	63%	68%	62%	69%
Enrolled in Full-Time Graduate Program	13%	12%	19%	13%

89 Douglas T. Shapiro, *Financing Higher Education Today: How 2002 Graduates Paid For and Perceive the Benefits of Their Education*, Minnesota Private college Research Foundation, May 2005.

Living on Own (Not With Parents)	58%	54%	60%	48%

Source: Minnesota Private College Research Foundation

Aid comes from several sources, state, federal, and institutional, and not all of it is need based. Washington emphasizes need, but not all states do this, as merit-based aid is more prominent in some than in others. High percentages of students in all of the Global Challenge States receive some assistance. In Washington the number approaches two-thirds of the first-time, full-time students. This is below the national and GCS averages, however, which are 77.1% and 71.8%, respectively. With 17.5% of these students receiving state aid, Washington is below the national and GCS averages on this score as well. It is slightly above the national average in the average amount of state aid, $1,559 versus $1,522, but it is below the GCS average ($1,607). The figures are arrayed on the following table, using fall 2003 data.

PERCENT FULL-TIME FIRST-TIME STUDENTS RECEIVING ANY AID, STATE AID, AND AVERAGE AMOUNT

GLOBAL CHALLENGE STATES, FALL 2003

NCES

State	% Any Aid	% State Aid	Avg. Amount State Aid
CA	66.3	16.8	2,211
CO	72.1	15.3	1,253
CT	71.5	13.6	1,603
MD	73.0	20.1	1,406
MA	73.3	20.3	1,609
MN	80.2	41.3	2,070
NJ	71.7	14.4	1,835
NC	70.4	22.4	1,432
VA	75.5	18.4	1,100
WA	64.2	17.5	1,559
GCS	71.8	20.0	$1,607
U.S.	77.1	22.3	$1,522

The different aid patterns among the GC States are suggested by the data on the following table:

NEED BASED AND NON-NEED BASED GRANT AID AWARDS BY STATE GRANT PROGRAMS

2004-05

SOURCE: NASSGAP[90]

State	Need-Based (000)	Non-Need Based (000)	Total (000)	Need-Based as % of Total
CA	$723.5		$757.8	95.4
CO	$48.6	$13.4	$75.3	64.5
CT	$36.4	$.3	$65.7	55.4
MD	$63.1	$4.2	$82.8	76.2
MA	$79.5	$.002	104.3	76.2
MN	**$130.9**	**$.07**	**$279.1**	**46.9**
NJ	$219.0	$29.5	$371.7	58.9
NC	$130.4	$51.3	$242.9	53.6
VA	$84.4	$53.3	$200.9	42.0
WA	$138.9	$10.4	$173.1	80.2
GCS	$165.4	$16.2	$235.3	70.3
U.S.	$4,906.7	$1,777.3	$7,940.5	61.8

In terms of percent of total state grant aid that is need based, Washington, 80.2%, trails only California (95.4%) in the rankings.

It is important that people in Washington understand the state's commitment to financial assistance. We believe that any program of tuition

90 National Association of State Student Grant and Aid Programs, "36th Annual Survey report on State-Sponsored Student Financial Aid," 2004-2005 Academic Year.

increase must be accompanied with equal attention to student aid from state and institutional sources (e.g., Washington has a history of reserving 25% of any tuition increase for financial aid). Whether the program represents incremental or synoptic change, this commitment and tradition should continue.

ADDRESSING PIPELINE ISSUES

Washington needs to get more people into and through college. Georgia's Hope Scholarships and Indiana's 21st Century Scholars program are examples of state efforts to increase college participation among low income students. Funded by a state lottery, the Hope Scholarships covering tuition at Georgia public institutions of higher education are offered to any Georgia high school graduate who maintains at least a B average in high school. This program has provoked controversy, however, as some observers note that many of the recipients – up to 90%, according to one study[91] – of the Hope Scholarships probably would have attended college without the state assistance. Without targeting based on need, they argue, it represents a large subsidy to Georgia's middle and upper class students.[92] Others note that surveys of ninth graders reveal that a substantial majority of them are aware of the program's requirements, certainly the B grade average, as they enter high school, and this in itself is an important measure of accomplishment.

The second example, Indiana's 21st Century Scholars Program, gets better marks for targeting efficiency. Indiana's 21st Century Scholars program offers scholarships to high school students who qualified for free and reduced price lunches in 8th grade and who maintained at least a C average in high school, along with certain other eligibility requirements.

The Indiana approach is interesting because it extends access to students whose financial position likely would prevent going to college, and it makes the commitment of a full-tuition scholarship to these students when they are still in middle school. It also combines the scholarship support with assistance in helping them to prepare for college academically and socially. Because of the narrow focus on disadvantaged students, the budget costs have been modest and rather predictable. The program cost the state $17 million annually in recent

91 Cornwell, C. M., Mustard, D. B., & Sridhar, D. J. (2003). *The Enrollment Effects of Merit-Based Financial Aid: Evidence from Georgia's HOPE Scholarship*. Athens, GA: University of Georgia, Terry College of Business.

92 See for example critical comments in a newsletter from the National Center for Public Policy and Higher Education, "HOPE Springs Eternal," *National Crosstalk*, Spring 2003 (http://www.highereducation.org/crosstalk/ct0303/news0303-hope.shtml).

years, a relatively small proportion of the $160 million in total state tuition aid costs in Indiana.[93]

Given the evidence reviewed in this report on returns to investment in college education, the 21st Century Scholar model appears to be a program with modest costs but substantial impact. Washington should give thoughtful consideration to the establishment of a program based on the Indiana model.

As one centerpiece to our financial aid recommendations, we recommend that Washington establish a similar program here, in effect using a portion of the State Need Grant program for such an early commitment program to a full tuition waiver program for students who meet the standards and qualify. This would be Washington's 21st Century Scholarship Program.

Interest in Washington's fledgling Opportunity Grant Program also is strong. During the 2006 session, the legislature appropriated $4 million to the SBCTC to create a pilot program. The object is to use student financial aid to get low-income students to the 'tipping point'-- one year of college level credits and a credential-- and beyond, by following pathways that provide employment opportunities linked to advancements in education attainment. The grants provide student support packages for expenses such as tuition, books, fees, childcare, transportation, etc.

We look forward with much interest to the results of the pilot test, but we believe the program may have been under-funded and dilution may have an effect. Thus, we recommend that the funding level for the Opportunity Grant program be revisited and funding for the pilot test at least doubled.

There is a second centerpiece to our recommendations in this section. The increased participation issue is so crucial to this state's future that we believe Washington should cut the Gordian Knot and provide a first-year tuition waiver at community college tuition rates for all students who participate in a post-high school workforce preparation program or attend a college or university in this state.

In effect, this would extend a 13th year of education, in any program, workforce preparation or academic, to all students who wish to take advantage of it. We also recommend that consideration be given to a new program title: Washington's Opportunity Scholarship Program.

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93 http://www.highereducation.org/crosstalk/ct0106/news0106-indiana.shtml

Bold initiatives are essential if the state is going to break out of past patterns and truly become a global competitor. We also think there should be something in every higher education policy review that applies to all citizens, low-income and other, and they should know this. Thus, as Washington moves in this direction the effort should be accompanied with a dedicated public information program publicizing the state's commitment to low- and moderate-income students and providing specific information about how these programs will affect them. Stated differently, Washington should include a well-publicized roll-out and ongoing publicity about the programs, focused on the target population.

COSTS OF INSTRUCTION: ALLOCATING COSTS

Consideration of a cost-sharing concept, in this case allocating education costs among state funds, tuition, and financial aid, is a subject identified in the call for this study. It also relates to the question of who benefits.

Washington's experience with tuition as a specified percentage of cost, i.e., tuition charges based on an assigned share of instructional cost, a cost-sharing model, goes back further than many realize. The genesis was the 1973 Carnegie Commission on Higher Education's report, *Higher Education: Who Pays? Who Benefits? Who Should Pay?*, which was intended to establish a tuition policy framework for consideration by all of the states.[94]

Four years ago, Jane Wellman, Senior Associate of the Institute for Higher Education Policy, summarized the Commission's intent as providing:

- A framework for thinking about higher education finance and the role of tuition as revenue;
- An analysis of revenue and expenditure patterns to get at the issue of 'who pays;'
- An examination of the range of personal and societal benefits accrued from investment in higher education that highlight the issue of 'who benefits;' and
- Recommendations on optimal pricing policies and overall strategy changes in investment in higher education to achieve greater equity and productivity.[95]

94 The report was printed in 1973, although many of the policies it expounded were being widely discussed before its formal release.

95 *Looking Back, Going Forward: The Carnegie Commission Tuition Policy*, 2001, p. 2.

The most frequently cited Commission recommendation is that resident undergraduate tuition charges should average about one-third (30%) of the institution's total cost to educate a student. The Commission's call for an education cost distribution among the major participants – students/families, taxpayers, and gifts -- arrayed as follows (excluding students' foregone income while in college; the Commission's model also is a little different than the stated Washington Learns' interest in a distribution between the student, the state, and student financial aid):

Families	**Taxpayers**	**Philanthropic**
30%	60%	10%

The Commission also recommended that tuition be kept as low as possible during the first two years and allowed to rise at successive levels, especially at the graduate and professional levels. And it recommended an expansion in loan financing for higher education, along with income contingent repayments. It also called upon states to invest in private higher education with state policies designed to reduce the price differential between the public and private sectors and through portable student aid programs.[96]

Washington subsequently pursued several aspects of the Commission's model. The 1975 Washington Legislature directed the then Council on Postsecondary Education to survey other states for examples of tuition and fees associated with higher education costs, and to develop, test, and recommend a standard method for determining the cost of instruction. It also was instructed to make recommendations on the share of costs to be borne by different classes of students (including tuition waivers.)[97]

The Council's May 1976 report, *A System of Establishing Tuition and Fees as a Proportion of Educational Costs*, recommended such a cost-sharing system.

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96 The first suggestion led to Washington's ill-fated tuition supplement program, enacted in 1971 and subsequently and rather rapidly deemed unconstitutional by the State Supreme Court. Washington's response to the second principally is the State Need-Grant program.

97The Council was the immediate ancestor of the HECB. The Council itself was re-designated Council on *Postsecondary* Education; it had been the Council on *Higher* Education, and its membership expanded to reflect its wider purview also in 1975.

It also recommended that capital amortization costs and services and activities fees be excluded from the calculation.

A differential pricing structure was recommended for the different types of institutions as follows (using the present terminology for what were then two universities, three state colleges, TESC, and community colleges but no technical colleges). The tuition for each type would be based on the following percentages of instructional costs:

Research Universities	25%
Comprehensive Universities	20%
The Evergreen State College	20%
Community Colleges	16-2/3%

The report also recommended that graduate tuition be set at 115% of the undergraduate charge, and that the price of professional programs (MD, DDS, and DVM) be 160% of the undergraduate rate. Additional recommendations applied to the price to be charged to nonresidents.

A further note of interest is the CPE's contemporary [1976] survey of other states' tuition based on cost of instruction policies. States where a definite relationship at the time existed between the two elements were Colorado, Kansas, New Hampshire, and Wisconsin. Florida, Illinois, Michigan, New Jersey, Ohio, Oregon, Utah, and Virginia were considering such a policy.

A tuition policy linking price to costs of instruction was adopted by the Legislature in 1977 and continued to the mid-1990s. It appears to have been abandoned when state appropriations declined, leading to reduced instructional costs, and then, logically, to an imperative to reduce tuition proportionately (as costs go down so would the prices that were linked to them) at the very time the search for additional funds was reaching critical proportions and the funding dynamic was forcing attention to the need to raise tuition. Had the policy remained in force, the institutions would have experienced a double whammy: reductions in state funds and in tuition funds. Such a scenario was not envisioned by anyone in the mid-1970s, and it probably represents a classic example of unintended consequences.

Washington quietly abandoned the cost sharing model. The estimated family shares of public institution operating revenues (total, which includes state appropriations and tuition; note: this is only an approximate proxy for instructional

costs) for the GC States are shown on the following table. These apply to FY 2004. The similar figures for FY 1991 are shown for comparison purposes:

FAMILY SHARE OF PUBLIC INSTITUTION TOTAL OPERATING COSTS**
GLOBAL CHALLENGE STATES, FY 2005
SOURCE: SHEEO/SHEF, CITED HIGHEREDINFO.ORG

State	Family Share FY 2005*	Family Share FY 1991	% Chg.
Maryland	55.7	30.7	81.4
Connecticut	39.8	23.3	70.8
Minnesota	44.7	26.2	70.6
California	17.6	10.6	66
North Carolina	26.0	16.2	60.5
New Jersey	42.0	26.6	57.9
GCS Average	39.7	26.0	52.7
Virginia	47.7	33.4	42.8
US Average	36.7	26.2	40.0
Massachusetts	40.5	30.1	34.5
Colorado	57.7	43.2	33.5
Washington	25.6	19.8	29.3

*Nominal Dollars: Total Revenues/Net Tuition Revenue = Family Share

The table says a lot. Not only is Washington near the bottom of the list with respect to the tuition share of institution operating costs (California is the only state with a lower share), it is at the bottom of the list in terms of the percent change in share during the last fifteen years. Legislators and others have done a good job looking after this side of the public interest, but there now appears to be some comparative latitude for a stronger role for this major institution income source.

According to the HECB, resident undergraduate students at the research universities paid nearly 52 percent of the cost of instruction in 2004-05, compared with 25 percent in the late 1970s, when the earlier approach applied. The change appears to represent a rather clear example of a redistribution of education costs, continuing the shift away from the state's previous reliance, for nearly 20 years, on a cost sharing approach in which the student was responsible for a specified share of instructional costs. It is not clear how a return

to the comparatively simple ratios that applied fifteen years ago can be accomplished unless consideration is given to a model tailored to individual institution conditions.

Because of these things, a return to a policy of cost sharing in the form of statutorily set shares of the cost of education – among the student (and family), state, and institution--is not recommended. Washington has moved past the shares that used to apply and is unlikely to return to anything like them in the foreseeable future. Moreover, few of these policies in other states have been successful in the past (i.e., the compact always seems to get broken in bad fiscal times). We do recommend, however, that the HECB cost study be continued and that tuition rates be monitored accordingly.

The discussion of tuition and financial aid policy closes on this note and attention is directed to other aspects of higher education funding in Washington, topics of the next chapter.

"MAKING THE GRADE"

WASHINGTON HIGHER EDUCATION AND THE GLOBAL CHALLENGE

RISING TO THE TEST: FUNDING HIGHER EDUCATION

HIGHER EDUCATION FUNDING SUFFICIENCY

Washington higher education has experienced substantial enrollment growth in recent years. Appropriations, however, have not always been able to keep up with growth. This also has been the case in many other states. The percentage drop in constant 2004 dollars per FTE during the period 1991-2004 was about 28%, ranking Washington fifth from the bottom of the national rankings in this regard (Vermont, Colorado, Oregon, and Montana experienced greater proportionate decreases.) These states were not alone: only 11 states maintained a positive funding pattern over this 13 year period.[98]

The sufficiency and stability of higher education funding are perpetual issues, with concerns waxing and waning as revenue cycles ebb and flow, as the economy advances or contracts or as demographic bulges in the college pertinent age groups occur out of synchrony with revenue cycles.[99]

Higher education is an important economic resource, a point disputed by few. It is when the economy heads south that irony forms. Washington operates with a comparatively inflexible tax structure that is reliant on consumer spending, especially on large ticket items. These tend to be the sorts of purchases that are postponed during periods of economic uncertainty. It is exactly when these tax contributions become crucial, during hard economic times, that the need for public funding becomes increases and funding for higher education declines. As the job market tightens, people return for retraining opportunities, and economic disincentives to graduate and enter an unpromising employment environment

98 *Idem*, p. 28.

99 The structure of this group is changing, of course, as people other than the age 17-22 sector continue their studies to the graduate and professional levels, and as others return for more college work in response to workforce requirements.

come into the picture, the appropriations funding base contracts, increasing pressure on another major funding source, tuition, a point noted frequently in this report.

While higher education's share of state appropriations naturally fluctuate to some extent from year to year as policy priorities change, the share seems to grow progressively smaller, reinforcing the consequential view that Washington's postsecondary education funding efforts are unstable, unpredictable and inadequate.

This is not a new condition. One of the first reports of the Council on Higher Education, *Financing Higher Education in Washington* (1972), opened with this observation: “Increased funding will be required in the coming decade [the decade of the 70s] to accommodate the demands of increasing enrollments of college age and older students.”[100]

This was barely three years after the Boeing Bust of 1969 and the debut of a new reality: that there might not always be enough money to do all of the things that needed to be done. One of these things, burgeoning higher education enrollment projections, dominated the conversations of the time.

The Boeing event occurred right at the end of a period of almost unprecedented higher education inventiveness in Washington in response to enrollment projections (many of which would optimistically high), which at the time represented the most pressing higher education issue in Washington. The responses attributable to them were mentioned previously: the state community [and technical] college system was formed; The Evergreen State College was chartered, the State Need Grant Program was created; and Washington's first higher education coordinating board was established as a new agency responsible for long-range statewide higher education planning.[101]

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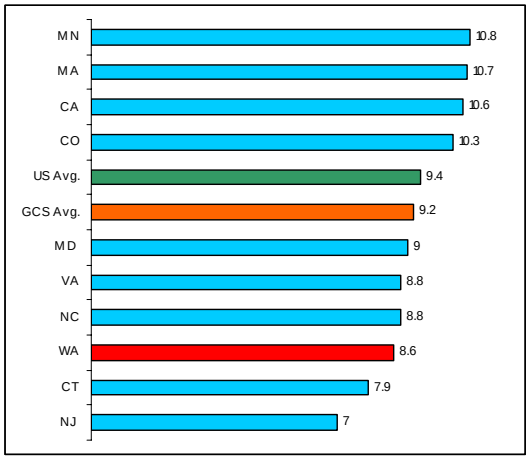
100 The CHE was superseded by the Council on Postsecondary Education [CPE] in 1975, mainly in accordance with Section 1202 of the Higher Education Amendments of 1972, which call on each state to establish a broadly representative central higher education planning agency. The nine citizen member voting board was retained and an advisory voting group representative of the segments of the postsecondary sector was added. The four legislators, who had been advisory voting members of the CHE, were removed. In 1985 the Legislature reconstituted the CPE into the Higher Education Coordinating Board. The nine citizen member panel was retained and the advisory members were removed. This is discussed in some greater detail later.

101 One wonders what might have happened if present popular attitudes about supporting government spending had been in place then.

Not only was this an ambitious program, but all of these initiatives were state funded; traditionally Washington has eschewed the option of local funding sources (except for tuition) for its higher education institutions, e.g., community colleges, which in many states -- 26 of them -- receive local tax funds, establishing a pattern that has become a characteristic here (e.g., K-12 education).

To begin to understand the concerns about sufficiency it is necessary to understand styles and levels of effort. Looking first at participation, Washington is well below the Global Challenge State and U.S. averages with respect to the share of 18-64 year-olds enrolled in higher education. For each 100 people in this age grouping, Washington enrolls 8.6. The average for the GCS is 9.2, and that for the U.S. is 9.4. The state ranks seventh among the ten GCStates in this regard.

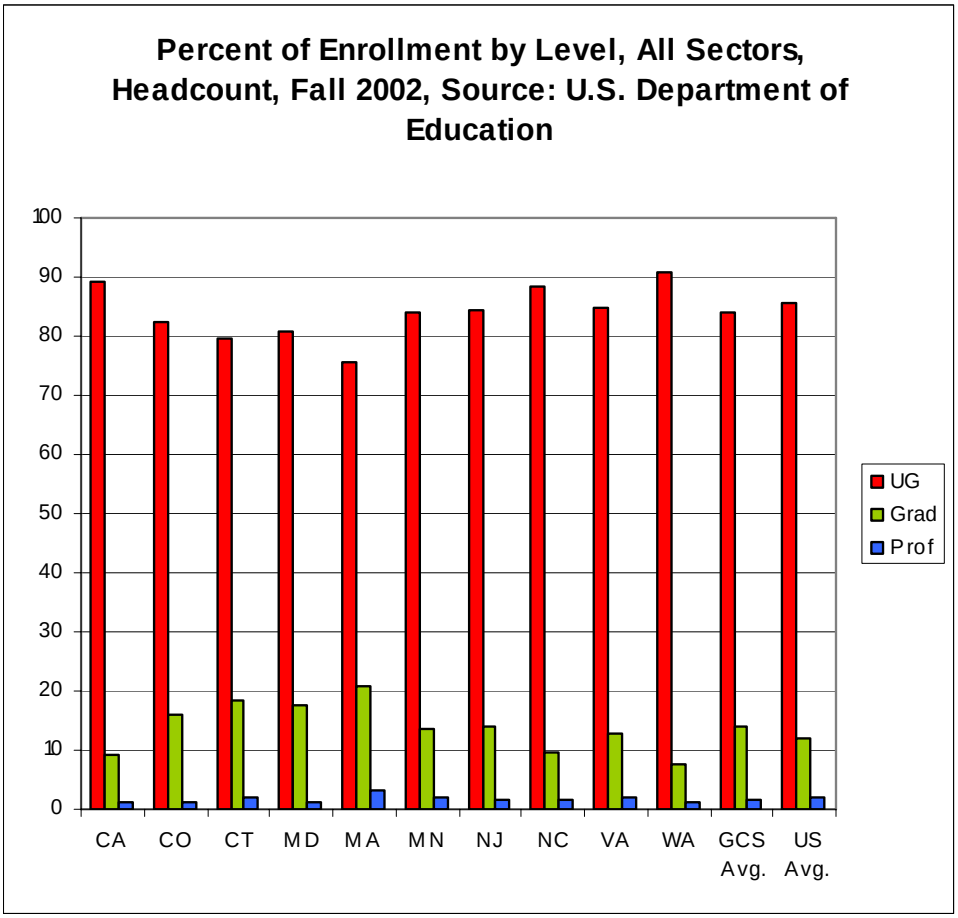
TOTAL ENROLLMENT IN HIGHER EDUCATION
AS A PERCENT OF 18- 64-YEAR OLDS
2004
SOURCE: NCES - IPEDS ENROLLMENT SURVEY; HIGHEREDINFO.ORG



There also are important differences in styles. Washington and California lead this group of states with respect to students enrolled in public sector community and technical colleges -- slightly more than 60 percent (headcount) in California and approaching 60 percent (56%) in Washington. Massachusetts has

a large share of its students in private four-year institutions. Colorado leads the group in terms of percent of total students enrolled in public four-year institutions.

Washington leads the GCS peers in share of students enrolled at the undergraduate level overall (a function of its community and technical college system) and trails in graduate enrollments. Washington and California tie for last place in professional program enrollments (1.3 %). Notably, enrollment and higher education service patterns in California and Washington frequently tend to be similar.



Funding enters the conversation at this point -- as noted, it has not always been able to keep up. The five and ten year changes in appropriations of state tax funds for operating expenses in higher education, and the FY 2006 amounts for Washington and the other Global Challenge States are those shown on the following table, which ranks these states by the ten year percent change:

APPROPRIATIONS OF STATE TAX FUNDS FOR OPERATING EXPENSES OF HIGHER EDUCATION
WASHINGTON AND OTHER GLOBAL CHALLENGE STATES
RANKED BY 10-YEAR % CHANGE
DATA SOURCE: GRAPEVINE

State	FY 06 Appropriations (in $1,000s)	% Change FY01 to FY 06	% Change FY96 to FY06	Rank
California	9,267.5	7.9	85.5	1
North Carolina	2,925.0	22.0	66.3	2
Virginia	1,594.6	-2.2	62.5	3
Connecticut	826.5	17.1	56.5	4
Washington	**1,532.2**	**14.9**	**53.5**	**5**
Maryland	1,253.1	6.7	53.2	6
U.S. Avg.	**66,642.8**	**9.9**	**50.12**	**7**
New Jersey	2,015.0	21.7	49.7	8
GCS Avg.	**2,229.2**	**6.2**	**44.9**	**9**
Minnesota	1,365.5	1.2	28.0	10
Massachusetts	918.1	-14.8	19.3	11
Colorado	594.6	-20.3	2.5	12

Washington is at midpoint among these states on the list. Most of the change among these peer states occurred during the ten-year period, 1996-2006, when it averaged 47.9 percent for the ten states. During the last five years, to 2006, a lesser rate of growth (6.2 percent average) has been apparent in all of these states, although Washington moved up from 5th to 4th place in the ranking.

PERCENT CHANGE IN APPROPRIATIONS OF STATE TAX FUNDS FOR OPERATING EXPENSES OF HIGHER EDUCATION
WASHINGTON AND OTHER GLOBAL CHALLENGE STATES
RANKED BY 5-YEAR % CHANGE, FY 01 - FY 06
DATA SOURCE: GRAPEVINE

State	% Change FY01 to FY 06	Rank
North Carolina	22.0	1
New Jersey	21.7	2
Connecticut	17.1	3
Washington	**14.9**	**4**
U.S. Avg.	**9.9**	**5**
California	7.9	6
Maryland	6.7	7

GCS Avg.	**6.2**	**8**
Minnesota	1.2	9
Colorado	-20.3	10
Massachusetts	-14.8	11
Virginia	-2.2	12

Viewed from some other angles, the Global Challenge State rankings on 2006 tax appropriations for higher education per capita and per $1000 of personal income are those shown on the next table. Washington ranks fourth both in terms of appropriations vis-à-vis personal income and appropriations per capita.

