OFFICE OF FINANCIAL MANAGEMENT

STATE OF WASHINGTON

Higher Education
Per-Student Funding Comparisons
RCW 28B.15.068

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Higher Education
Per-Student Funding Comparisons

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Appendices:

Introduction

The Legislature, in the 2007 legislative session (Second Substitute Senate Bill 5806), directed the Office of Financial Management to determine per-student funding levels at higher education institutions comparable to institutions in Washington. RCW 28B.15.068 directs OFM to define the 60th percentile of total per-student funding at similar public institutions of higher education in the global challenge states;[1] to adjust for regional cost-of-living differences; and to develop a funding trajectory for each four-year institution of higher education and for the community and technical college system as a whole, such that state appropriations plus tuition and fees revenue allow Washington to reach its funding goal of the 60th percentile of global challenge states by 2017 (see Appendix A).

This report is submitted to the Governor, the Higher Education Coordinating Board, and the education and fiscal committees of the Legislature in response to the directive.

This report is organized around the requirements of the legislation as follows:

1. Comparable institutions — determination within the eight global challenge states
2. Collection of tuition and appropriations data by institution
3. Calculation of the 60th percentile per-student funding level and adjustment for spatial cost-of-living differences
4. Development of funding trajectories
5. Summary

Identification of Comparable Institutions

The legislation calls for comparison to "similar public institutions of higher education in the global challenge states," while adjusting for differences in program offerings and in the relative mix of lower division, upper division and graduate students. To develop this list of similar institutions, the Carnegie Classification system was used to identify global challenge state institutions where the mix of full- and part-time students, the selectivity, and the transfer-in rates were similar to each of the Washington institutions. This process, choosing these characteristics, led to a list of ***comparable*** institutions specific to this study; they are not necessarily the same as ***peer*** institutions.

Traditionally, higher education institutions have identified sets of "peer institutions" that are used for comparison of financial items such as tuition and faculty salaries as well as accountability measures such as retention rates and graduation rates. Because of the larger number of institutions used in national comparisons, the peer institution analysis can use a more tailored definition of what is a peer institution and still result in a relatively large comparison group in total. When comparing to institutions within a subset of states, precise comparison groups would limit the total number of comparable institutions for the analysis. For example, for

[1] The global challenge states (GCS) are California, Colorado, Connecticut, Maryland, Massachusetts, New Jersey, Virginia and Washington — the states ranking highest in the New Economy Index of 2002. (www.neweconomyindex.org/states/2002/)

Washington State University, established peer institutions are land grant institutions with a school of veterinary medicine — 21 institutions in all. Connecticut, Maryland, Massachusetts and New Jersey — the majority of the seven comparison global challenge states — have no such institutions. The land-grant institutions from those states were included in the per-student funding comparison group, however.

The regional institutions have 278 peers according to the Higher Education Coordinating Board (HECB), a small subset of which are in the comparable institution list for this study. Since the Washington community and technical college system was to be treated "as a whole," institutions making up each of the other states' equivalent system were included.

The primary data sources used to identify comparable institutions were the institutional characteristics and enrollment data contained in the Integrated Postsecondary Education Data System (IPEDS).[2] The institutional characteristics contained in IPEDS include a set of descriptive categories defined by the Carnegie Foundation. In the Carnegie system, the Undergraduate Profile classification describes the undergraduate population with respect to three characteristics: (1) the proportion of part- and full-time students; (2) standardized test scores of first-year students; and (3) the share of entering students who transfer from another institution.

A summary of the criteria used to select comparable institutions follows; full detail is contained in Appendix B:

University of Washington (all campuses):

> Institutions classified as comparable to the University of Washington were those classified as "Research Universities (very high research activity)" in the Carnegie 2005 Classification with a medical school. If there was no such institution in a state, data for the research institution was combined with data for the medical school.

Washington State University (all campuses):

> Land grant universities classified in the Carnegie 2005 Classification as "Research Universities (very high research activity)" were selected as the set of comparable institutions for Washington State University. The institution with a veterinary school was selected if more than one institution in a state fell in this category.

Central Washington University:

> Comparable institutions for Central Washington University were selected based on these criteria: a) "Master's Colleges and Universities (larger programs)" or "Master's Colleges and Universities (medium programs)"; b) Fall 2005 FTE enrollment of 6,300–14,999; and c) undergraduate profile categorized as "Full-time four-year, more selective, higher transfer in" or "Full-time four-year, selective, higher transfer in" or "Medium full-time four-year, selective, high transfer in."

[2] The Integrated Postsecondary Education Data System (IPEDS) is the postsecondary data collection system of the U.S. National Center for Education Statistics. Focus areas for data collection are enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices and student financial aid.

Eastern Washington University:

Institutions with Carnegie Classification 2005 Basic of "Master's Colleges and Universities (larger programs)" along with Fall 2005 FTE enrollment of 7,400– 15,999 were selected as comparable institutions for Eastern Washington University. Because of program similarities, California State University-Bakersfield (FTE enrollment 6,441) was included in the set. The list was reduced based on the Carnegie Classification 2005 Undergraduate Profile characteristics.

Western Washington University:

Comparable institutions for Western Washington University were selected based on these criteria: a) "Master's Colleges and Universities (larger programs)"; b) Fall 2005 FTE enrollment of 8,000–17,999; and c) undergraduate profile categorized as "Full-time four-year, more selective, higher transfer in" or "Full-time four-year, selective, higher transfer in" or "Fulltime four-year, more selective, lower transfer in" or "Medium full-time four-year, selective, high transfer in."

The Evergreen State College:

Comparable institutions for The Evergreen State College met the following criteria: a) Carnegie Classification 2005 Basic: "Baccalaureate Colleges — Arts and Sciences" or "Master's Colleges and Universities (medium programs)" or "Master's Colleges and Universities (smaller programs)"; b) Fall 2005 FTE enrollment of 3,000–7,999; and c) Highest Level of Offering: Master's degree or Post-master's certificate.

Community and Technical Colleges:

Public two-year institutions that were part of each state's community and technical college system were selected as the set of institutions comparable to Washington's community and technical college system. In order to compare Washington's community and technical college system to those in the other global challenge states, data from these institutions were aggregated to the state level.

Tuition, Fees and Appropriations Data

Fiscal Year 2006–07 tuition and fees, state appropriations and local appropriations data from IPEDS were used for the determination of funding levels by institution. Specific definitions of these items are detailed in Appendix C. For baccalaureate institutions, funding consisted of tuition and fees, plus state appropriations. For community and technical colleges, funding consisted of tuition and fees, plus both state and local appropriations.[3]

[3] Colorado institutions proved to be an anomaly beginning with 2005–06 because of conversion to a voucher system. What had been a state appropriation was split into two line items in the IPEDS finance data. One part, the College Opportunity Fund, was paid to undergraduate students and considered as tuition and fees. Another component was considered as a fee for service and reported as "other operating." For Colorado institutions only, beginning in 2005–06, the revenue amounts reported in "other operating" were used to obtain an equivalent to that reported as state appropriations in prior years. Most likely the result is an overstated total funding amount. It did not change Colorado's ranking in funding per FTE or affect the calculation of the 60th percentile funding levels, however, since Colorado institutions consistently rank at the low end of the continuum.

For some systems, IPEDS finance data were published for system offices in addition to individual institutions. In these cases, for purposes of this report, the system data were distributed proportionally to individual institutions based on Fall 2006 FTE enrollment.[4]

Adjustment for Regional Cost-of-Living Differences

There is not an accepted, standard method for adjusting for regional price variation, nor is there a data source that is well-suited by itself for this purpose. In order to account for regional cost-of-living differences, the Office of Financial Management (OFM) developed a method to account for spatial cost-of-living variation primarily based on the ACCRA cost-of-living index (COLI) and U.S. Housing and Urban Development Fair Market Rent (FMR) data. A summary of the methodology follows; a full description is in Appendix D. Cost-of-living information by county and institution is listed in Appendix G.

For global challenge state institutions in a city or county with ACCRA COLI data, the COLI index number was used for this study. COLI data are designed to reflect general living costs and are available for areas smaller than the state level; therefore they were a reasonable option for making cost-of-living adjustments. For areas outside the ACCRA set, a statistical relationship was developed between ACCRA (dependent variable) and two-bedroom FMR (independent variable) to estimate the cost of living for areas without ACCRA data.

Next, an adjustment factor was calculated by taking the inverse of the cost-of-living number. Then within each comparison group, the factors were scaled such that the Washington institution's cost-of-living index was the basis; that is, the adjustment factor for the Washington institution equaled one.

Educational institutions face a variety of costs, of which salaries are only a portion. Other costs faced by institutions may be affected by regional cost of living. Therefore, one option was to make a partial adjustment for cost-of-living differences; a fraction of funding was adjusted while the remainder was unadjusted. Salaries, one could reason, could be a component likely to be influenced by local price levels. Appendix H provides details on how employee compensation as share of total expenses was calculated to allow for a partial adjustment for cost of living.
The per-student funding levels are thus presented in three ways: (1) no cost-of-living adjustment; (2) partial adjustment based on salary and fringe benefits as a proportion of modified total core expenses; and (3) full adjustment (100 percent of expenses are adjusted for cost of living).

Per-Student Funding Levels

The following tables show the 2006–07 per-student funding levels for the Washington institutions and community college system, as well as the comparable institutions from other global challenge states. The tables include funding levels that were adjusted for regional cost-of-living differences as well as unadjusted levels.

[4] An alternative approach to allocating system office finance amounts for appropriations would be to use the distribution of state appropriations among the institutions to allocate the system office amounts.

University of Washington

Institution	State	$ Per FTE (unadjusted)	$ Per FTE (partial COLA)	$ Per FTE (full COLA)
University of California-Davis	CA	$24,753	$24,288	$24,019
University of California-Irvine	CA	$18,631	$16,300	$14,545
University of California-Los Angeles	CA	$27,062	$24,284	$22,646
University of California-San Diego	CA	$20,592	$18,947	$17,861
University of Colorado at Boulder + Denver and Health	CO	$14,085	$13,723	$13,537
University of Connecticut + medical	CT	$26,013	$26,387	$26,495
University of Massachusetts - Amherst + medical	MA	$23,235	$24,171	$24,825
University of Maryland - College Park + Baltimore	MD	$24,595	$23,111	$22,529
Rutgers Total + Medical	NJ	$29,361	$28,373	$27,996
University of Virginia - Main Campus	VA	$20,185	$21,396	$21,768
University of Washington - all campuses	**WA**	**$19,744**	**$19,744**	**$19,744**

	$ Per FTE (Unadjusted)	$ Per FTE (Partial COLA)	$ Per FTE (Full COLA)
University of Washington	$ 19,744	$ 19,744	$ 19,744
60th Percentile	$ 24,658	$ 24,217	$ 23,195
Difference	-$ 4,914	-$ 4,472	-$ 3,451
% Change to Achieve 60th Percentile	+ 25%	+ 23%	+ 17%

Washington State University

Institution	State	$ Per FTE (unadjusted)	$ Per FTE (partial COLA)	$ Per FTE (full COLA)
University of California-Davis	CA	$24,753	$21,441	$19,523
Colorado State University	CO	$9,268	$9,573	$9,707
University of Connecticut	CT	$19,765	$17,089	$16,363
University of Massachusetts-Amherst	MA	$21,803	$19,663	$18,934
University of Maryland-College Park	MD	$21,356	$17,364	$15,900
Rutgers Total	NJ	$20,537	$17,156	$15,916
Virginia Polytechnic Institute and State University	VA	$18,315	$18,358	$18,374
Washington State University	**WA**	**$17,317**	**$17,317**	**$17,317**

	$ Per FTE (Unadjusted)	$ Per FTE (Partial COLA)	$ Per FTE (Full COLA)
Washington State University	$ 17,317	$ 17,317	$ 17,317
60th Percentile	$ 21,029	$ 17,960	$ 17,570
Difference	-$ 3,711	-$ 643	-$ 252
% Change to Achieve 60th Percentile	+ 21%	+ 4%	+ 1%

Central Washington University

Institution	State	$ Per FTE (unadjusted)	$ Per FTE (partial COLA)	$ Per FTE (full COLA)
California State University-Chico	CA	$10,875	$10,722	$10,672
Humboldt State University	CA	$14,515	$14,176	$14,050
Sonoma State University	CA	$12,559	$10,522	$9,641
Central Connecticut State University	CT	$13,766	$12,553	$11,891
Southern Connecticut State University	CT	$13,543	$12,264	$11,789
Bridgewater State College	MA	$12,180	$9,783	$9,280
University of Massachusetts-Dartmouth	MA	$15,731	$14,089	$13,387
Salisbury University	MD	$10,853	$10,951	$10,974
Rowan University	NJ	$15,172	$13,182	$12,608
Montclair State University	NJ	$13,691	$11,697	$11,116
William Paterson University of New Jersey	NJ	$15,457	$12,788	$12,316
Radford University	VA	$10,000	$10,360	$10,468
Central Washington University	**WA**	**$10,214**	**$10,214**	**$10,214**

	$ Per FTE	$ Per FTE	$ Per FTE
Central Washington University	$ 10,214	$ 10,214	$ 10,214
60th Percentile	$ 13,736	$ 12,438	$ 11,850
Difference	-$ 3,522	-$ 2,224	-$ 1,637
% Change to Achieve 60th Percentile	+ 34%	+ 22%	+ 16%

Eastern Washington University

Institution	State	$ Per FTE (unadjusted)	$ Per FTE (partial COLA)	$ Per FTE (full COLA)
California State University-Bakersfield	CA	$12,293	$11,282	$10,905
California State University-San Bernardino	CA	$10,276	$8,945	$8,379
California State University-Chico	CA	$10,875	$10,186	$9,962
Central Connecticut State University	CT	$13,766	$12,042	$11,100
Southern Connecticut State University	CT	$13,543	$11,693	$11,005
Bridgewater State College	MA	$12,180	$9,272	$8,663
University of Massachusetts-Dartmouth	MA	$15,731	$13,466	$12,496
Towson University	MD	$11,122	$9,550	$9,029
Rowan University	NJ	$15,172	$12,531	$11,769
Montclair State University	NJ	$13,691	$11,125	$10,376
William Paterson University of New Jersey	NJ	$15,457	$12,092	$11,497
Radford University	VA	$10,000	$9,825	$9,772
Eastern Washington University	**WA**	**$10,385**	**$10,385**	**$10,385**

	$ Per FTE (Unadjusted)	$ Per FTE (Partial COLA)	$ Per FTE (Full COLA)
Eastern Washington University	$ 10,385	$ 10,385	$ 10,385
60th Percentile	$ 13,632	$ 11,529	$ 10,965
Difference	-$ 3,247	-$ 1,144	-$ 580
% Change to Achieve 60th Percentile	+ 31%	+ 11%	+ 6%

The Evergreen State College

Institution	State	$ Per FTE (unadjusted)	$ Per FTE (partial COLA)	$ Per FTE (full COLA)
California State University-Stanislaus	CA	$11,478	$11,190	$11,115
Humboldt State University	CA	$14,515	$14,393	$14,348
California State University-San Marcos	CA	$12,470	$10,299	$9,368
California State University-Monterey Bay	CA	$18,463	$15,652	$14,886
Eastern Connecticut State University	CT	$13,822	$13,357	$13,216
Westfield State College	MA	$11,518	$10,942	$10,658
Worcester State College	MA	$12,186	$11,865	$11,749
Coppin State University	MD	$11,297	$10,635	$10,033
Ramapo College of New Jersey	NJ	$14,063	$12,139	$11,660
Christopher Newport University	VA	$10,730	$10,574	$10,529
Longwood University	VA	$11,825	$12,438	$12,730
University of Mary Washington	VA	$12,247	$10,044	$9,409
The Evergreen State College	**WA**	**$14,549**	**$14,549**	**$14,549**

	$ Per FTE (Unadjusted)	$ Per FTE (Partial COLA)	$ Per FTE (Full COLA)
The Evergreen State College	$ 14,549	$ 14,549	$ 14,549
60th Percentile	$ 12,381	$ 12,029	$ 11,714
Difference	$ 2,169	$ 2,520	$ 2,836
% Change to Achieve 60th Percentile	- 15%	- 17%	- 19%

Western Washington University

Institution	State	$ Per FTE (unadjusted)	$ Per FTE (partial COLA)	$ Per FTE (full COLA)
Cal Poly State University-San Luis Obispo	CA	$12,546	$11,717	$11,423
Cal State Poly University-Pomona	CA	$11,439	$9,406	$8,678
California State University-Chico	CA	$10,875	$11,277	$11,408
Central Connecticut State University	CT	$13,766	$13,084	$12,711
Southern Connecticut State University	CT	$13,543	$12,857	$12,601
Towson University	MD	$11,122	$10,534	$10,339
Rowan University	NJ	$15,172	$13,856	$13,477
Montclair State University	NJ	$13,691	$12,290	$11,882
William Paterson University of New Jersey	NJ	$15,457	$13,509	$13,165
James Madison University	VA	$10,912	$11,313	$11,466
Radford University	VA	$10,000	$10,915	$11,190
Western Washington University	**WA**	**$10,740**	**$10,740**	**$10,740**

	$ Per FTE (Unadjusted)	$ Per FTE (Partial COLA)	$ Per FTE (Full COLA)
Western Washington University	$ 10,740	$ 10,740	$ 10,740
60th Percentile	$ 13,543	$ 12,290	$ 11,882
Difference	-$ 2,803	-$ 1,550	-$ 1,141
% Change to Achieve 60th Percentile	+ 26%	+ 14%	+ 11%

State Community and Technical College Systems

State	$ Per FTE (unadjusted)	$ Per FTE (partial COLA)	$ Per FTE (full COLA)
California	$ 8,405	$ 7,193	$ 6,749
Colorado	$ 5,129	$ 5,490	$ 5,715
Connecticut	$ 10,711	$ 9,795	$ 9,571
Massachusetts	$ 8,902	$ 8,235	$ 7,955
Maryland	$ 10,995	$ 10,337	$ 10,088
New Jersey	$ 6,703	$ 6,225	$ 5,915
Virginia	$ 6,547	$ 6,612	$ 6,638
Washington	**$ 7,228**	**$ 7,228**	**$ 7,228**

	$ Per FTE (Unadjusted)	$ Per FTE (Partial COLA)	$ Per FTE (Full COLA)
Washington Community and Technical Colleges	$ 7,228	$ 7,228	$ 7,228
60th Percentile	$ 8,704	$ 7,818	$ 7,472
Difference	-$ 1,475	-$ 590	-$ 244
% Change to Achieve 60th Percentile	+ 20%	+ 8%	+ 3%

Development of Funding Trajectories

The preceding tables show the calculated 60th percentile per-student funding levels for each of the baccalaureate institutions as well as for the community and technical college system. Individual trajectories were developed based on the assumption that the funding at each Washington institution would attain the 60th percentile of per-student funding in 2017. The per-student funding levels at the comparable institutions were assumed to continue to grow at the same overall rate as they have in recent years. To calculate this rate of change, historical funding levels were determined from IPEDS data for 2002–03 through 2006–07. This led to a calculated annual average growth rate for each set of comparable institutions. It should be noted that the growth in funding here includes both inflation (price level changes) and general spending changes; there is no distinction made between the two.

Therefore a 60th percentile 2017 target was determined for each Washington institution and the community college system: The global challenge state 60th percentile starting point (2006–07) rises each year by the assumed annual growth rate until 2017. Then the trajectory was determined using the Washington institution's starting point (2006–07 per-student funding level) and the target 2017 level. Those two points dictated the annual rate of change needed for the Washington institution to reach the 60th percentile in per-student funding in 2017.

The following charts and tables each show six trajectories: the comparable institution's 60th percentile growth through 2017 and the Washington trajectory through 2017, each with full cost-of-living adjustment, partial adjustment and no adjustment.

The charts displayed here do not assume enrollment growth as funding new enrollments is a budget/legislative decision and because per-student funding levels are independent of the number of students on a particular campus. However, adding new enrollments affects the total funding necessary to reach the target per-student funding level. OFM has developed a model that displays the affect of enrollment changes on total funding; this tool is available upon request.

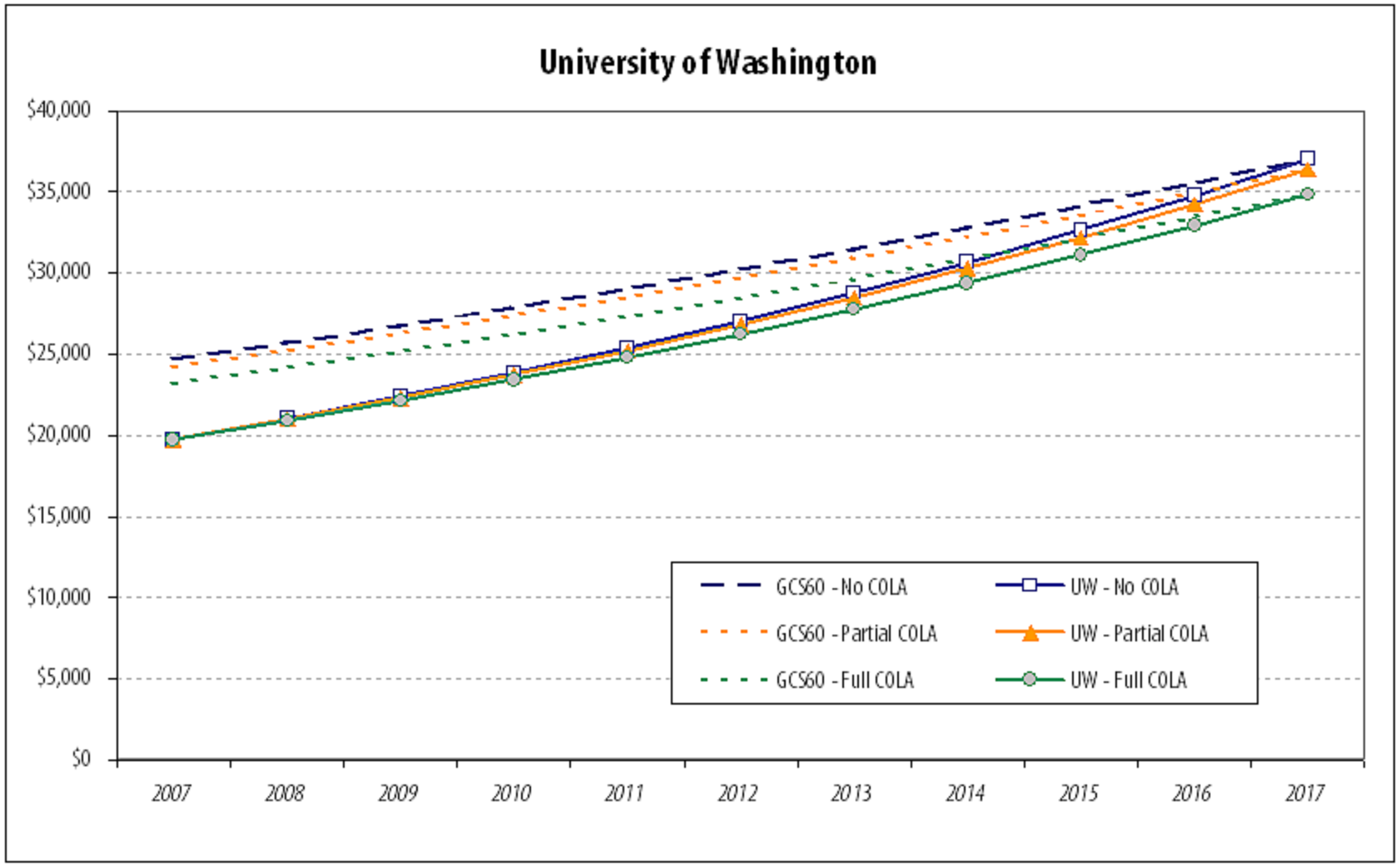
UW

GCS 60th Percentile Trajectory Growth	4.15%

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual Growth Rate
No Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$24,658	$25,682	$26,747	$27,857	$29,013	$30,216	$31,470	$32,776	$34,135	$35,552	$37,027	4.15%
UW	Trajectory growth & to 60%ile	$19,744	$21,026	$22,390	$23,843	$25,390	$27,038	$28,793	$30,661	$32,651	$34,770	$37,027	6.49%
Partial Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$24,217	$25,221	$26,268	$27,358	$28,493	$29,675	$30,906	$32,188	$33,524	$34,915	$36,363	4.15%
UW	Trajectory growth & to 60%ile	$19,744	$20,988	$22,309	$23,714	$25,207	$26,795	$28,482	$30,276	$32,182	$34,209	$36,363	6.30%
Full Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$23,195	$24,157	$25,160	$26,203	$27,291	$28,423	$29,602	$30,830	$32,109	$33,442	$34,829	4.15%
UW	Trajectory growth & to 60%ile	$19,744	$20,897	$22,118	$23,409	$24,777	$26,224	$27,755	$29,376	$31,092	$32,907	$34,829	5.84%

		FTE 38,628											
No COLA	Total Funding	762.7	812.2	864.9	921.0	980.8	1,044	1,112	1,184	1,261	1,343	1,430	in $ millions
	Change from previous year	-	49.5	52.7	56.1	59.8	63.7	67.8	72.2	76.9	81.9	87.2	
Partial COLA	Total Funding	762.7	810.7	861.8	916.0	973.7	1,035	1,100	1,169	1,243	1,321	1,405	
	Change from previous year	-	48.0	51.1	54.3	57.7	61.3	65.2	69.3	73.6	78.3	83.2	
Full COLA	Total Funding	762.7	807.2	854.4	904.3	957.1	1,013	1,072	1,135	1,201	1,271	1,345	
	Change from previous year	-	44.5	47.1	49.9	52.8	55.9	59.2	62.6	66.3	70.1	74.2	

"Trajectory growth" is assumed annual change in per-student funding for the GCS 60th percentile. It includes inflation (price level changes) and general spending changes.


University of Washington
$40,000
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
GCS60 - No COLA
UW - No COLA
GCS60 - Partial COLA
UW - Partial COLA
GCS60 - Full COLA
UW - Full COLA

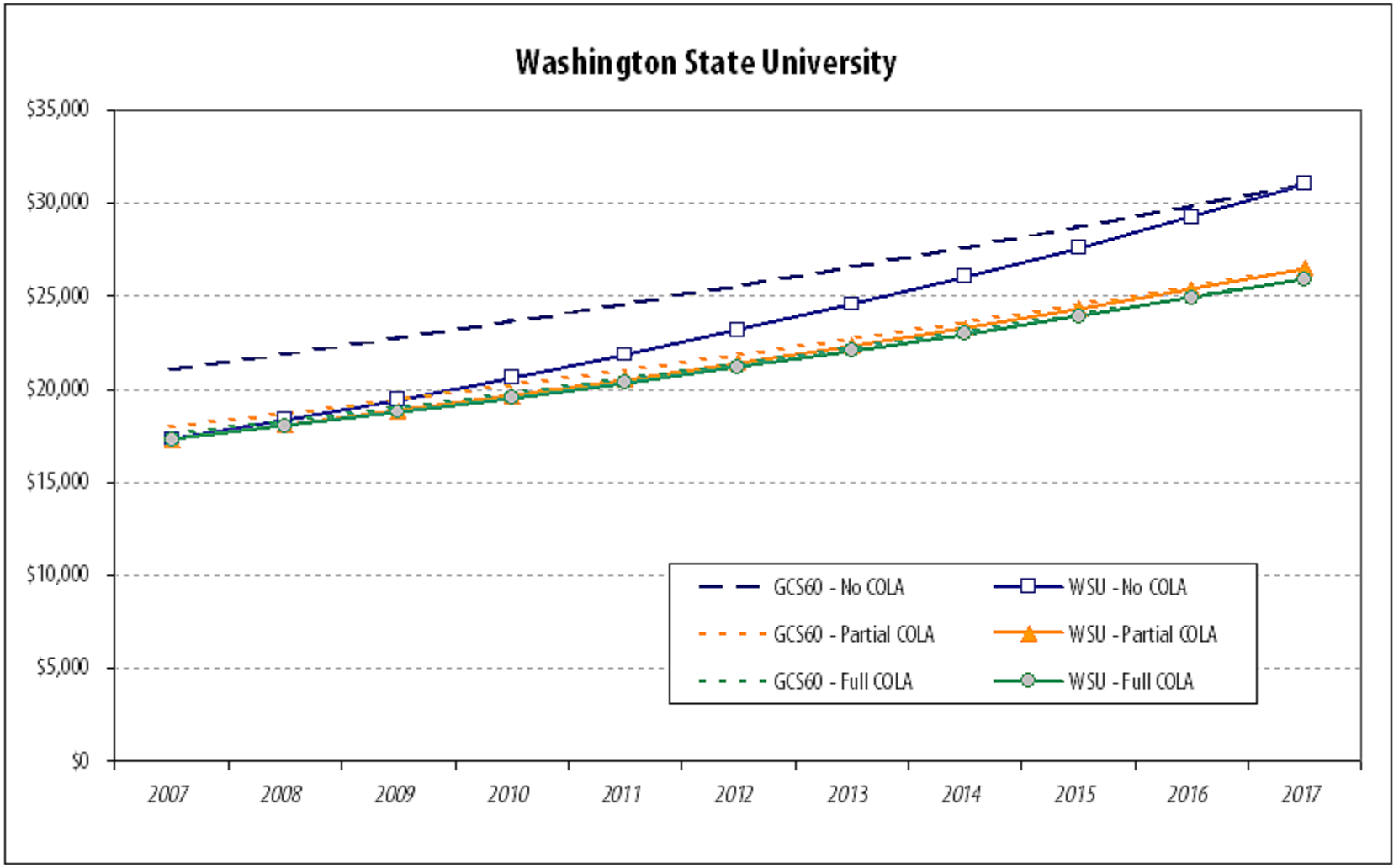
WSU

GCS 60th Percentile Trajectory Growth	3.97%

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual Growth Rate
No Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$21,029	$21,863	$22,730	$23,632	$24,569	$25,544	$26,557	$27,611	$28,706	$29,845	$31,029	3.97%
WSU	Trajectory growth & to 60%ile	$17,317	$18,357	$19,460	$20,628	$21,867	$23,180	$24,573	$26,048	$27,613	$29,271	$31,029	6.01%
Partial Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$17,960	$18,673	$19,414	$20,184	$20,985	$21,817	$22,683	$23,582	$24,518	$25,491	$26,502	3.97%
WSU	Trajectory growth & to 60%ile	$17,317	$18,070	$18,855	$19,675	$20,530	$21,423	$22,354	$23,326	$24,340	$25,398	$26,502	4.35%
Full Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$17,570	$18,267	$18,991	$19,745	$20,528	$21,342	$22,189	$23,069	$23,984	$24,936	$25,925	3.97%
WSU	Trajectory growth & to 60%ile	$17,317	$18,030	$18,773	$19,546	$20,350	$21,188	$22,061	$22,969	$23,915	$24,900	$25,925	4.12%

		FTE	38,628											
No COLA	Total Funding		364.8	386.7	409.9	434.5	460.6	488	518	549	582	617	654	in $ millions
	Change from previous year		-	21.9	23.2	24.6	26.1	27.7	29.3	31.1	33.0	34.9	37.0	
Partial COLA	Total Funding		364.8	380.6	397.2	414.4	432.5	451	471	491	513	535	558	
	Change from previous year		-	15.9	16.5	17.3	18.0	18.8	19.6	20.5	21.4	22.3	23.3	
Full COLA	Total Funding		364.8	379.8	395.4	411.7	428.7	446	465	484	504	524	546	
	Change from previous year		-	15.0	15.6	16.3	17.0	17.7	18.4	19.1	19.9	20.7	21.6	

"Trajectory growth" is assumed annual change in per-student funding for the GCS 60th percentile. It includes inflation (price level changes) and general spending changes.


Washington State University
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
GCS60 - No COLA
WSU - No COLA
GCS60 - Partial COLA
WSU - Partial COLA
GCS60 - Full COLA
WSU - Full COLA

CWU

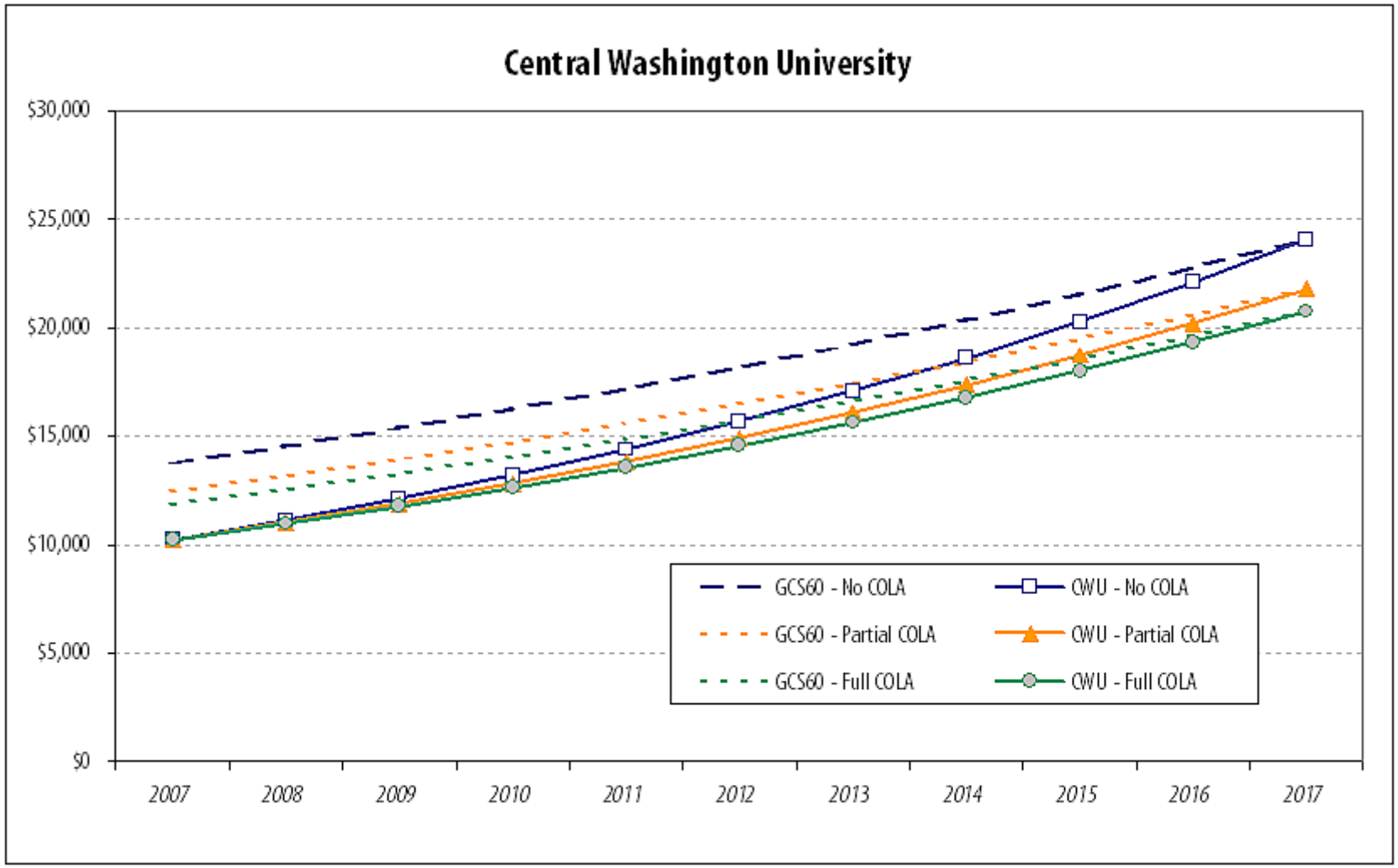
GCS 60th Percentile Trajectory Growth	5.77%

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual Growth Rate
No Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$13,736	$14,528	$15,365	$16,252	$17,189	$18,180	$19,228	$20,337	$21,510	$22,750	$24,062	5.77%
CWU	Trajectory growth & to 60%ile	$10,214	$11,127	$12,123	$13,208	$14,389	$15,677	$17,079	$18,608	$20,272	$22,086	$24,062	8.95%
Partial Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$12,438	$13,155	$13,914	$14,716	$15,565	$16,462	$17,411	$18,415	$19,477	$20,601	$21,789	5.77%
CWU	Trajectory growth & to 60%ile	$10,214	$11,018	$11,885	$12,820	$13,829	$14,918	$16,092	$17,359	$18,725	$20,199	$21,789	7.87%
Full Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$11,850	$12,534	$13,256	$14,021	$14,829	$15,685	$16,589	$17,546	$18,557	$19,628	$20,760	5.77%
CWU	Trajectory growth & to 60%ile	$10,214	$10,964	$11,770	$12,635	$13,564	$14,561	$15,632	$16,781	$18,014	$19,338	$20,760	7.35%

		FTE	38,628										
No COLA	Total Funding		99.8	108.7	118.4	129.0	140.6	153	167	182	198	216	235
	Change from previous year		-	8.9	9.7	10.6	11.5	12.6	13.7	14.9	16.3	17.7	19.3
Partial COLA	Total Funding		99.8	107.6	116.1	125.3	135.1	146	157	170	183	197	213
	Change from previous year		-	7.9	8.5	9.1	9.9	10.6	11.5	12.4	13.3	14.4	15.5
Full COLA	Total Funding		99.8	107.1	115.0	123.4	132.5	142	153	164	176	189	203
	Change from previous year		-	7.3	7.9	8.5	9.1	9.7	10.5	11.2	12.1	12.9	13.9

in $ millions

"Trajectory growth" is assumed annual change in per-student funding for the GCS 60th percentile. It includes inflation (price level changes) and general spending changes.