FY 2006 STATE TAX APPROPRIATIONS FOR HIGHER EDUCATION PER CAPITA AND PER $1000 OF PERSONAL INCOME. WASHINGTON AND GLOBAL CHALLENGE STATES RANKED BY PER $1000 PERSONAL INCOME DATA SOURCE: GRAPEVINE

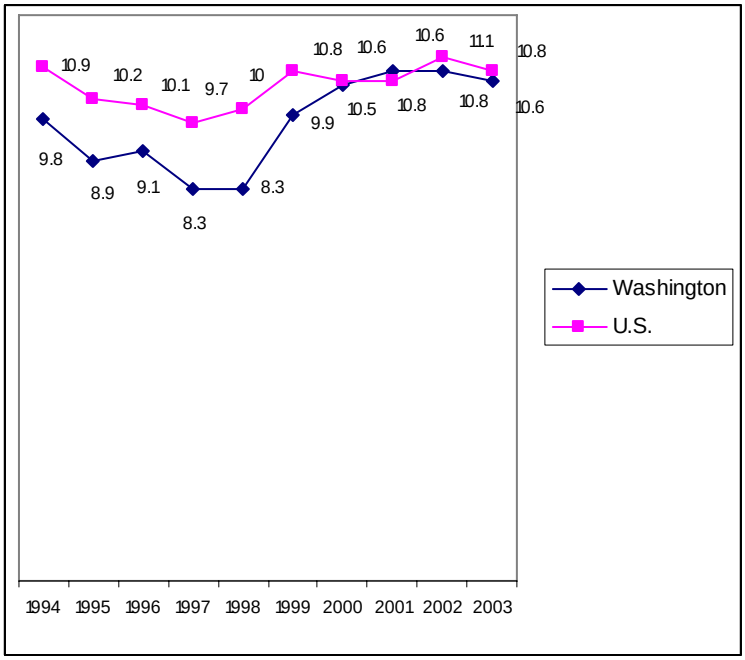
State	FY 06 Appropriations Per $1,000 in Personal Income	FY 06 Appropriations Per Capita	CGS Rank
North Carolina	11.09	336.86	1
California	7.25	266.45	2
Minnesota	7.22	266.03	3
Washington	**6.87**	**243.69**	**4**
U.S. Avg.	**6.56**	**225.26**	**5**
CGS Avg.	**6.04**	**228.60**	**6**
Virginia	5.55	210.72	7
Maryland	5.40	223.76	8
New Jersey	5.35	232.29	9
Connecticut	4.96	235.46	10
Colorado	3.40	127.47	11
Massachusetts	3.28	143.47	12

Washington also ranks 25th nationally in terms of the appropriations per $1000 of personal income rankings. It rises to 19th nationally when ranked on a per capita appropriations basis.

According to NCES data, the annual shares of General Fund appropriations to higher education as a percent of tax revenue since 1994 have varied in Washington but were generally greater during the years 1999-2003 than they were in the five preceding years. The curve describing higher education General Fund appropriations as a percent of tax revenues over a ten-year period

is slightly up, following a dip that persisted during the 1994-1998 period. Return to parity did not occur until the following year.

HIGHER EDUCATION REVENUES AS A PERCENT OF TAX REVENUE
FY94-FY03
SOURCE: NCSL, WICHE
(U.S. AVERAGES SHOWN ABOVE CURVE; WASHINGTON'S SHOWN BELOW)

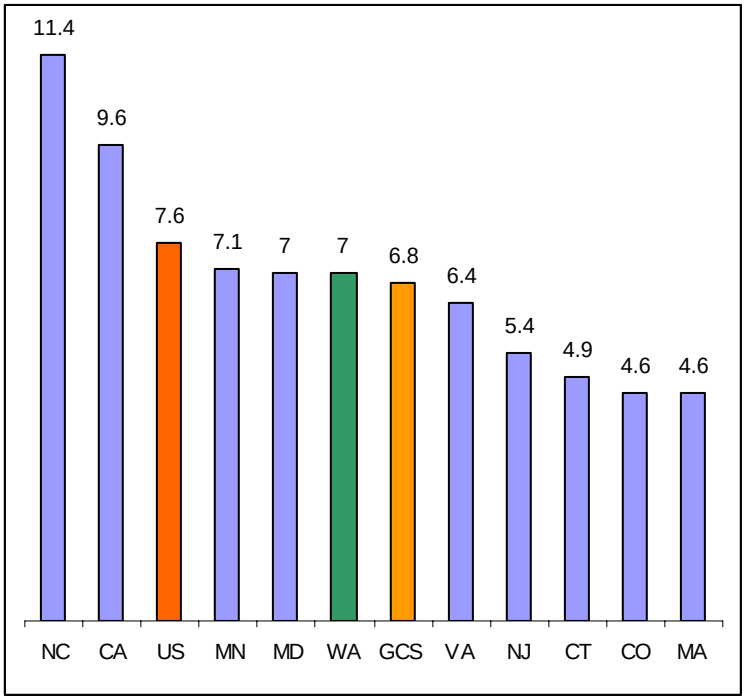


In 2003, the last year on the graph, the higher education share was up about 0.8 percent from the base year, but it also was down 0.2 percent from the previous (2002) year. According to the HECB, higher education funding for the 2003-05 biennium amounted to an average 11.6 percent of tax revenue appropriations.[102] This would represent an upturn.

The figures indicating Washington's annual higher education shares of General Fund tax revenues in comparison with the GCS and national averages are a little more difficult to come by. Figures for FY 2000 are shown on the following table:'

102 "Higher Education Finances," Part 4 of the HECB Fact Book, p. 65.

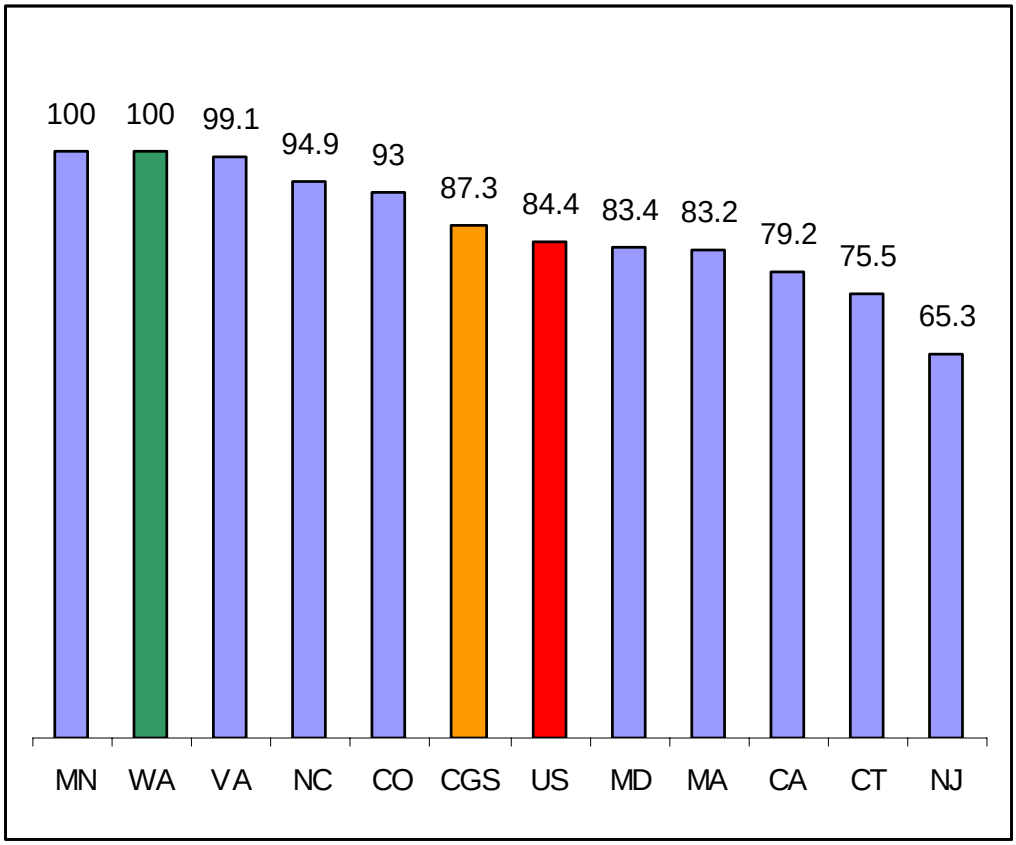
PERCENT ALLOCATIONS OF TOTAL STATE TAX REVENUES TO HIGHER EDUCATION
FY 2000
SOURCE: SHEEO
STATE HIGHER EDUCATION FINANCE 2004



Again, the comparisons are dated, but for the most part Washington trails the US average and is slightly above the GCS average in higher education appropriations as a percent of state and local tax revenue.

Washington does not utilize local government or local tax fund for higher education. Rather it relies on state appropriations (and tuition). The respective shares of total operating revenues (revenues from all sources, including state tax funds, tuition, gifts and contracts, etc.) borne by the state funds in these states are shown on the following graph. Washington ties with Minnesota for first place in *state share* of operating revenue.

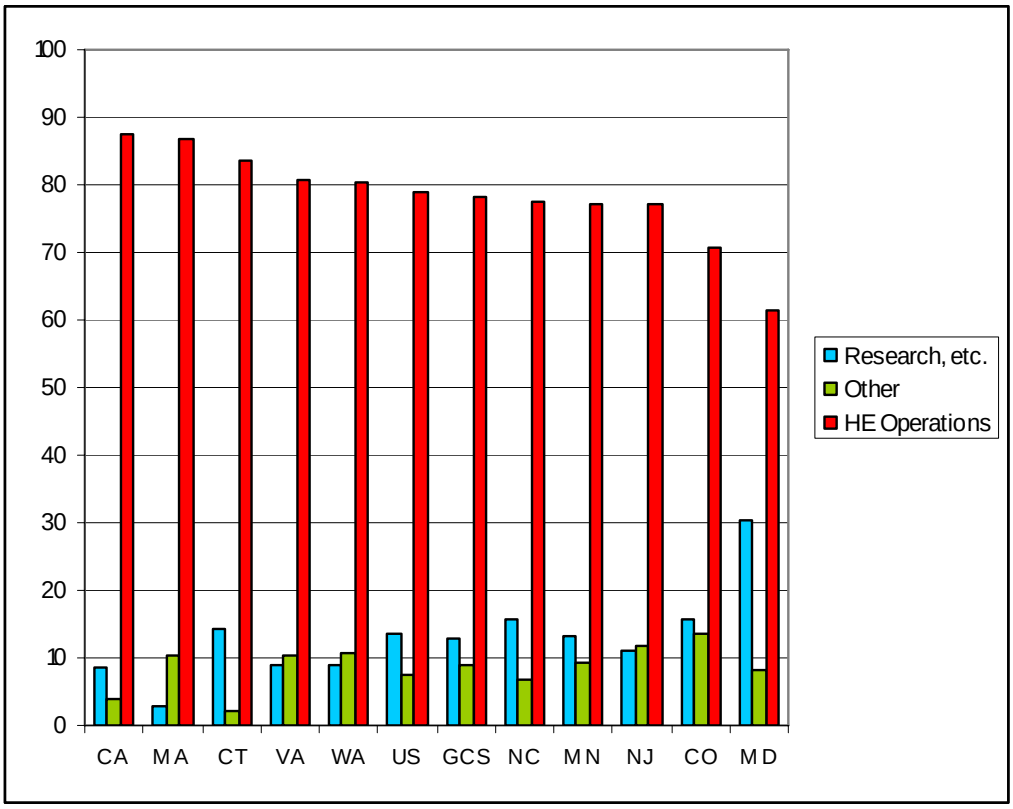
SHARE OF TOTAL REVENUE FROM STATE SOURCES FOR HIGHER EDUCATION
FY 2004
SOURCE: SHEEO



The uses to which these funds are put also vary among the GC States. State appropriations were used for the general higher education purposes (Operations, Research, and Other) indicated on the following graphic. "Other" in this case includes state-funded financial aid.[103]

103 SHEEO, State Higher Education Finance, FY 2004, p. 55, FN #1.

HIGHER EDUCATION USES OF STATE AND LOCAL GOVERNMENT REVENUE
FY 2004
(PERCENT)



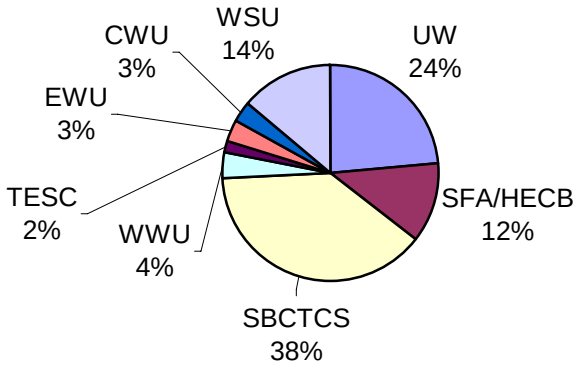
DISTRIBUTION OF FUNDS

About half of Washington's state higher education revenues, exclusive of student financial aid, go to its four-year institutions and about 38% to the C/TCs, although the FTE counts are 39% and 62%, respectively. The fund distribution is a reflection of differences in cost of instruction between the two sectors (2004 FTE enrollments were 138,241 [62%] in the C/TCs, and 86,149 [39%] in the public four-years) and the presence of upper-division and graduate and professional programs in the latter.

The 2003-05 Biennium General Fund higher education appropriations were distributed within the system as follows:[104]

104 *Idem*. p. 66. See also "Higher Education Funding: The Relationship Between State Support, Tuition, and Student Financial Aid, Report to the House Subcommittee on Education Finance

General Fund Appropriation for Higher Education Distribution, 2003-05 Biennium ($2.7 Billion Total; Source: HECB)

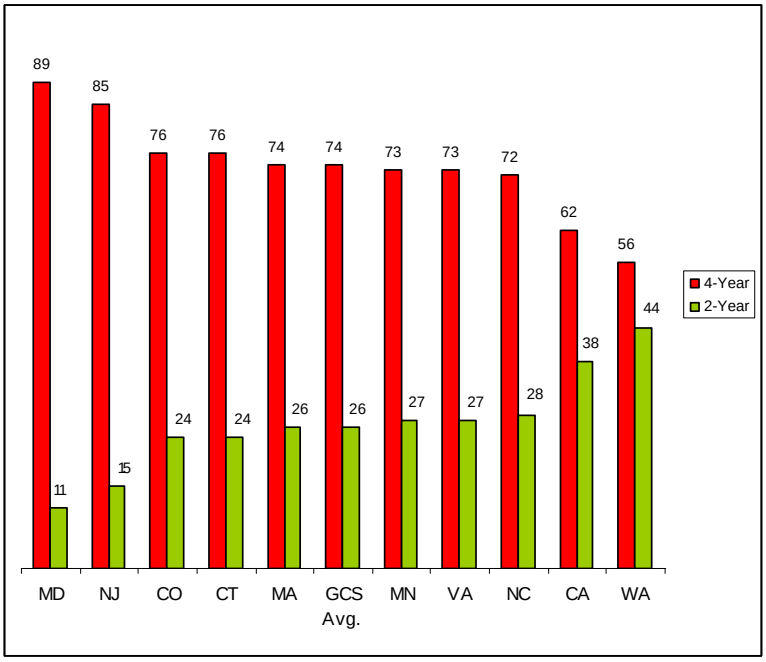


The following graph depicts the percentage distribution of 2005-06 state operating funds for institutions between the two- and four-year institutions in the GC States.[105]

Structures", January 18, 2005, by Barbara McLain and Susan Howson, Office of Program Research.

105 In Minnesota the budget for the state college and university system is for a combined two- and four-year system composed of 7 four-year institutions and 25 community and technical colleges. The breakout information for two- and four-year institutions in that state was provided by the staff of the Minnesota State College and University System. The Minnesota figure combines the appropriations for the University of Minnesota, which is not part of that system, with the appropriations for the seven universities that are.

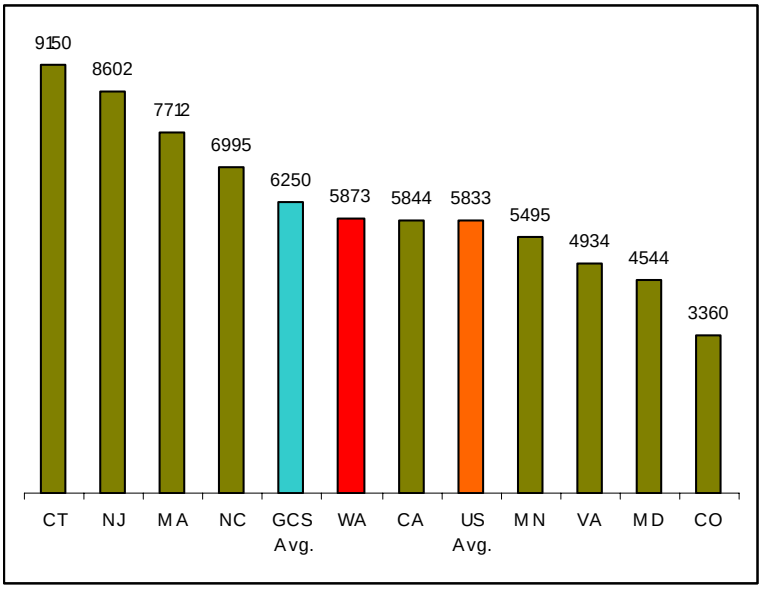
APPROPRIATIONS OF STATE TAX FUNDS FOR OPERATING EXPENSES OF HIGHER EDUCATION INSTITUTIONS
FY 2005-06
PERCENT OF TOTAL
RANKED BY FOUR-YEAR INSTITUTION SHARES
SOURCE: GRAPEVINE, MNSCU



Washington leads the grouping in terms of the higher education operating funds allocated to the community and technical college system. The proportional change in the relationship between four- and two-year institution shares as one gazes from left to right on the graph is striking. Washington and California are the leading states in share of total appropriations to their community and technical colleges, and, conversely, the trailing states in shares to four-years.

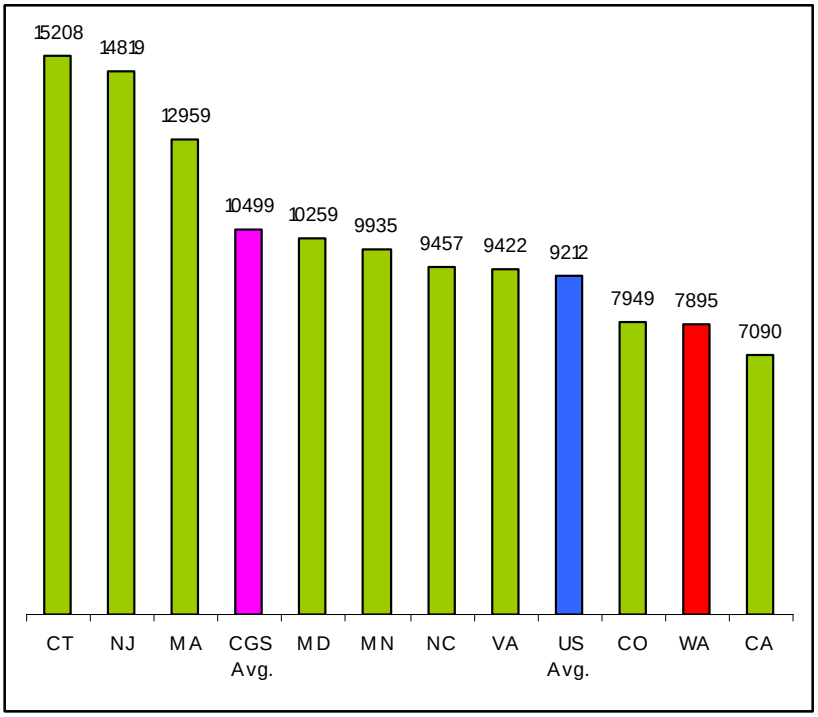
Washington ranks fifth among the Global Challenge States, below the GCS average but slightly above the national average in higher education appropriations per FTE. The following table compares these states on this measure:

APPROPRIATIONS FOR PUBLIC HIGHER EDUCATION PER FTE
GLOBAL CHALLENGE STATES AND US AVERAGE
FY 2005
SOURCE: SHEEO, NCHEMS



The state's ranking changes dramatically when tuition is factored into the equation and the subject becomes 'total revenues;' it moves from 5th down to 11th within the group, next to last place, and well below both the GCS and the national averages. Some of this relates to the high proportion of community college effort and the lower tuition charges that apply to these institutions in this state (and California), but it also suggests that tuition may not carry the same weight in this as in other states in terms of overall funding. The GC States align on this measure as follows:

TOTAL APPROPRIATIONS FOR PUBLIC HIGHER EDUCATION PER FTE
GC STATES AND US AVERAGE
FY 2005
SOURCE: SHEEO, NCHEMS



The respective roles of these two major income sources are suggested by the distribution on the next chart.

TOTAL AND STATE APPROPRIATIONS PER FTE
GC STATES AND US AVERAGE
2005
SOURCE: SHEEO, NCHEMS

The significant revenue sources for public institutions of higher education are (1) State Appropriations, (2) Tuition and Fee Revenues, and (3) Revenues from All Other Sources. Grants and Contracts comprise a major part of the last category; they are an especially important fund source for research universities in Washington and California and most other members of the GCS.

As a reminder, the subject here is *revenues*, and this is distinct from "*charges*" (e.g., undergraduate tuition rates). Tuition charges are the subject of the preceding chapter. Here the emphasis is on the revenues that accrue from those charges.

State and local tax funds comprise the bulk of higher education funding nationally. According to the Education Commission of the States [ECS], community/technical colleges in 26 states continue to rely on a local tax base for some share of their total funding, although "the trend for the last three decades has been for the states to assume an increasing percentage of community college operating costs. This trend has been further driven by property tax limitation efforts in California, Arizona, Colorado, Hawaii, Illinois, Oregon, and

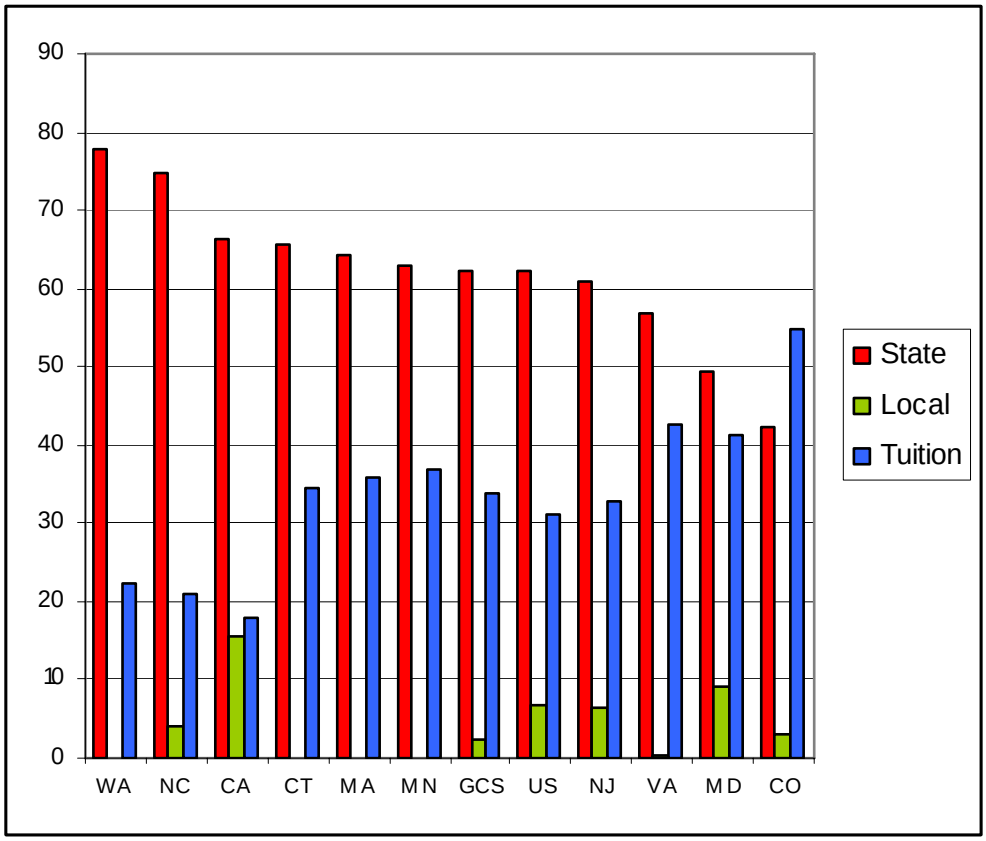
Washington."[106] The decision not to employ local tax sources in Washington, it should be noted, predates the property tax limitation efforts referred to in the quoted material.