Central Washington University
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
GCS60 - No COLA
CWU - No COLA
GCS60 - Partial COLA
CWU - Partial COLA
GCS60 - Full COLA
CWU - Full COLA

EWU

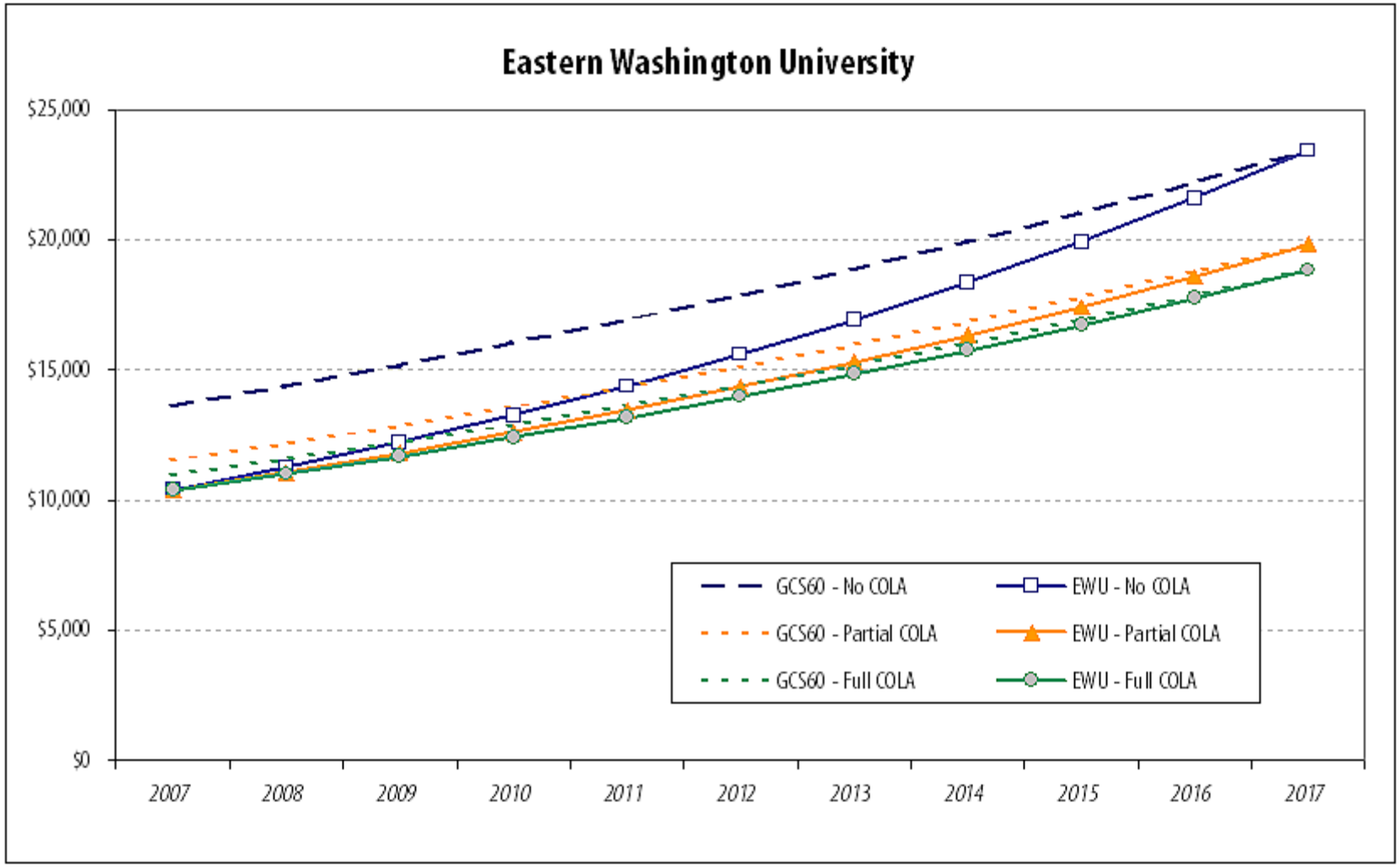
GCS 60th Percentile Trajectory Growth	5.57%

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual Growth Rate
No Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$13,632	$14,391	$15,193	$16,040	$16,934	$17,877	$18,873	$19,925	$21,035	$22,208	$23,445	5.57%
EWU	Trajectory growth & to 60%ile	$10,385	$11,266	$12,222	$13,259	$14,383	$15,604	$16,928	$18,364	$19,922	$21,612	$23,445	8.48%
Partial Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$11,529	$12,171	$12,849	$13,565	$14,321	$15,119	$15,962	$16,851	$17,790	$18,782	$19,828	5.57%
EWU	Trajectory growth & to 60%ile	$10,385	$11,079	$11,819	$12,609	$13,451	$14,350	$15,309	$16,331	$17,422	$18,586	$19,828	6.68%
Full Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$10,965	$11,576	$12,221	$12,902	$13,621	$14,380	$15,181	$16,027	$16,920	$17,863	$18,858	5.57%
EWU	Trajectory growth & to 60%ile	$10,385	$11,023	$11,701	$12,420	$13,184	$13,994	$14,855	$15,768	$16,737	$17,766	$18,858	6.15%

		FTE	38,628										
No COLA	Total Funding		103.7	112.5	122.1	132.4	143.7	156	169	183	199	216	234
	Change from previous year		-	8.8	9.5	10.4	11.2	12.2	13.2	14.3	15.6	16.9	18.3
Partial COLA	Total Funding		103.7	110.7	118.0	125.9	134.3	143	153	163	174	186	198
	Change from previous year		-	6.9	7.4	7.9	8.4	9.0	9.6	10.2	10.9	11.6	12.4
Full COLA	Total Funding		103.7	110.1	116.9	124.1	131.7	140	148	157	167	177	188
	Change from previous year		-	6.4	6.8	7.2	7.6	8.1	8.6	9.1	9.7	10.3	10.9

in $ millions

"Trajectory growth" is assumed annual change in per-student funding for the GCS 60th percentile. It includes inflation (price level changes) and general spending changes.


Eastern Washington University
$25,000
$20,000
$15,000
$10,000
$5,000
$0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
GCS60 - No COLA
EWU - No COLA
GCS60 - Partial COLA
EWU - Partial COLA
GCS60 - Full COLA
EWU - Full COLA

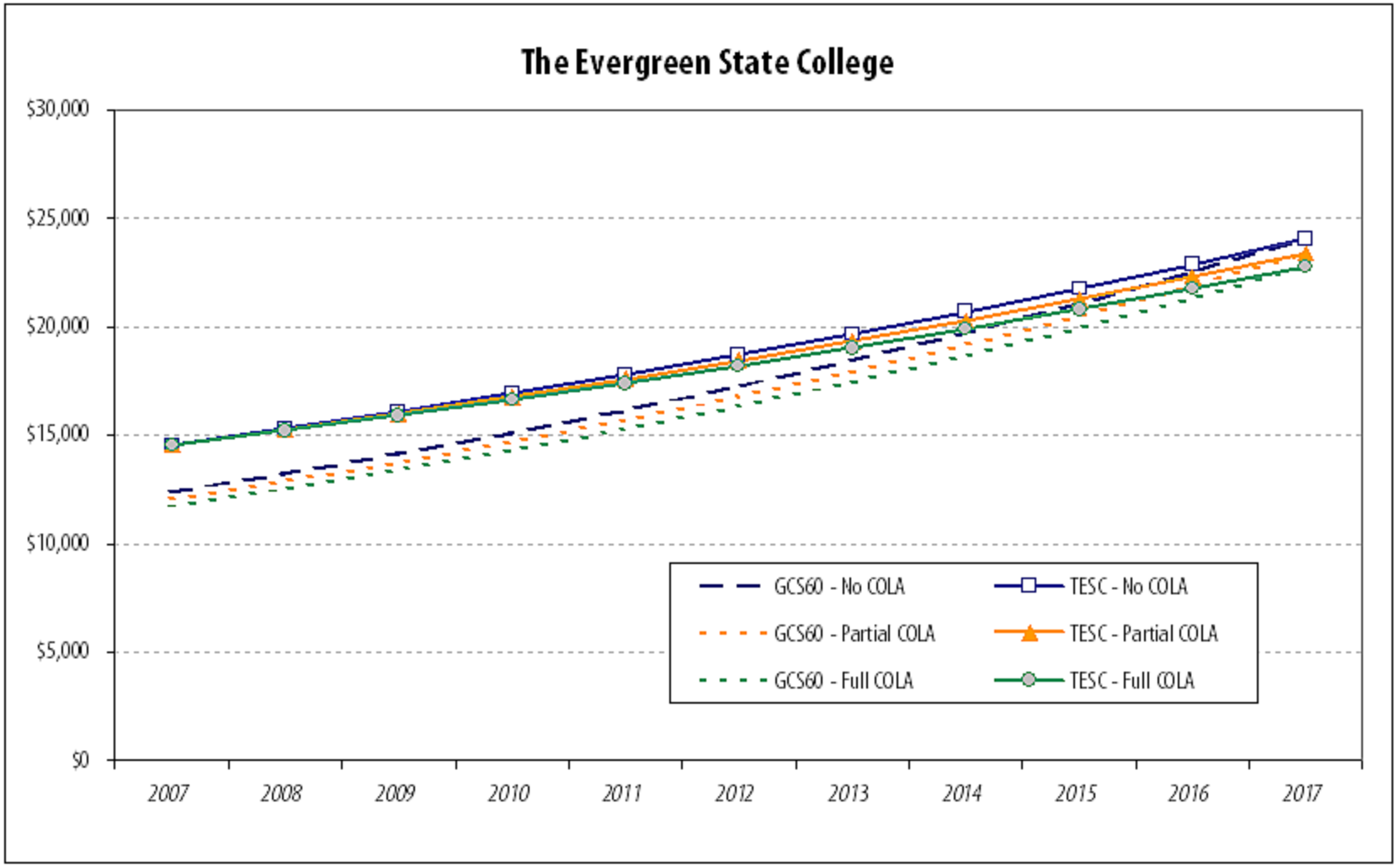
TESC

GCS 60th Percentile Trajectory Growth	6.87%

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual Growth Rate
No Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$12,381	$13,231	$14,140	$15,112	$16,150	$17,260	$18,446	$19,713	$21,067	$22,515	$24,062	6.87%
TESC	Trajectory growth & to 60%ile	$14,549	$15,300	$16,089	$16,920	$17,792	$18,710	$19,676	$20,691	$21,758	$22,881	$24,062	5.16%
Partial Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$12,029	$12,856	$13,739	$14,683	$15,692	$16,770	$17,922	$19,154	$20,469	$21,876	$23,379	6.87%
TESC	Trajectory growth & to 60%ile	$14,549	$15,256	$15,997	$16,774	$17,589	$18,443	$19,339	$20,278	$21,263	$22,296	$23,379	4.86%
Full Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$11,714	$12,518	$13,378	$14,297	$15,280	$16,330	$17,451	$18,650	$19,932	$21,301	$22,765	6.87%
TESC	Trajectory growth & to 60%ile	$14,549	$15,216	$15,912	$16,641	$17,402	$18,199	$19,032	$19,904	$20,815	$21,768	$22,765	4.58%

		FTE 38,628											
No COLA	Total Funding	58.3	61.3	64.5	67.8	71.3	75	79	83	87	92	96	in $ millions
	Change from previous year	-	3.0	3.2	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.7	
Partial COLA	Total Funding	58.3	61.2	64.1	67.2	70.5	74	78	81	85	89	94	
	Change from previous year	-	2.8	3.0	3.1	3.3	3.4	3.6	3.8	3.9	4.1	4.3	
Full COLA	Total Funding	58.3	61.0	63.8	66.7	69.8	73	76	80	83	87	91	
	Change from previous year	-	2.7	2.8	2.9	3.1	3.2	3.3	3.5	3.7	3.8	4.0	

"Trajectory growth" is assumed annual change in per-student funding for the GCS 60th percentile. It includes inflation (price level changes) and general spending changes.


The Evergreen State College
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
GCS60 - No COLA
GCS60 - Partial COLA
GCS60 - Full COLA
TESC - No COLA
TESC - Partial COLA
TESC - Full COLA

WWU

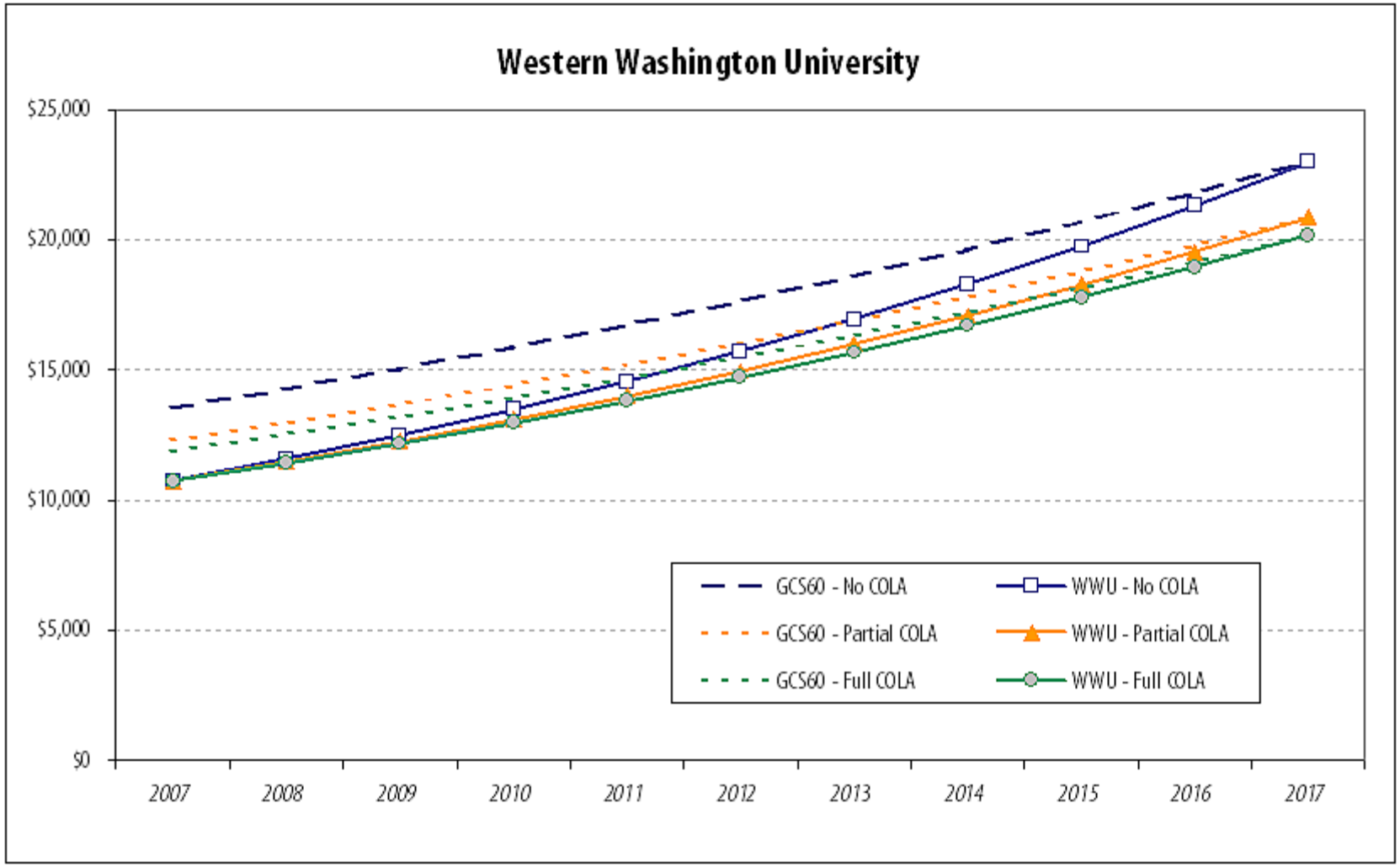
GCS 60th Percentile Trajectory Growth	5.44%

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual Growth Rate
No Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$13,543	$14,280	$15,057	$15,876	$16,739	$17,650	$18,610	$19,623	$20,690	$21,816	$23,002	5.44%
WWU	Trajectory growth & to 60%ile	$10,740	$11,590	$12,508	$13,497	$14,565	$15,718	$16,962	$18,304	$19,753	$21,316	$23,002	7.91%
Partial Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$12,290	$12,959	$13,664	$14,407	$15,191	$16,018	$16,889	$17,808	$18,776	$19,798	$20,875	5.44%
WWU	Trajectory growth & to 60%ile	$10,740	$11,478	$12,267	$13,110	$14,011	$14,973	$16,002	$17,102	$18,277	$19,533	$20,875	6.87%
Full Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$11,882	$12,528	$13,210	$13,928	$14,686	$15,485	$16,327	$17,216	$18,152	$19,140	$20,181	5.44%
WWU	Trajectory growth & to 60%ile	$10,740	$11,440	$12,184	$12,978	$13,823	$14,722	$15,681	$16,702	$17,789	$18,947	$20,181	6.51%

		FTE	38,628										
No COLA	Total Funding		140.5	151.7	163.7	176.6	190.6	206	222	240	258	279	301
	Change from previous year		-	11.1	12.0	13.0	14.0	15.1	16.3	17.6	19.0	20.5	22.1
Partial COLA	Total Funding		140.5	150.2	160.5	171.5	183.3	196	209	224	239	256	273
	Change from previous year		-	9.7	10.3	11.0	11.8	12.6	13.5	14.4	15.4	16.4	17.6
Full COLA	Total Funding		140.5	149.7	159.4	169.8	180.9	193	205	219	233	248	264
	Change from previous year		-	9.1	9.7	10.4	11.1	11.8	12.5	13.4	14.2	15.2	16.1

in $ millions

"Trajectory growth" is assumed annual change in per-student funding for the GCS 60th percentile. It includes inflation (price level changes) and general spending changes.


Western Washington University
$25,000
$20,000
$15,000
$10,000
$5,000
$0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
GCS60 - No COLA
GCS60 - Partial COLA
GCS60 - Full COLA
WWU - No COLA
WWU - Partial COLA
WWU - Full COLA

Community and Technical Colleges

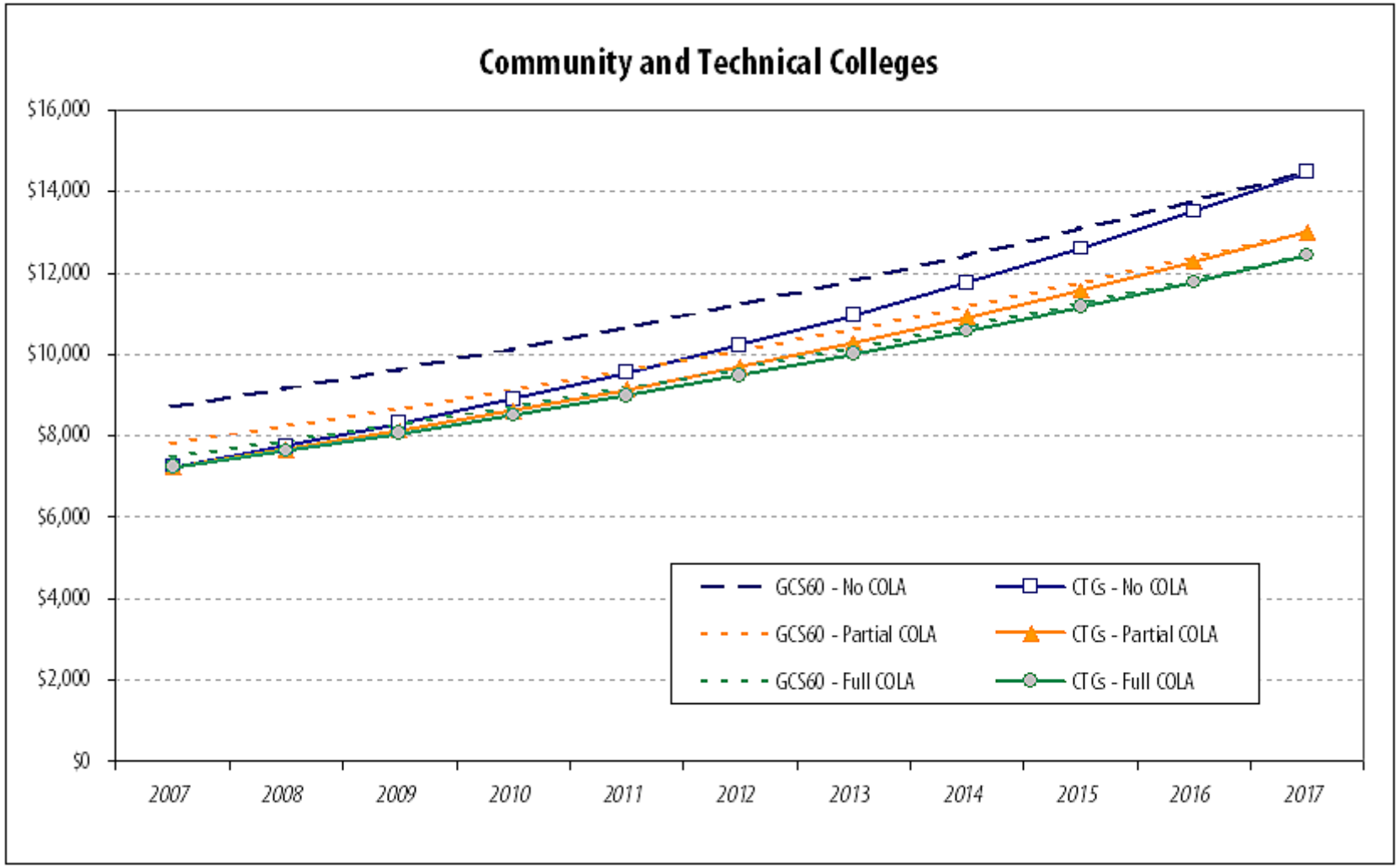
GCS 60th Percentile Trajectory Growth	5.22%

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual Growth Rate
No Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$8,704	$9,158	$9,637	$10,140	$10,670	$11,227	$11,814	$12,431	$13,080	$13,763	$14,482	5.22%
CTC	Trajectory growth & to 60%ile	$7,228	$7,748	$8,306	$8,904	$9,544	$10,231	$10,968	$11,757	$12,603	$13,510	$14,482	7.20%
Partial Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$7,818	$8,227	$8,656	$9,109	$9,584	$10,085	$10,612	$11,166	$11,750	$12,363	$13,009	5.22%
CTC	Trajectory growth & to 60%ile	$7,228	$7,666	$8,130	$8,622	$9,143	$9,697	$10,284	$10,906	$11,567	$12,267	$13,009	6.05%
Full Cost-of-Living Adjustment													
GCS 60	With trajectory growth	$7,472	$7,863	$8,274	$8,706	$9,161	$9,639	$10,143	$10,672	$11,230	$11,817	$12,434	5.22%
CTC	Trajectory growth & to 60%ile	$7,228	$7,631	$8,056	$8,505	$8,980	$9,480	$10,009	$10,566	$11,156	$11,777	$12,434	5.57%

		FTE 38,628											
No COLA	Total Funding	871.5	934.2	1,001.4	1,073.5	1,150.7	1,234	1,322	1,418	1,520	1,629	1,746	
	Change from previous year	-	62.7	67.2	72.1	77.3	82.8	88.8	95.2	102.0	109.4	117.2	
Partial COLA	Total Funding	871.5	924.2	980.2	1,039.5	1,102.4	1,169	1,240	1,315	1,395	1,479	1,568	
	Change from previous year	-	52.8	55.9	59.3	62.9	66.7	70.8	75.1	79.6	84.4	89.5	
Full COLA	Total Funding	871.5	920.0	971.3	1,025.5	1,082.6	1,143	1,207	1,274	1,345	1,420	1,499	
	Change from previous year	-	48.6	51.3	54.1	57.2	60.4	63.7	67.3	71.0	75.0	79.2	

in $ millions

"Trajectory growth" is assumed annual change in per-student funding for the GCS 60th percentile. It includes inflation (price level changes) and general spending changes.