Nevertheless, according to this report, among the Global Challenge States, Connecticut, Massachusetts, Minnesota, and Washington do not utilize this (local tax) fund source; California, Colorado, Maryland, New Jersey, North Carolina, and Virginia do. The contributions of local funds to institution [community college] operating funds ranges from a low of 0.4 percent in Virginia, to a high of 44.5 percent in California. The percentages for the others are: Colorado (1.0%), Maryland (33.4%), New Jersey (30%), and North Carolina (12.9%).

Not surprisingly, therefore, when ranked by share of the total [including tuition] borne by state appropriations, Washington leads the ten Global Challenge States and the national and GCS averages.

106 "State Funding for Community Colleges, a 50-State Survey," Katherine Boswell, Director of the Center for Community College Policy, November 2000, p. 10.

STATE, LOCAL, AND TUITION REVENUE FOR HIGHER EDUCATION OPERATING EXPENSES
FY 2004
SOURCE: SHEEO



In the community and technical colleges, tuition and fees *as a revenue source* in Washington are about even with the GCS average (32.3%). At 32% they are, however, somewhat below the GCS 75th percentile of such institutions (35.5%).

This is not the case with the comprehensive universities, where tuition and fee revenues account for 50.7% of the combined total (compared with the GCS average of 44.1% and the 75th percentile level of 41.3%).

This also is much the case with the research universities. In this case tuition revenues (45.6%) comprise a significantly greater share than either the GCS average (38.1%) or the 75th percentile level (36.4%). State appropriations clearly comprise the weaker sibling. Washington four-year institutions may have

been forced to become unusually dependent on this revenue (tuition) source as state appropriations declined. [107]

The patterns vary among the major sectors, so it will be helpful to look at their revenue profiles separately, starting with the community and technical colleges.

Community and Technical College Revenues

The immediately following material centers on the major revenue sources: Appropriations, Tuition, and All Other. Grants and Contracts comprise a major part of this category; they are an especially important fund source for research universities in Washington and California and most other members of the GCS (S&L = State and Local Funds; T&F = Tuition and Fees).

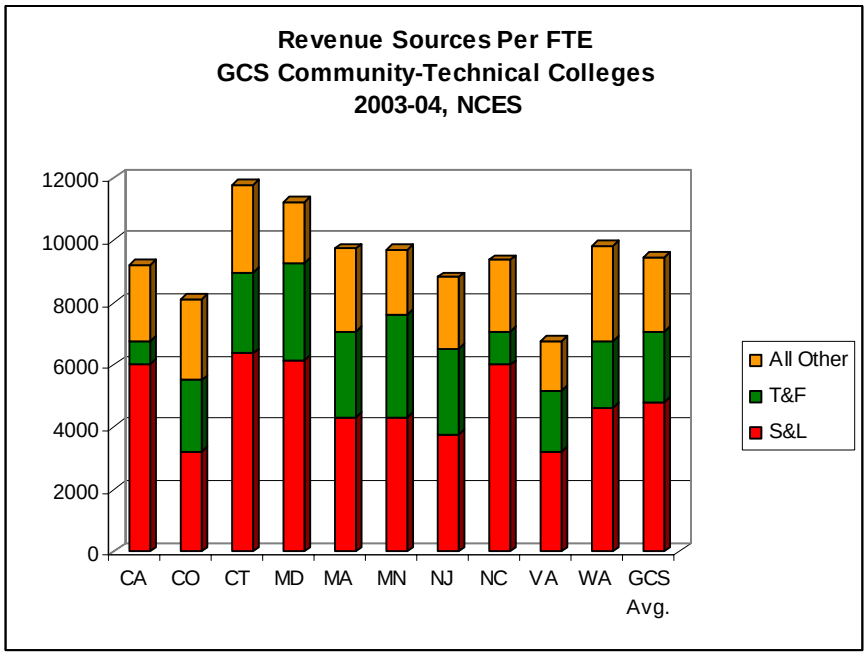
107 This might be a good place to point out that *state* funding is a function of public tax income; thus, the state is the public, and, as such it is not precisely accurate to juxtapose the state, as one funder, and the public as another, as the public is contributing directly or indirectly to both.

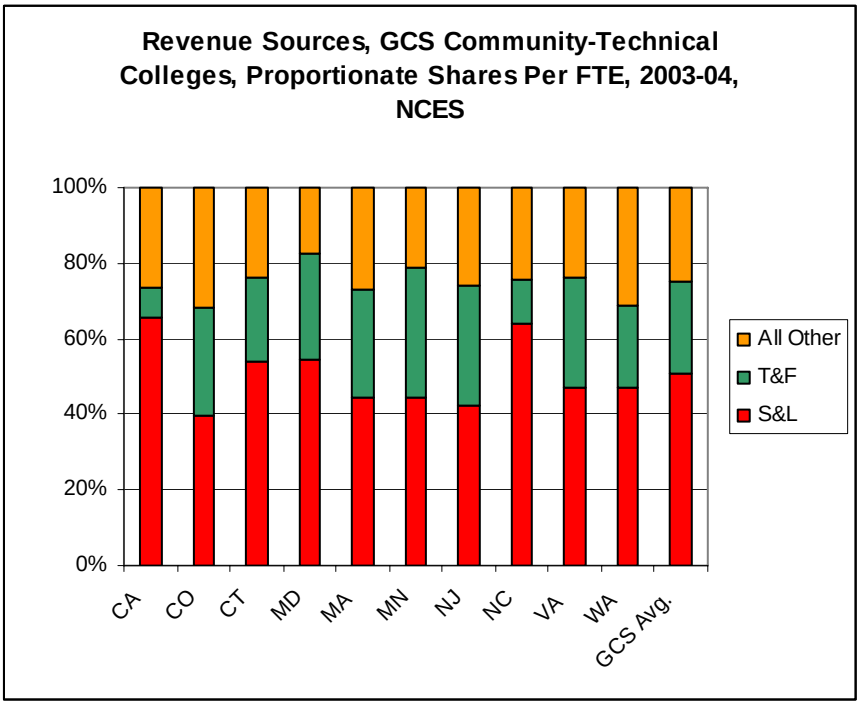
Community and Technical College Revenues Per FTE

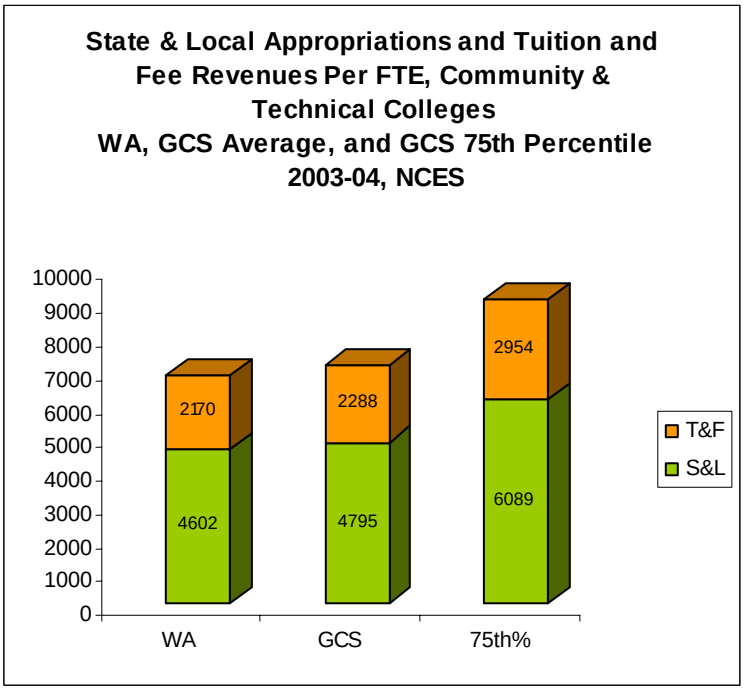
2003-04, Source: NCES

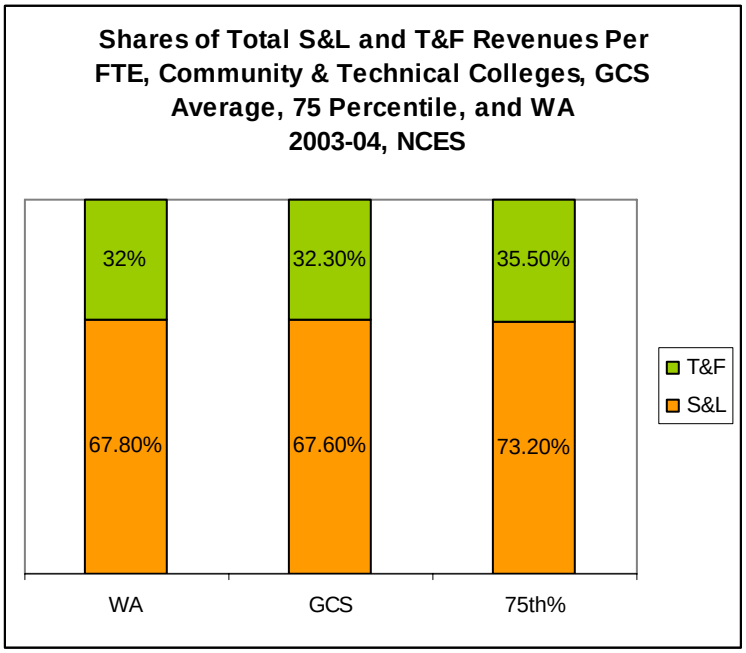
	S&L	T&F	All Other	Total
CA	6046	738	2413	9196
CO	3203	2310	2586	8098
CT	6372	2621	2814	11808
MD	6132	3144	1971	11246
MA	4321	2771	2648	9741
MN	4333	3310	2079	9723
NJ	3745	2763	2303	8812
NC	6000	1073	2291	9363
VA	3203	1982	1604	6788
WA	4602	2170	3053	9824
GCS Avg.	4795	2288	2376	9460

The following charts depict the different proportions graphically. They are followed by two others that provide comparisons with the GCS average and the 75th percentile of the group.




Revenue Sources, GCS Community-Technical Colleges, Proportionate Shares Per FTE, 2003-04, NCES
100%
80%
60%
40%
20%
0%
CA
CO
CT
MD
MA
MN
NJ
NC
VA
WA
GCS Avg.
All Other
T&F
S&L


State & Local Appropriations and Tuition and Fee Revenues Per FTE, Community & Technical Colleges
WA, GCS Average, and GCS 75th Percentile
2003-04, NCES
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
2170
4602
2288
4795
2954
6089
WA
GCS
75th%
T&F
S&L



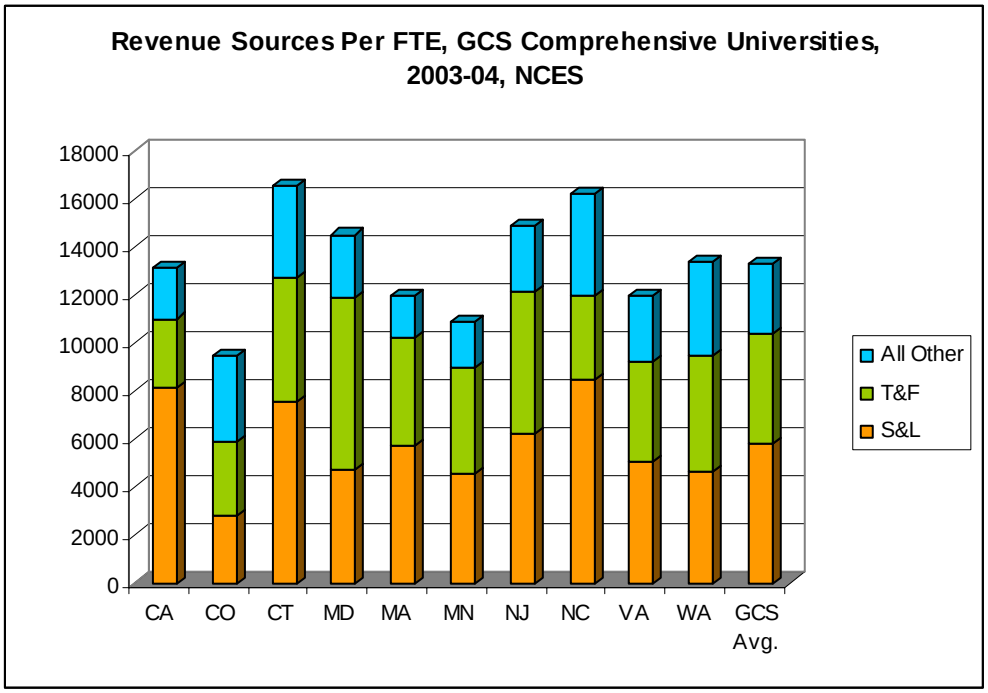
Comprehensive Universities' Revenue Sources

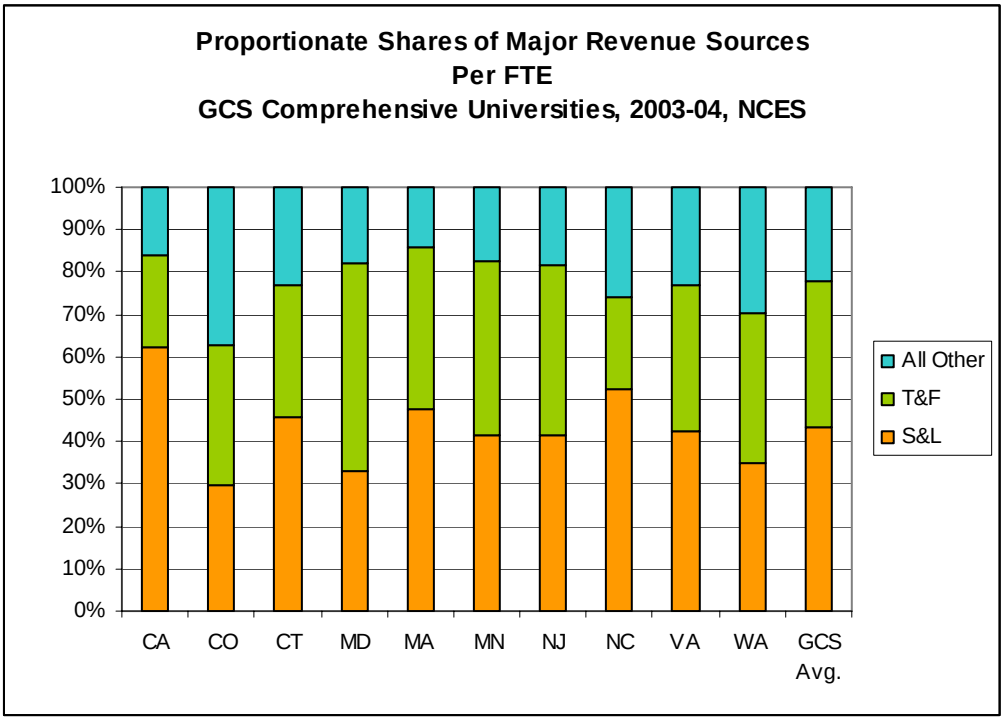
The numbers and comparisons for Washington's comprehensive universities are these:

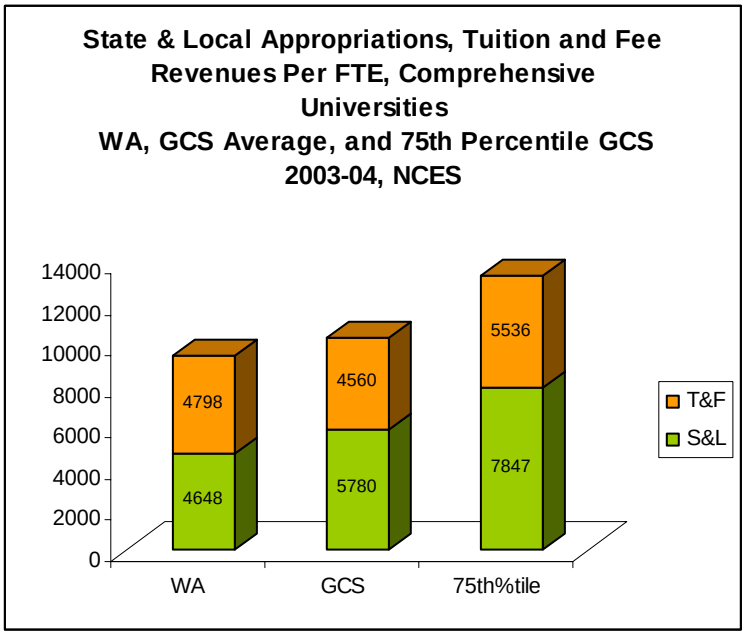
Comprehensive University Revenue Sources Per FTE

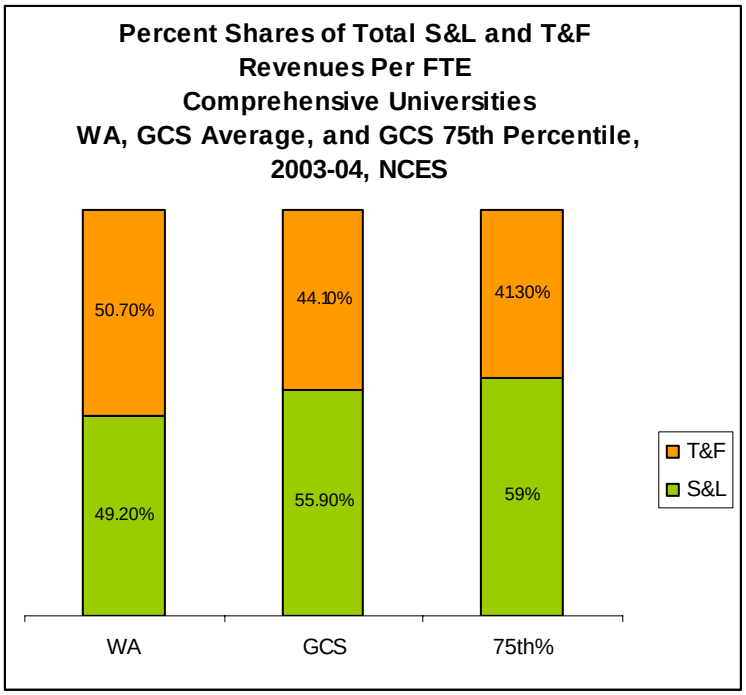
2003-04, Source: NCES

	S&L	T&F	All Other	Total
CA	8147	2851	2128	13126
CO	2799	3110	3524	9433
CT	7546	5137	3829	16512
MD	4751	7131	2608	14491
MA	5677	4541	1715	11933
MN	4521	4441	1896	10857
NJ	6202	5934	2759	14894
NC	8441	3544	4201	16187
VA	5068	4121	2741	11931
WA	4648	4798	3957	13404
GCS Avg.	5780	4560	2936	13277


Revenue Sources Per FTE, GCS Comprehensive Universities, 2003-04, NCES
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
CA
CO
CT
MD
MA
MN
NJ
NC
VA
WA
GCS Avg.
All Other
T&F
S&L


Proportionate Shares of Major Revenue Sources Per FTE
GCS Comprehensive Universities, 2003-04, NCES
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
CA
CO
CT
MD
MA
MN
NJ
NC
VA
WA
GCS Avg.
All Other
T&F
S&L



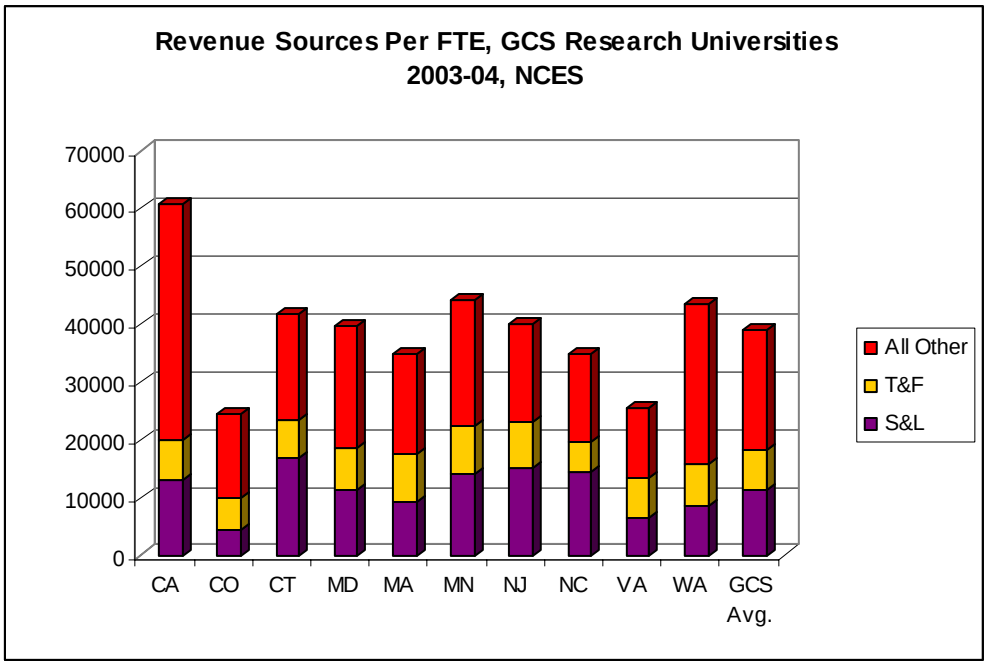


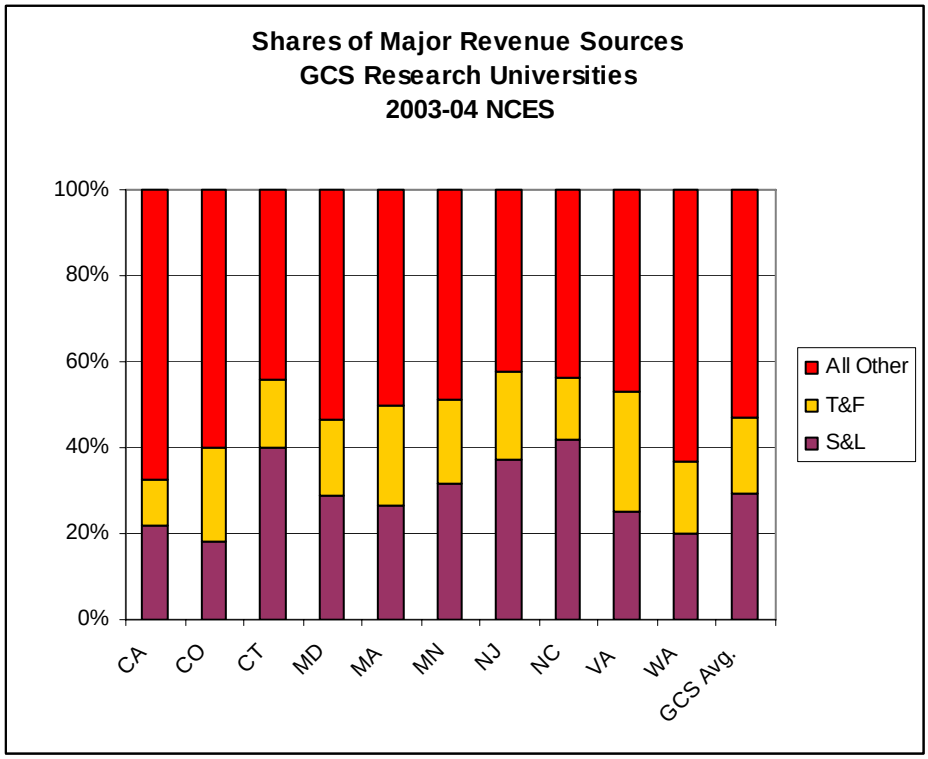
Revenue Sources of Research Universities (Including Branches & Medical Schools)

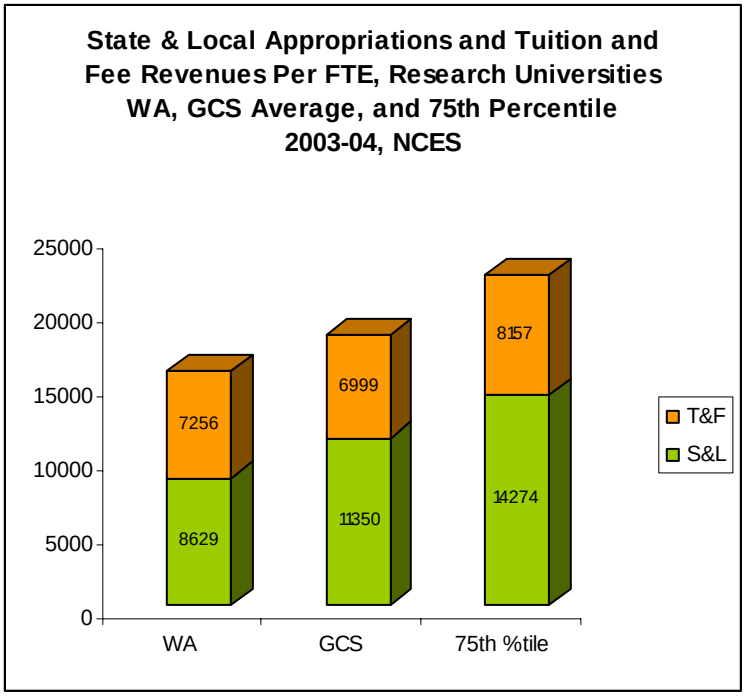
The figures for the research universities, displayed in the same formats, are the following:

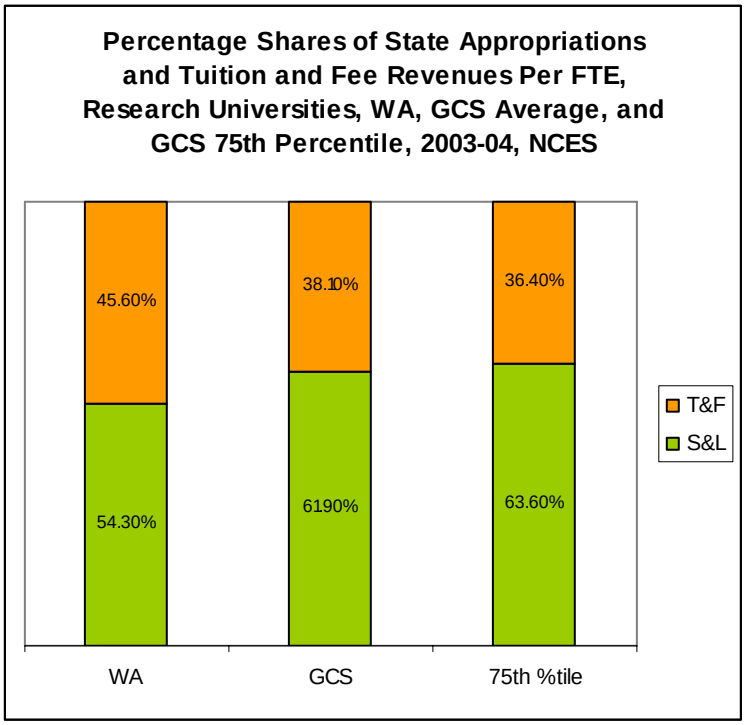
Revenue Sources Per FTE
Research Universities
2003-04, Source: NCES

	S&L	T&F	All Other	Total
CA	13192	6606	41020	60804
CO	4413	5409	14680	24502
CT	16722	6627	18498	41846
MD	11369	7176	21165	39709
MA	9220	8171	17596	34986
MN	14000	8539	21522	44061
NJ	14999	8144	16995	40139
NC	14548	5021	15249	34819
VA	6398	7044	11929	25371
WA	8629	7256	27606	43491
GCS Avg.	11350	6999	20626	38972




Shares of Major Revenue Sources
GCS Research Universities
2003-04 NCES
100%
80%
60%
40%
20%
0%
CA
CO
CT
MD
MA
MN
NJ
NC
VA
WA
GCS Avg.
All Other
T&F
S&L


State & Local Appropriations and Tuition and
Fee Revenues Per FTE, Research Universities
WA, GCS Average, and 75th Percentile
2003-04, NCES
25000
20000
15000
10000
5000
0
7256
8629
6999
11350
8157
14274
WA
GCS
75th %tile
T&F
S&L



Although Washington relies more heavily on tuition and fees for revenue than its peers, as was noted earlier, in terms of resident undergraduate student charges, it ranks ninth in the GCS research university rankings, seventh on the comprehensive university list, and sixth in that case of community/technical colleges. In all cases Washington is below the GCS and national averages.