Community and Technical Colleges
$16,000
$14,000
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
GCS60 - No COLA
CTCs - No COLA
GCS60 - Partial COLA
CTCs - Partial COLA
GCS60 - Full COLA
CTCs - Full COLA

Summary

The following table summarizes each Washington institution's per-student funding trajectory growth rates needed to achieve the 60th percentile among comparable global challenge state institutions.

	Assumed Annual Growth Rate of GCS 60th Percentile	Growth Rate Needed to Achieve 60th Percentile in 2017		
		No Cost-of-Living Adjustment	Partial Cost-of-Living Adjustment	Full Cost-of-Living Adjustment
University of Washington	4.15 %	6.49 %	6.30 %	5.84 %
Washington State University	3.97 %	6.01 %	4.35 %	4.12 %
Central Washington University	5.77 %	8.95 %	7.87 %	7.35 %
Eastern Washington University	5.57 %	8.48 %	6.68 %	6.15 %
Western Washington University	5.44 %	7.91 %	6.87 %	6.51 %
The Evergreen State College	6.87 %	5.16 %	4.86 %	4.58 %
Community and Technical College System	5.22 %	7.20 %	6.05 %	5.57 %

These numbers summarize the results of a detailed process to establish lists of comparable institutions, adjust for program and enrollment differences, account for reporting irregularities, and adjust for spatial cost-of-living variations. While this report reflects a concerted effort to address data issues and use reasonable methodologies, there were numerous challenges.

Selecting similar institutions of higher education

Using the global challenge states as a comparison group is a departure from the usual process of identifying peer or comparable institutions based solely on institutional characteristics. While the global challenge states might be similar to Washington with respect to the new economy index, it does not necessarily follow that the higher education institutions in those states are the most suitable for comparing per-student funding.

Cost-of-living adjustment

The adjustment for regional differences in cost of living posed the greatest challenge of all requirements. First, there is not a standard, accepted method for controlling for spatial cost-of-living differences. The index produced by ACCRA was a step in the right direction, as it is intended to capture regional variation in the costs facing households. However, the ACCRA data does not cover all areas in which there is a comparable institution.

Second, while Fair Market Rent (FMR) has a strong correlation with the cost-of-living index and the estimate is reasonable for many regions, there are areas such as Whitman County where the estimated index is likely to be inaccurate. One potential resolution to the problem of using FMR to estimate a cost-of-living index would be to purchase cost-of-living data from a private firm for

all areas represented by comparison institutions. However, the cost of doing so may be prohibitive.

Third, the concept of 'per-student funding' does not fit perfectly with the notion of cost of living. This was addressed by including a partial cost-of-living adjustment, but that is only an estimate of the cost variation that institutions face.

Construction of trajectories

The cost-of-living adjustment, as applied to the starting point (2006–07), was intended to put the comparable institutions and Washington institutions on equal footing for comparisons of current per-student funding. The trajectories were built on the assumption that average recent growth rates will continue. Each Washington institution's per-student funding was assumed to grow at that average rate, plus make up the difference to reach the 60th percentile level.

These assumed growth rates do not distinguish between funding changes that are attributed to inflation (overall price level changes) and real funding changes. That is not of consequence, however, due to the assumptions inherent in the methodology. For the adjusted or partially adjusted scenarios, the study methodology implicitly assumed that the growth to 2017 will be equal to the average rate within a given set of comparables and the real versus inflation components of that growth are also the same for each. This ensures that each Washington institution's per-student funding corresponds to the 60^{th} percentile level in 2017. The historical proportion of inflation versus real change in the growth rate is immaterial unless growth in that time frame was atypical. Assumptions inherent in the unadjusted scenario are less restrictive: The proportion of funding growth that is inflation versus real is not relevant since an adjustment for price level is not assumed for the starting point or in 2017.

Appendix A: Text of RCW 28B.15.068

28B.15.068
Tuition fees increase limitations — State funding goals — Reports — "Global challenge states."

(1) Beginning with the 2007-08 academic year and ending with the 2016-17 academic year, tuition fees charged to full-time resident undergraduate students may increase no greater than seven percent over the previous academic year in any institution of higher education. Annual reductions or increases in full-time tuition fees for resident undergraduate students shall be as provided in the omnibus appropriations act, within the seven percent increase limit established in this section. To the extent that state appropriations combined with tuition and fee revenues are insufficient to achieve the total per-student funding goals established in subsection (2) of this section, the legislature may revisit state appropriations, authorized enrollment levels, and changes in tuition fees for any given fiscal year.

(2) The state shall adopt as its goal total per-student funding levels, from state appropriations plus tuition and fees, of at least the 60th percentile of total per-student funding at similar public institutions of higher education in the global challenge states. In defining comparable per-student funding levels, the office of financial management shall adjust for regional cost-of-living differences; for differences in program offerings and in the relative mix of lower division, upper division, and graduate students; and for accounting and reporting differences among the comparison institutions. The office of financial management shall develop a funding trajectory for each four-year institution of higher education and for the community and technical college system as a whole that when combined with tuition and fees revenue allows the state to achieve its funding goal for each four-year institution and the community and technical college system as a whole no later than fiscal year 2017. The state shall not reduce enrollment levels below fiscal year 2007 budgeted levels in order to improve or alter the per-student funding amount at any four-year institution of higher education or the community and technical college system as a whole. The state recognizes that each four-year institution of higher education and the community and technical college system as a whole have different funding requirements to achieve desired performance levels, and that increases to the total per-student funding amount may need to exceed the minimum funding goal.

(3) By September 1st of each year beginning [in] 2008, the office of financial management shall report to the governor, the higher education coordinating board, and appropriate committees of the legislature with updated estimates of the total per-student funding level that represents the 60th percentile of funding for comparable institutions of higher education in the global challenge states, and the progress toward that goal that was made for each of the public institutions of higher education.

(4) As used in this section, "global challenge states" are the top performing states on the new economy index published by the progressive policy institute as of July 22, 2007. The new economy index ranks states on indicators of their potential to compete in the new economy. At least once every five years, the office of financial management shall determine if changes to the list of global challenge states are appropriate. The office of financial management shall report its findings to the governor and the legislature.

[2007 c 151 § 1.]

Notes:

Captions not law -- 2007 c 151: "Captions used in this act are not any part of the law." [2007 c 151 § 3.]

Appendix B: Comparable Institutions Used for Per-Student Funding Study

For each Washington public baccalaureate institution and for the community and technical college system, a set of comparable institutions have been identified, based on the 2005 Carnegie Classification system, on fall FTE enrollment, and on programmatic offerings.

The primary data source used to identify comparable institutions is the Integrated Postsecondary Education Data System (IPEDS), specifically (1) institutional characteristics files (HD2005 and HD2006); (2) enrollment files (EF2005A and EF2006A); and (3) finance (F0607_F1A), downloaded in July 2008. Institutions with veterinary schools were identified using information provided on the Association of American Veterinary Medical Colleges Web site.[5] Identification of public two-year institutions that are part of state community and technical college systems was based on information obtained from the higher education Web sites for each state.[6]

The **Carnegie Classification 2005: Basic** categorization was the beginning point for the identification of a set of comparable institutions for the baccalaureate institutions. The following categories were used:

Doctorate-Granting Universities. Includes institutions that award at least 20 doctoral degrees per year (excluding doctoral-level degrees that qualify recipients for entry into professional practice, such as the J.D., M.D., Pharm. D., D.P.T., etc.). Doctoral institutions were classified by the level of research activity as determined by the Carnegie Foundation using a variety of sources.[7]

Research Universities (very high research activity)
Research Universities (high research activity)
Doctoral/Research Universities

Master's Colleges and Universities. Includes institutions that award at least 50 master's degrees per year.

- Master's Colleges and Universities (larger programs) – those awarding at least 200 master's degrees in 2003–04
- Master's Colleges and Universities (medium programs) – those awarding 100 to 199 master's degrees in 2003–04
- Master's Colleges and Universities (smaller programs) – those awarding 50 to 99 master's degrees in 2003–04

[5] Association of American Veterinary Medical Colleges Web site: [www.aavmc.org/]

[6] California Postsecondary Education Commission [www.cpec.ca.gov/]; California Community Colleges System Office (CCCSO) [www.cccco.edu/]Colorado Department of Higher Education [highered.colorado.gov]; Connecticut Department of Higher Education [www.ctdhe.org/]; Maryland Higher Education Commission [www.mhec.state.md.us/]; Massachusetts Department of Higher Education [www.mass.edu/]; New Jersey Commission on Higher Education [www.state.nj.us/highereducation/]; and State Council of Higher Education for Virginia [www.schev.edu/].

[7] The Carnegie Foundation used the following items to create two indices of research activity: research and development (R&D) expenditures in science and engineering (S&E; "science and engineering" is defined by National Science Foundation (NSF) to include the social sciences); R&D expenditures in non-S&E fields; S&E research staff (postdoctoral appointees and other non-faculty research staff with doctorates); doctoral conferrals in humanities fields, in social science fields, in STEM (science, technology, engineering, and mathematics) fields, and in other fields (e.g., business, education, public policy, social work). One index represented the overall level of research activity and the other represented per-capita research activity. Institutions that were very high on *either* index were assigned to the "very high" group, while institutions that were high on at least one (but very high on neither) were assigned to the "high" group. Remaining institutions and those not represented in the NSF data collections were assigned to the "Doctoral/Research Universities" category. [www.carnegiefoundation.org/classifications/]

Baccalaureate Colleges. Includes institutions where baccalaureate degrees represent at least 10 percent of all undergraduate degrees and that award fewer than 50 master's degrees or fewer than 20 doctoral degrees per year.

- Baccalaureate Colleges—Arts and Sciences (those with at least half of bachelor's degree majors in arts and sciences)
- Baccalaureate Colleges—Diverse Fields (those with less than half of bachelor's degree majors in arts and sciences)
- Baccalaureate/Associate's Colleges (those where bachelor's degrees represent at least 10 percent but less than half of undergraduate degrees)

For some baccalaureate institutions, the **Carnegie Classification 2005: Undergraduate Profile** categorization was used in identifying comparable institutions. This classification describes the undergraduate population with respect to three characteristics: the proportion of part- and full-time students; standardized test scores of first-year students; and the share of entering students who transfer from another institution.

There are three components to this category:

Part-time/Full-time:

Higher part-time. At least 40 percent of undergraduates enrolled part-time.
Medium full-time. 60 to 79 percent of undergraduates enrolled full-time.
Full-time. At least 80 percent of undergraduates enrolled full-time

Selectivity – Based on Carnegie Foundation analysis of 25th percentile standardized test scores for entering freshmen:

Inclusive. These institutions either did not report test score data or the scores indicate that they extend educational opportunity to a wide range of students with respect to academic preparation and achievement.
Selective. Roughly the middle two-fifths of baccalaureate institutions.
More selective. Roughly the top fifth of baccalaureate institutions.

Transfer rate:

Lower transfer-in. Fewer than 20 percent of entering undergraduates are transfer students.
Higher transfer-in. 20 percent or more of entering undergraduates are transfer students.

The tables that follow show, for each Washington institution or system, the detail for the set of comparable institutions used in this study. For some systems, IPEDS finance data are published for system offices in addition to individual institutions. In these cases the system data is allocated to individual institutions based on fall 2006 FTE enrollment. The institutions for which system finance data is allocated are indicated by an asterisk (*) by the institution name. The system offices with associated finance data are:

IPEDS Unit ID	Institution Name	State
110501	California State University-Chancellors Office	California
124557	University of California System Administration Central Office	California
446978	Colorado State University System Office	Colorado
164146	University System of Maryland	Maryland
166665	University of Massachusetts-Central Office	Massachusetts

Appendix B: Comparable Institutions Used for Per-Student Funding Study

In some instances, enrollment is reported by campus within a system, but finance data for all campuses is reported with a single institution, usually the main campus. The University of Connecticut and Rutgers University follow this pattern, so enrollment for all campuses is associated with finance data reported for the main campus.

Appendix B: Comparable Institutions Used for Per-Student Funding Study

University of Washington

IPEDS Unit IDs:
- 236948 - University of Washington-Seattle Campus
- 377555 - University of Washington-Bothell Campus
- 377564 - University of Washington-Tacoma Campus

Fall 2005 FTE Enrollment (IPEDS): 38,220 Fall 2006 FTE Enrollment (IPEDS): 38,628
Carnegie 2005 Basic: Research Universities (very high research activity)
Carnegie Classification 2005 Undergraduate Profile: Full-time four-year, more selective, higher transfer-in

Criteria for comparable institutions:
- Institutions classified as "Research Universities (very high research activity)" with medical school.
- Data for the research institution is combined with data for the medical school if the medical school is not included as part of institution record.

Enrollment and/or finance data for a single institution may be the sum of those items for multiple campuses, which are indicated in the table below. In some instances, noted by asterisk (*), system finance data has been allocated over the member institutions based on FTE enrollment.

Comparable Institution	IPEDS Unit ID	Institution Name	State
1	110662	University of California-Los Angeles*	California
2	110680	University of California-San Diego*	California
3	110644	University of California-Davis*	California
4	110653	University of California-Irvine*	California
5	126614	University of Colorado at Boulder	Colorado
	126562	University of Colorado at Denver and Health Sciences Center	
	126580	University of Colorado at Colorado Springs	
	128300	University of Colorado System Office	
6	129020	University of Connecticut	Connecticut
	436818	University of Connecticut-Tri-Campus (enrollment only)	
	436827	University of Connecticut-Avery Point (enrollment only)	
	436836	University of Connecticut-Stamford (enrollment only)	
	243762	The University of Connecticut School of Medicine and Dentistry	
7	163286	University of Maryland-College Park*	Maryland
	163259	University of Maryland-Baltimore*	
8	166629	University of Massachusetts-Amherst*	Massachusetts
	166708	University of Massachusetts Medical School Worcester*	
9	186371	Rutgers University-Camden (enrollment only)	New Jersey
	186380	Rutgers University-New Brunswick/Piscataway	
	186399	Rutgers University-Newark (enrollment only)	
	187222	University of Medicine and Dentistry of New Jersey	
10	234076	University of Virginia-Main Campus	Virginia

*plus allocated finance data associated with system office

Washington State University

IPEDS Unit ID: 236939

Fall 2005 FTE Enrollment (IPEDS): 21,061 Fall 2006 FTE Enrollment (IPEDS): 21,064
Carnegie 2005 Basic: Research Universities (very high research activity)
Carnegie Classification 2005 Undergraduate Profile: Full-time four-year, selective, higher transfer-in

Criteria for comparable institutions:

- One land grant institution classified as "Research Universities (very high research activity)" per state. Institution with veterinary school selected if more than one institution falls in this Carnegie 2005: Basic category.

Enrollment and/or finance data for a single institution may be the sum of those items for multiple campuses, which are indicated in the table below. In some instances, noted by asterisk (*), system finance data has been allocated over the member institutions based on FTE enrollment.

Comparable Institution	IPEDS Unit ID	Institution Name	State
1	110644	University of California-Davis*	California
2	126818	Colorado State University (main campus)*	Colorado
3	129020	University of Connecticut	Connecticut
	436818	University of Connecticut-Tri-Campus (enrollment only)	
	436827	University of Connecticut-Avery Point (enrollment only)	
	436836	University of Connecticut-Stamford (enrollment only)	
4	163286	University of Maryland-College Park*	Maryland
5	166629	University of Massachusetts-Amherst*	Massachusetts
6	186371	Rutgers University-Camden (enrollment only)	New Jersey
	186380	Rutgers University-New Brunswick/Piscataway	
	186399	Rutgers University-Newark (enrollment only)	
7	233921	Virginia Polytechnic Institute and State University	Virginia

*plus allocated finance data associated with system office

Central Washington University

IPEDS Unit ID: 234827

Fall 2005 FTE Enrollment (IPEDS): 9,373
Fall 2006 FTE Enrollment (IPEDS): 9,770
Carnegie 2005 Basic: Master's Colleges and Universities (larger programs)
Carnegie Classification 2005 Undergraduate Profile: Full-time four-year, selective, higher transfer-in

Criteria for comparable institutions:

- Carnegie Classification 2005 Basic: “Master's Colleges and Universities (larger programs)” or “Master's Colleges and Universities (medium programs)”
  Fall 2005 FTE enrollment: 6,300-14,999
- Carnegie Classification 2005 Undergraduate Profile: "Fulltime four-year, more selective, higher transfer in" or "Full-time four-year, selective, higher transfer in" or "Medium full-time four-year, selective, high transfer in"

In some instances, noted by asterisk (*), system finance data has been allocated over the member institutions based on FTE enrollment.

Comparable Institution	IPEDS Unit ID	Institution Name	State
1	110538	California State University-Chico*	California
2	115755	Humboldt State University*	California
3	123572	Sonoma State University*	California
4	128771	Central Connecticut State University	Connecticut
5	130493	Southern Connecticut State University	Connecticut
6	163851	Salisbury University*	Maryland
7	165024	Bridgewater State College	Massachusetts
8	167987	University of Massachusetts-Dartmouth*	Massachusetts
9	185590	Montclair State University	New Jersey
10	184782	Rowan University	New Jersey
11	187444	William Paterson University of New Jersey	New Jersey
12	233277	Radford University	Virginia

Eastern Washington University

IPEDS Unit ID: 235097

Fall 2005 FTE Enrollment (IPEDS): 9,690
Fall 2006 FTE Enrollment (IPEDS): 9,988
Carnegie 2005 Basic: Master's Colleges and Universities (larger programs)
Carnegie Classification 2005 Undergraduate Profile: Full-time four-year, selective, higher transfer-in

Criteria for comparable institutions:

- Institutions with Carnegie Classification 2005 of "Master's Colleges and Universities (larger programs)."
- Fall 2005 FTE enrollment of 7,400 to 15,999 with the addition of California State University-Bakersfield (FTE enrollment 6,441) because of program similarities.
- Carnegie Classification 2005 Undergraduate Profile: Institutions classified as "Medium full-time four-year, selective, higher transfer-in," "Full-time four-year, inclusive" where student achievement levels are available from sources other than IPEDS, and "Full-time four-year, selective, higher transfer-in."

Enrollment and/or finance data for a single institution may be the sum of those items for multiple campuses, which are indicated in the table below. In some instances, noted by asterisk (*), system finance data has been allocated over the member institutions based on FTE enrollment.