If Washington were to increase these rates to parity, unless accompanied with increased state appropriations, it would become even more reliant on this revenue source than its peers. The obvious problem is with the state funding component: Washington needs to look more earnestly and seriously at this.

The numbers also suggest something else that may be useful: there may be room for institutions to price even more differentially than they do among the major student and program categories, probably while still operating within prescribed tolerance bands mandated by the Legislature or laid out as state policy.

Using the C/TCs as an example, total combined state appropriations and tuition revenue for WA, the GCS average, and the 75th percentile for this period was as follows:

C/TCs	S&L	T&F	Total
WA	4602	2170	6772
GCS Avg.	4795	2288	7073
GCS 75th %tile	2954	6089	9043

Members of the Higher Education Advisory Committee have expressed interest in the 75th percentile of the GCS as a funding target. Again using the C/TCs as an example, Washington C/TCs are at 95.7% of the GCS average in terms of total funding from these two sources (appropriations and tuition) per FTE. The state is at 74.8% of the 75th percentile.

If the present proportions of each (appropriations and tuition) were to hold (32% and 67.8%, respectively) funding would need to increase $301 to meet the GCS average, and $2,271 to meet the 75th percentile. Tuition would increase $96, and state appropriations would need to go up $1,540 per FTE [this assumes, of course, a direct correlation between source levels and revenue increases]. These ratios could change, of course, and the numbers would change with them (e.g., the GCS 75th percentile is 35.5% tuition and 73.2% state appropriations).

The following table shows the amounts involved at the different ratios for the three sectors.

	WA			**GCS Avg.**			**GCS 75%**		
	S&L	**T&F**	**Total**	**S&L**	**T&F**	**Total**	**S&L**	**T&F**	**Total**
C/TCs	4602	2170	6772	4795	2288	7073	2954	6089	9043
CUs	4648	4798	9446	5780	4560	10340	7847	5535	13382
RUs	8629	7256	15884	11350	6999	18349	14274	8157	22431

If Washington wants to remain a serious competitor, if it really wants to make the grade, people must listen to the story these comparisons tell. Simply stated: you get what you pay for.

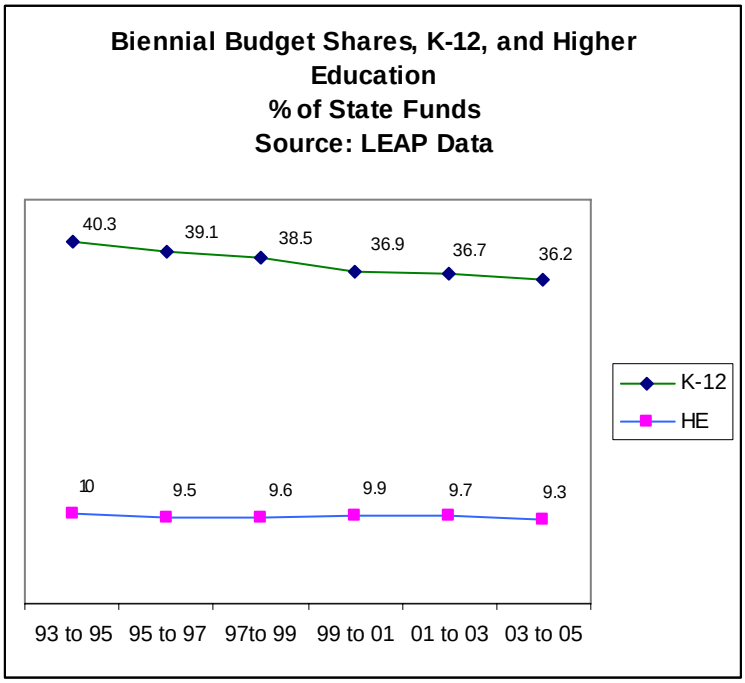
We believe that Washington should establish, in statute, the top tier of the Global Challenge States as the financial 'metric' for support per student and, with a mix of state and local revenues, move toward that standard over a period of time to be established by the Legislature. At no time should the mixture of revenues per student be less than the previous year unless the Global Challenge States experience an overall drop in total revenue per student.

FUNDING STABILITY

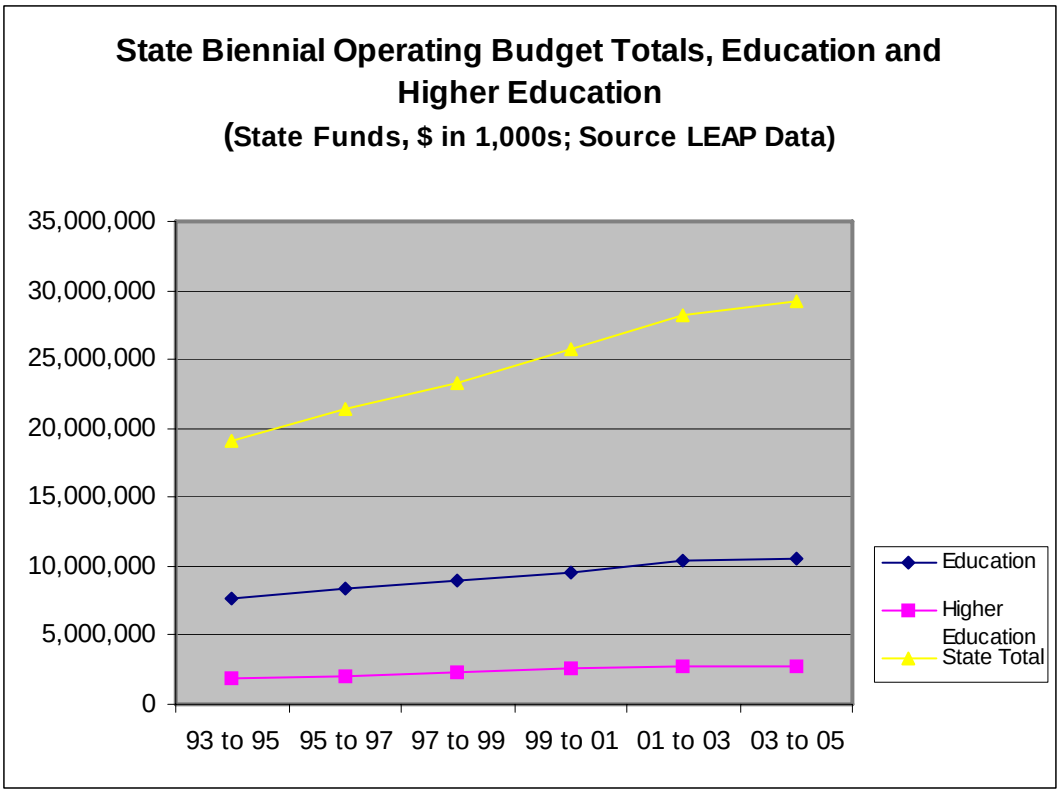
Funding stability is an important consideration for many in higher education in Washington and elsewhere.[108] It connotes steadiness and predictability. Unfortunately, there are not many public service areas that consistently experience either. Theoretically at least, public K-12 education in Washington might be expected to be an example of an education program that entails “stable” funding. The Constitution describes the education of children as the state’s "paramount duty," and court decisions and legislation have mandated a state-funded basic education for all children. Funding is based on enrollments, and as these increase (or decrease), funding might be expected to do the same. In this sense it can be argued that this comes close to an entitlement.

The curves on the following chart suggest that in terms of stability, there may be less in both sectors, K-12 and higher education, than meets the eye; K-12 has not been immune to a decline in funding share, although the reasons may have more to do with demographics than budget. Its portion of state funds (the top curve) has dropped about ten percent during the past decade, compared with about seven percent for higher education (bottom curve). It is not clear how much of this has to do with changes in caseloads and demographic fluctuations. Some surely does, but the calls for stability do not always seem to reflect awareness that this will happen, i.e., as caseloads decline, so also does funding.

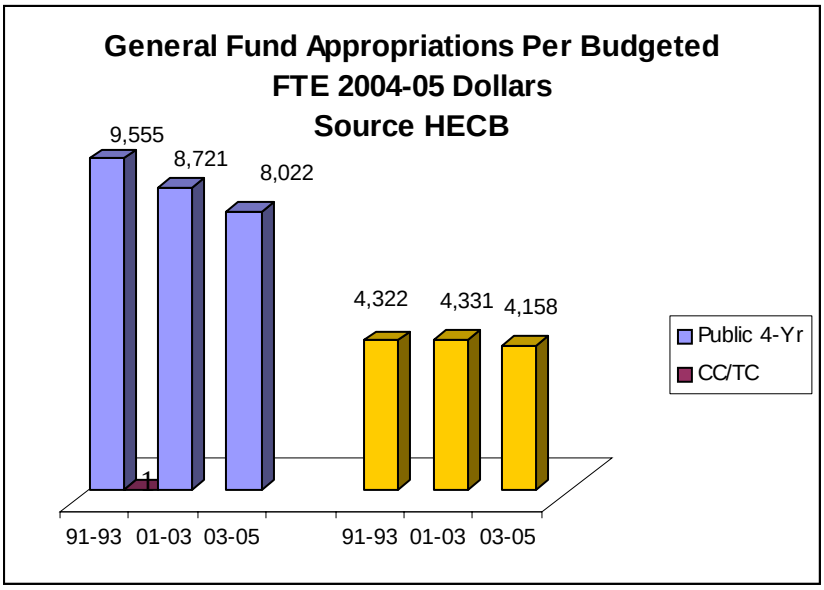
108 “Stability” in this context appears to connote steadiness or constancy (although in an expanding economic setting, stability might assume a more negative tone, e.g., stationary, stagnant).



Moreover, as suggested by the next graph, compared to increases in the state funds' share of the biennial operating budget, the curves depicting funding for the two education sectors have remained relatively parallel but have not retained parity with budget growth overall. This may suggest that K-12 funding may be as susceptible to funding cycles as the presumably more discretionary higher education funding (popularly known as "The Budget Accordion").



Adjusted for inflation, General Fund appropriations per FTE in higher education are down from 1991-93, again used as a base year here. For the two major higher education institutional components, public four-year institutions and community/technical colleges, the differences are demonstrated on the following HECB bar graph. While the chart does not display funding fluctuations during the interval (1991-2001), in both cases the unit funding is down from the base year. In the case of the public four-years, the decline is 16%. The drop, in the case of the community and technical colleges, is about four percent.



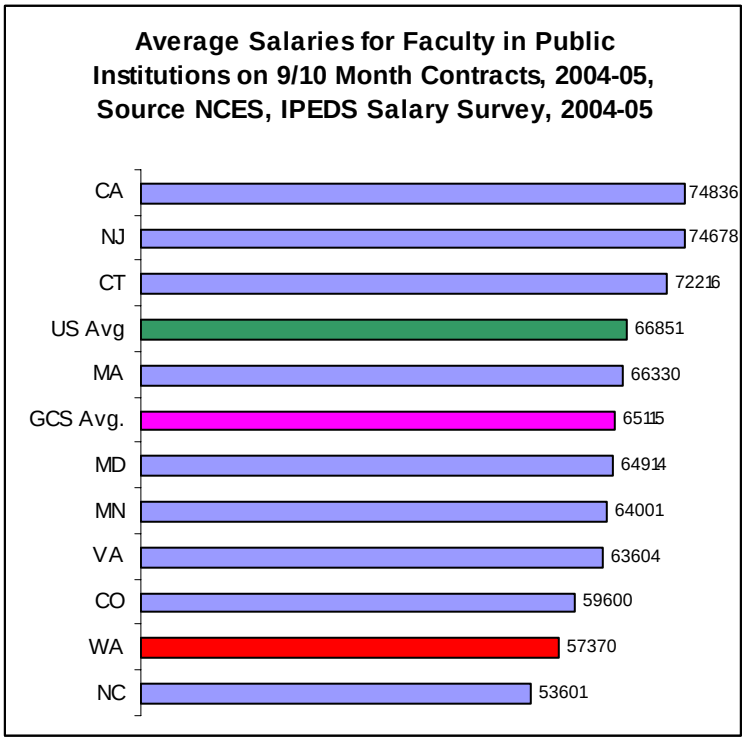
Some of the recent years have been rough as far as budgets are concerned, but public colleges and universities have continued to operate in Washington. Students have continued to enroll, courses continue to be offered, learning and research continues to occur. There even have been signs of relief, although not often does this swallow become a summer. And the outlook may not be all that good.

Stability may be a factor with greater grip at the institutional level, where a little can mean a lot, than at the state or macro level, where the effect can be lost in the mix.

Most of the money goes for operating expenses, and this includes faculty salaries. Indeed, faculty salaries comprise the largest component of institutional operating costs and are affected by funding constraints accordingly. From the institution perspective, competitive salaries are essential to the ability to attract and retain the faculty deemed essential to higher education quality. Thus, it is worth a brief pause to consider how Washington does in that department.

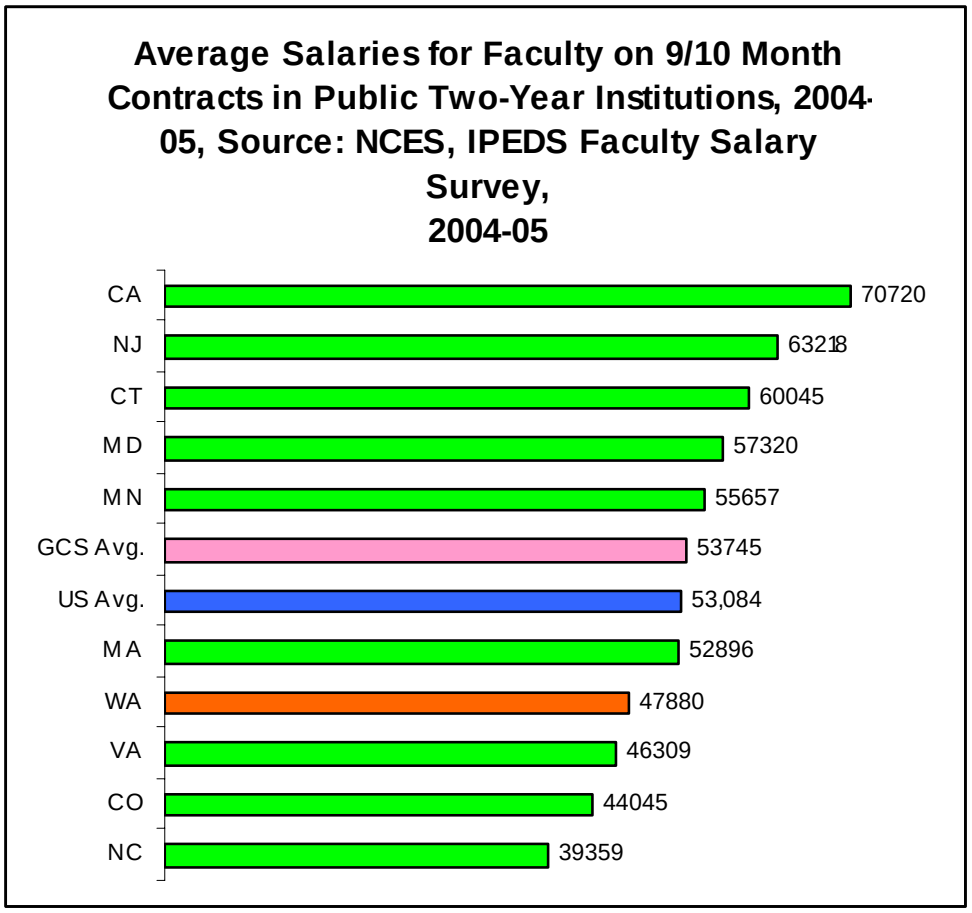
FACULTY SALARIES

Starting first with average salaries overall for faculty on 9/10 month contracts in public institutions, 2004-05, Washington ranks next to last among the Global Challenge States and well below this peer group and the national averages in this regard.

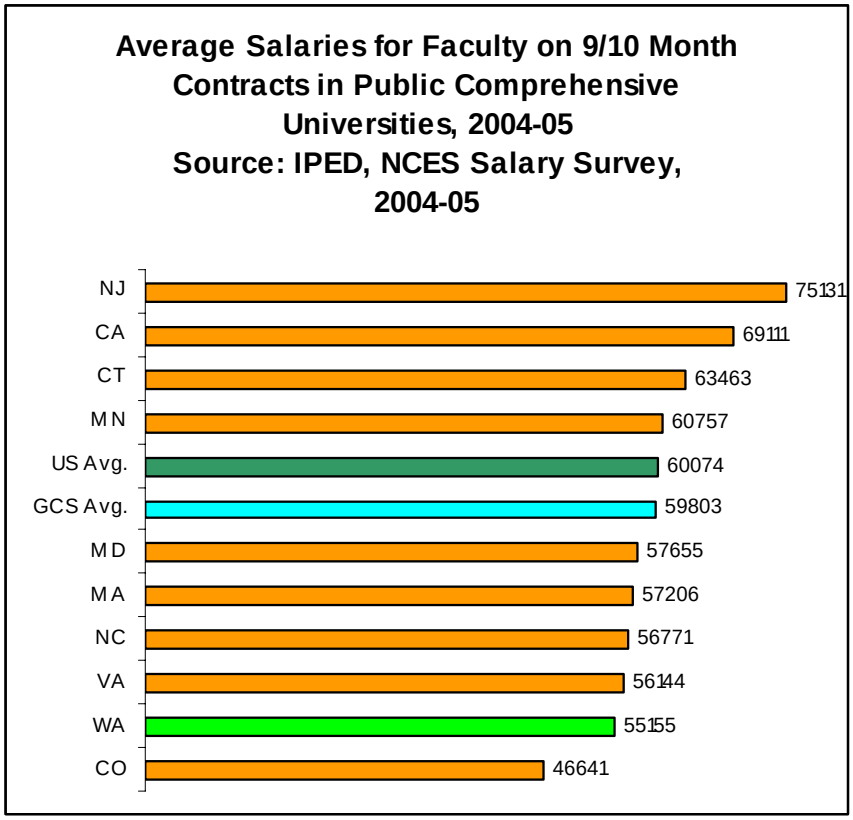


The rankings shift when the numbers are examined by institutional type, as shown on the next three charts, which apply respectively to community college, comprehensive university, and research university types. They also vary by rank. The figures on the charts represent averages for all ranks for the particular types of institution.

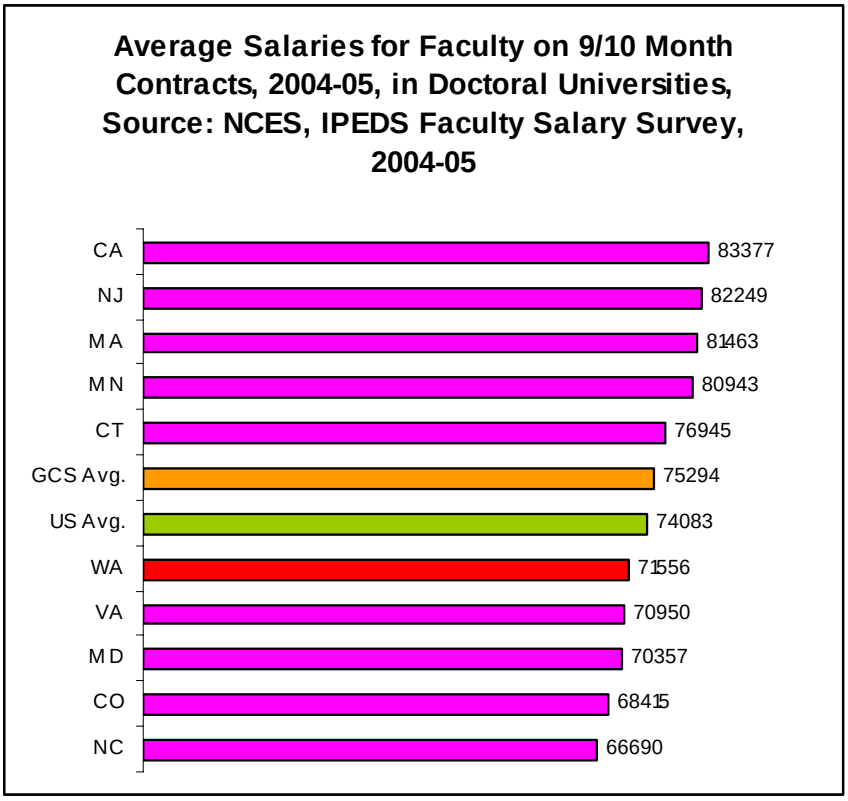
Washington achieves seventh place in the rankings when the issue is average community college faculty salaries, but it remains below both the peer group and national averages. California is notable for its strong emphasis on salaries at this level, which are on average higher than those of faculty in its comprehensive universities.