Comparable Institution	IPEDS Unit ID	Institution Name	State
1	110486	California State University-Bakersfield*	California
2	110538	California State University-Chico*	California
3	110510	California State University-San Bernardino*	California
4	128771	Central Connecticut State University	Connecticut
5	130493	Southern Connecticut State University	Connecticut
6	164076	Towson University*	Maryland
7	165024	Bridgewater State College	Massachusetts
8	167987	University of Massachusetts-Dartmouth*	Massachusetts
9	185590	Montclair State University	New Jersey
10	184782	Rowan University	New Jersey
11	187444	William Paterson University of New Jersey	New Jersey
12	233277	Radford University	Virginia

Western Washington University

IPEDS Unit ID: 237011

Fall 2005 FTE Enrollment (IPEDS): 13,270
Fall 2006 FTE Enrollment (IPEDS): 13,085
Carnegie 2005 Basic: Master's Colleges and Universities (larger programs)
Carnegie Classification 2005 Undergraduate Profile: Full-time four-year, selective, higher transfer-in

Criteria for comparable institutions:

- Carnegie Classification 2005 Basic: “Master's Colleges and Universities (larger programs)”
- Fall 2005 FTE enrollment: 8,000-17,999
- Carnegie Classification 2005 Undergraduate Profile: "Fulltime four-year, more selective, higher transfer in" or "Full-time four-year, selective, higher transfer in" or "Fulltime four-year, more selective, lower transfer in" or "Medium full-time four-year, selective, high transfer in"

In some instances, noted by asterisk (*), system finance data has been allocated over the member institutions based on FTE enrollment.

Comparable Institution	IPEDS Unit ID	Institution Name	State
1	110422	California Polytechnic State University-San Luis Obispo*	California
2	110529	California State Polytechnic University-Pomona*	California
3	110538	California State University-Chico*	California
4	128771	Central Connecticut State University	Connecticut
5	130493	Southern Connecticut State University	Connecticut
6	164076	Towson University*	Maryland
7	185590	Montclair State University	New Jersey
8	184782	Rowan University	New Jersey
9	187444	William Paterson University of New Jersey	New Jersey
10	232423	James Madison University	Virginia

The Evergreen State College

IPEDS Unit ID: 235167

Fall 2005 FTE Enrollment (IPEDS): 4,063
Fall 2006 FTE Enrollment (IPEDS): 4,009
Carnegie 2005 Basic: Master's Colleges and Universities (smaller programs)
Carnegie Classification 2005 Undergraduate Profile: Full-time four-year, selective, higher transfer-in

Criteria for comparable institutions:

- Carnegie Classification 2005 Basic: "Baccalaureate Colleges--Arts and Sciences" or "Master's Colleges and Universities (medium programs)" or "Master's Colleges and Universities (smaller programs)"
- Fall 2005 FTE enrollment: 3,000-7,999
- Highest Level of Offering: Master's degree or Post-master's certificate
- Exclude Thomas Edison State College (NJ), which has large distance learning component, and Mesa State College (CO) because of issues with finance data. Both have very low state appropriations as share of core revenues.

Note: An analysis of "Research expenses as a percent of total core expenses" revealed little variance among the remaining peers and Evergreen. (0-1 percent of core expenses are in Research for all institutions).

In some instances, noted by asterisk (*), system finance data has been allocated over the member institutions based on FTE enrollment.

Comparable Institution	IPEDS Unit ID	Institution Name	State
1	409698	California State University-Monterey Bay*	California
2	366711	California State University-San Marcos*	California
3	110495	California State University-Stanislaus*	California
4	115755	Humboldt State University*	California
5	129215	Eastern Connecticut State University	Connecticut
6	162283	Coppin State University*	Maryland
7	168263	Westfield State College	Massachusetts
8	168430	Worcester State College	Massachusetts
9	186201	Ramapo College of New Jersey	New Jersey
10	231712	Christopher Newport University	Virginia
11	232566	Longwood University	Virginia
12	232681	University of Mary Washington	Virginia

Washington Community and Technical College System Comparable Institutions

Criteria: Public community and technical colleges (districts), state supported. (Institutions supported by city or county governments, or by local school districts are excluded from this list.)

These institutions will be analyzed at the state level.

1	108807	Alan Hancock Joint Community College District Allan Hancock College	California
2	109350	Antelope Valley Community College District Antelope Valley College	California
3	109907	Barstow Community College District Barstow Community College	California
4	110246	Butte-Glenn Community College District Butte College	California
5	110334	Cabrillo Community College District Cabrillo College	California
6	111887	Cerritos Community College District Cerritos College	California
7	111920 366401	Chabot-Las Positas Community College District Chabot College Las Positas College	California
8	111939	Chaffey Community College District Chaffey College	California
9	112172	Citrus Community College District Citrus College	California
10	112376 112385 115126 120342	Coast Community College District Office Coastline Community College Golden West College Orange Coast College	California
11	112817 112826 113634 117894	Contra Costa Community College District Office Contra Costa College Diablo Valley College Los Medanos College	California
12	395362	Copper Mountain Community College District Copper Mountain College	California
13	113573	Desert Community College District College of the Desert	California
14	112686 113980	El Camino Community College District El Camino College-Compton Center El Camino College	California
15	114433	Feather River Community College District Feather River College	California
16	114831 113333 114716	Foothill-De Anza Community College District De Anza College Foothill College	California

Washington Community and Technical College System Comparable Institutions (continued)

17	114938	Gavilan Community College District Gavilan College	California
18	115001	Glendale Community College District Glendale Community College	California
19	115287 113218 115296	Grossmont-Cuyamaca Community College District Cuyamaca College Grossmont College	California
20	115393	Hartnell Community College District Hartnell College	California
21	115861	Imperial Community College District Imperial Valley College	California
22	109819 111896 121363	Kern Community College District Bakersfield College Cerro Coso Community College Porterville College	California
23	117195	Lake Tahoe Community College District Lake Tahoe Community College	California
24	117274	Lassen Community College District Lassen Community College	California
25	117645	Long Beach Community College District Long Beach City College	California
26	117681 113856 117788 117690 117867 117706 117715 117724 117733 125471	Los Angeles Community College District Office East Los Angeles College Los Angeles City College Los Angeles Harbor College Los Angeles Mission College Los Angeles Pierce College Los Angeles Southwest College Los Angeles Trade Technical College Los Angeles Valley College West Los Angeles College	California
27	117900 109208 113096 444219 122180	Los Rios Community College District Office American River College Cosumnes River College Folsom Lake College Sacramento City College	California
28	118347	Marin Community College District College of Marin	California
29	118684	Mendocino-Lake Community College District Mendocino College	California
30	118718	Merced Community College District Merced College	California
31	118912	MiraCosta Community College District MiraCosta College	California

Washington Community and Technical College System Comparable Institutions (continued)

32	119067	Monterey Peninsula Community College District Monterey Peninsula College	California
33	119164	Mt. San Antonio Community College District Mt. San Antonio College	California
34	119216	Mt. San Jacinto Community College District Mt. San Jacinto Community College	California
35	119331	Napa Valley Community College District Napa Valley College	California
36	120023 113236 114859	North Orange County Community College District Cypress College Fullerton College	California
37	120290	Ohlone Community College District Ohlone College	California
38	120953	Palo Verde Community College District Palo Verde College	California
39	120971	Palomar Community College District Palomar College	California
40	121044	Pasadena Area Community College District Pasadena City College	California
41	121178 125170 108667 117247 118772	Peralta Community College System Office Berkeley City College College of Alameda Laney College Merritt College	California
42	438665 121619 399212	Rancho Santiago Community College District Office Santa Ana College Santiago Canyon College	California
43	121707	Redwoods Community College District College of the Redwoods	California
44	121886	Rio Hondo Community College District Rio Hondo College	California
45	121901	Riverside Community College District Riverside Community College	California
46	428426 113111 123527	San Bernardino Community College District Crafton Hills College San Bernardino Valley College	California
47	122320 122339 122375 122384	San Diego Community College District-District Office San Diego City College San Diego Mesa College San Diego Miramar College	California
48	112190	San Francisco Community College District City College of San Francisco	California
49	122658	San Joaquin Delta Community College District San Joaquin Delta College	California

Appendix B: Comparable Institutions Used for Per-Student Funding Study

Washington Community and Technical College System Comparable Institutions (continued)

50	122737 114266 122746	San Jose-Evergreen Community College District Evergreen Valley College San Jose City College	California
51	113193	San Luis Obispo Community College District Cuesta College	California
52	122782 111434 122791 123509	San Mateo County Community College District Canada College College of San Mateo Skyline College	California
53	122889	Santa Barbara Community College District Santa Barbara City College	California
54	111461	Santa Clarita Community College District College of the Canyons	California
55	122977	Santa Monica Community College District Santa Monica College	California
56	123217	Sequoias Community College District College of the Sequoias	California
57	123299	Shasta-Tehama-Trinity Joint Community College District Shasta College	California
58	123341	Sierra Joint Community College District Sierra College	California
59	123484	Siskiyou Joint Community College District College of the Siskiyous	California
60	123563	Solano Community College District Solano Community College	California
61	123013	Sonoma County Community College District Santa Rosa Junior College	California
62	432144 116439 122205	South Orange County Community College District Irvine Valley College Saddleback College	California
63	123800	Southwestern Community College District Southwestern College	California
64	123925 114789 117052	State Center Community College District Fresno City College Reedley College	California
65	125019 119137 120421 125028	Ventura County Community College System Office Moorpark College Oxnard College Ventura College	California
66	125091	Victor Valley Community College District Victor Valley College	California
67	448637 125462 448594	West Hills Community College District West Hills College-Coalinga West Hills College-Lemoore	California

Washington Community and Technical College System Comparable Institutions (continued)

68	124113	West Kern Community College District Taft College	California
69	125222 118930 125499	West Valley Mission Community College District Office Mission College West Valley College	California
70	126100 112561 118976	Yosemite Community College District Office Columbia College Modesto Junior College	California
71	126119	Yuba Community College District Yuba College	California
72	126289	Arapahoe Community College	Colorado
73	126748	Colorado Northwestern Community College	Colorado
74	126863	Community College of Aurora	Colorado
75	126942	Community College of Denver	Colorado
76	127200	Front Range Community College	Colorado
77	127389	Lamar Community College	Colorado
78	127617	Morgan Community College	Colorado
79	127732	Northeastern Junior College	Colorado
80	127778	Otero Junior College	Colorado
81	127820	Pikes Peak Community College	Colorado
82	127884	Pueblo Community College	Colorado
83	127909	Red Rocks Community College	Colorado
84	128258	Trinidad State Junior College	Colorado
85	126915	Delta Montrose Technical College	Colorado
86	127158	Emily Griffith Opportunity School	Colorado
87	128036	San Juan Basin Technical College	Colorado
88	128151	T H Pickens Technical Center	Colorado
89	128577	Asnuntuck Community College	Connecticut
90	129367	Capital Community College	Connecticut
91	130396	Gateway Community College	Connecticut
92	129543	Housatonic Community College	Connecticut
93	129695	Manchester Community College	Connecticut
94	129756	Middlesex Community College	Connecticut
95	129729	Naugatuck Valley Community College	Connecticut
96	130040	Northwestern Connecticut Community College	Connecticut
97	130004	Norwalk Community College	Connecticut
98	130217	Quinebaug Valley Community College	Connecticut
99	129808	Three Rivers Community College	Connecticut
101	130606	Tunxis Community College	Connecticut
102	161688	Allegany College of Maryland	Maryland
103	161767	Anne Arundel Community College	Maryland
104	161864	Baltimore City Community College	Maryland

Washington Community and Technical College System Comparable Institutions (continued)

105	405872	Carroll Community College	Maryland
106	162104	Cecil Community College	Maryland
107	162168	Chesapeake College	Maryland
108	162122	College of Southern Maryland	Maryland
109	162557	Frederick Community College	Maryland
110	162609	Garrett College	Maryland
111	162690	Hagerstown Community College	Maryland
112	162706	Harford Community College	Maryland
113	162779	Howard Community College	Maryland
114	163426	Montgomery College	Maryland
115	163657	Prince George's Community College	Maryland
116	434672	The Community College of Baltimore County	Maryland
100	164313	Wor-Wic Community College	Maryland
117	164775	Berkshire Community College	Massachusetts
118	165033	Bristol Community College	Massachusetts
119	165112	Bunker Hill Community College	Massachusetts
120	165194	Cape Cod Community College	Massachusetts
121	165981	Greenfield Community College	Massachusetts
122	166133	Holyoke Community College	Massachusetts
123	166647	Massachusetts Bay Community College	Massachusetts
124	166823	Massasoit Community College	Massachusetts
125	166887	Middlesex Community College	Massachusetts
126	166957	Mount Wachusett Community College	Massachusetts
127	167312	North Shore Community College	Massachusetts
128	167376	Northern Essex Community College	Massachusetts
129	167534	Quinsigamond Community College	Massachusetts
130	167631	Roxbury Community College	Massachusetts
131	167905	Springfield Technical Community College	Massachusetts
132	183655	Atlantic Cape Community College	New Jersey
133	183743	Bergen Community College	New Jersey
134	183859	Brookdale Community College	New Jersey
135	183877	Burlington County College	New Jersey
136	183938	Camden County College	New Jersey
137	184180	County College of Morris	New Jersey
138	184205	Cumberland County College	New Jersey
139	184481	Essex County College	New Jersey
140	184791	Gloucester County College	New Jersey
141	184995	Hudson County Community College	New Jersey
142	185509	Mercer County Community College	New Jersey
143	185536	Middlesex County College	New Jersey
144	185873	Ocean County College	New Jersey
145	186034	Passaic County Community College	New Jersey
146	186645	Raritan Valley Community College	New Jersey

Washington Community and Technical College System Comparable Institutions (continued)

147	186469	Salem Community College	New Jersey
148	247603	Sussex County Community College	New Jersey
149	187198	Union County College	New Jersey
150	245625	Warren County Community College	New Jersey
151	231536	Blue Ridge Community College	Virginia
152	231697	Central Virginia Community College	Virginia
153	231873	Dabney S Lancaster Community College	Virginia
154	231882	Danville Community College	Virginia
155	232052	Eastern Shore Community College	Virginia
156	232195	Germanna Community College	Virginia
157	232414	J Sargeant Reynolds Community College	Virginia
158	232450	John Tyler Community College	Virginia
159	232575	Lord Fairfax Community College	Virginia
160	232788	Mountain Empire Community College	Virginia
161	232867	New River Community College	Virginia
162	232946	Northern Virginia Community College	Virginia
163	233019	Patrick Henry Community College	Virginia
164	233037	Paul D Camp Community College	Virginia
165	233116	Piedmont Virginia Community College	Virginia
166	233310	Rappahannock Community College	Virginia
167	233639	Southside Virginia Community College	Virginia
168	233648	Southwest Virginia Community College	Virginia
169	233754	Thomas Nelson Community College	Virginia
170	233772	Tidewater Community College	Virginia
171	233903	Virginia Highlands Community College	Virginia
172	233949	Virginia Western Community College	Virginia
173	234377	Wytheville Community College	Virginia

Appendix B: Comparable Institutions Used for Per-Student Funding Study

Washington Community and Technical College System Institutions

Washington Community & Technical College System	235671	Bates Technical College	Washington
	234669	Bellevue Community College	
	234696	Bellingham Technical College	
	234711	Big Bend Community College	
	439190	Cascadia Community College	
	234845	Centralia College	
	234933	Clark College	
	234951	Clover Park Technical College	
	234979	Columbia Basin College	
	235103	Edmonds Community College	
	235149	Everett Community College	
	235334	Grays Harbor College	
	235343	Green River Community College	
	235431	Highline Community College	
	235699	Lake Washington Technical College	
	235750	Lower Columbia College	
	236188	Olympic College	
	236258	Peninsula College	
	235237	Pierce College at Fort Steilacoom	
	439145	Pierce College at Puyallup	
	236382	Renton Technical College	
	236513	Seattle Community College-Central Campus	
	236072	Seattle Community College-North Campus	
	236504	Seattle Community College-South Campus	
	381529	Seattle Vocational Institute	
	236610	Shoreline Community College	
	236638	Skagit Valley College	
	236656	South Puget Sound Community College	
	236692	Spokane Community College	
	236708	Spokane Falls Community College	
	236753	Tacoma Community College	
	236887	Walla Walla Community College	
	236975	Wenatchee Valley College	
	237039	Whatcom Community College	
	237109	Yakima Valley Community College	

Appendix C: Integrated Postsecondary Education Data System (IPEDS) – Selected Data Definitions

The **Integrated Postsecondary Education Data System (IPEDS)** collection, conducted by the National Center for Education Statistics, began in 1986 and involves annual institution-level data collections. All postsecondary institutions that have a Program Participation Agreement with the Office of Postsecondary Education (OPE), U.S. Department of Education (throughout IPEDS referred to as "Title IV") are required to report data using a web-based data collection system. IPEDS currently consists of the following components: Institutional Characteristics (IC); 12-month Enrollment (E12); Completions I; Human Resources (HR) composed of Employees by Assigned Position (EAP), Fall Staff (S),and Salaries (SA); Fall Enrollment (EF); Graduation Rates (GRS); Finance (F); and Student Financial Aid (SFA).

Enrollment

Full-time student:

Undergraduate — A student enrolled for 12 or more semester credits, or 12 or more quarter credits, or 24 or more contact hours a week each term.

Graduate — A student enrolled for 9 or more semester credits, or 9 or more quarter credits, or a student involved in thesis or dissertation preparation that is considered full time by the institution.

First-professional — As defined by the institution.

Part-time student :

Undergraduate — A student enrolled for either 11 semester credits or less, or 11 quarter credits or less, or less than 24 contact hours a week each term.

Graduate — A student enrolled for either 8 semester credits or less, or 8 quarter credits or less.

First-professional — As defined by the institution.

First-professional student — A student enrolled in any of the following degree programs:

Chiropractic (D.C. or D.C.M.)
Dentistry (D.D.S. or D.M.D.)
Law (L.L.B., J.D.)
Medicine (M.D.)
Optometry (O.D.)
Osteopathic Medicine (D.O.)
Pharmacy (Pharm.D.)
Podiatry (D.P.M., D.P., or Pod.D.)
Theology (M.Div., M.H.L., B.D., or Ordination)
Veterinary Medicine (D.V.M.)

Calculation of FTE students (using fall student headcounts) — The number of FTE students is calculated based on fall student headcounts as reported by the institution on the IPEDS Enrollment (EF) component (Part A). The full-time equivalent (headcount) of the institution's part-time enrollment is estimated by multiplying the factors noted below times the part-time headcount. These are then added to the full-time enrollment headcounts to obtain an FTE for all students enrolled in the fall.

Part-time undergraduate enrollment
Public 4-year (.403543)
Public 2-year and <2-year (.335737)
Part-time first-professional enrollment
Public 4-year (.600000)
Part-time graduate enrollment
Public 4-year (.361702)

Expenses

Core expenses — Total expenses for the essential education activities of the institution. Core expenses for public institutions reporting under GASB standards include expenses for instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, depreciation, scholarships and fellowships, interest and other operating and non-operating expenses. Core expenses for FASB (primarily private, not-for-profit and for-profit) institutions include expenses on instruction, research, public service, academic support, student services, institutional support, net grant aid to students, and other expenses. For both FASB and GASB institutions, core expenses exclude expenses for auxiliary enterprises (e.g., bookstores, dormitories), hospitals, and independent operations.

Core expenses derived for public institutions using the new GASB 34/35 standard are calculated as the sum of:

- Instruction (F1C011)
- Research (F1C021)
- Public service (F1C031)
- Academic support (F1C051)
- Student services (F1C061)
- Institutional support (F1C071)
- Operation maintenance of plant (F1C081)
- Depreciation (F1C091)
- Scholarships and fellowships expenses (F1C101)
- Other expenses and deductions (F1C141)
- Total nonoperating expenses and deductions (F1C181)

Instruction — A functional expense category that includes expenses of the colleges, schools, departments, and other instructional divisions of the institution and expenses for departmental research and public service that are not separately budgeted. Includes general academic instruction, occupational and vocational instruction, community education, preparatory and adult basic education, and regular, special, and extension sessions. Also includes expenses for both credit and non-credit activities. Excludes expenses for academic administration where the primary function is administration (e.g., academic deans). Information technology expenses related to instructional activities if the institution separately budgets and expenses information technology resources are included (otherwise these expenses are included in academic support). FASB institutions include actual or allocated costs for operation and maintenance of plant, interest, and depreciation. GASB institutions do not include operation and maintenance of plant or interest, but may, as an option, distribute depreciation expense.