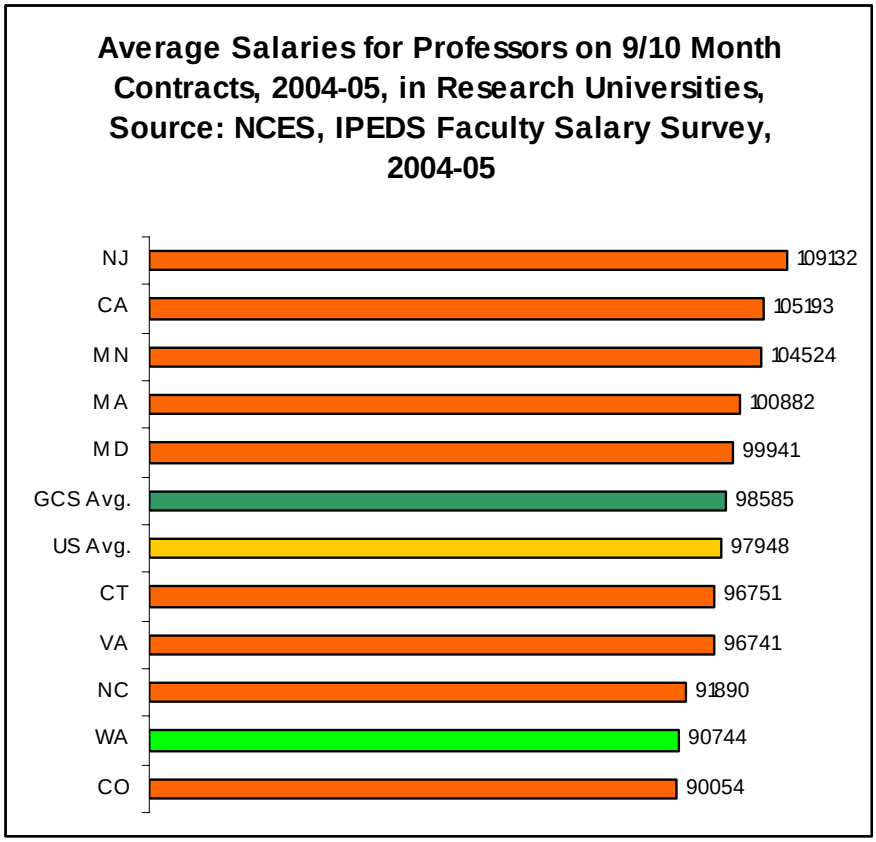
Washington drops to ninth place among the GC States when the subject is average full-time faculty salaries in the comprehensive universities.



The state achieves its best average salary competitive level for faculty in the public research universities, where it rises to sixth in the rankings, although still below the GCS and US averages.



At least one additional comparison on this subject will help to illustrate Washington's comparative stance. This relates to salaries for full professors in the doctoral universities.



Washington ranks next to last among the peer states, barely edging out Colorado for last place in this critical faculty group.

The following table indicates that the state both ranks low and is losing ground relative to the other Global Challenge States with respect to faculty salaries in four-year institutions. Washington has moved from next to last to last in terms of the average salary of full professors in these institutions. At the same time it fell an additional six percent behind the average of the GC States.

This is not a comprehensive review of all aspects of compensation policies in the states. Among other things, it does not consider the mix of institutions, the faculty mix among levels, or faculty workload, but it is a reasonable reflection of the overall changes in faculty salaries over the last ten years.

GLOBAL CHALLENGE STATES 1993-94 TO 2003-04, Source: NCES						
		1993-94		**2003-04**		**Percent**
	1993-94	**RANK**	**2003-04**	**RANK**	**Change**	**Change**
California	78,006	2	122,272	1	44,266	57%
Colorado	62,386	10	92,941	8	30,555	49%
Connecticut	75,702	3	106,660	3	30,958	41%
Maryland	69,306	5	103,710	4	34,404	50%
Massachusetts	70,492	4	90,715	9	20,223	29%
Minnesota	67,802	7	103,516	5	35,714	53%
New Jersey	86,228	1	111,145	2	24,917	29%
North Carolina	67,498	8	100,540	6	33,042	49%
Virginia	68,022	6	98,569	7	30,547	45%
Washington	65,675	9	87,042	10	21,367	33%
GCS Avg.	71,112		101,711		30,599	43%
WA % of Avg.	92%		86%		70%	76%

The gallery of graphics could continue, but the tale they describe would not change. Faculty salaries are an issue in Washington, and it is not certain how long the state can count on its magical beauty and other amenities to retain and attract faculty and maintain its competitive advantage, especially as the traffic on I-5 rivals that of Los Angeles.

FORMULA FUNDING

The call for this study includes consideration of different funding models. We reviewed the obvious ones and decided that formula funding was the approach that would most likely be of greatest interest.

Funding formulas, either legislatively or state agency developed, are used either to determine the amount of funds to be appropriated to an institution or

system or how these funds are to be allocated to institutions within a system after they have been appropriated. ECS describes these phases as "pre-appropriation" and "post-appropriation."[109] Stated differently, formulas can be used to drive, estimate, plan, and distribute funds. The presumption, sometimes unstated, is that a properly designed and funded formula system at the 100% funding level will provide the resources necessary to sustain 100% of desired quality.

Formula budgeting develops funding totals on the basis of presumptions about the costs and workload ratios of such major programs as instruction, academic support, research, public service, libraries, etc. and data for each. This is a complex form of modeling, and there is no universally preferred or accepted method.

In an ideal world, the use of formulas can help insulate higher education funding decisions from intervening influences, most notably political. But if this is to happen, almost everything will depend on the extent to which the parties agree to the process and structures ahead of time. Some states are better at this than others, but even those that are successes remain susceptible to changing legislators, executives, policies, and priorities. Formulas, in other words, are not entitlements. They cannot guarantee that a state will allocate the indicated funds to higher education.

Formulas are used in some manner in a slight majority of states, although the number may be declining. Thirty-six states were using formulas for higher education in 1984. By 1992 the number had dropped to 32, and it was down to 30 four years later.[110]

In an SREB[111] 'primer' on higher education funding, the authors describe how the objectives of funding formulas and processes have changed over the decades as follows:[112]

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109 State Funding for Community Colleges . . ., *op. cit*.

110 McKeown, "State Funding Formulas: Trends and Issues," and various papers, cited in Denton, *op. cit*.

111 Southern Region Education Board.

112 SREB, *A Primer on Funding Public Higher Education*, August 1999, p. 2

1950s	Adequacy
1960s	Growth
1970s	Equity
1980s	Stability, Quality
1990s	Stability, Performance, Reform

Whether states employ formulas or not, assessments of effort, costs, funding sufficiency, and effectiveness as a practical matter, have devolved to comparisons with other states.[113] Such is the case with this report and the use of the Global Challenge States for various comparison purposes. Just as state-by-state comparisons are used as benchmarks, yardsticks, and points of reference, they also can imply standards and be applied as targets to measure progress toward achievement of state goals from year to year. Some say their use in this manner is questionable because of the time lag involved to acquire actual information. Since the other states are doing likewise and the targets are constantly changing, they argue that the reasoning either is circular or a race that never can be won, a little like a dog chasing its tail.[114] Nevertheless, use of the practice continues to be widespread.

Washington has had a varied experience with formulas, cost sharing, and budget models, but it also straddled the formula funding-incremental funding fence even when formulas were used. This may have reflected the degree of consensus that prevailed regarding the formulas. Developed during the 1960s

113 Washington also utilizes peer institutions for comparison purposes. The UW comparison group is all Category 1 public research universities with medical schools. WSU is composed of all public land-grant universities classified as Category 1 and 2 with veterinary schools. The comprehensives' group is all public institutions classified as category 1 comprehensive colleges and universities. The comparison group for the community and technical college system is all state community college systems.

114 The OFM forecasters identify this as one of the cardinal weaknesses of this approach -- "The method assumes that participation rates of other states are static" -- Lefberg, *op. cit*., p. 6 Not everyone agrees with this assessment. A former legislative staff person argues that OFM staff up to the level of the Assistant Director strongly defended the formula and were very comfortable with the control and the 'hiding the ball' it afforded. Although he said he came on the scene late, it was always his impression that the formula was developed mostly as a way to carve up the budget pie in an 'equitable' fashion during the days of high levels of enrollment growth, and it took the Legislature off the hook in terms of having to constantly defend the differential rates of allocations at the various institutions. In that respect it preserved some of the qualities of California's three-tiered system.

largely by the public four-year institutions and the CHE (later CPE, and HECB), they never seemed to acquire much permanence with the state budget office (OPP&FM,[115] and then OFM).[116] One of the reasons for the decline in favor over time was that some legislators (and some institutions) felt the formulas got in the way of discretionary action to either direct policy or to "improve quality" at a single institution.

There also was a strong impression among those outside of the institutions that the formulas were too rich (i.e., in terms of the standards required to accomplish and maintain '100% of quality'), an impression perhaps reinforced by the observation that the institutions never were funded at a level much higher than about 75% of the formula 'entitlement.' The complexity of Washington's higher education formula system likely contributed to this situation.

Whatever the cause, the less than perfect funding levels provided by the Legislature came to be perceived as a lever the institutions were using when they argued their budget needs before the Legislature, i.e., "You are funding us at 75% -- or some lesser percentage -- of what it takes to offer high quality education." Legislators may have been cross-pressured by what seemed to be a hopeless task. Legislative hearings conducted under both Republican and Democrat majorities in the early 1980s established that, over the years, the institutions had distributed the formula funds in such a differential manner according to their unique needs that the patterns of actual formula spending were not very consistent among the institutions. After about 20 years or so, formula funding quietly departed the scene, and Washington forthrightly joined the ranks of states employing incremental budgeting (although, in fact, it had never really left them.)

The point is that even after establishing these formulas and receiving agreement for them among the institutions and state officials, they were not fully funded during the appropriations cycle. Too many people did not understand them, and legislative turnover was such that each new session had to include time to educate the newcomers. The feeling was that formulas, which had to

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115 Office of Program Planning and Fiscal Management, now the Office of Financial Management.

116 One interview respondent noted that the initial formula discussions in Washington were directed by the Central Budget Agency, predecessor to OFM, and acceptance was virtually assured, although there was no commitment to fund 100%. CBA told the institutions that if they did not do it, CBA would. As staff changed, and experience with the formulas grew, this feeling began to change.

address a number of components and factor them into the definition of higher education quality, involved too many elements and too great a variety of multifarious drivers; the math was simply too complicated

Nevertheless formulas can be a useful tool and we recommend their reconsideration, with certain qualifications, here. Simplicity is important. We believe the main questions that need to be encompassed in a formula are:

- The differences between institutional types with respect to
  - Faculty/student ratio by level
  - Salaries needed to be competitive
  - Depth of library and instruction support resources, including technology.
- Other factors, such as the physical plant, are driven by such matters as the size, nature, and age of the plant, and should be treated separately.
- By focusing on the three main drivers it should be possible to engineer a simple formula and then round it into a macro. If this is done, it should be done collaboratively. The old formulas need to be rolled up into something that is pretty easy to understand.
- The institutions should be challenged to revisit the old ratios and explain why they are needed, and whether new ones might be more appropriate. The object would be to round the figures into clear understandings of the dollars per FTE that would be required to attain and sustain a high quality educational endeavor. Because Georgia Tech or UC does it 'this way' is not a sufficient or even relevant answer. Once established, the formula should be periodically revisited. Thus, records of the reasons why particular decisions were made on ratios should be maintained. The result would be FTE funding that represented baseline criteria. The cost of providing it would then be distributed among the major fund sources (state, student, and other), as described later in this report. This would not only add a qualitative dimension to the quantitative enrollment projections, but would instill more predictability into the process. Students and institutional administrators, for example, would know that if the contribution from one fund source declines, the other fund source will need to increase its contribution to meet the established funding for quality standards.
- There is another important reason for this: to establish some common basis for accountability systems and estimating future

costs as part of the Achievement and accountability agreement program recommended later in this report.

- Consideration also should be given to incorporating some modest component of performance funding to address issues of excellence, or particular aspects of public policy, on the margin.

COST ANALYSIS

The study mandate also required attention be directed to cost analyses, principally as conducted by the HECB, and in the context of possible cost sharing models.

Under present law (RCW 28B.76.310) the HECB, in consultation with OFM, the SBCTC, and the public universities, is required to develop standardized methods and protocols for measuring undergraduate and graduate costs. This includes costs of instruction, costs to provide degrees in specific fields, costs for pre-college remediation, and the costs of state support for students.[117]

HECB cost studies are conducted each four years. These are at the discipline and course (lower-division, upper-division, and graduate) level or scale of detail. Thus, as presently constituted, the published reports are not degree program specific. According to the HECB, the cost studies are used to evaluate tuition and fee policies, new enrollment funding, and the costs of proposed new degree programs.

The cost study produced by the HECB has come into play in a number of discussions. More recently the University of Delaware (UD) National Cost Study has been brought up as a potential source for comparative information. Other sources of data such as Grapevine and NCHEMS also have been used to provide state level data on fiscal resources provided to support higher education.

Both the HECB and UD products are titled “cost study,” but they have some very major differences.

The HECB study seeks to capture the total instructional cost, including all instructional support, facility and administrative costs related to direct instruction costs. This means the study must develop appropriate allocation methodologies to distribute these indirect costs across direct instructional program areas. The

117 HECB, “Recommended Methodology and Timing of Higher Education Cost of Instruction Studies,” June 2005.

UD study, in contrast, captures only the direct cost of instruction; none of the facility or other support costs for faculty or students are included.

Much like the UD study, the HECB study sets out the direct cost of instruction separate from the indirect or supporting costs. In that respect the studies have that commonality.

The policy choices an institution makes regarding the amount of resources it allocates to support activities such as libraries, technology, student services, etc. can have a significant effect on the amount of resources available for direct instruction, as well as the quality of the education experience. To look at one element without the other could be misleading, especially if it's being done on a comparative basis.

The UD study excludes medicine and medical science, dentistry, veterinary medicine, podiatry, optometry and ophthalmology medicine from its work. The HECB study includes these discipline areas as part of a separate Health Sciences section for each institution, to the extent these disciplines are offered.

Even though the HECB study is inclusive of indirect costs, there are still some costs of instruction that are not included – those that are funded by sources other than state appropriation or tuition. These can include separate technology fees, self-sustaining activities that contribute to the cost of instruction and endowment support for instruction. The extent of these excluded costs will vary by institution and even among discipline areas within an institution. The materiality of these excluded costs has not been tested by the HECB.

The HECB study provides its full range of data for all six of the state's public four-year institutions (including separate details for branch campuses) and the 30 community college districts in the state's community college system, as well as a system summary. The data captured and displayed is for a full academic year.

Unlike the HECB study, which is specific to the State of Washington, the UD study is characterized as a national study. Since its inception it has involved over 400 institutions in its efforts. However, only a handful of institutions have participated in all iterations of the study; the 2004 study involved 202 of the 2466 four-year institutions in the country.

The UD study represents self-selection by the participants, and given the limited number of the total four-year universities that choose to participate, it also cannot be extrapolated to represent a national perspective. Rather, it can only be said to represent those that participate. Additionally, the UD study captures data only for the fall academic period as compared to a full academic year for the HECB study.

In the nine reporting periods from 1996 through 2004, four Washington institutions have participated in the UD study; Western Washington University (WWU) four times, University of Washington (UW) and Eastern Washington University (EWU) twice each, and Washington State University (WSU) once. Only WSU participated in the latest (2004) study. Despite sporadic participation to date, three of the four institutions expect to participate in some subsequent period.

State of Washington Universities Participation in Delaware National Cost Study

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Univ. of Washington			**X**	**X**					
Washington State Univ.									**X**
Western Washington Univ.	**X**	**X**			**X**			**X**	
Eastern Washington Univ.			**X**				**X**		

As reported by the University of Delaware

The legislatively-adopted peer groups for the Washington institutions, and the GCS institutions, are limitedly represented in the UD study. Of the 25 UW state-mandated peers, 10 participated in the 2004 UD study. In the latest comparison available (2001) 7 of those 10 had overall average per FTE funding less than the UW, bringing into question their value as representative comparators.

Similarly, of the 23 WSU peers, 11 participated in the 2004 UD study; 7 of which had overall 2001 per FTE funding levels below that of WSU. It reasonably can be expected the same peer relations would be found for the comprehensive institutions and TESC as were found for UW and WSU.

The UD study results seem to have their greatest utility at the discipline and department level and for faculty workload and faculty productivity

comparisons among institutions. Various aspects of the UD study documentation point this out. It has also been borne out in discussions with representatives of the Washington institutions that have participated and received the results. In furtherance of this approach, the UD study provides detail at a lower institutional level than does the HECB study. For instance, whereas the HECB study identifies costs, faculty effort, student credit hours, etc. at the “Engineering” area level, the UD study shows this information at the “Electrical Engineering”, “Mechanical Engineering”, “Chemical Engineering”, etc. levels.

While the HECB study can show comparisons among Washington institutions, the methodology does not appear to have been used outside of Washington.

The HECB study originally was directed by the Legislature and subsequently designed primarily to show the relationship between state support and tuition support of the cost of instruction for tuition setting purposes. For a number of years, tuition at Washington institutions was established as a specific percentage of the cost of instruction determined by the HECB study. Tuition levels at Washington institutions are no longer determined on this basis, but the cost study is still conducted. The HECB study results, however, have been used over the years as a data source for various other cost-based policies and funding purposes; e.g., funding levels for new enrollments, quality enhancement funding, informing students of state subsidies for higher education, and similar purposes.

Any cost study of the nature of those discussed here must be viewed from the perspective of the purposes they were designed to serve. As noted above, both the HECB and UD studies were designed for different purposes. As such, they have their limitations in what they can provide when viewed from other perspectives for other purposes. While tempting, massaging the data or extrapolating the data to serve other purposes should be done only with extreme care. Simply averaging the UD information for all reporting institutions does not yield a national average or perspective on all four-year institutions in the country. Similarly, extending the HECB cost per student credit hour times the number of credit hours needed to graduate does not result in the cost of producing a degree.

With the Legislature no longer using the HECB cost study as an essential element in setting tuition levels in the state, a question arises regarding its utility. It still provides an alternative approach to setting tuition for the Legislature to consider. As well, it provides a basis for reporting the level of state support provided to students (RCW28B.76.300). In the past it has been used for other purposes, such a providing a basis for appropriation for new enrollments, general quality enhancements, and other similar costing purposes.

As noted above, though, it does not provide a complete picture of the total cost of instruction in that it excludes other sources of instructional support, and does not provide a separation of tuition support from state support at other than the institution level. Chief among the sources of support are other fees and charges that students are required to pay in addition to established tuition amounts; these include such things as technology fees, lab fees, rehearsal room fee and similar fees at all institutions. Along the same line, other institution-generated funds are excluded for the cost construct as well; chief among these are endowment funds. Less obvious is the “cost” of foregone tuition support arising from institutional waivers of tuition for a variety of reasons; this can amount to 25 percent of an institution’s tuition revenue forgone.

Consideration should be given to enhancing the utility of the HECB cost study product by:

- Treating tuition separately from state support. Allocation should be proportional to the overall share of the total cost of instruction that tuition supports, determined by discipline and reflecting the differential tuition rates by student level;
- Identifying the amount of endowment and other institutional-generated support that goes into each discipline;
- Identifying the amount of additional non-tuition fees paid by students that are used for instructional support; and
- Identifying the value of tuition waivers; by level and discipline where appropriate.

The research involved in the present study may not simplify a decision about a perfect cost sharing model, but it does make it clear the benefits involve both society ("the state") and the individual. The Carnegie Commission's recommendations may have been superseded by events, as was the cost sharing model Washington employed for a number of years. It is too late for a return to the fairly simple model recommended by the Commission or to the one used in Washington for several years. In any case, such cost sharing models seem unable to withstand the vicissitudes of time. But the importance of linking costs, tuition, state aid, appropriation policy and *institutional* aid policy is clear, and the HECB cost studies are essential to that.

THE LONGER-TERM FISCAL OUTLOOK

Many of the recommendations of this report will require additional funding. We recognized that when we presented them, and we also are confident that the investments they represent will pay off handsomely. Nevertheless, we feel it would be irresponsible not to point out that some consider the fiscal problems confronting the state to be structural and not likely to dissipate soon. In a 1999 study, economist Harold Hovey prognosticated that the higher education funding

outlook in this country would remain dire over the course of the next eight years (to 2008, the period covered by his projections). He noted that state revenues generally are unable to keep pace with increases in personal income for structural reasons even in the best of times. The costs of state services rise at a faster rate than the personal income-dependent state revenues needed to support them. For each 10 percent increase in personal income, state and local taxes, Hovey argued, rise only about 9.5 percent. Thus, even without such encumbrances as recessions, there would be a problem unless tax revenues could be increased at the same rate as services.

According to his projections, the average gap between government spending and revenues nationally over the 1999-2008 period would be 3.8 percent. All else being equal, thirty-nine states, including Washington, would experience deficits. In Washington's case it would be a 6.7 percent shortfall (i.e., projected funding would fall short of that needed to sustain current service levels by this fraction) ranking it 36th in the country on this severity scale.[118]

The Hovey study was updated by the Rockefeller Institute of Government in 2003 and extended to cover the period 2005-2013.[119] The authors noted that all of the states could be expected to experience a gap or shortfall between state revenues and expenditures, with most, 29, likely to encounter gaps of 5% or more. Washington is in this group. Three reasons for this condition were offered:

"1. Tax revenues will not grow as fast as the economy because:

a. Economic growth, unlike that of the late 1990s, will not generate major annual surges in capital gains income.

b. Sales tax revenues will decline [because of] a continuing shift in consumption from goods to lightly taxed services and the difficulty of collecting taxes on Internet-related transactions.

c. Excise taxes will not keep up with overall growth.

2. Spending in most states will be increasingly dominated by the need to underwrite Medicaid growth.

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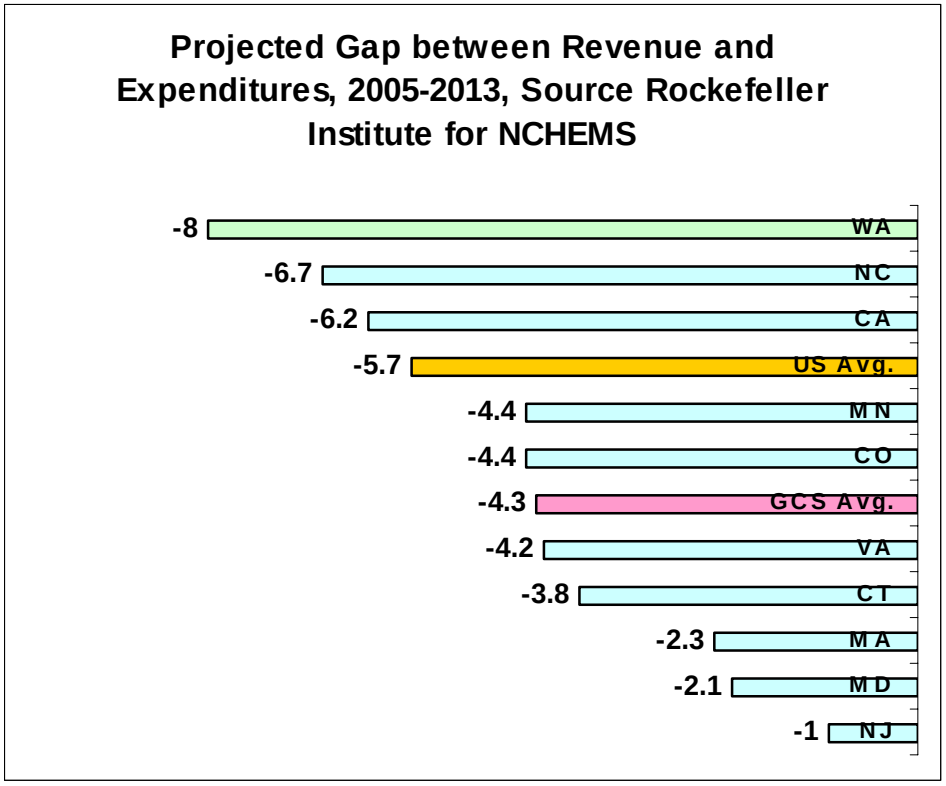
118 Harold A. Hovey, "State Spending for Higher Education in the Next Decade: The Battle to Sustain Current Support," NCPPHE, San Jose, July 1999

119 "State Fiscal Outlook from 2005 to 2013: Implications for Higher Education."

3. The federal budget outlook has deteriorated dramatically, resulting in administration proposals to substantially cut grants to state and local governments."[120]

The fiscal gap for projected for Washington and the GC States is represented on the following chart.



Washington is expected to experience the largest gap, or shortfall, among this group of states, and this also applies to the national scene, where it ranks 41st on this scale. The authors note that "Of the 10 states with the largest projected gaps, five do not have an income tax."[121] The unfolding tension between the two variables – projected higher education growth and projected revenues – seems clear.

120 Ibid., p 1-2.
121 Idem., p.. 3.

A recent SHEEO[122] observation also applies to higher education funding issues, both helping explain them and reminding people that it is a national phenomenon, perhaps to some extent reassuring them:

> Recent declines in state support for higher education have received substantial public attention. Some have suggested that states are abandoning their historical commitment to public higher education, expecting parents and students to pay a larger share of the cost. National data from the past quarter century and a more detailed and recent look within states indicate that this conclusion is premature and superficial. Overall, states have largely maintained operating revenues for higher education, even though they have struggled to keep pace with enrollment growth and inflation in times of recession. Constrained state budgets and rapid enrollment growth during economic downturns tend to depress state funding per student in a cyclical pattern, observed three times over the last 25 years. In fiscal 2004, state funding was at the low point of the most recent of these economic cycles.[123]

The SHEEO report notes that during the 25-year period starting in 1980, state support for higher education nationally was outpaced by enrollment growth and inflation, causing per student appropriations to sometimes dramatically fluctuate from year to year. State support tends to rebound when enrollment growth moderates. SHEEO's further observation is that “history and the growing demand for higher education suggest that the states’ commitment to higher education will continue.[124]

Considerable state effort is directed to enrollment projecting, as noted elsewhere. The interest in stable or predictable higher education funding suggests that equal attention might be directed to long-term state fiscal projections of the Hovey-Rockefeller type. This is not often the case. A 1999 NORED study of other states concluded that while most develop *enrollment forecasts*, few states routinely develop long-range *revenue and expenditure*

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122 SHEEO is the acronym for the State Higher Education Executive Officers Association.
123 SHEEO, “State Higher Education Finance, FY 2004, p. 8.
124 *ibid.*

projections.[125] When they occur, the exceptions to this generalization appear to be time-limited and related to circumstances unique to each state.[126]

Rather than long-term fiscal projections, most states rely on the biennial revenue projections that inform and discipline the appropriations process. Typically, these projections are offered by either the state's controller or a finance department in the executive branch, though sometimes the forecasts must receive the blessing of an inter-governmental committee (as in Texas). Since most states are constitutionally bound to operate with balanced budgets, the planning emphasis tends to be increasingly narrow as the next budget period approaches and the 'current law' revenue projections come up flat or declining as predicted by Hovey-Rockefeller.