Research (expense) — A functional expense category that includes expenses for activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit within the institution. The category includes institutes and research centers, and individual and project research. This function does not include nonresearch sponsored programs (e.g., training programs). Also included are information technology expenses related to research activities if the institution separately budgets and expenses information technology resources (otherwise these expenses are included in academic support.) FASB institutions include actual or allocated costs for operation and maintenance of plant, interest, and depreciation. GASB institutions do not include operation and maintenance of plant or interest but may, as an option, distribute depreciation expense.

Public service (expense) — A functional expense category that includes expenses for activities established primarily to provide non-instructional services beneficial to individuals and groups external to the institution. Examples are conferences, institutes, general advisory service, reference bureaus, and similar services provided to particular sectors of the community. This function includes expenses for community services, cooperative extension services, and public broadcasting services. Also includes information technology expenses related to the public service activities if the institution separately budgets and expenses information technology resources (otherwise these expenses are included in academic support). FASB institutions include actual or allocated costs for operation and maintenance of plant, interest, and depreciation. GASB institutions do not include operation and maintenance of plant or interest, but may, as an option, distribute depreciation expense.

Academic support — A functional expense category that includes expenses of activities and services that support the institution's primary missions of instruction, research, and public service. It includes the retention, preservation, and display of educational materials (for example, libraries, museums, and galleries); organized activities that provide support services to the academic functions of the institution (such as a demonstration school associated with a college of education or veterinary and dental clinics if their primary purpose is to support the instructional program); media such as audiovisual services; academic administration (including academic deans but not department chairpersons); and formally organized and separately budgeted academic personnel development and course and curriculum development expenses. Also included are information technology expenses related to academic support activities; if an institution does not separately budget and expense information technology resources, the costs associated with the three primary programs will be applied to this function and the remainder to institutional support. Under FASB standards this includes actual or allocated costs for operation and maintenance of plant, interest, and depreciation. Under GASB standards this does not include operation and maintenance of plant or interest but may include depreciation expense.

Student services (expenses) — A functional expense category that includes expenses for admissions, registrar activities, and activities whose primary purpose is to contribute to students emotional and physical well – being and to their intellectual, cultural, and social development outside the context of the formal instructional program. Examples include student activities, cultural events, student newspapers, intramural athletics, student organizations, supplemental instruction outside the normal administration, and student records. Intercollegiate athletics and student health

services may also be included except when operated as self – supporting auxiliary enterprises. Also may include information technology expenses related to student service activities if the institution separately budgets and expenses information technology resources (otherwise these expenses are included in institutional support.) FASB institutions include actual or allocated costs for operation and maintenance of plant, interest, and depreciation. GASB institutions do not include operation and maintenance of plant or interest but may, as an option, distribute depreciation expense.

Institutional support — A functional expense category that includes expenses for the day-to-day operational support of the institution. Includes expenses for general administrative services, central executive-level activities concerned with management and long range planning, legal and fiscal operations, space management, employee personnel and records, logistical services such as purchasing and printing, and public relations and development. Also includes information technology expenses related to institutional support activities. If an institution does not separately budget and expense information technology resources, the costs associated with student services and operation and maintenance of plant will also be applied to this function. FASB institutions include actual or allocated costs for operation and maintenance of plant, interest and depreciation. GASB institutions do not include operation and maintenance of plant or interest, but may, as an option, distribute depreciation expense.

Operation and maintenance of plant (expenses) — A functional expense category that includes expenses for operations established to provide service and maintenance related to campus grounds and facilities used for educational and general purposes. Specific expenses include utilities, fire protection, property insurance, and similar items. This function does not include amounts charged to auxiliary enterprises, hospitals, and independent operations. Also includes information technology expenses related to operation and maintenance of plant activities if the institution separately budgets and expenses information technology resources (otherwise these expenses are included in institutional support). Institutions may, as an option, distribute depreciation expense to this function. FASB institutions do not use this function. Instead these expenses are charged to or allocated to other functions.

Depreciation — The allocation or distribution of the cost of capital assets, less any salvage value, to expenses over the estimated useful life of the asset in a systematic and rational manner. Depreciation for the year is the amount of the allocation or distribution for the year involved.

Scholarships and fellowships (expenses) — That portion of scholarships and fellowships granted that exceeds the amount applied to institutional charges such as tuition and fees or room and board. The amount reported as expense excludes allowances and discounts. The FASB survey uses the term “net grants in aid to students” rather than “scholarships and fellowships.”

Interest — The price paid (or received) for the use of money over a period of time. Interest income is one component of investment income. Interest paid by the institution is interest expense.

Other operating: Operating — GASB requires that revenues and expenses be separated between operating and non-operating. Operating revenues and expenses result from providing goods and

services. Operating transactions are incurred in the course of the operating activities of the institution.

Other non-operating: Non-operating — GASB requires that revenues and expenses be separated between operating and non-operating. Operating revenues and expenses result from providing goods and services. Non-operating activities are those outside the activities that are part of the operating activities of the institution. Most government appropriations are non-operating because they are not generated by the operations of the institution. Investment income is non-operating in most instances because institutions are not engaged in investing as an operating activity. Gifts are defined as non-operating. Non-exchange transactions generate non-operating revenues.

Revenues

Tuition and fees, after deducting discounts and allowances — Tuition and fees are revenues from all tuition and fees assessed against students (net of refunds and discounts and allowances) for educational purposes. If tuition or fees are remitted to the state as an offset to the state appropriation, the total of such tuition or fees should be deducted from the total state appropriation and added to the total for tuition and fees. If an all-inclusive charge is made for tuition, board, room, and other services, a reasonable distribution is made between revenues for tuition and fees and revenues for auxiliary enterprises. Tuition and fees excludes charges for room, board, and other services rendered by auxiliary enterprises.

State appropriations — State appropriations are amounts received by the institution through acts of a state legislative body, except grants and contracts and capital appropriations. Funds reported in this category are for meeting current operating expenses, not for specific projects or programs.

Local appropriations, education district taxes, and similar support — Local appropriations, education district taxes and similar support are amounts received from property or other taxes assessed directly by or for an institution below the state level. It includes any other similar general support provided to the institution from governments below the state level, including local government appropriations.

Other operating — GASB requires that revenues and expenses be separated between operating and non-operating. Operating revenues and expenses result from providing goods and services. Operating transactions are incurred in the course of the operating activities of the institution. “Other” operating revenues are revenues that do not fall into the categories of tuition and fees, operating grants and contracts, sales and services of auxiliary operations or hospitals, and independent operations.

Appendix D: Adjusting for Regional Cost-of-Living Differences

This appendix describes OFM's methods for incorporating cost-of-living adjustments to per-student funding levels in public higher education.

Cost-of-living index vs. price index

It is important to make the conceptual distinction between a price index and a cost-of-living index. A price index measures how prices change *over time*. A cost-of-living index compares price levels across different geographic areas. For the per-student funding study, RCW 28B.15.068 states that OFM shall adjust for regional cost-of-living differences.

Data options

There is not an accepted, standard method for adjusting for regional price variation. There are several potential sources of data, but none is well-suited by itself for this purpose: [8]

- The Consumer Price Index (CPI) (www.bls.gov/cpi), produced by the Bureau of Labor Statistics, is the most commonly cited price index. It is a measure of average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. The percent change in the CPI from year to year is a measure of inflation. The CPI is produced at a national level and also for a few metropolitan areas. However, because it does not show variation for all local areas and it is designed for estimating price levels over time, it is not suitable for the per-student funding study.
- ACCRA Cost-of-Living Index (COLI) (www.coli.org), produced by the Council for Community and Economic Research, is a source of city-to-city comparisons of consumer costs. The ACCRA COLI is designed for comparing households in the highest income quintile and is based on a market basket of goods which has six weighted expenditure categories. Data are collected for around 300 metropolitan areas across the nation. See Appendix E for a description of the COLI methodology.
- Fair Market Rents (FMR), established annually by the US Department of Housing and Urban Development, are gross rent estimates for the 40th percentile of rental units[9]. HUD estimates FMRs for 530 metropolitan areas and 2,045 nonmetropolitan county areas. See Appendix F for a more detailed description of FMR.
- Basic Allowance for Housing (BAH)[10] provides uniformed members of the military with compensation for housing costs. It is based on geographic duty location, pay grade, and dependency status and is intended to provide equitable housing compensation based on housing costs in local civilian housing markets.
- Higher Education Price Index (HEPI) is an index that "measures the effects of inflation on the current operations of colleges and universities." HEPI authors recommend that the HEPI index be used "as an overall measure of inflation affecting the higher education sector, just as consumers everywhere use the national CPI as a general measure of family purchasing

[8] Other potential or related data sources: a) Cost of Living Index for the American States 1960-2000; William Berry and Richard Fording. The data are at the state level and have not been updated since 2000. b) American Association of University Professors has a regional comparison of faculty salaries, but the regions are groupings of multiple states. Neither the Berry Index nor the AAUP salary data allow for cost variation in areas smaller than the state level.

[9] http://www.huduser.org/datasets/fmr.html. The current definition of FMR is the 40th percentile rent, the dollar amount below which 40 percent of the standard-standard quality rental housing units are rented.

[10] http://perdiem.hqda.pentagon.mil/perdiem/BAH-Primer.pdf

power."[11] Because HEPI is designed to measure changes over time and does not include individual regional data, it is not suitable for the per-student funding adjustment.

Methodology

(a) For global challenge state institutions in a city or county with ACCRA COLI data, the COLI index number was used. ACCRA is a nationwide data set, covering most metropolitan areas. Data collectors are given detailed specifications regarding the goods to be priced and timing of data collection. COLI data are designed to reflect general living costs and are available for areas smaller than the state level; therefore they were a good option for making cost-of-living adjustments.

(b) For areas outside the ACCRA set, but within the global challenge states and with a public baccalaureate or community college: a regression relationship was developed between ACCRA (dependent variable) and two bedroom FMR (independent variable). This method indicated that nearly 80 percent of the variance in cost of living (COLI) was explained by variability in housing costs.[12] The resulting relationship was used to estimate cost of living for areas without ACCRA data. Therefore, each institution (or set of institutions, as is the case with community colleges) has an index number reflecting the cost of living.

(c) An adjustment factor was calculated by taking the inverse of the cost-of-living number. Then within each comparison group, the factors were scaled such that the Washington institution's adjustment factor equals 1. For example, suppose Institution A has a COLI of 105 and Washington Institution B has a COLI of 101. A's cost of living is 4 percent higher than B's and the adjustment factor is 101/105 = 96.2 percent. B's adjustment factor is 101/101 = 1.

(d) Educational institutions face a variety of costs, of which salaries are only a portion. Other costs faced by institutions may or may not be affected by regional cost of living. Therefore, one option would be to make a *partial* adjustment for cost of living; a fraction of funding could be adjusted while the remainder is unadjusted. The results are thus presented in three ways: (1) full adjustment of funding, (2) partial adjustment, and (3) no adjustment.

Comments and concerns about the methodology

- *"Conceptually, 'per-student funding' does not fit perfectly with the notion of cost of living."*

  Perhaps the costs that institutions face are not captured in consumer-type data such as ACCRA and rental / housing prices. OFM attempted to address this concern by developing a scenario where the per-student funding level was partially adjusted for cost of living: consumer-type data and regional costs of living would be reflected in salaries, so only the salary portion of funding was adjusted. (This is mentioned in Methodology (d) above.)

- *"The cost- of- living adjustments may not be very stable over time since the ACCRA cost-of-living index is not designed for measuring inflation."*

[11] Page 17, College and University Higher Education Price Index, 2004 Update.

[12] The relationship between ACCRA COLI and Base Allowance for Housing (BAH) was also tested. The FMR data had a higher correlation with ACCRA, and thus was chosen for predicting ACCRA cost of living.

ACCRA is, however, designed for regional or city-to-city comparisons within any given year, which is what OFM did with the per-student funding cost-of-living adjustment. A look at the data, moreover, shows that the data did not bounce around unexpectedly: the median change of the cost-of-living index between 2006 and 2007 for areas in which there was a 4-year comparable institution was -0.2 percent.

- *"The proxy housing costs, as reported by Fair Market Rent, are unrepresentative within certain areas."*

  Because areas such as Whitman County, Washington, have a high percentage of rental housing geared to student rentals, the Fair Market Rent tends to be relatively low and not representative of housing costs of the long-term population. As a result, the cost-of-living index estimated by using the local Fair Market Rent as the independent variable is likely to be artificially low. An in-depth analysis of this situation has been provided by WSU institutional research staff and is included in this document as Appendix I. One potential resolution to this problem would be to purchase cost-of-living data from a private firm for all areas represented by comparison institutions. However, the cost of doing so may be prohibitive.

- *Other research*

  The Bureau of Economic Analysis is conducting research in this area[13] though it is still experimental and BEA has not adopted a methodology for spatial price deflators. The methodology seems to have potential, but in the context of this study, it would be extremely time consuming, with potentially no or small improvement over OFM's methods.

  A paper by Koo, Phillips and Sigalla[14] evaluated the ACCRA cost-of-living index. They found some significant differences to a price index they calculated using CPI data and previous research by Kokoski, Cardiff and Moulton.[15] However, the Kokoski and Koo research were based on data from 1988. ACCRA methods have been revised since then, with more emphasis on guidelines and conformance to specifications, which may reduce or eliminate the potential for bias.

  Another study by Berry, Fording and Hanson[16] used data from 1960-1995 to emphasize the potential distortion by not adjusting for geographic variations in cost of living.

[13] Aten, Bettina. Estimates of State and Metropolitan Price Levels for Consumption Goods and Services in the United States, 2005. [http://www.bea.gov/papers/pdf/aten_estimates_state_metro_2005.pdf]

[14] Jahyeong Koo, Keith R. Phillips and Fiona D. Sigalla . "Measuring Regional Cost of Living", *Journal of Business & Economic Statistics*, Vol. 18, No. 1 (Jan., 2000), pp. 127-136.

[15] Kokoski, M.F., Cardiff, P., and Moulton, B.R. (1994). "Interarea Prices for Consumer Goods and Services: An Hedonic Approach Using CPI Data,", Working Paper 256, U.S. Department of Labor, Bureau of Labor Statistics.

[16] William D. Berry, Richard C. Fording, and Russell L. Hanson . "An Annual Cost of Living Index for the American States, 1960-1995", *The Journal of Politics*, Vol. 62, No. 2, (May, 2000), pp. 550-567.

Appendix E: ACCRA Cost-of-Living Index Methodology

Taken directly from COLI website [http://www.coli.org/Method.asp]

Review of the COLI Methodology

The ACCRA Cost-of-Living Index is designed to provide the best possible means to compare cost-of-living differences among urban areas based on the price of consumer goods and services appropriate for professional and managerial households in the top income quintile.

The Cost-of-Living Index rests on the premise that prices collected at a specified time, in strict conformance with standard specifications, provide a sound basis for constructing a reasonably accurate gauge of relative differences in the cost of consumer goods and services.

Consumer expenditures cover an almost limitless range of goods and services, and no index of consumer buying can encompass all of them. Since we can't price everything, what do we do? The standard approach, used in the ACCRA Index, is to divide consumer expenditures into categories, and then select items that represent those categories. The items used in the ACCRA Index thus are surrogates for entire categories of consumer spending. For this approach to work, price differences among urban areas for the items in the Index must accurately reflect differences for the categories they represent.

The ACCRA Cost-of-Living Index consists of six major categories: grocery items, housing, utilities, transportation, health care, and miscellaneous goods and services. These major categories in turn are composed of subcategories, each of which is represented by one or more items in the Index. Separate component indexes are published for each of the six major categories. We're not concerned with the extent to which consumers actually purchase the individual items in the Index. The 60 items have been chosen solely to show interarea price differences in the categories they represent. What's important, in calculating the Index, is the ratio of an urban area's average price to the average price of the same item nationwide. When we use a pound of whole frying chicken to represent poultry products, we're assuming that if an area's price for this item is 10 percent above the nationwide average, its prices for poultry products as a whole also are about 10 percent above the nationwide average.

How much the ratio for each item contributes to the Index is determined by the distribution of consumer expenditures among the categories covered by the Index. The share of consumer spending devoted to the category each item represents determines that category's importance, or weight, in the Index. The ACCRA Cost of Living Index Committee has adopted the weights based on data from the U.S. Bureau of Labor Statistics' 2004 Consumer Expenditure Survey, using the data on the proportional distribution of expenditures by households in which the reference person has a professional or managerial occupation and by households in the upper quintile of income.

Data published for the first three quarters is based on prices submitted by all participating areas. Beginning in February 2008, C2ER began publishing an annual average survey compiled from data submitted in those previous quarters. For urban areas where we have data less than three pricing periods, we developed estimated prices in order to have a complete set of observations. Thus, to calculate the annual average index, we use the actual and estimated prices as our observations to calculate an annual average price for each item. We do not weight any of the prices based on when we observe them. Thus, first pricing period prices receive the same weight in the calculation as third pricing period prices. Then, from the annual average price for each

item, we calculate the index using the same BLS Consumer Expenditure Survey weights that we would for any other pricing period.

Price Reporting

C2ER stringently reviews all prices reported, and attempts to eliminate errors and noncompliance with pricing specifications. All price data are obtained from sources deemed reliable, but no representation is made as to the complete accuracy thereof. They are published subject to errors, omissions, changes, and withdrawals without notice.

Exclusion of Taxes

C2ER is fully cognizant that state and local taxes are an integral part of the cost of living, and that tax burdens vary widely not only among states and metropolitan areas, but even within each metropolitan area. Due to the multiplicity of state and local taxes, taxing jurisdictions, and assessment procedures, it is not feasible to calculate local tax burdens reliably. C2ER has opted to produce an index which adequately measures differences in goods and services costs, rather than to produce an inaccurate measure which attempts to incorporate taxes levied on real and intangible property, retail sales, and income.

Appendix F: Fair Market Rents, U.S. Department of Housing and Urban Development

Taken directly from HUD website: [http://www.huduser.org/datasets/fmr/fmrover_071707R2.doc]

Overview

Fair Market Rents (FMRs) are primarily used to determine payment standard amounts for the Housing Choice Voucher program, to determine initial renewal rents for some expiring project-based Section 8 contracts, to determine initial rents for housing assistance payment (HAP) contracts in the Moderate Rehabilitation Single Room Occupancy program (Mod Rehab), and to serve as a rent ceiling in the HOME rental assistance program. The U.S. Department of Housing and Urban Development (HUD) annually estimates FMRs for 530 metropolitan areas and 2,045 nonmetropolitan county FMR areas. By law the final FMRs for use in any fiscal year must be published and available for use at the start of that fiscal year, on October 1.

FMR Standard

FMRs are gross rent estimates. They include the shelter rent plus the cost of all tenant-paid utilities, except telephones, cable or satellite television service, and internet service. HUD sets FMRs to assure that a sufficient supply of rental housing is available to program participants. To accomplish this objective, FMRs must be both high enough to permit a selection of units and neighborhoods and low enough to serve as many low-income families as possible. The level at which FMRs are set is expressed as a percentile point within the rent distribution of standard-quality rental housing units. The current definition used is the 40^{th} percentile rent, the dollar amount below which 40 percent of the standard-quality rental housing units are rented. The 40^{th} percentile rent is drawn from the distribution of rents of all units occupied by recent movers (renter households who moved to their present residence within the past 15 months). HUD is required to ensure that FMRs exclude non-market rental housing in their computation. Therefore, HUD excludes all units falling below a specified rent level determined from public housing rents in HUD's program databases as likely to be either assisted housing or otherwise at a below-market rent, and units less than two years old.

Data Sources

HUD uses the most accurate and current data available to develop the FMR estimates. Three sources of survey data are used:

(1) ***The Decennial Census*** provides statistically reliable rent data for use in establishing base year FMRs. The 2000 Census data were first used for the FY2005 FMRs.