A related reason few states take seriously the need for long-range fiscal projections, especially when such vital issues as higher education enrollments are at stake, is the volatility of state revenues, which makes projections difficult and to some extent invariably wrong. This was most obvious during the past decade, when state revenues experienced deep and unpredicted declines during the early 1990s, only to rebound with unprecedented *real* increases later.

Appropriations and tuition represent higher education's foremost fund sources. When appropriations decrease, the obvious options are to increase tuition to make up some or all of the difference, cut back on service levels, or both. Service levels are not the easiest things to reduce, since students are in the pipeline. Because of this, a few seemingly obstinate realities repeatedly confront higher education funding both in Washington and nationally: Patrick M. Callan of the NCPPHE has observed that:[127]

- When revenue shortfalls are distributed among state services, perceptions are that higher education is likely to absorb larger cuts than other government sectors;

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125 William Chance and William Pickens, *State Initiatives to Accommodate Enrollment Surge: A Study of Ten States in Crisis*, [NCPPHE, 2000].

126 For example, staff of the Colorado Legislative Council prepare five-year revenue and expenditure projection reports which appear to be detailed and authoritative. These are the result, however, of the need for a good analytical capacity under the state's strict, voter imposed controls on spending increases and refund requirements for surplus revenues above certain year-end reserves.

127 He also is a former head of the Washington Higher Education Coordinating Board (then Council of Postsecondary Education).

- When higher education faces cuts in state funding, the state and higher education institutions are likely to shift the shortfalls on to students and their families via price increases; and
- During a recession, states are unlikely to make new or additional investments in student financial aid that will offset price increases. Indeed, student aid itself may be reduced.

The subjects are price and financial aid, but the issue really is all of the dimensions of higher education funding, since all are interlinked. In simple terms, when state revenues are reduced by adverse economic conditions, state appropriations tend to be reduced accordingly. What is diminished in one of higher education's major revenue sources tends to be compensated for by increases in the other. Fiscal management involves not only balances in budgets but balances among funding sources, and those should be policy rather than reactively based.

"MAKING THE GRADE"

WASHINGTON HIGHER EDUCATION AND THE GLOBAL CHALLENGE

RISING TO THE TEST: GOVERNANCE AND FISCAL POLICY

"The difficulty lies not in the new ideas, but in escaping from the old ones."

John Maynard Keynes

The last major component of the study directive calls for a review of the funding policy efficacy of the state's higher education governance organizations. This immediately raises several issues, beginning with the state's relationship to the institutions, their authority and responsibilities. It also includes policy and funding alignment, and that entails the presence or absence of clarity and understanding. Structural aspects also enter with the concern in Washington about the presence of 'silos' in education, a phenomenon that may not be unnatural but which certainly traces to the distribution of authority and responsibility among different higher education agencies and entities, i.e., to the governance structure. Books have been written about these things, but the issues are present in most states.

The subject is approached here by focusing on the major aspects of Washington's higher education governance system: (1) The nature and character of state higher education policy in Washington, especially the matter of a public agenda for higher education, (2) the state-higher education institution relationship and the roles of the components of the higher education governance system, (3) suggestions for changes, and (4) what have been called 'silos' among education segments, or, by others, a 'seamless' or P-20 education system. The last element focuses on the alignment, or more accurately, misalignment, of the state's operating and capital budget processes, a subject referenced in the Washington Learns enabling statute.

ALTERNATIVE PERSPECTIVES, APPROACHES, AND RELATIONSHIPS

The Nature of Public Higher Education Policy and A Public Higher Education Agenda

Washington has a mixed but essentially decentralized higher education governance system and no standardized policy articulation process. Thus, there is no explicit established and persistent statement of public higher education policy that endures consistently across budget cycles. Long-range higher education planning is mandated as an HECB responsibility, and it is pursued by it and other agencies, SBCTC and WTECB, and the institutions, but this tends to align, and come and go, with planning cycles and a general lack of follow-up (i.e., succeeding planning cycles typically do not proceed on the basis of evaluations of progress on the accomplishments or lack of the previous strategies.)[128] The planning process also is characterized by an absence of system-wide buy-in and troubled by disagreement and inter-organizational competition. It may be no exaggeration to state that outside of the HECB, the six-year plan has a life expectancy of about two years.

Some of this has to do with changing casts of characters. In the words of one astute observer, "In general, higher education policymaking in Washington has not benefited from vision and staying power from policymakers with a statewide perspective and deep knowledge."[129] Washington's 'roller-coaster' economic cycle patterns, which tend to lag and become counter cyclical to national fluctuations, do not help, a problem compounded by the nature of the state's tax structure (based largely on a system of sales tax; Washington does not have an income tax). In the forthright words of one observer, " Washington depends on a high sales tax, a 'business and occupations' tax, which is essentially a gross receipts tax on business and professionals, a modest state property tax, stiff excise taxes, and a motley collection of fees and minor taxes. Taken as a whole, this tax structure is among the most regressive in the country."[130]

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128 The HECB 2004 Master Plan is focused on the period 2004-2010. Regular implementation reports relate to progress on the goals contained therein. References to the accomplishments of the 1997-2003 planning cycle are not provided. The resultant impression is that each planning cycle begins with an entirely new set of goals and strategies and that long-term higher education planning in Washington is defined by six-year cycles.

129 W. Zumeta, "Public Higher Education in Washington State: Aspirations Are Misaligned with Fiscal Structure and Politics." In R. Ehrenberg (Ed.) *What's Happening to Public Higher Education?* Westport, CT: Greenwood Press, in press.

130 Zumeta, "Public Higher Education," op. cit. p. 15.

In a presentation to the Washington Learns Steering Committee, another assertive observer, Richard Sims, stated that "Washington's state and local tax [system] is the most regressive in the nation, and recent changes have shifted the tax burden even further downward. Prospects for the foreseeable future do not look greatly different. While Washington's economy appears to be improving, it is like many other states with structural [problems] faced with a persistent budget deficit, and there is little political interest in touching the 'third rail' of Washington politics, the idea of a state income tax."[131] The third rail, by the way, is not an illusion or an empty metaphor, as demonstrated by an unbroken series of rejections of recommendations of tax study commissions and proposals since the 1970s.

Because of its awareness of the fluctuating nature of conditions that affect these things, the Legislature has been reluctant to sign off on extended funding programs and long term financing goals.[132] The deeply ingrained commitment to incremental budgeting keyed on current revenue projections comprises a fundamental problem for policy-makers in Washington, although that is not the only one. The problem is chronic, and, as far as planning is practiced in Washington, fatal.

In effect, the state has put itself in a box: people want a lot of services and service levels that cannot be easily sustained. In higher education they value unfettered access, and related to that, low prices; they also value a first-rate higher education system and display a great deal of confidence and pride in their institutions. They insist on efficiency, productivity, and a positive higher education support system for a vibrant state economy. They have, in other words, implicitly "accepted the case that education investments are indeed crucial to the state's future."[133]

Much of the data suggest, however, that if people believe this is what has been accomplished, they may be misguided. Whether or not this is so, it should provide some latitude for new ways of thinking about and doing things. Regardless of the tax system, economic downturns render long-term policy problematic in any setting.

We believe that states can minimize the effects of the economic and revenue swings by giving institutions reasonable flexibility to adjust without

131 "Charting a Course for Washington's Economic Future: Developing a Fiscal Foundation for Economic Growth," Seattle, June 14, 2006.

132 Zumeta, "Public Higher Education . . .," op. cit., p. 8.

133 Zumeta, " Public Higher Education . . ., op. cit. p. 17.

compromising access, affordability, and quality. This involves a new relationship, and this is a different conception of 'planning.' We also believe that viewing state funding as a form of investment, identifying priorities for focusing much of that investment, and allowing institutions to manage their affairs while holding them accountable for results, are places to start.

This requires definition, communication, discussion, and agreement. The HECB master planning responsibility may assume this, but with rare exceptions it has not been realized. As matters stand, "funding mechanisms are poorly aligned with state priorities and the goals of [any recent] strategic master plan."[134] And because of this the plans are not master plans at all; rather, they are representations of one set of voices in a crowded and noisy room.

The subject of a public higher education agenda enters at this point. We consider it the essential and missing ingredient if funding policy is to be anything more than "simply a matter of spending more money or rearranging allocations."

Although Washington has stressed higher education master planning in one form or another since the first coordinating board came on line in 1970, in fact few Washingtonians have been very comfortable with it. Planning of the sort implied may have more traction in places with more centralized economies, and even there they often turn out to be costly failures.

Here, conditions, including the players, change regularly and the newcomers may not agree with the priorities of their predecessors. Thus, not only are statewide master plans especially difficult to accomplish in a collaborative, consensus manner over time in Washington, there is every possibility they will be dead on arrival if there is any serious resistance from one or another of the major actors, and, for whatever reason, there usually is. With a couple of notable exceptions, they also tend not to have much staying power even if there is not. The usual results are expended energy, a lot of heartburn, and a short-lived program that is quickly lost in the din.

Until things change, public policy is likely to remain a function of fiscal inflexibility, represented by the budget cycle and each biennial budget. As good or not as the higher education plans in Washington may be, the alignment between state funding and higher education planning is uncertain at best and non-existent at worst. This applies both to fit and commitment.

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134 Aims McGuiness and Teresa Rainwater, "A Public Agenda for Postsecondary Education in Washington State," Presented to the Governor's Education Summit, Seattle, June 3, 2005.

This has almost nothing to do with the competence and commitment of the people who work in these vineyards. It has a lot to do with different organizational cultures and purposes and enduring replications of zero-sum gaming. It has most to do with the absence of a clear agenda that has been endorsed by policy makers and in which such programs can unfold in accordance with resources over time.

Clear statements of statewide higher education goals are not extant in Washington, although the articulation of goals is a requisite convention in every planning process. In a few cases they may be inferred from references in the Revised Code (e.g., inter-institution transfer of credit, inter-agency/institution consultation and cooperation, equitable and adequate enrollment opportunities, high quality services, effective and efficient resource management, accountability, etc. in the HECB section).

The state master planning responsibility assigned to the HECB was intended to be a clear route to goal articulation. This was represented in the statutory provision that the plan become *de facto* state higher education policy upon adoption by concurrent resolution of the Legislature (RCW 28B. 330 (4)).

A fundamental weakness in the approach can be illustrated by the most recent [2004] HECB master plan. The two principal goals of HECB's 2004 Master Plan are:

> **Goal 1: Increase opportunities for students to earn degrees**
> Increase the number of students who earn college degrees at public and private colleges and universities by 7,200 -- about 12 percent -- to reach 68,500 per year by 2010.
>
> - The number of students who earn associate degrees will increase by 3,300 to reach 27,000 per year.
> - The number of students who earn bachelor's degrees will increase by 2,800 to reach 30,000 per year.
> - The number of students who earn graduate degrees will increase by 1,100 to reach 11,500 per year.
>
> **Goal 2: Respond to the state's economic needs**
> Increase the number of students who earn degrees and are prepared for work in high-demand fields by 300 per year compared with current totals to reach 1,500 per year by 2010.
>
> - Increase the number of students who complete job training programs by 12 percent to reach 25,000 per year.
> - Increase the number of students in adult basic education and English as a Second Language programs who demonstrate improved literacy skills by 19 percent to reach 20,525 by 2010.

The specification of production targets is certainly an effective industrial approach. The problem with their specification in such detail as aspects of public policy, however, is that the goals can be lost in the debates over the numbers. If these are not accepted almost immediately by the executive and legislative branches, as well as the institutions and sectors, this aspect of the plan, if not stillborn, soon will be woolyfied by other numbers derived from different proposals, data, and methods.

Executive and legislative acceptance tends to be driven both by fiscal considerations and by evidence of an agreement among the organizations and institutions responsible for defining and meeting the goals. Higher education tends to be a bit divisive ('silo competition'), and it is not often, in fact, not likely, that others will accept goals other than their own in the sense of a concerted, collaborative commitment to accomplish them.[135]

Once the quantitative targets have been rendered academic, there is little left of the master plan except statements of problems. In the case of the HECB master plan, the focus on increased degree productivity and the emphasis on economic responsiveness, for example, have resonated while the production goals have not (if nothing else, the issues represented in the scope of work for the present report are evidence of that.)

This is not enough. Goals and approaches need to be seen as part of a Public Higher Education Agenda for Washington, one on which interested parties in the governmental, educational, and public/commercial sectors can agree because they have participated in an honest and fundamental way in their development. This represents a different, more potentially effective, and certainly a less divisive way of proceeding.

Possibly thinking of Washington, the National Collaborative identified the key characteristics of a Public Higher Education Agenda as one that:

- Represents a long-term [program], transcending terms of office, political divisions, and institutional loyalties
- Contains explicit links with education at all levels, P-16 as well as adult education and workforce development

135 Coalition building is an essential strategy, and the coalitions should include not only the insiders, but others, such as the business community and other non-higher education players.

- Recognizes the unique needs of each region of the state and avoids a one-size-fits-all approach
- Engages all providers of [higher] education in the state - public and private, two- and four-year institutions
- Provides for the conscious alignment of all available policy tools -- policy leadership, finance, accountability measures, and regulation
- Achieves collaboration across sectors, especially at principal transition points in the education pipeline and at the regional level
- Uses easily understood benchmarks to gauge progress[136]

The priorities the Collaborative recommends for inclusion in a Public Higher Education Agenda in Washington are:

Address the mismatch between needs and capacity [with respect to]:

- Access
- Affordability, tuition, and student financial aid
- Student demand and variations in institutional capacity
- Two-year/four-year transfer
- Adult literacy, ESL as well as basic workforce literacy
- Place-bound adults in need of part-time continuing education
- Improved preparation of secondary school students (especially in Math)
- Improved responsiveness to professional workforce needs and reduced dependence on in-migration
- Reducing disparities across the state (per capita income, education attainment, and access) [through higher education programming and policy]
- Tighter linkage between higher education and the future of the state's economy, reflecting the unique needs of each region (e.g., workforce development and R & D).[137]

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136 Aims McGuiness and Teresa Rainwater, "A Public Agenda for Postsecondary Education in Washington State," Seattle, June 3, 2005.

137 Ibid.

We believe that a Public Higher Education Agenda for Washington should be defined and established. Our view of the priorities to be addressed as part of that includes:

- Position Washington for successful competition in the Global economy by defining a public agenda and focusing strategies on a long-term and steady approach to its accomplishment and aligning funding programs with public policies.
- Expand access to higher education in all of its dimensions, especially at the front end.
- Preserve affordability through tuition and student financial aid policies.
- Recognize that higher education has individual and societal benefits and beneficiaries, and weigh the distribution of the cost burden, i.e., the individual and public shares, accordingly.
- Increase participation and productivity in workforce preparation programs, defined as applying to all upper education levels and responding to Washington industry and commerce's needs for graduates in shortage fields.
- Preserve and build upon Washington's prominence as a magnet economy that attracts educated and trained people from other areas, but also recognize the essential importance of opportunities for Washington residents to get the education they need.
- Increase higher education's potential for productivity through collaborative and cooperative planning, with special attention to the college readiness of high school students.
- Expand the state's forecasting capacity to permit more issue-relevant, collaborative, and effective program planning.
- Address the capacity of the state's higher education coordinating board to engage in effective, collaborative, long-term policy research.
- Increase production capacity with imaginative programs to tap into the full range of education resources, public and private, classroom and other.
- Increase responsiveness and capacity through the extension of managerial flexibility and managerial autonomy to institutions.

The Legislature began to move in this direction in 1993 with a finding (1993 c 363) that in effect sketched out a public agenda. The finding is quoted in full here as one that should be resuscitated:

> The legislature finds a need to redefine the relationship between the state and its postsecondary education institutions through a compact based on trust, evidence, and a new alignment of responsibilities. As the proportion of the state budget dedicated to postsecondary education programs has continued to decrease and the opportunity for this state's citizens to participate in such programs also has declined, the state institutions of higher education have increasingly less flexibility to respond to emerging challenges through innovative management and programming. The legislature finds that this state has not provided its institutions of higher education with the ability to effectively achieve statewide goals and objectives to increase access to, improve the quality of, and enhance the accountability for its postsecondary education system.
>
> Therefore, the legislature declares that the policy of the state of Washington is to create an environment in which the state institutions of higher education have the authority and flexibility to enhance attainment of statewide goals and objectives for the state's postsecondary education system through decisions and actions at the local level. The policy shall have the following attributes:
>
> (1) The accomplishment of equitable and adequate enrollment by significantly raising enrollment lids, adequately funding those increases, and providing sufficient financial aid for the neediest students;
>
> (2) The development and use of a new definition of quality measured by effective operations and clear results; the efficient use of funds to achieve well-educated students;
>
> (3) The attainment of a new resource management relationship that removes the state from micromanagement, allows institutions greater management autonomy to focus resources on essential functions, and encourages innovation; and
>
> (4) The development of a system of coordinated planning and sufficient feedback to assure policymakers and citizens that students are succeeding and resources are being prudently deployed. [1993 c 363 § 1.]

Washington does not appear to have moved much beyond this enviable statement of purpose.

A DIFFERENT STATE-HIGHER EDUCATION RELATIONSHIP

Establishment of a Public Higher Education Agenda is one part of the new way of looking at things. A new relationship between the state and the colleges and universities is another.

In recent years, states have begun to seriously consider decentralization and delegation of managerial authority to the institutions in efforts to improve their capacity to adapt and respond to new and changing economic conditions. Such delegation addresses both statewide and regional higher education needs in accordance with institutional missions, within a framework that provides incentives for them to do so. It also provides an accountability structure that conditions the continuance of this managerial autonomy on the level of accomplishment of the Public Higher Education Agenda.

The growing national evidence of a shift to accomplishment and accountability based agreements between the institutions and the state is a reflection of this. In a paper on “Prospective Governance,” Darryl Greer insists that the stress associated with the changes in society’s financial and educational environments is so great that traditional forms of governance are no longer adequate (hence, “prospective governance”). Scarcity of funds and inconsistent funding support are the most common points of stress. As states ‘disinvest’ in higher education, consumers will demand more, principally because of higher education’s importance to education opportunity and economic growth. This will require the system to become more productive. The application of technology and the presence of profit motivated competitors will force public higher education to become increasingly competitive both in its instructional methods and in its delivery systems.

This suggests an axiom: pressure for decentralization or delegation is inversely proportionate to funding capacity– the less the capacity, the greater the pressure for delegation. Thus, one effect of funding limits may be a leaner, more market-driven, consumer-oriented higher education enterprise; another would be the delegation of authority for more and more decisions and greater degrees of managerial freedom to the institution level, to be determined and exercised within an identifiable state policy framework (e.g., a Public Higher Education Agenda). A clear statement of the public agenda is crucial in this environment. Public needs, public policy, and public funding must be aligned. The Public Higher Education Agenda is the adhesive that holds it all together. Performance (or "achievement") agreements with institutions based on the components of the Public Higher Education Agenda are the means to its accomplishment.

Several states, including some of the Global Challenge States, have moved in the direction of clear and direct compacts with their institutions. Indeed, several Global Challenge States have been in the forefront. The concept was first proposed in Massachusetts. Maryland was the first state to employ the idea; Colorado was next. Virginia now employs the model. Washington also considered an earlier form in 2004, but this may have been premature. Notably, it is no longer unique to the United States. Lara Couturier notes that "much can be learned from [similar] arrangements in other countries, such as Austria and Denmark."[138]

The Virginia model, recently implemented, identifies a process for entering into such relationships on a stepped basis for different institutions that are at different stages of qualification. The Virginia Model has refined and advanced the concept and is likely to become the design that defines the class. We recommend that it be emulated and implemented here.[139]

THE VIRGINIA PERFORMANCE AND ACCOUNTABILITY AGREEMENT MODEL

Virginia's experience with college and university restructuring is instructive in many ways.[140] There, legislators provided public colleges and universities with greater operational and administrative autonomy than they had enjoyed in exchange for a renewed commitment to their public missions and to a public higher education agenda, described there as "The State Ask."

The initiative has worked in part because both the colleges and universities and the state policy makers wanted something: institutions wanted greater flexibility to control their affairs, while policy makers wanted institutions to focus on such state priorities as access, affordability, economic development, and K-12 education. Lara Couturier describes it this way:

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138 Lara Couturier, op. cit., p. 59.

139 The term employed, "Achievement and Accountability Agreement Program," is deliberate, based on objections to the use of the term, "Performance Agreement" that arose during the draft review period. When other state programs are examined herein they are called by their popular name, Performance Agreements. The Achievement and Accountability Agreement terminology applies specifically to the program recommended for Washington.

140 Much of the material in this discussion of the Virginia Performance and Accountability Agreement model is based on Peter Blake's presentation to the Higher Education Advisory Committee at its meeting on May 23, 2006. Another report, by Lara Couterier, *Checks and Balances at Work: The Restructuring of Virginia's Public Higher Education System,* published by the National Center for Public Policy and Higher Education, June 2006, also is definitive. References to it also are made in the text and cited in other footnotes.

> Many tell the story of the development, negotiation, and passage of Virginia's 2005 Restructured Higher Education Financial and Administrative Act (Restructuring Act) as a one-side institutional bid for more autonomy. In reality, however, an equally important parallel agenda for higher education was developing in the governor's office. The true story, therefore, is one of what one interviewee dubbed two 'trains on their own tracks.' The leaders on each track eventually came together, made their cases, found ways to compromise, and produced legislation that was quite different from where they started.[141]

The legislation, the Restructuring Act:

- Outlines a public agenda for higher education
- Includes all public colleges and universities, including four-year and two-year institutions
- Provides colleges and universities with greater administrative and financial autonomy in exchange for a commitment to advance the public agenda
- Establishes an integrated six-year planning process
- Ties financial incentives to institutional performance in meeting statewide goals
- Establishes a process by which institutions can gain additional autonomy over time (three levels)

The idea for a public agenda (again, known colloquially in Virginia as the "State Ask") grew out of a legislative study commission in 2004 and discussions with the Governor. The State Council of Higher Education, the General Assembly, and institutional representatives also helped shape the language that ultimately appeared in the legislation. The public agenda, as outlined in the legislation, includes the following elements, many of which also have been topics of recent discussions in this state:

- Make higher education accessible, especially for underrepresented populations;
- Make higher education affordable, regardless of family income;
- Provide a broad range of academic programs;

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141 Lara Couturier, op. cit., p. 1.

- Maintain high academic standards;
- Improve student retention and progress toward the timely award of degrees;
- Develop uniform articulation agreements with community colleges;
- Stimulate economic development--and for those seeking further autonomy, assume additional responsibility for economic development in distressed areas;
- Increase externally funded research and improve technology transfer where appropriate;
- Work actively with the schools to improve student achievement;
- Prepare a six-year academic, enrollment, and financial plan; and
- Meet financial and administrative management standards.

In the 2006 session, the General Assembly added to the "State Ask" a standard for campus safety.

Through formal resolution, the governing board of each institution is required to adopt a resolution committing to doing its part to meet the state agenda. In exchange for that commitment, institutions earn the authority to undertake a number of administrative and operational functions without prior approval or review by the state. These include the following:

- Dispose of surplus property locally
- Contract with local building officials for Uniform Building Code review
- Acquire or convey an easement
- Enter into an operating/income or capital lease for academic uses, or for property owned by the institution or a related foundation for non-academic purposes
- Sell surplus real property valued at less than $5 million without going through state processes
- Certify vendors locally
- Make information technology purchases without prior approval of state CIO
- Establish policies for designating administrative and professional faculty
- Be exempt from reporting sole-source procurements to the Secretary of Education

While not a "performance contract" in the traditional sense, the Virginia model sets up a new way to think about agreements as a form of accountability.

As a starting point, the Virginia model establishes a “contract” with all off its institutions rather than with one or two (as was the initial situation in Colorado). The agreement, or 'contract', attempts to mobilize each institution’s individual strengths around statewide goals. The state coordinating board assumes the responsibility for monitoring the contract and certifying that each institution performs according to negotiated benchmarks related to the state goals.

The Virginia model also sets up a process by which some institutions, based on their interest and ability to handle more complex administrative and operational functions, are afforded greater autonomy than others. By virtue of the requirement [of all institutions] of a formal governing board resolution accepting the State Ask, all public institutions are included at "Level one." “Level two” autonomy requires institutions to negotiate a memorandum of understanding with the state for greater authority in one specific operational area, such as human resource management or technology procurement.

“Level three” autonomy is reserved for institutions with some existing management autonomy and a high rating from an independent bond-rating agency. These institutions (four currently qualify and three have pursued level three status) can negotiate an agreement with the state for greater authority in several areas of operational authority. From the state’s perspective, these institutions also assume greater responsibility for meeting the “State Ask,” including economic development, involvement with K-12 education, student financial aid, and acceptance of transfer students from the state's 24 two-year institutions.

It is important to say something about state funding and tuition in the Virginia model. Whether spoken or not, these two issues were always in the minds of policy makers and institutional representatives. Colleges and universities hoped to gain assurances from the state that they would receive adequate state funding or, short of that, have the authority to raise tuition to achieve institutional objectives. The state, on the other hand, did not feel it had the flexibility to give assurance for funding, and it did not want to yield its prerogative to keep higher education “affordable” for its citizens.

In the end, the legislation said nothing about state funding. On the matter of tuition, it repeated existing legislative language that vests tuition-making authority with the institution. The General Assembly and the Governor, however, retained the authority to use the general appropriation act to set tuition policy. On the surface, it appeared as if nothing changed.

Below the surface, though, the debate surrounding funding had a more substantial outcome: for the first in a long time, state policy makers and institutions engaged in an honest discussion about the state’s role in funding

higher education and the relationship between state funding and tuition levels. To help seal this understanding, the restructuring legislation required each institution to submit a six-year plan. Each six-year plan included information about enrollment, academic programs, and funding requirements. Funding requirements were based on state guidelines, which take into account enrollment by level and academic discipline and costs for support programs.

This exercise met at least two goals of the restructuring debate: the ability to undertake longer-term planning and a better understanding of the relationship between state funding and tuition. Six-year plans do not obviate the role the legislature plays in decisions surrounding funding and tuition increases, but they have raised the debate to a more informed level.

What lessons might Washington learn from Virginia's experience? According to Peter Blake, who as Secretary of Education for that state at the time participated in the development of the Virginia system: First, discussions about performance contracts should include all institutions rather than a few; the state's interest in leading its institutions toward access and other priorities requires full participation. Second, state goals need to be clearly articulated and simple to understand. The more diffuse the goals become, the more difficult it is to mobilize resources to meet them. Third, monitoring institutional performance requires the deft touch of an independent entity. In Washington this responsibility ultimately could fall to a reconstituted HECB, about which more is said below, or, in the interim, to an ad hoc committee that has credibility with the governor, the legislature, and the business community.

Whichever body assumes this responsibility must make sure that the new accountability structure it establishes is no more onerous than the one it replaces. That is, performance measures cannot be so detailed and onerous that they overpower the information sought and the advantages gained. Finally, policy makers need to involve a broad range of interest groups to build support and to keep the plan fresh and responsive. Business groups and labor unions can play a vital role in ensuring the long-term success of a new accountability model.

One additional thought before leaving this subject: fiscal stability is an important principle for administrators in higher education. This has prompted efforts to establish institution rainy day funds in some states, Missouri is an example. A rainy day fund is a reserve account that can be used to soften the effects of funding reductions. One possible approach to this as part of the Performance and Accountability Agreement would be to allow institutions to legally carry-forward funds from one biennium to the next, provided an established share is placed in the research account until the appropriate total is reached. This is the Missouri model. Another possibility is a share of tuition revenue set aside for this purpose.

Still another is an innovation to the ways Washington has done things, i.e., relying on state appropriations as the principal fund source for colleges and universities. One innovation we believe might be considered is based on a recommendation of the Kansas higher education funding report prepared for the Board of Regents by NORED in 2004. In Kansas, Wichita State and Washburn universities have some small amount of local community funding support [e.g., a fraction of a percent of sales tax]. The report recommended that the state address the potential of local support for the other universities and use these funds to leverage private and other funds to support high priority initiatives.

The universities serve as economic engines for their host communities; most of the people associated with them reside in the community, and student and staff purchases comprise significant contributions to their local economies. One criticism of public universities is that they do not or are unable to pay much attention to the education needs of their immediate community, focusing instead on statewide needs or the national/international pursuits of individual disciplines. A source of add-on money for new programs to serve explicitly local needs could catch local attention and cause some new things happen. The concept could be limited to Level 3 universities, those at the highest level of an Achievement and Accountability Agreement Program.

Lara Couturier concludes her report on Virginia with this observation,

> The Virginia experience offers important lessons. New, more autonomous arrangements will require heightened responsibilities and commitments for public boards [of regents and trustees]. Reducing government bureaucracy is an argument that gains traction, but public institutions cannot expect to be released from regulation without pledging higher performance in return. The Virginia case also sheds light on the importance of a dialogue -- one that includes college leaders, faculty, and staff, the governor, the legislature, business and opinion leaders, and the public -- to gain consensus around how public institutions can operate most effectively while serving a public agenda for higher education. Further, we are moving toward an era where more public institutions will be asked to demonstrate linkages to the state priorities and will be held accountable for their contributions.[142]

142 Lara Couturier, op. cit., p. 59.

THE WASHINGTON PERFORMANCE AUDIT PROGRAM

The case for Achievement and Accountability Agreements in Washington has been argued on the basis of managerial autonomy for institutions and closer alignment of their efforts with state goals and priorities. There is still another reason for considering such agreements that may be unique to this state. It concerns the provisions of Initiative 900, which passed in the November 2005 general election, and which requires a program of performance audits to be conducted by the state auditor in accordance with the United States General Accounting Office auditing standards. House Bill 1064, signed by Governor Gregoire in May 2005, enacted I-900 into statute.

The initiative includes nine elements to be included in each performance audit:

(1) Identification of cost savings;

(2) Identification of services that can be reduced or eliminated;

(3) Identification of programs or services that can be transferred to the private sector;

(4) Analysis of gaps or overlaps in programs or services and recommendations to correct gaps or overlaps;

(5) Feasibility of pooling information technology systems within the department;

(6) Analysis of the roles and functions of the department, and recommendations to change or eliminate departmental roles or functions;

(7) Recommendations for statutory or regulatory changes that may be necessary for the department to properly carry out its functions;

(8) Analysis of departmental performance data, performance measures, and self-assessment systems; and

(9) Identification of best practices.

Although there is some impression that higher education is exempt from the provisions of I-900, this probably is not correct. What might have led to this impression is a provision in the Legislature's original performance auditing act, *to wit:*

> For institutions of higher education, performance audits shall not duplicate, and where applicable, shall make maximum use of existing audit records, accreditation reviews, and performance measures required by the office of financial management, the higher education coordinating board, and nationally or regionally recognized accreditation organizations including accreditation of

hospitals licensed under chapter 70.41 RCW and ambulatory care facilities.

This, along with an indication that the Auditor was not including higher education in his initial list of priority areas may have contributed to impressions of an exemption. The impression was premature. According to the Auditor's office, they are seeking applications for the position of Project Manager for Higher Education Performance Auditing. This person will be responsible for setting out a performance audit approach for higher education, taking into account the above, as well as the work the HECB and institutions were directed to undertake to identify more robust accountability measures.

An Achievement and Accountability Agreement Program would seem to be a logical candidate for a system that would provide standards against which performance could be measured. In tandem, the two would constitute a reliable and workable accountability system that would assure linkage between institution performance and public higher education goals.

Making all of this work brings us to the subject of governance system efficacy in such a setting, the subject of interest in the next section.

FISCAL POLICY AND GOVERNANCE STRUCTURES IN WASHINGTON

Budgeting is an area in which clarity is important. Thus it helps to begin with a few basics. The ultimate authority for state higher education policy and funding rests with the executive and legislative branches of government. In Washington, the Governor, as chief executive of the state, after receiving detailed budget requests from the institutions, proposes a biennial budget in December of each even-numbered year. This budget represents the Executive’s proposed spending and revenue plan for the next biennium. After reviewing the Governor’s proposed budget, the Legislature, which has the "power of the purse," develops its own budget in the form of appropriations bills during the legislative session. When the bills become appropriations acts, the Governor reviews them, vetoes all or part as the case may be, and signs them. At this point the state budget for the next biennium is enacted.

Regardless of anything that might be recommended in this or any other report, this process will not change. The Office of Financial Management [OFM], under the Governor, is Washington's central budget agency, responsible for organizing agency budget requests, usually after some cuts, into the Governor's budget. OFM also is the Governor's policy analysis arm. The State Board for Community and Technical Colleges [SBCTC] has budget authority for institutions within that system, i.e., assembling institution budget requests into a system-wide budget, which is treated as a unified item in both the executive budget and the legislative appropriations act. The final appropriations act is accompanied by extensive budget notes that convey legislative intent. The Higher Education

Coordinating Board comments on budget requests in the context of the master plan but it has no other authoritative budget role.

The Governor [and OFM] and Legislature are the key players in Washington's budget process. OFM is both the state's "central budget agency," and home of the state's population forecasting office, which prepares enrollment forecasts based on current participation rates. In sum, the Legislature receives the Governor's budget proposal and prepares and enacts the biennial appropriations act, which is then reviewed and becomes law when signed by the Governor. Fiscal policy efficacy by higher education governance entities in this setting will depend upon the ability of the participants to define, accept, and pursue common goals, in this case a Public Higher Education Agenda.

Public higher education governance in Washington is decentralized among some 43 boards, 40 of which are institutional governing boards (trustees and regents), a system-wide (community and technical college system) board, and two of which are coordinating (higher education and workforce preparation) boards. The number of individuals involved as board members approaches 250. As the central budget agency, OFM also is an important player, and both the Governor (certainly the Governor's Policy and population forecasting offices) are involved, as are the subject standing committees of the Legislature. The list could continue.

When the subject of governance related to fiscal policy arises, it usually evokes some aspect of a system budget for public higher education. The debates around this issue over the years have been intense, and there is little evidence of any interest on the institutions' part in a centralized higher education budget. Aside from the community/technical college governance and budget systems, the situation is much as it was in 1964, when the Council of Presidents, a voluntary association of public institution presidents, was the leading player outside of government in the biennial budget dramas.

Budget requests and appropriations for the four-year institutions are institution-specific. Again, the State Board for Community and Technical Colleges compiles a system budget and disperses appropriated funds for the institutions that comprise that sector, and OFM and the Legislature treat it that way. In that sense it is the only centralized budget entity in Washington's higher education system. As a general rule, the governance system unfolds accordingly.

Much of the discussion about fiscal policy efficacy usually devolves, at least conceptually, to the Higher Education Coordinating Board. This is a coordinating board focused essentially, but not exclusively, on the four-year sector, responsible for developing and monitoring a strategic master plan for higher education but without any direct form of higher education budgeting authority.

The HECB's budget responsibilities are described in RCW 28B.210. Working in a collaborative fashion with all of the other higher education entities (and the OSPI when appropriate), it is to identify budget priorities and 'levels of funding for higher education,' and review and evaluate operating and capital budget requests for their alignment with its budget priorities, the missions of the institutions, and the master plan, and submit the proposed budgets and its priorities to OFM before November 1 of each even-numbered year and January 1 of each odd-numbered year.

This is a recommending role, which can be weak or strong. In this state, the fulfillment of the role has vacillated in that regard. This state is not alone in that respect. Control over institutions of higher education varies widely throughout the country. The organization patterns range from extensive administrative, program, and budget controls in some statewide higher education agencies on the one hand, to something like policy guidance on the other. While many coordinating boards, as in Washington, have program approval authority, their budget roles ultimately are defining factors. Agencies with a real or de facto budget approval function usually are classified as ‘Regulating’ boards; those without are seen as ‘Recommending' or planning boards.

There is some subjectivity in the interpretations, but the Global Challenge States seem to stack up as follows. Minnesota, which has a central higher education services office but not a statewide coordinating board-- rather two statewide multi-campus governing boards, is on the following list as a governing board state. North Carolina also is a governing board state. Notably, all of the other Global Challenge States operate with coordinating boards.[143]

State Agency		Form: Regulatory or Recommending	
CA	Coordinating		Rec
CO	Coordinating	Reg	
CT	Coordinating		Rec

143 This information is based on the Education Commission of the States "State Postsecondary Education Structures Sourcebook."

MD	Coordinating	Reg	
MA	Coordinating	Reg	
MN	Governing*	Reg	
NJ	Coordinating		Rec
NC	Governing	Reg	
VA	Coordinating	Reg	
WA	Coordinating		Rec

* In 1995 the Legislature abolished the Minnesota Higher Education Coordinating Board, transferring its administrative responsibilities to the Minnesota Higher Education Services Office. Two governing boards: the Board of Regents of the University of Minnesota and the Board of Trustees of the Minnesota State Colleges and Universities, a system composed of the state (comprehensive) universities and the community and technical colleges, do the planning and coordination for their respective systems.

The regulatory/recommending distinction is useful but it should not be carried too far, as even those state boards with significant central budget authority, the 'regulating boards,' do not have authority to extend such powers to all of the institutions in their state. Hence, like statewide coordination, the regulating attribution can mean pretty much whatever a state, or sometimes an agency, wants it to mean.

Discussions of the fiscal efficacy of governance components tend to find their way to the coordinating board, and, as in Washington, the debates usually arise cyclically, often as part of conversations surrounding what new form the agency should take; debates have occurred at least twice in the Washington coordinating board's lifespan (three if one counts 1969, when the CHE was established). These were in 1975, when the agency's membership was changed, and in 1985, when it was reconstituted as the HECB. In none of these instances, with the exception of an expanded role in capital decisions, was the budget authority of the board increased or the fiscal efficacy of the agency improved. Rather, the notion of a central higher education budget administered by the coordinating board was considered and disdained in all cases; the coordinating board has been and remains a recommending agency with a peripheral budget role and limited fiscal efficacy. Stated differently, there is little evidence of strong support for a central budget role for the coordinating board and, similarly, little support for a statewide higher education governing board.

Overall it is our impression that much of the policy work of the HECB is well done. A considerable part of the information and data this study has relied upon came from the coordinating board.

At the same time, we cannot escape the impression that the board has become marginalized. Although the issues it identifies as part of its work tend to find their way into the policy process, the route is less than direct and highly susceptible to the ravages of time. Its intended vehicle for this -- the master plan -- does not have much lasting power, in spite of the work that goes into it. In terms of a direct role on the fiscal side, it has almost none.

During our field work and interviews, we found little support for the agency, outside of the agency itself and some legislators, although it must be said that support tends to increase with distance from Olympia, and, probably, distance from a college or university campus. When evidence of support for the agency is present, it is genuine and profound, and appreciative of the difficulties of carrying out responsibilities in that special and very small place between the dog and the tree (paraphrasing a simile of one observer).

Some of this support is associated with the agency's excellent administrative program management record (e.g., State Need Grant Program administration). And some is associated with the agency's fine data collection and management work. There also may be some that is attributable to the "Devil We Know" syndrome: whatever its faults, it may be better than what is conjured up to replace it.

We believe that the atmosphere has changed since the 1985 legislation that established it as the successor to the Council on Postsecondary Education. Then the CPE had fallen on bad times, its board membership bloated by federal requirements for broad client organization representation, and its ability to rise above its nature as a recommending agency checked more often then not by representatives of affected organizations on the board itself. In 1985 the Legislature reconstituted it into its present form, removing all but nine citizen members from the board, and strengthened its approval authority, although not with respect to the operating budget. That pendulum, however, may have swung too far.

1985 was sixteen years after the first coordinating board was created; twenty-one years have passed since then. There is something to be said for a periodic revisit to such a critical agency. Now is a good time.

Some of the perceived problems with the HECB are these:

- Its apparent focus on four-year institutions, which probably do not appreciate the attention, and its lack of salience to other sectors,

e.g., the community and technical colleges and workforce education.

- The use of different data sets and standards by the HECB and other agencies.
- The HECB's combined policy/administrative roles and the effects the latter can have on the former, e.g., the GET program's funding requirements,[144] on the one hand, and needs for an independent perspective on tuition and financial aid, on the other. Both the GET program and The State New Grant Program are included in the HECB organization and budget.
- The absence of a place at the table for the people who are coordinated by the coordinating board, e.g., the institutions and the major sectors.
- The separation of budget and enrollment policy (these are in OFM) from the higher education planning function.
- The absence of a P-20 Council, or Education Cabinet.
- The distance between executive and legislative policy and 'higher education' policy.
- The interest in an Education Management and Accountability Program [EMAP] arrangement for higher education and the role the coordinating board might play in that.
- The importance of Public Higher Education Agenda articulation role over a master planning role.
- The changing environment for higher education and the need for a new state relationship, as stated in the form of an Achievement and

144 The GET program is predicated on average tuition increases of no more than seven percent. The Executive Director of the HECB is concerned with ensuring the financial viability of the program. He also is responsible for recommendations to the Legislature on tuition and fees, among other subjects. In a recent letter to the Chair of the Washington Learns Higher Education Advisory Committee, the public four-year institutions stated: ". . .While it is accurate that tuition increases exceeding the earnings assumptions for the GET Program will result in unfunded future liabilities, we believe the state should not use its ability to hold tuition at low levels as the primary reason for ensuring the financial viability of the GET Program. Tuition and state appropriations support the cost of instruction at our institutions, and tuition policy needs to be evaluated within this context.

Accountability Agreement Program, and the role of the coordinating board in all of that.

Eliminating the agency and delegating planning and coordination responsibilities to the sectors as was done in Minnesota is one possibility, but this is not a very promising one as a long-term solution.

Assigning its higher education planning functions to the Governor's Policy Office in OFM is another possibility. This would have the advantage of bringing planning and coordination into the same agency that has central budget authority and responsibility for population and enrollment forecasting. The disadvantage is the absence of a separate place for identifying, articulating, and communicating higher education needs and priorities to the Legislature, and, related to this, the possibility of separated policy centers in the executive and legislative branches.

In any case, in both instances there is a presumption that the administrative functions the HECB performs would need to be continued in a separate entity, along the lines of Minnesota's Higher Education Services Office.

We begin with this, separating the administrative functions of the HECB into a separate service office, which we believe should be done. In addition to its planning responsibilities, the HECB is assigned responsibility for the management of the following programs:

- The State Need Grant Program
- The State Work Study Program
- The Washington Promise Scholarship Program
- The Educational Opportunity Grant Program
- The Washington Scholars Program and The Washington Award for Vocational Excellent [WAVE] Program
- The Unit Record Report
- The Gaining Early Awareness and Readiness for Undergraduate Program [GEAR UP]
- The Displaced Homemaker Program
- The Guaranteed Education Tuition Program [GET]
- Authorization of out-of-state private college and universities to offer programs in Washington
- Approval of educational and occupational training programs for veterans' education benefits
- Federal Improving Teach Quality Grants Program

- Child Care Grants Program
- Community Scholarship Matching Grant Program
- Supplemental College Assistance Migrant Program
- Distinguished Professorships and Graduate Fellowships Program[145]

We believe that these should be removed and placed in a separate organization. Our reasons are:

- The amount of Board time consumed by program management oversight.
- The desirability of expanding Board membership (see below) by including people whose public responsibilities preclude them from program administration and rule making.
- The amount of executive policy staff time consumed by administrative program management.
- The potential effects that program management responsibilities [e.g., State Need Grant and GET] may have on the development and articulation of policy recommendations on such matters as tuition and student assistance policy and budget needs.
- The requirements created by a new relationship, public agenda, and Achievement and Accountability Agreement Program, in terms of need for a policy-dedicated higher education board and staff.

Thus, we recommend that the HECB's program administration responsibilities be transferred to a separate agency, a Higher Education Services Office, which would be created for this purpose and staffed by the same people who presently staff these programs.

The original Council on Higher Education, which had a remarkable record of agency effectiveness, was composed of nine citizen members, four legislators (two from each house, one from each caucus), the Director of OFM, the OSPI, the chair of the Council of Presidents, the Chair of ICW, the director of the SBCTC, and, now, the director of the WFTECB.

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145 The list is constructed from information on the HECB's web site.

This placed at the table the representatives of the groups most interested in and directly affected by the Board's deliberations and policy recommendations. We believe it also improved the agency's salience and reduced much of the evidence of inter-agency friction and conflict we encountered during the course of the study. We recommend that such an organization structure be established. We also recommend that the solution be revisited and evaluated no more than ten years after its formation.

The next aspect of the fiscal efficacy of the governance structure concerns silos, seamlessness, and the P-20 configuration.

TRANSITIONS AND P-20

The Washington Learns Higher Education Advisory Committee Transitions Work Group members agreed there were six areas in which barriers to transition exist. Positions suggested by the work group to diminish those barriers are these:

Guidance

- Implement a *K-12 Guidance and Advising System* that begins in elementary school, is intensive, student-centered, and curriculum driven.
- Implement a *Post-Secondary Guidance and Advising System* that eases transition within the post-secondary sector and to the world of work.
- Develop a one-stop, *Electronic Advising Platform* detailing transfer and degree completion requirements of public institutions.

Preparation

- Adopt and publicize the work group's suggested revisions to the *Minimum Freshman Admission Standards for Public Baccalaureate Institutions*.
- Maintain a *Core Course Database* related to the minimum admission standards.
- Create *College Readiness Standards* that express the Minimum Freshman Admissions Standards in competency language.
- Emphasize *General Workplace Skills* by encouraging participation in pilot projects to credential general workplace skills.

Articulation

- Maintain a wide array of *Dual Credit Programs* with clearly articulated and well-publicized operational guidelines.
- Encourage community and technical colleges and baccalaureate institutions to expand *Applied Baccalaureate Degree* opportunities that articulate with applied associate degrees.

Access

- Achieve *Equity in High School Completion and Post-Secondary Participation* by identifying, implementing, and measuring strategies that promote high school completion and post-secondary success among students who struggle or have been underrepresented.
- Support an array of programs that promote successful *Transitions from Work to School*.

Affordability - This work group's charge did not extend to affordability but members recognize that the state's efforts to increase **funding** for post-secondary opportunities commensurate with enrollment, to develop a coherent **tuition** policy, and to continue the state's good record of providing **student aid** commensurate with need will facilitate transitions within the educational system.

Accountability

- Develop a *Statewide Integrated Data Collection and Analysis System*.

Members of the Steering and Higher Education Advisory Committee have expressed concerns about the image of "silos" and inter-sector transitions in

education, as different systems operate independently and sometimes in apparent oblivion of each other. The silo metaphor is fairly new, but the issue is not. The education system is composed of an amalgamation of mutually dependent units that sometimes display what seems to be almost blissful unawareness of this inter-dependence. Middle schools depend on elementary schools to bring students to the appropriate levels of preparation; high schools are dependent on the middle schools in a similar fashion. Colleges and universities look to the high schools to get students ready for college, and the school system relies on colleges and universities for the preparation of teachers and administrators and for requirements governing the acceptance, and therefore the preparation, of graduates.

This is the ideal and intended model, but rather than a continuous and seamless pipeline, to use another metaphor, into which students enter at one end, and exit the other as educated citizens, the arrangement is more like a set of disjointed and holed sections, through which students make their way or not. Washington's performance could be much better. If the numbers cited earlier are accurate, 18 of every 100 nine-graders acquire a baccalaureate degree within the expected time. Not all of these students 'drop out,' as some acquire other credentials or degrees. But when it comes to baccalaureate accomplishment, this is among the worst records in the Global Challenge States.

Knowledge of the phenomenon is not new. A June 2000 University of Pennsylvania Consortium for Policy Research in Education paper, “Bridging the K-12/Postsecondary Divide with a Coherent K-16 System,” opened with this observation:

> American education has long been characterized by a profound disjuncture between K-12 and postsecondary education -- two systems that often act independently and at cross-purposes from one another.

Over the years, most states have directed attention to aspects of the situation, and a large number of inter-sector collaborations and models have formed. Washington has been in the forefront of many: two- and four-year institution articulation agreements, collaborative graduate and admission standard setting efforts, Running Start, and others. A statewide articulation agreement is in place for the liberal arts transfer program, and all of the community colleges and the public and ICW four-year institutions are parties to it. Efforts presently are underway to establish agreements in technical fields (although we worry that the field-by-field approach that seems to be favored, rather than a "technical program transfer agreement" ala the liberal arts model, will require a lot of energy and more time than may be necessary.)

These things notwithstanding, in this as in other states, the fundamental structures, the silos, remain unchanged, perpetuated by different infrastructures,

organizational cultures, salary and tenure systems, collective bargaining traditions, and peer systems, to name the more obvious, many of which are perpetuated and reinforced by separated chapters in the Revised Code and dedicated funding requirements, models, and systems. A number of those who were interviewed as part of the survey of states conducted as part of this study reduced them to one word, “Turf.”

The situation is more complex than that, i.e., 'turf,' although this is not an alien feature, and it has reified. Only two states have been able to merge their education structures, or silos, into one education system. In the first case, Idaho, the State Department of Education dates back to the first year of statehood, 1891. While there may be some effect in terms of silo control or reduction in this consolidated system, it is not evident on the surface. Idaho, with its single state education agency, operates with about the same degree of sector independence as others. The second state, Florida, displays a similar result.