(2) The ***American Community Surveys (ACS)*** collects decennial census long-form style data. The first full implementation of the ACS was in 2005, and was used in the FY2008 FMRs. The 2005 ACS can, in some cases, provide a new basis for 2005, or, for most cases, be used to update the 2000 Census base FMR to 2005. It is likely that ACS data will be used more extensively when the estimates using 3-yr and 5-yr average data for smaller census areas are published.

(3) ***Random digit dialing (RDD) telephone surveys*** are based on a sampling procedure that uses computers to select statistically random samples of telephone numbers, dial and keep track of them, and tabulate the responses to the calls. RDD surveys are conducted in a limited number of areas each year to assess housing market conditions.

Base year FMR estimates are updated and trended forward using CPI data for rents and utilities. CPI data are available for 102 metropolitan FMR areas. Regional CPI factors are used to update

the base year estimates for all FMR areas that do not have their own CPI survey. There is a lag of 15 months in the use of the most recent CPI and the midpoint of the FMR.

Additionally, HUD augments its knowledge of housing market conditions through the use of the ***American Housing Surveys (AHS)***. The AHS are conducted by the Bureau of Census for HUD and have accuracy comparable to that of the decennial census. AHS data enable HUD to develop revisions between Census years for the 44 largest metropolitan areas that are surveyed on a revolving schedule of 11 areas annually.

FMR Areas

HUD defines FMR areas as metropolitan areas and non-metropolitan counties. With a few exceptions, the most current Office of Management and Budget (OMB) definitions of metropolitan areas are used. HUD uses the OMB definitions because of the generally close correspondence between them and housing market areas. FMRs are intended to be housing market-wide rent estimates that provide housing opportunities throughout the geographic area in which rental units are in direct competition. Exceptions include a small number of metropolitan areas whose revised OMB definitions encompass areas that are larger than HUD's definitions of housing market areas. These exception areas are denoted as "HUD Metro Fair Market Rent Areas," (HMFAs).

Appendix G: Cost-of-Living Data by County and Institution

County *Institution Type* Institution	ACCRA COLI 2007	FMR FY 2007	Study COLI
Alameda County, CA	146.6	$1,250	146.6
2-year institution(s)			
College of Alameda			
Ohlone College			
Chabot College			
Las Positas College			
Laney College			
Merritt College			
Berkeley City College			
Butte County, CA		$702	104.6
2-year institution(s)			
Butte College			
4-year institution(s)			
California State University-Chico			
Contra Costa County, CA	146.6	$1,250	146.6
2-year institution(s)			
Diablo Valley College			
Los Medanos College			
Contra Costa College			
El Dorado County, CA	124.7	$992	124.7
2-year institution(s)			
Lake Tahoe Community College			
Fresno County, CA	119.8	$726	119.8
2-year institution(s)			
West Hills College-Coalinga			
Reedley College			
Fresno City College			
Humboldt County, CA		$725	106.0
2-year institution(s)			
College of the Redwoods			
4-year institution(s)			
Humboldt State University			
Imperial County, CA		$680	103.2
2-year institution(s)			
Imperial Valley College			
Kern County, CA	108.0	$646	108.0
2-year institution(s)			
Taft College			
Bakersfield College			
Cerro Coso Community College			
4-year institution(s)			
California State University-Bakersfield			
Kings County, CA		$633	100.2
2-year institutions(s)			
West Hills College-Lemoore			
Lassen County, CA		$698	104.3
2-year institutions(s)			
Lassen Community College			
Los Angeles County, CA	144.6	$1,269	144.6
2-year institution(s)			
Los Angeles City College			
Los Angeles Southwest College			
El Camino College-Compton Center			
West Los Angeles College			
Santa Monica College			
El Camino Community College District			
Rio Hondo College			
Cerritos College			
Los Angeles Harbor College			
Long Beach City College			
Pasadena City College			
Glendale Community College			
Los Angeles Mission College			
College of the Canyons			
Los Angeles Pierce College			
Los Angeles Valley College			
Citrus College			
East Los Angeles College			
Mt San Antonio College			
Antelope Valley College			
4-year institution(s)			
University of California-Los Angeles			
California State Polytechnic University-Pomona			
Marin County, CA	168.5	$1,551	168.5
2-year institution(s)			
College of Marin			
Mendocino County, CA		$779	109.4
2-year institutions(s)			
Mendocino College			
Merced County, CA		$657	101.7
2-year institutions(s)			
Merced College			
Monterey County, CA		$1,106	130.0
2-year institutions(s)			
Hartnell College			
Monterey Peninsula College			
4-year institution(s)			
California State University-Monterey Bay			
Napa County, CA	154.2	$1,112	154.2
2-year institutions(s)			
Napa Valley College			

Appendix G: Cost-of-Living Data by County and Institution

County *Institution Type* Institution	ACCRA COLI 2007	FMR FY 2007	Study COLI
Orange County, CA	155.0	$1,485	155.0
2-year institutions(s)			
Cypress College			
Irvine Valley College			
Orange Coast College			
Golden West College			
Saddleback College			
Santa Ana College			
Coastline Community College			
Fullerton College			
Santiago Canyon College			
4-Year Institution(s)			
University of California-Irvine			
Placer County, CA	124.7	$992	124.7
2-year institutions(s)			
Sierra College			
Plumas County, CA		$711	105.1
2-year institutions(s)			
Feather River Community College District			
Riverside County, CA	117.5	$974	117.5
2-year institutions(s)			
Palo Verde College			
College of the Desert			
Riverside Community College			
Mt. San Jacinto Community College District			
Sacramento County, CA	124.7	$992	124.7
2-year institutions(s)			
Folsom Lake College			
Sacramento City College			
Cosumnes River College			
American River College			
San Bernardino County, CA	117.5	$974	117.5
2-year institutions(s)			
Chaffey College			
Copper Mountain College			
Barstow Community College			
Victor Valley College			
Crafton Hills College			
San Bernardino Valley College			
4-Year Institution(s)			
California State University-San Bernardino			
San Diego County, CA	139.5	$1,205	139.5
2-year institutions(s)			
Southwestern College			
Cuyamaca College			
Grossmont College			
Miracosta College			
San Diego County, CA (continued)			
Palomar College			
San Diego City College			
San Diego Mesa College			
San Diego Miramar College			
4-Year Institution(s)			
University of California-San Diego			
California State University-San Marcos			
San Francisco County, CA	168.5	$1,551	168.5
2-year institutions(s)			
City College of San Francisco			
San Joaquin County, CA		$876	115.5
2-year institutions(s)			
San Joaquin Delta College			
San Luis Obispo County, CA		$955	120.5
2-year institutions(s)			
Cuesta College			
4-Year Institution(s)			
California Polytechnic State University-San Luis Obispo			
San Mateo County, CA	168.5	$1,551	168.5
2-year institutions(s)			
Canada College			
Skyline College			
College of San Mateo			
Santa Barbara County, CA		$1,073	127.9
2-year institutions(s)			
Santa Barbara City College			
Allan Hancock College			
Santa Clara County, CA	154.2	$1,284	154.2
2-year institutions(s)			
Foothill College			
De Anza College			
Gavilan College			
Mission College			
West Valley College			
San Jose City College			
Evergreen Valley College			
Santa Cruz County, CA	155.0	$1,359	155.0
2-year institutions(s)			
Cabrillo College			
Shasta County, CA		$680	103.2
2-year institutions(s)			
Shasta College			
Siskiyou County, CA		$617	99.2
2-year institutions(s)			
College of the Siskiyous			

Appendix G: Cost-of-Living Data by County and Institution

County *Institution Type* Institution	ACCRA COLI 2007	FMR FY 2007	Study COLI
Solano County, CA	154.2	$997	154.2
2-year institutions(s)			
Solano Community College			
Sonoma County, CA	154.2	$1,165	154.2
2-year institutions(s)			
Santa Rosa Junior College			
4-Year Institution(s)			
Sonoma State University			
Stanislaus County, CA		$760	108.2
2-year institutions(s)			
Modesto Junior College			
4-Year Institution(s)			
California State University-Stanislaus			
Tulare County, CA		$647	101.1
2-year institutions(s)			
Porterville College			
College of the Sequoias			
Ventura County, CA	144.6	$1,471	144.6
2-year institutions(s)			
Ventura College			
Moorpark College			
Oxnard College			
Yolo County, CA	124.7	$910	124.7
4-Year Institution(s)			
University of California-Davis			
Yuba County, CA		$627	99.9
2-year institutions(s)			
Yuba College			
Adams County, CO	103.4	$909	103.4
2-year institutions(s)			
Front Range Community College			
Arapahoe County, CO	103.4	$909	103.4
2-year institutions(s)			
Community College of Aurora			
Arapahoe Community College			
Boulder County, CO		$1,041	125.9
4-Year Institution(s)			
University of Colorado			
Denver County, CO	103.4	$909	103.4
2-year institutions(s)			
Community College of Denver			
El Paso County, CO	93.8	$785	93.8
2-year institutions(s)			
Pikes Peak Community College			
Jefferson County, CO	103.4	$909	103.4
2-year institutions(s)			
Red Rocks Community College			
Larimer County, CO	93.9	$802	93.9
4-Year Institution(s)			
Colorado State University			
Las Animas County, CO		$558	95.5
2-year institutions(s)			
Trinidad State Junior College			
Logan County, CO		$553	95.2
2-year institutions(s)			
Northeastern Junior College			
Morgan County, CO		$580	96.9
2-year institutions(s)			
Morgan Community College			
Otero County, CO		$519	93.1
2-year institutions(s)			
Otero Junior College			
Prowers County, CO		$519	93.1
2-year institutions(s)			
Lamar Community College			
Pueblo County, CO	87.3	$652	$87.3
2-year institutions(s)			
Pueblo Community College			
4-Year Institution(s)			
Colorado State University - Pueblo			
Rio Blanco County, CO		$720	105.7
2-year institutions(s)			
Colorado Northwestern Community College			
Fairfield County, CT	147.6	$1,024	147.6
2-year institutions(s)			
Housatonic Community College			
Norwalk Community College			
Hartford County, CT	118.8	$1,029	118.8
2-year institutions(s)			
Tunxis Community College			
Manchester Community College			
Asnuntuck Community College			
Capital Community College			
4-Year Institution(s)			
Central Connecticut State University			
Litchfield County, CT		$898	116.9
2-year institutions(s)			
Northwestern Connecticut Community College			

Appendix G: Cost-of-Living Data by County and Institution

County *Institution Type* Institution	ACCRA COLI 2007	FMR FY 2007	Study COLI
Middlesex County, CT	118.8	$1,029	118.8
2-year institutions(s)			
Middlesex Community College			
New Haven County, CT	117.9	$1,065	117.9
2-year institutions(s)			
Gateway Community College			
Naugatuck Valley Community College			
4-Year Institution(s)			
Southern Connecticut State University			
New London County, CT	115.4	$857	115.4
2-year institutions(s)			
Three Rivers Community College			
Tolland County, CT	118.8	$1,029	118.8
4-Year Institution(s)			
University of Connecticut			
Windham County, CT		$782	109.6
2-year institutions(s)			
Quinebaug Valley Community College			
4-Year Institution(s)			
Eastern Connecticut State University			
Allegany County, MD		$519	93.1
2-year institutions(s)			
Allegany College of Maryland			
Anne Arundel County, MD	118.0	$941	118.0
2-year institutions(s)			
Anne Arundel Community College			
Baltimore city, MD	118.0	$941	118.0
2-year institutions(s)			
Baltimore City Community College			
4-Year Institution(s)			
University of Maryland-Baltimore			
Coppin State University			
Baltimore County, MD	118.0	$941	118.0
2-year institutions(s)			
The Community College of Baltimore County			
4-Year Institution(s)			
University of Maryland-Baltimore County			
Towson University			
Carroll County, MD	118.0	$941	118.0
2-year institutions(s)			
Carroll Community College			
Cecil County, MD	115.2	$923	115.2
2-year institutions(s)			
Cecil Community College			
Charles County, MD	132.1	$1,286	132.1
2-year institutions(s)			
College of Southern Maryland			
Frederick County, MD	132.1	$1,286	132.1
2-year institutions(s)			
Frederick Community College			
Garrett County, MD		$519	93.1
2-year institutions(s)			
Garrett College			
Harford County, MD	118.0	$941	118.0
2-year institutions(s)			
Harford Community College			
Howard County, MD	118.0	$941	118.0
2-year institutions(s)			
Howard Community College			
Montgomery County, MD	132.1	$1,286	132.1
2-year institutions(s)			
Montgomery College			
Prince George's County, MD	132.1	$1,286	132.1
2-year institutions(s)			
Prince George's Community College			
4-Year Institution(s)			
University of Maryland-College Park			
Talbot County, MD		$552	95.1
2-year institutions(s)			
Chesapeake College			
Washington County, MD		$673	102.8
2-year institutions(s)			
Hagerstown Community College			
Wicomico County, MD		$653	101.5
2-year institutions(s)			
Wor-Wic Community College			
4-Year Institution(s)			
Salisbury University			
Barnstable County, MA		$1,003	123.5
2-year institutions(s)			
Cape Cod Community College			
Berkshire County, MA	105.1	$706	105.1
2-year institutions(s)			
Berkshire Community College			
Bristol County, MA	120.6	$791	120.6
2-year institutions(s)			
Bristol Community College			
4-Year Institution(s)			
University of Massachusetts-Dartmouth			
Essex County, MA	134.7	$1,366	134.7
2-year institutions(s)			
Northern Essex Community College			
North Shore Community College			

Appendix G: Cost-of-Living Data by County and Institution

County *Institution Type* Institution	ACCRA COLI 2007	FMR FY 2007	Study COLI
Franklin County, MA		$716	105.5
2-year institutions(s)			
Greenfield Community College			
Hampden County, MA		$840	113.3
2-year institutions(s)			
Holyoke Community College			
Springfield Technical Community College			
Hampden County, MA (continued)			
4-Year Institution(s)			
Westfield State College			
Hampshire County, MA		$840	113.3
4-Year Institution(s)			
University of Massachusetts-Amherst			
Middlesex County, MA	131.0	$1,366	131.0
2-year institutions(s)			
Middlesex Community College			
Norfolk County, MA	134.7	$1,366	134.7
2-year institutions(s)			
Massachusetts Bay Community College			
Plymouth County, MA	134.7	$1,366	134.7
2-year institutions(s)			
Massasoit Community College			
4-Year Institution(s)			
Bridgewater State College			
Suffolk County, MA	134.7	$1,366	134.7
2-year institutions(s)			
Roxbury Community College			
Bunker Hill Community College			
Worcester County, MA	108.7	$890	108.7
2-year institutions(s)			
Mount Wachusett Community College			
Quinsigamond Community College			
4-Year Institution(s)			
Worcester State College			
Atlantic County, NJ		$964	121.0
2-year institutions(s)			
Atlantic Cape Community College			
Bergen County, NJ	126.4	$1,084	126.4
2-year institutions(s)			
Bergen Community College			
4-Year Institution(s)			
Ramapo College of New Jersey			
Burlington County, NJ	123.5	$923	123.5
2-year institutions(s)			
Burlington County College			
Camden County, NJ	123.5	$923	123.5
2-year institutions(s)			
Camden County College			
Cumberland County, NJ		$889	116.3
2-year institutions(s)			
Cumberland County College			
Essex County, NJ	126.4	$1,063	126.4
2-year institutions(s)			
Essex County College			
4-Year Institution(s)			
Montclair State University			
Gloucester County, NJ	123.5	$923	123.5
2-year institutions(s)			
Gloucester County College			
4-Year Institution(s)			
Rowan University			
Hudson County, NJ	128.8	$1,154	128.8
2-year institutions(s)			
Hudson County Community College			
Mercer County, NJ	126.4	$1,084	126.4
2-year institutions(s)			
Mercer County Community College			
Middlesex County, NJ	126.9	$1,257	126.9
2-year institutions(s)			
Middlesex County College			
4-Year Institution(s)			
Rutgers University			
Monmouth County, NJ	126.9	$1,170	126.9
2-year institutions(s)			
Brookdale Community College			
Morris County, NJ	126.4	$1,063	126.4
2-year institutions(s)			
County College of Morris			
Ocean County, NJ	126.9	$1,170	126.9
2-year institutions(s)			
Ocean County College			
Passaic County, NJ	128.8	$1,163	128.8
2-year institutions(s)			
Passaic County Community College			
4-Year Institution(s)			
William Paterson University of New Jersey			
Salem County, NJ	107.1	$923	107.1
2-year institutions(s)			
Salem Community College			
Somerset County, NJ	126.9	$1,257	126.9
2-year institutions(s)			
Raritan Valley Community College			
Sussex County, NJ	126.4	$1,063	126.4
2-year institutions(s)			
Sussex County Community College			

Appendix G: Cost-of-Living Data by County and Institution

County *Institution Type* Institution	ACCRA COLI 2007	FMR FY 2007	Study COLI
Union County, NJ	126.4	$1,063	126.4
2-year institutions(s)			
Union County College			
Warren County, NJ		$1,050	126.5
2-year institutions(s)			
Warren County Community College			
Accomack County, VA		$528	93.6
2-year institutions(s)			
Eastern Shore Community College			
Alleghany County, VA		$502	92.0
2-year institutions(s)			
Dabney S Lancaster Community College			
Augusta County, VA	100.1	$588	100.1
2-year institutions(s)			
Blue Ridge Community College			
Brunswick County, VA		$519	93.1
2-year institutions(s)			
Southside Virginia Community College			
Charlottesville city, VA	112.2	$792	112.2
2-year institutions(s)			
Piedmont Virginia Community College			
4-Year Institution(s)			
University of Virginia-Main Campus			
Chesterfield County, VA	106.4	$788	106.4
2-year institutions(s)			
John Tyler Community College			
Danville city, VA		$523	93.3
2-year institutions(s)			
Danville Community College			
Fairfax city, VA	136.4	$1,286	136.4
2-year institutions(s)			
Northern Virginia Community College			
Franklin city, VA	91.6	$502	91.6
2-year institutions(s)			
Paul D Camp Community College			
Frederick County, VA		$673	102.8
2-year institutions(s)			
Lord Fairfax Community College			
Fredericksburg city, VA	136.4	$1,286	136.4
4-Year Institution(s)			
University of Mary Washington			
Hampton city, VA	106.8	$844	1068
2-year institutions(s)			
Thomas Nelson Community College			
Harrisonburg city, VA	104.4	$610	104.4
4-Year Institution(s)			
James Madison University			
Henrico County, VA	106.4	$788	106.4
2-year institutions(s)			
J Sargeant Reynolds Community College			
Henry County, VA	89.5	$502	89.5
2-year institutions(s)			
Patrick Henry Community College			
Lynchburg city, VA		$556	95.4
2-year institutions(s)			
Central Virginia Community College			
Middlesex County, VA		$604	98.4
2-year institutions(s)			
Rappahannock Community College			
Montgomery County, VA		$598	98.0
4-Year Institution(s)			
Virginia Polytechnic Institute and State University			
Newport News city, VA	106.8	$844	106.8
4-Year Institution(s)			
Christopher Newport University			
Norfolk city, VA	106.8	$844	106.8
2-year institutions(s)			
Tidewater Community College			
Orange County, VA		$617	99.2
2-year institutions(s)			
Germanna Community College			
Prince Edward County, VA		$587	97.3
4-Year Institution(s)			
Longwood University			
Pulaski County, VA		$502	92.0
2-year institutions(s)			
New River Community College			
Radford city, VA		$598	98.0
4-Year Institution(s)			
Radford University			
Roanoke County, VA	91.6	$613	91.6
2-year institutions(s)			
Virginia Western Community College			
Tazewell County, VA		$502	92.0
2-year institutions(s)			
Southwest Virginia Community College			
Washington County, VA	92.3	$502	92.3
2-year institutions(s)			
Virginia Highlands Community College			
Wise County, VA		$502	92.0
2-year institutions(s)			
Mountain Empire Community College			