Because the entrenchments are so deep and firm, attention in most states has devolved to what might be described as ‘symptom suppression’ or management, and what others might term 'workarounds.' For the most part, these are the end products of executive or legislative pressures (or, as in the case of Running Start, statutory programs); only rarely do they seem to form from within. Many inevitably involve inter-sector working groups, committees, and paraphernalia and painstaking and time consuming effort. Many are effective, but the issues they are intended to correct, such as concerns about credit loss when students transfer from community/technical colleges to universities, never seem to really go away.

During the course of the study, people in other states were contacted by telephone in search of information on their state's experiences and policies.[146] The survey continued up to the time of writing, by which more than 30 states had responded with information about their respective efforts in the implementation of P-20 systems.[147] Most of the activity in the responding states centered on (but

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146 Choice of terms is important here. The survey focus was on P-20 systems, ‘pre- through graduate school.’ The more conventional term, however, is “K-16.” Both were applied in the present case, but it was found that a web search directed to K-16 will bring up more information than one using the term “P-20.” In the words of one researcher, however, “There is less here than meets the eye.”

147 The 23 responding states are: Alaska, California, Florida, Hawaii, Idaho, Illinois, Indiana, Kansas, Kentucky, Maine, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Jersey, Ohio, Oklahoma, Oregon, Texas, Virginia, West Virginia. This is subjective, but the quality of responses varied among the states, itself a reflection of the core problem. In some cases respondents in one

was not limited to) a fairly common list of programs. These are: Running Start (concurrent enrollment programs),[148] articulation agreements, joint efforts directed to improving teacher educator quality, curriculum alignment activities, student data systems, and graduation-college admission requirements.

Efforts at silo reduction centered on governance, e.g., P-20 arrangements that for the most part lack the budget and staffing accoutrements that help ensure permanence. As noted in an ECS Policy Brief[149] by Aims McGuiness:

> Several states established state-level structures for K-16/K-20 policy coordination between 1997 and 2002, but most of these structures were established not through formal new legislation but by Governors' Executive Orders or other means. With the exception of Florida, no state established a new K-16/K-20 structure that merged, consolidated, or eliminated separate K-12 or postsecondary education state structures. Examples of new statutory structures that emphasize coordination rather than consolidation include:
>
> > Georgia's A-Plus Education Reform Act of 2000 created an independent Office of Educational Accountability and a new coordinating council for education to strengthen accountability across educational sectors and to oversee the new accountability office.
> >
> > Indiana's Education Roundtable, chaired by the governor, was established to coordinate education policy across the education sectors.

Most state efforts in this direction seem inchoate and fragile. They center on bringing the separate organizations more closely together via joint meetings, ad hoc working committees, and joint associations with some dimension of longevity. In McGuiness' words, coordination rather than consolidation is dominant. They do not involve fundamental restructuring. Examples include: joint

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sector, e.g., K-12, said they did not know of anything in this area and suggested contacting the other agency, e.g., state higher education board, and vice-versa. In most instances the person answering the phone was not familiar with either term, K-16 or P-20, and expressed difficulty locating the right person. Efforts to locate the 'right person' usually involved a number of attempts.

148 A 1998 SHEEO survey of states reported that 33 states had some type of early options or dual-credit (concurrent high school-college enrollment) program. Eleven states reported that programs existed but did not provide detail. According to this survey, in 1998, 44 states reported some type of postsecondary options available for high school students. The survey was sponsored by the Oregon Joint Boards of Education, an example of the sort of governance workaround discussed later in this paper. The survey is cited in a NORED paper prepared for the National Center for Public Policy and Higher Education, "Postsecondary Enrollment Options for High School Students," April 2002.

149 Aims McGuiness, "Policy Brief on Governance," July 2002.

legislative education committees, Governors' education councils, education roundtables (frequently composed of education sector heads), Governors' P-20 initiatives and P-16 councils, Governors' education cabinets, and inter-sector transition councils.

Usually lacking a statutory or budget framework, the relative effectiveness and endurance of these programs become functions of leadership, waxing or waning in accordance with the chief executive's interests and priorities. Once the incumbent leaves office, efforts fade if the incoming governor does not share the same passion for the issue.

Examples of comprehensive education system structures, K/P-20 education systems, are sparse. Idaho and Florida were mentioned earlier. Perhaps the greatest promise of the Florida model is the Florida K-20 Education Data Warehouse, which integrates existing transformed data and provides a single repository of information concerning students served in the K-20 public education system, along with educational facilities, curriculum and staff involved in instructional activities.

We believe that consideration should be given to the formation of a P-20 Council in Washington, with certain conditions, the most prominent of which is its treatment as a temporary entity with an initial life of five years, with the opportunity to extend based on continued evidence of need at the end of the period. Such a Council might take the form of an Education Cabinet, in which case it might also be a forum for an EMAP arrangement. Representation on the Council should include at least the Governor, the OSPI, OFM, the COP, the SBCTC, the HECB, and the WTECB. It would be staffed by people in these organizations. The Council should direct the establishment of an integrated student data system that spans sectors, and survey and develop an inventory of practices and programs to increase efforts and activities in the following areas and hold sectors accountable for results:

- Align P-20 curricula;
- Develop and implement predictors of student success from level to level;
- Expand P-20 guidance efforts, including on-line guidance assistance;
- Eliminate impediments to credit transfer throughout the system;
- Require access to all strategies for all institutions;
- Create articulation agreements and provide equitable funding for programs such as Running Start;

- Ensure that opportunities for such programs as Advanced Placement and the International Baccalaureate are available in all high schools;
- Oversee and direct the establishment of an integrated student data system for all of Washington education.

P-20 BUDGET CONCEPTS

Perhaps the subtle point in all of this is that these P-20 changes, coordinating or consolidating in nature, have focused on structures, or governance. One of the underlying concerns, however, is state funding systems, which many believe drive and sustain the separations that ultimately contribute to the problems. A serious effort to get at these budget issues is under consideration in Oregon. It is a P-20 budget model proposed by the Oregon Business Council. It is important to note that it is a model. It was followed in the present study to develop a Washington P-20 budget overlay or "Chalkboard."

In its discussion of the model, “The Case for a Unified Performance Based PreK-20 Budget,”[150] The Oregon Business Council cited the importance of education to the state’s economy, the unimpressive nature of the education performance indicators (e.g., “There is too much attrition: only 15 of every 100 ninth graders persist past high school to an associate’s degree or a bachelor’s degree. Oregon has mediocre national ratings in higher education.”) and the balkanized public systems (“Oregon’s public education investment is divided among four programs: PreK-12, community colleges, the public university system, and state opportunity grants.” And “Their separate governance, budgeting, and funding obscure comparative policy choices and inefficiencies, and makes student pathways to completion more difficult.”)

The main aim of the public schools, the Council argued, should be to prepare students for postsecondary success. Government, specifically the Governor and Legislature, should use budgeting and distribution of funds to make conscious policy choices and smoother pathways – “There should be one state education budget, transparent and performance based.” The unified budget should define dollars to be spent per student, numbers of students to be served, and the expected outcomes.

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150 Also see “What Cost. What Results for PreK-20? The Need for a Transparent Performance-Based Budget to Transform Oregon Education from Preschool to Graduate School,” (Oregon Education Roundtable, no date.)

That National Center for Public Policy and Higher Education prepared a policy brief on the program. According to the Center's brief, most current state education finance systems perpetuate the divide between K-12 and postsecondary education by sustaining two separate funding streams. They lack incentives that can promote and support college-readiness reforms, and in many cases they undermine such reform. An important objective is to provide incentives in state budgets and finance for increasing the proportion of students who complete high school and enroll in postsecondary education and training programs.

Based in part on the Chalkboard exercise, the Business Council consequently recommended to the governor that Oregon adopt a reform plan for Pre-K-20 governance, budgeting, and management. Budgets would be based on per-student costs per service, outcomes would be established for every education level and service, and education spending would be transparent, as would student performance at every institution.

In order to implement the proposed system, the state would need to determine distinct programs, organize appropriation and expenditure data to support clear and accurate student-level resource accounting, develop and execute new resource distribution rules, and report on individual program spending and related performance.

From a strategic perspective, the Governor, the Legislature, and the Joint Boards would set performance expectations and priorities for the budget, create teams to work on efficiencies and delivery improvements in high-impact areas, and set forth a two- or three-biennium plan to accomplish the work. Through the Joint Boards, the governor would lead policy discussions and assign teams to address improvements in areas such as: high school redesign, high school and lower-division alignment, policies for tuition and need-based aid for public and private institutions, K-12 transportation, special education, and English as a Second Language.

Washington also utilizes separate budgets for each of the major education sectors (e.g., K-12 and higher education). There is no "Education Budget," so if one wishes to think of Education as a unified policy paradigm, e.g. P-20, the efficacy of the divided governance and fiscal structures immediately is a problem.[151]

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151 Richard Lutz & William Chance, *Survey of State K-20 Programs and Initiatives* (NORED, for Washington Learns, February 13, 2006.)

An effort to test the Oregon approach to a unified budget was undertaken as part of the research leading to this report. Rather than envisioning a unified education budget as a replacement for the present separated systems, the concept was treated as a budget overlay, or 'Chalkboard,' which could be used to clarify education funding policies without undertaking what might otherwise prove to be a Herculean task: merging the sector budgets. The following table is the result of the Washington Chalkboard exercise:

Washington PreK-20 Education Budget, 2003-04 School Year

Program	Number of Full Time Equivalent Students Served	Estimated Expenditures Per Full Time Equivalent Student Served					Total State and Local Government Investment
		State	Local	Federal and Other Grants	Tuition and Fees	TOTAL	
PreK-12 Stand Alone Programs							
Pre-Kindergarten / Head Start							$ 26,837,043
Early Intervention for Children Ages 0-5 Years Old							
Grades K-5 Regular Instruction, Administration, and Support (less Special Ed regular enrollment)	400,219	$ 4,351	$ 1,295	$ 635		$ 6,281	$ 2,513,578,991
Grades 6-8 Regular Instruction, Administration, and Support (less Special Ed regular enrollment)	203,585	$ 3,989	$ 1,187	$ 582		$ 5,758	$ 1,172,317,018
Grades 9-12 Regular Instruction, Administration, and Support (less Special Ed regular enrollment	257,423	$ 3,968	$ 1,181	$ 579		$ 5,729	$ 1,474,745,072
Alternative Education Programs	31,067	$ 4,103	$ 1,221	$ 599		$ 5,923	$ 183,996,706
Special Education Outside of the Regular Education Setting (FTE Enrollment)	34,429	$ 14,828	$ 4,414	$ 2,164		$ 21,407	$ 737,005,189
Remedial Programs / Developmental Education	265,000	$ 933	$ 278	$ 136		$ 1,346	$ 356,792,257
PreK-12 Supplements to Regular Education							
Special Education in Regular Education Settings	109,457	$ 4,103	$ 1,221	$ 599		$ 5,923	$ 648,267,533
English as a Second Language	61,147	$ 808	$ 241	$ 118		$ 1,166	$ 71,322,023
K-12 Student Transportation	500,000	$ 407	$ 121	$ 59		$ 588	$ 293,993,195
Adjustment for duplicate student/program counts Basic Ed::Categoricals)							$ (59,951,756)
Subtotal - PreK-12							$ 7,418,903,272
Higher Education							
Four-Year Institutions:							
Lower Division	38,242	$ 2,667	-	-	$ 3,145	$ 5,812	$ 101,998,363
Upper Division	34,022	$ 7,239	-	-	$ 3,118	$ 10,357	$ 246,278,031
Graduate Programs	11,992	$ 11,237	-	-	$ 5,332	$ 16,569	$ 134,757,174
Health Sciences							
Undergraduate	1,380	$ 23,651	-	-	$ 6,245	$ 29,896	$ 32,629,850
Graduate	4,439	$ 16,331	-	-	$ 11,535	$ 27,866	$ 72,492,651
Subtotal - Four-Year	90,075						$ 588,156,069
State Board for Community & Technical Colleges							
Academic Programs	56,513	$ 3,578	-	-	$ 1,297	$ 4,875	$ 202,203,514
Precollege Programs	31,589	$ 3,002	-	$ 270	$ 1,088	$ 4,360	$ 94,830,178
Vocational Programs	49,435	$ 4,267	-	$ 277	$ 1,546	$ 6,090	$ 210,939,145
Subtotal - SBCTC	137,537						$ 507,972,837
Student Assistance:							
HECB State Need Grant Program	54,208	$ 2,107	-	-	-	$ 2,107	$ 114,199,994
Subtotal - All Higher Education							$ 1,210,328,900
GRAND TOTAL PREK - 20							$ 8,629,232,172

Special Education is treated as a separate issue because of the unique needs of the students, which include specially designed instruction for each individual as directed by the individual students' Individual Education Program. The funding for special needs students is exclusive to each student and therefore cannot be commingled with other funds in other areas.

COLLEGE READINESS EXAMINATION AND COMMON APPLICATION FORM

One last observation on transition matters before moving on: we have been impressed with the California State University [CSU] College Readiness program. This is a collaborative effort between the CSU system and the high schools by which students are given the opportunity on a voluntary basis to take a college readiness test in their eleventh year. The test is equivalent to the institution placement tests, and passage assures that students will not need to take the placement test when they arrive on campus, and that remediation will not be needed. Should they not pass the test, they have some time available while in high school to remedy the deficiency before moving onto college. We recommend that such a program be developed here.

On the subject of admissions, the universities have separate application processes even for their own branch campuses. One must apply separately to each institution, even if applying to both the parent university and a branch. A common application form and process, at least within multi-campus systems, and a form that would be universal to all state college institutions should be considered as a way of simplifying admissions and, possibly, increasing access.

We recommend that the OSPI, on behalf of the high schools, and the institutions of higher education consider implementation of a Voluntary College Readiness Program modeled on the California State University initiative in Washington.

PROJECTING HIGHER EDUCATION ENROLLMENTS

This discussion of education governance and coordination evokes a few observations on a process that is vital to both: higher education enrollment projections. While OFM is the official population forecast agency, and its projections factor directly into the biennial budgets, over the years others have entered the fray, most notably the HECB and the WTECB. The Office of Financial Management's participation rate model is the base standard, but by using different projection models keyed on their missions -- master planning in the case of the HECB, and workforce planning in the case of the WTECB -- different results are obtained. The institutions and sectors, e.g., SBCTC, also develop their own enrollment forecasts. Since none of the models is perfect and

they almost never agree, this can lead to competition, 'dueling methodologies,' and confusion.

Different states do different things. The Maryland Board of Higher Education, for example, prepares a "top down" projection for the next ten years. The Commission staff develops statewide projections at the two-year and four-year levels separately, using the historical relationship between the state's population and past in-state enrollments and then incorporating population projections for eleven different age cohorts. Adjustments to these population-driven results are made to take account of projected high school graduation rates, changes in real per capita income (for projecting part-time enrollments), and the effect of assumed tuition increases. These statewide totals are distributed among the campuses based on historical patterns, campus enrollment policies, and negotiations with the institutions. The Maryland system expects an enrollment increase of 20 percent by the end of this decade.

The Texas Higher Education Coordinating Board prepares an elaborate "bottom-up" set of projections. Separate, fifteen-year forecasts are developed for each of the state's 35 universities and 53 public community college districts and technical colleges by summing fall headcount enrollments and employing five years of age-specific and racial/ethnic-specific actual enrollments for each of the 254 counties in Texas.

The enrollment forecasts are then based on county population projections disaggregated by age groups and racial/ethnic groups (Hispanic, Black and White/Other). Adjustments are then made to take into account changes in racial participation rates which are greater than population growth, enrollment caps, the past accuracy of forecasts, and enrollment management practices among some campuses.

In 1998, the THECB decided to prepare an official *parity enrollment forecast*. "One of the highest priorities for Texas higher education is to increase minority participation through enrollment and retention". The parity forecast assumed that by the year 2015, Hispanic and Black enrollment rates will be at parity with the White/Other rates for 1997 and that the racial/ethnic mix of students will approximate the racial/ethic mix for the 15 to 34 year old population in Texas by 2015. The following display shows what a dramatic difference this assumption makes in the two sets of projections.

THE OFFICIAL ENROLLMENT PROJECTION COMPARED TO THE PARITY PROJECTION FOR 2015 **Public Higher Education Institutions in Texas**		
Institutions	***Standard Projection for 2015***	***Parity Projection for 2015***
Public Universities	423,465	606,509 (+43.2%)
Public Community and Technical Colleges	488,367	563,866 (+15.46%)
Total Enrollment in Public Higher Education	911,832	1,170,375(+28.4%)

Source: THECB, Enrollment Forecasts, 1998-2015, pp. 46-9.

Sometimes the projections are statewide in scope and developed at the state level, as in California, Colorado, and Washington by agencies [OFM] charged with that task, and sometimes, as in North Carolina, these are prepared at the system level for the respective systems. Some employ normative or goal-focused standards for planning purposes.

Even when a state-level agency bears responsibility for the projections, separate models may be developed by the different entities. In California, for instance, at one point so many different sets of projections were in the public domain that three independent experts were hired to offer their opinions, clear the confusion, and settle the disputes.[152] Washington is not at that stage, but there seems to be no great shortage of different projections.

Enrollment planning does not always take direct account of the private higher education sector in projecting enrollment demand and supply. Often this sector employs an entirely independent approach from the official forecast. Usually the statewide association for these institutions [in Washington this would be the Independent Colleges of Washington - ICW] assembles private institution projections for the state planners.

Other complications attend projections for the community and technical colleges. Models based on high school graduates' college-going rates, the prime

152 The California Postsecondary Education Commission, the Department of Finance, and the Legislative Analyst developed different statewide projections.

engine for projections of many university systems, may undercount adults who do not wish to pursue an academic degree in the conventional manner (day-time, on-campus), or who have been away from high school for a while. Much enrollment growth in the community colleges is likely to be in continuing education and short courses, where people are seeking competencies rather than degrees.

In response to strong interest as the master's degree becomes the entry and advancement credential in a growing number of professional fields, increasing numbers of masters programs in Washington are offered through evening or weekend classes for people who must work but who also want professional upgrading, so this trend is coming rapidly to the university world.

Another change that also could affect the accuracy of standard projections concerns K-12 improvement. As the schools improve, more and more students are likely to plan on continuing their education into college, and more are likely to seek entry into the already crowded research universities. This could be a result in Washington as changes ensuing from Washington Learns recommendations make their way through the early learning and K-12 sectors, eventually necessitating expansion in funding support for enrollment growth in higher education. This prospect alone has prompted some states, such as Maryland and Florida, to insist on a serious study of institutional roles and missions.

In all cases, the numbers are difficult to derive from conventional models. Thus, rather than estimates of demand, projections reflect current institutional arrangements and other factors that public policies influence, e.g., FTE funding levels and their distribution among sectors.

Policy decisions can influence enrollment estimates. When funding constraints limit service levels, the base on which future projections are calculated becomes an artifact. Thus there is a good argument for different projection models and inter-agency participation, but this must be done in a cooperative and non-competitive manner.

Projection methodologies should be consistent with underlying policy goals and should highlight what needs to be done to achieve them. This is another argument for increased collaboration among the funders and the planners.

In the final analysis, uncertainties about the urgency of enrollment crises may relate less to the projections themselves than to a lack of consensus about which factors generate *real* demand and what will *really* happen if students seek to enroll. The crucial role that public policies play and the desirability of designing policies coherently so as to meet state goals also need to be noted here.

When it comes to projecting enrollments, Washington's situation is far less one of technical capacity than of a distribution of that capacity across organizations, governmental and institutional, with disparate missions and responsibilities. These determine both the choice of projection models and the shape of these models. Competition can be a good thing -- in a global setting-- after all, that is much of what we are talking about in this report. But when it comes to competition among agencies with policy responsibilities, confusion is an inescapable result, and the policies that make it through the appropriations process may be neither the most important, nor the most synoptic.

A recent example of inter-agency collaboration in the needs definition realm demonstrates its potential. An HECB, SBCTC, and WFTECB joint report prepared as one of the responses to HB 3103 enacted during the 2004 session focused on employer demand and student supply to the year 2012, with the student supply drawn from programs requiring one year of college through post-baccalaureate. Stated in perhaps more familiar terms, the supply would encompass the output of certificate, associate, bachelor's, and graduate programs. The joint report concluded:

- The present supply of people who have completed mid-level preparation (more than one but less than four years of training or education) would meet only 83 percent of the expected employer demand for the period 2007-2012.
- Population growth as a driver of increased supply for people with this experience would not be sufficient to close the gap; policy changes will be needed to accomplish sufficient increases.
- At the baccalaureate level and above, the state does not produce sufficient numbers of graduates to meet employer demand in such fields as computer science, engineering, and health care. Also needed are increased numbers of students who earn professional and doctoral degrees. [153]

Washington has the staff expertise and the need to design and develop enrollment projections in a more variable-sensitive manner, especially in view of its changing demographics and the increasing presence of sectors that have

153 HECB. SBCTC. And WTECB. "A Skilled and Educated Workforce: An assessment of the number and type of higher education and training credentials to meet employer demand." January 2006, Executive Summary, no page number.

displayed comparatively low participation in the past, e.g., Hispanics, and who would thereby tend to be under-represented in the current participation rate. Indeed, the shifting ethnic mix suggests that new efforts will be required to sustain participation and completion rates.

Both the Maryland and the Texas models display greater sensitivity than this and could be considered as models worthy of emulation. Greater inter-agency collaboration in the development of policy-based enrollment goals would be a very good thing. Other states have traditionally relied on enrollment conferences where institutional representatives meet with state officials to arrive at a consensus forecast, typically for not more than the next biennium. This approach should be pursued here.

ALIGNING OPERATING AND CAPITAL BUDGET PROCESSES

In Washington the operating and capital budget processes are separated and proceed through the legislative process in something less than parallel alignment. The subject was among the list of topics to be considered in the legislation that created Washington Learns. Many believe there is need to align the higher education operating and capital budgets and processes, noting, for example, that 'best practices' for facilities management is to have a lifetime facilities plan [a plan keyed on capital life spans) so that component and structure replacements may be anticipated and scheduled throughout the life span of the facility, leading ultimately to replacement of or restoration to original standards in an orderly fashion.

Once the facilities plan is laid out and accepted by the Legislature, regular appropriations could be used to create a funding reserve so that replacements can occur in the planned order and in accordance with the planned schedule.

The real point is not so much to make sure there is a traditional “reserve fund”, but that there is a baseline from which to plan. Universities do some of this now, although the data are not shared or organized into an overall system program. If these plans were aggregated it would be possible to see what the profile for capital replacement looked like over a given future period, and what would be the costs of maintaining the original standard.

Such a capital plan also should be aligned with projected enrollments and a long range strategic or academic plan. Were this done, it then would be possible to look six to eight years out and project capital needs that would be induced by or necessary to accomplish the academic plan. This also would allow policymakers to anticipate needs for new specialized buildings and facilities.

Presently the approaches to academic and capital planning operate independently. In the case of capital, each biennium a new set of capital requests appear, usually in the form of preliminary design requests. Preliminary design

authorization is followed by a design authorization, and then by construction authorization. Each phase is separately authorized, and six years, three biennia, take it to fruition.

This process entails a funding line that begins modestly but rises steeply upward at the end. In effect, all of the major decisions are made in the preliminary design, which is the least expensive part. By the time the process gets to the construction stage, in the third sequential biennium, approval may be a foregone conclusion, the de facto result of earlier authorizations involving comparatively small funding totals. By the end of the second phase, the decision point to go to construction is routine, but this is the priciest phase.

In this setting little attention is directed to the capital aspects of the strategic master plans that are presented in cadenced order unless, as in the case with the HECB's 1987 plan, capital in the form of such innovations as branch campuses is a major theme.

If a coordinated master-and-capital plan were involved, decisions could be combined into a single biennium, a 'design-build' decision that would embrace both the expenditure and the commitment curves.

A number of states -- Colorado and New York come to mind -- have regular programs in place to identify future needs founded on program-based long-range facility master plans. The issue and potential solutions were beyond the scope of the present report. The subject is important enough that operating and capital budget staff at OFM, legislative staff, and higher education staff should consider a joint inquiry into the problem.

IN CONCLUSION . . .

This report draws to an end on this note. The list of recommendations is long and perhaps a little daunting, but we worry more about what might have been left out than what is included. Accomplishing the program will be a challenge. It also will require time. Seventeen years elapsed between the decision to establish a community college system and the plan to expand through the creation of branch campuses; a lot of things also happened in between. We do not think seventeen years will be necessary for the program outlined in this report; actually, we do not think there is that much time. A ten-year program, however, is feasible, and it may be about the right amount of time to accomplish what we are suggesting here. If people will agree and commit to this, we are confident that with steady work it can be accomplished.

We hope the ideas set forth in these pages, many of which are not our own, will prove worthy of consideration by Washington Learns and the people of this great state, and that they will in some measure make things better for those who are making their way to and through the colleges and universities of

Washington and into a very different world after graduation. We hope that the initiatives called for will bring in many more of them. We submit this report hopefully and respectfully in this vein.