Appendix G: Cost-of-Living Data by County and Institution

County *Institution Type* Institution	ACCRA COLI 2007	FMR FY 2007	Study COLI
Wythe County, VA		$502	92.0
2-year institutions(s)			
Wytheville Community College			
Chelan County, WA		$650	101.3
2-year institutions(s)			
Wenatchee Valley College			
Clallam County, WA		$687	103.6
2-year institutions(s)			
Peninsula College			
Clark County, WA		$737	106.8
2-year institutions(s)			
Clark College			
Cowlitz County, WA		$609	98.7
2-year institutions(s)			
Lower Columbia College			
Franklin County, WA	93.8	$647	93.8
2-year institutions(s)			
Columbia Basin College			
Grant County, WA		$593	97.7
2-year institutions(s)			
Big Bend Community College			
Grays Harbor County, WA		$603	98.3
2-year institutions(s)			
Grays Harbor College			
King County, WA	121.0	$854	121.0
2-year institutions(s)			
Bellevue Community College			
Cascadia Community College			
Lake Washington Technical College			
Renton Technical College			
Green River Community College			
Seattle Community College-North Campus			
Seattle Community College-South Campus			
Seattle Community College-Central Campus			
Shoreline Community College			
Highline Community College			
4-Year Institution(s)			
University of Washington			
Kitsap County, WA		$782	109.6
2-year institutions(s)			
Olympic College			
Kittitas County, WA		$671	102.6
4-Year Institution(s)			
Central Washington University			
Lewis County, WA		$649	101.2
2-year institutions(s)			
Centralia College			
Pierce County, WA	110.1	$788	110.1
2-year institutions(s)			
Pierce College at Puyallup			
Bates Technical College			
Tacoma Community College			
Pierce College at Fort Steilacoom			
Clover Park Technical College			
Skagit County, WA		$820	112.0
2-year institutions(s)			
Skagit Valley College			
Snohomish County, WA	121.0	$854	121.0
2-year institutions(s)			
Edmonds Community College			
Everett Community College			
Spokane County, WA	95.8	$656	95.8
2-year institutions(s)			
Spokane Community College			
Spokane Falls Community College			
4-Year Institution(s)			
Eastern Washington University			
Thurston County, WA	104.8	$763	104.8
2-year institutions(s)			
South Puget Sound Community College			
4-Year Institution(s)			
The Evergreen State College			
Walla Walla County, WA		$601	98.2
2-year institutions(s)			
Walla Walla Community College			
Whatcom County, WA	109.7	$741	109.7
2-year institutions(s)			
Bellingham Technical College			
Whatcom Community College			
4-Year Institution(s)			
Western Washington University			
Whitman County, WA		$603	98.3
4-Year Institution(s)			
Washington State University			
Yakima County, WA		$684	103.4
2-year institutions(s)			
Yakima Valley Community College			

Appendix H: Calculation of Employee Compensation as Share of Total Expenses

The IPEDS definition of **core expenses** is the sum of all expenses in the following categories:

- Instruction (01)
- Research (02)
- Public service (03)
- Academic support (05)
- Student services (06)
- Institutional support (07)
- Operation maintenance of plant (08)
- Depreciation (09)
- Scholarships and fellowships expenses (10)
- Other expenses and deductions (14)
- Total non-operating expenses and deductions (18)

Each of these categories is broken down into components. 'xx' corresponds to the functional categories listed above.

- Current year total (F1Cxx1)
- Salaries and wages (F1Cxx2)
- Employee fringe benefits (F1Cxx3)
- Depreciation (F1Cxx4)
- All other (F1Cxx5)

Depreciation is reported either as a total amount (F1C091) and (F1C094), or by functional area (F1Cxx4).

"**Modified core expenses**," as used in this study, exclude all expenditures associated with depreciation and with non-operating expenses and deductions. So the total modified core expenses are calculated as the sum of the following IPEDS finance items:

- F1C012 – Instruction: Salaries and wages
- F1C013 – Instruction: Employee fringe benefits
- F1C015 – Instruction: All other
- F1C022 – Research: Salaries and wages
- F1C023 – Research: Employee fringe benefits
- F1C025 – Research: All other
- F1C032 – Public Service: Salaries and wages
- F1C033 – Public Service: Employee fringe benefits
- F1C035 – Public Service: All other
- F1C052 – Academic Support: Salaries and wages
- F1C053 – Academic Support: Employee fringe benefits
- F1C055 – Academic Support: All other
- F1C062 – Student Services: Salaries and wages
- F1C063 – Student Services: Employee fringe benefits
- F1C065 – Student Services: All other
- F1C072 – Institutional Support: Salaries and wages
- F1C073 – Institutional Support: Employee fringe benefits
- F1C075 – Institutional Support: All other
- F1C082 – Operation maintenance of plant: Salaries and wages

F1C083 – Operation maintenance of plant: Employee fringe benefits
F1C085 – Operation maintenance of plant: All other
F1C102 – Scholarships and fellowships expenses: Salaries and wages
F1C103 – Scholarships and fellowships expenses: Employee fringe benefits
F1C105 – Scholarships and fellowships expenses
F1C142 – Other expenses and deductions: Salaries and wages
F1C143 – Other expenses and deductions: Employee fringe benefits
F1C145 – Other expenses and deductions: All other

The ratio of salaries, wages, and employee fringe benefits to modified core expenses is calculated by using the Salaries and wages components plus the Employee fringe benefits components of the modified core expenses as the numerator and the sum of all modified core expenses as the denominator.

Appendix I: WSU Critique of Cost-of-Living Adjustment

Executive Summary:
Regional Cost-of-Living Adjustments to Institutional Funding: A Critique

Washington legislation requires cost-of-living adjustments to per-student funding goals.

No recognized, standard method of adjusting for regional cost-of-living differences currently exists.

- ACCRA is calculated only for urban locations; 35% of the public, 4-year institutions in the eight global challenge states are excluded from this dataset; 38% of WSU's set of comparable institutions are missing, including the WSU baseline.
- Using a regression model, OFM has created an index from the county-based, Fair Market Rents (FMR) data to use when an ACCRA index is missing.

OFM's recommended index is problematic.

- Differences between the ACCRA index and a calculated index from FMR data using OFM's regression model for WSU's comparator institutions range nearly 14 points, including both positive and negative values.
- Housing costs and FMR data change over time, but not at similar rates. Differences in housing and rental cost measures between Pullman and Seattle, for example, were 38% in 2004 and 8% in 2006.
- A county-based index for this purpose may be erroneous: WSU Pullman's local student population is 42% of Whitman County's population while Rutgers and University of Maryland's (WSU comparator institutions) local student populations are each 4% of their respective counties.

A non-standard, problematic index for adjusting cost-of-living should be used on a very limited basis, if at all.

- OFM recommends a modified core set of expenditures to use (excluding depreciation and non-operating costs). This correctly includes central administrative costs for some institutions, which are however incurred at other locations, and thus should be excluded from any regional adjustments.
- OFM recommends using the ratio of all salaries, wages and benefits to modified core expenditures as a method of calculating a partial adjustment, but salaries of Washington's civil service staff and all Washington state employee benefits are determined at the state level and are not adjusted regionally – again these expenditures should be excluded from any regional adjustments.
- More appropriate are the negotiable salaries and wages of personnel in instruction, research and public service, the central functions of higher education -- cost-of-living adjustments should be reduced to one-half of these costs due to the weaknesses in the index.

Cathy Fulkerson and James V. Downes, Institutional Research, Washington State University, August 8, 2008

Regional Cost-of-Living Adjustments to Institutional Funding:

A Critique

Washington legislation (2SSB 5806) requires the adoption of a higher education funding goal that reaches the 60th percentile of per-student funding of similar institutions in the global challenge states. The legislation specifies that the Washington Office of Financial Management (OFM) shall adjust for regional cost-of-living differences, program offerings, and mix of students. However, there is no accepted, standard method for adjusting for regional price variation and there is no single source of data to use for this purpose. OFM recommends using a combination of ACCRA city-to-city price comparisons, and the county-based, Fair Market Rents (FMR) as a single index for this purpose.[17]

ACCRA, available only for urban locations and the most comprehensive metric, is designed to reflect individual preference in responding to market effects. WSU, the University of Massachusetts at Amherst, and Virginia Tech are excluded from the ACCRA data (38% of 8 comparator institutions for WSU's data). Of the 112 public 4-year institutions in the eight global challenge states, 39 institutions (35%) are not in the ACCRA data set.

OFM recommends using FMR data for those institutions missing ACCRA data and calculating an index based on a regression analysis to fill in when an ACCRA index is unavailable. FMR is county-based and although OFM found a regression relationship between FMR and ACCRA indicating that nearly 80% of the variation in cost of living can be explained by housing costs, this may not be the case when applied to land-grant institutions which are typically located in rural settings. An FMR index related to ACCRA via OFM's regression parameters for WSU's comparator institutions produces a range of difference of 13.8 points, not all in the same direction.

Table 1. ACCRA index and differences between FMR and OFM calculated indices.[18]

Institution	County/Town	State	ACCRA COLI	FMR FY06	FMR COLI	OFM COLI	Difference FMR - OFM
CSU	Larimer	CO	103.4	$775	110.0	103.4	-6.6
Rutgers	Middlesex	NJ	130.2	$1,187	138.4	130.2	-8.2
U Conn	Tolland/Mansfield town	CT	117.4	$979	124.1	117.4	-6.7
U Maryland	Prince George's	MD	133.3	$1,225	141.1	133.3	-7.8
U Mass	Hampshire/Amherst town	MA		$799	111.7	111.7	0
UC Davis	Yolo	CA	122.8	$879	117.2	122.8	5.6
V Tech	Montgomery	VA		$575	96.3	96.3	0
WSU	Whitman	WA		$583	96.8	96.8	0

[17] (DRAFT) Per-Student Funding Study: Adjusting for Regional Cost-of-Living Differences. Paper circulated 7/24/08, Education Data & Research Center, Washington State Office of Financial Management (OFM).
[18] OFM data (GCS_Bacc_20080720.xls) distributed by Jim Schmidt via email dated 7/21/2008.

This indicates a systematic problem in adjusting costs for rural, land-grant institutions, especially when adjusted to more urban locations. For example, WSU Pullman's local student headcount enrollment in fall 2006 was nearly 42% of the county population so that using student rental rates as a proxy for staff cost-of-living and in comparison to other locations with a different population mix may produce erroneous results at best. Assessing University of Maryland's impact as 4% of DC Metro's Prince George's County implies a very different relation to living costs.

Table 2. Local institutional student enrollment as a proportion of total county population.[19]

Institution	County/Town	State	Local Student Enrollment Fall 06	County Population (July 2006 est.)	Ratio Campus to County
CSU	Larimer	CO	24,670	281,620	8.8%
Rutgers	Middlesex	NJ	34,392	783,371	4.4%
U Conn	Tolland/Mansfield town	CT	20,363	147,454	13.8%
U Maryland	Prince George's	MD	35,102	834,660	4.2%
U Mass	Hampshire/Amherst town	MA	25,593	152,982	16.7%
UC Davis	Yolo	CA	30,475	190,589	16.0%
V Tech	Montgomery	VA	26,371	88,131	29.9%
WSU	**Whitman**	**WA**	**17,300**	**41,404**	**41.8%**

More troubling for an index at the foundation of long term budget planning, the FMR swings from one year to the next . WSU's comparator FMR values changed between 3.4% (WSU) to 5.9% (Rutgers) from FY06 to FY07. In one extreme instance, a WSU comparator's FMR increased 14.3% in FY 2005, while UW's FMR decreased by 9.6% in the same period. Certainly every effort should be made to minimize such instability in a multi-year funding plan.

Table 3. One-year change in FMR and ratio of local student headcount enrollment to county population.[20]

Institution	County/Town	State	FMR FY06	FMR FY07	% Change
CSU	Larimer	CO	$775	$802	3.5%
Rutgers	Middlesex	NJ	$1,187	$1,257	5.9%
U Conn	Tolland/Mansfield town	CT	$979	$1,029	5.1%
U Maryland	Prince George's	MD	$1,225	$1,286	5.0%
U Mass	Hampshire/Amherst town	MA	$799	$840	5.1%
UC Davis	Yolo	CA	$879	$910	3.5%
V Tech	Montgomery	VA	$575	$598	4.0%
WSU	Whitman	WA	$583	$603	3.4%

[19] Local student enrollment from institutional web sites – excludes distance and enrollment at other locations. County population estimates for July 1, 2006 from http://www.census.gov/popest/counties/CO-EST2007-01.html

[20] FY 2007 FMR by county from HUD's National Housing Locator System, https://hudapps.hud.gov/nhls/selectState.do?cmd=doInit.

Appendix I: WSU Critique of Cost-of-Living Adjustment

Comparisons of FMR historical data for specified locations reveal widely varying annual changes, widely varying changes when comparing other locations to Pullman and widely varying annual changes comparing FMR data to housing costs. For example, in 2004, King County rental costs were 65% higher than Whitman County's while Seattle housing costs were only 27% higher than those in Pullman. Two years later, the King County rental costs were 44% higher and Seattle housing costs were 37% higher (see all data in Appendix 1). This means that differences in housing and rental rates between Pullman and Seattle were 38% in 2004 and 8% in 2006. The table below illustrates the divergence of housing and rental measures for the same locations over three reporting years and as reported in Appendix 1. Pullman data serve as the baseline comparator.

Table 4. Divergence of housing and rental measures for specific locations indexed to Pullman.[21]

Institution	County	City State	~2003	2004	2005	2006
UW	King	Seattle WA	-31.4%	-38.3%		-7.5%
UC Davis	Yolo	Davis CA	-8.2%	-11.2%		-2.6%
CSU	Larimer	Ft Collins CO	-30.9%	-30.6%		-25.5%
V Tech	Montgomery	Blacksburg VA	-3.7%	-2.0%		9.8%
WSU	Whitman	Pullman WA				

If adjustments have to be made, as required by legislation, then the lack of a national standard, the absence of consistent data for approximately one-third of the institutions, and the large, varying differences between calculated, but related COLAs and from year to year, all suggest that any adjustments should be made with caution and on a limited basis. In addition, four of WSU's comparable institutions have central administrative costs incurred at other locations which are included in the modified core expenditure totals. Since many higher education institutional costs may not be impacted by regional costs-of-living, and since some costs are incurred in other locations, a partial adjustment on a limited basis is more appropriate than a large adjustment on dubious numbers.

OFM suggests applying a partial adjustment to total expenditures in salaries, wages, and fringe benefits as a percentage of modified core expenditures per student FTE where depreciation and non-operating expenses are excluded. However, since all fringe benefits and civil service staff salaries in Washington are determined at the state level and are not regionally adjusted, these costs to the institutions should also not be adjusted regionally. Salaries and wages related to instruction, research and public service, the central functions of higher education, may then be the most appropriate costs to adjust on a limited basis, given the available data.

Table 5 below illustrates the percentage of core modified per-student funding that are: 1) all salaries, wages, and fringe benefits; 2) instructional, research, and public service (IRP) salaries and wages; and 3) one-half of IRP salaries and wages.

[21]Housing costs collected contemporaneously from HomeFair.com salary comparison site, no longer available free. FMR history (2000-2005) at http://www.huduser.org/datasets/fmr.html.

Appendix I: WSU Critique of Cost-of-Living Adjustment

Table 5. Adjustment scenarios with modified core expenditures per student FTE, scaled to WSU (60^{th} percentile is calculated without WSU in the mix)

Institution Name	OFM COLA (2006)	COLA Factor WSU = 1.0	% of exp. in All salaries, wages, and fringe benefits	% of exp. in Instructional, Research, and Public Service (IRP) salaries and wages	1/2 of the % of exp. in IRP salaries and wages	$ per FTE (unadjusted)	$ per FTE with 1/2 COLA on IRP salaries and wages
CSU	103.4	0.94	69.3%	45.7%	22.8%	$7,185	$7,081
Rutgers	130.2	0.74	71.3%	39.0%	19.5%	$20,627	$19,596
U Conn	117.4	0.82	78.1%	39.5%	19.8%	$22,217	$21,447
U Maryland	133.3	0.73	70.1%	40.6%	20.3%	$19,508	$18,424
U Mass	111.7	0.87	71.0%	37.0%	18.5%	$20,424	$19,921
UC Davis	122.8	0.79	52.0%	32.1%	16.1%	$23,831	$23,021
V Tech	96.3	1.01	72.9%	45.9%	22.9%	$17,315	$17,338
WSU	**96.8**	**1.00**	**69.2%**	**38.5%**	**19.3%**	**$16,301**	**$16,301**
					60th percentile	$20,546	$19,791
					Gap to 60th percentile	-$4,245	-$3,490
					% change to 60th percentile	26%	21%

In conclusion, applying regional cost-of-living adjustments to higher education per-student funding, much of which is based on state or national markets, is problematic. WSU recommends not using it at all, but if required by legislation, limiting any regional cost-of-living adjustments to a minimum and applying it to one-half of the expenditures in salaries and wages in instruction, research and public service as a percentage of total modified core expenditures. This metric attempts to adjust for regional differences in identifiable, reportable data. It also reduces its weight in the calculation to account for problems in the data and resulting weaknesses in the index. The 60^{th} percentile funding can then be calculated without Washington State University in the mix and tracked over time.

Appendix I: WSU Critique of Cost-of-Living Adjustment

Appendix 1. Historical Fair Market Rentals (FMR) and comparisons to housing costs.

FMR Historical Data by Fiscal Year[22]

Institution	County	2000	2001	2002	2003	2004	2005	2006	2007
UW	King	$772	$809	$845	$899	$923	$834	$840	$854
UCD	Yolo	$673	$688	$712	$752	$779	$851	$879	$910
CSU	Larimer	$668	$681	$703	$727	$739	$750	$775	$802
VT	Montgomery	$456	$459	$477	$489	$489	$559	$575	$598
WSU	Whitman	$518	$521	$534	$548	$559	$564	$583	$603

Annual Percentage Change

Institution	County	2000	2001	2002	2003	2004	2005	2006	2007
UW	King		4.8%	4.4%	6.4%	2.7%	-9.6%	0.7%	1.7%
UCD	Yolo		2.2%	3.5%	5.6%	3.6%	9.2%	3.3%	3.5%
CSU	Larimer		1.9%	3.2%	3.4%	1.7%	1.5%	3.3%	3.5%
VT	Montgomery		0.7%	3.9%	2.5%	0.0%	14.3%	2.9%	4.0%
WSU	Whitman		0.6%	2.5%	2.6%	2.0%	0.9%	3.4%	3.4%
average			2.0%	3.5%	4.1%	2.0%	3.3%	2.7%	3.2%

FMR Indexed to Pullman [23]

Institution	County	2000	2001	2002	2003	2004	2005	2006	2007
UW	King	49.0%	55.3%	58.2%	64.1%	65.1%	47.9%	44.1%	41.6%
UCD	Yolo	29.9%	32.1%	33.3%	37.2%	39.4%	50.9%	50.8%	50.9%
CSU	Larimer	29.0%	30.7%	31.6%	32.7%	32.2%	33.0%	32.9%	33.0%
VT	Montgomery	-12.0%	-11.9%	-10.7%	-10.8%	-12.5%	-0.9%	-1.4%	-0.8%
WSU	Whitman								

HomeFair.com COLA housing costs indexed to Pullman

Institution	County	Sep-03	Mar-04	Apr-06
UW	Seattle WA	32.7%	26.8%	36.6%
UCD	Davis CA	29.0%	28.2%	48.2%
CSU	Ft Collins CO	1.8%	1.6%	7.4%
VT	Blacksburg VA	-14.5%	-14.5%	8.4%
WSU	Pullman WA			

Divergence of housing and rental measures

Institution	County	City State	~2003	2004	2005	2006
UW	King	Seattle WA	-31.4%	-38.3%		-7.5%
UC Davis	Yolo	Davis CA	-8.2%	-11.2%		-2.6%
CSU	Larimer	Ft Collins CO	-30.9%	-30.6%		-25.5%
V Tech	Montgomery	Blacksburg VA	-3.7%	-2.0%		9.8%

[22] For historical FMR data see http://www.huduser.org/datasets/fmr.html
[23] The FMR percentage difference from Pullman

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