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ABSTRACT

For the past 10 years the Washington state colleges and universities have used salary surveys of faculty in institutions in seven states as the basis for their salary requests. This report reviews the comparison of states and institutions; the criteria for their selection; whether circumstances have changed that could affect the utility or validity of these institutions for comparison purposes; and undertakes to determine whether such comparisons serve a useful purpose. Emphasis is placed on the basis for selection of the states and institutions, the marketplace and salary levels, institutional quality and comprehensiveness, and income analysis. Statistical data concerning income per state are included. (MJM)

# Council on Higher Education State of Washington

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THE SEVEN COMPARISON STATES  
THEIR SELECTION,  
USE AND APPLICABILITY  
FOR HIGHER EDUCATION COMPARISONS

A REPORT

IN RESPONSE TO HFR 1972-39

DECEMBER 1972

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THE SEVEN COMPARISON STATES  
THEIR SELECTION, USE AND APPLICABILITY  
FOR HIGHER EDUCATION COMPARISONS

A REPORT  
IN RESPONSE TO HFR 1972-39  
COUNCIL ON HIGHER EDUCATION

DECEMBER 1972

Project Officer:

Denis J. Curry

Deputy Coordinator for Finance and Information Systems

HOUSE FLOOR RESOLUTION 1972-39

By Representatives Kopet, Polk,  
Smythe, Benitz and Thompson

WHEREAS, The question of the appropriate level of faculty salaries at both the public four-year institutions and community colleges has been a matter of increasing concern to the Legislature; and

WHEREAS, The institutions of higher education in Washington have historically compared data regarding faculty salaries with "similar" institutions in seven selected states; and

WHEREAS, The seven states often serve as a basis for other fiscal surveys and assessments of higher education by which the four and two-year institutions are compared; and

WHEREAS, The comparison states were selected over a decade ago and circumstances affecting the reasons for the selection of the seven states may have changed over the years; and

WHEREAS, Consideration of appropriate salary levels is impossible without a complete knowledge of all income accruing to faculty, to include honorariums, independent consulting income and other outside income; and

WHEREAS, There are increasing indications that faculty are spending a considerable amount of time during their normal contract period in the generation of outside income.

NOW, THEREFORE, BE IT RESOLVED, By the House of Representatives, That the Council on Higher Education, in conjunction with the institutions of higher education, the State Board for Community College Education, the Office of Program Planning and Fiscal Management, the Legislative Budget Committee, and the Joint Committee on Higher Education shall (1) review the criteria for the selection of appropriate comparison institutions, determining whether such comparisons serve a useful and valid purpose; and (2) survey and report on all the emoluments currently being realized by the faculty at the four and two-year institutions of higher education, and the policies of the various institutions with regard to the outside activities of its faculty which result in the realization of additional income; and

BE IT FURTHER RESOLVED, That the Council on Higher Education shall have primary responsibility to complete that part of the study described in (1) above, and the Office of Program Planning and Fiscal Management shall have primary responsibility for that part of the study described in (2) above, and that the results of this study shall be transmitted to the aforementioned agencies prior to December 1, 1972 for their review prior to the next Session of the Legislature.

BE IT FURTHER RESOLVED, That copies of this Resolution be transmitted to the aforementioned agencies.

Adopted February 17, 1972.

The largest single item of expense to institutions of higher education is faculty salaries. The determination of appropriate competitive levels of compensation is, therefore, a matter of major concern in the budgetary process; a concern which has increased in significance with the relative decline of salary levels over the past three years.

For the past ten years the state colleges and universities have used salary surveys of faculty in institutions in seven states as the basis for their salary requests. The University of Washington has based its faculty salary request on salary studies of the same institutions for nearly twenty years.

In 1972, the House of Representatives directed the Council on Higher Education to review the comparison states and institutions; the criteria for their selection; whether circumstances have changed which could affect the utility or validity of these institutions for comparison purposes; and determine whether such comparisons serve a useful purpose. This report contains the results of that study. The report does not address other related questions outside the scope of the resolution. These include Washington's competitive position in relationship to all institutions in the country, the impact of lower than average salary increases in the past three years or the degree to which salaries should be increased in 1973-75. A paper updating the Council's January 1972 report on these issues is now being prepared and will be released in the near future.

### The Seven States and Institutions Used for Comparison

The states making up the "seven state group" are: California, Oregon, Illinois, Indiana, Michigan, Minnesota, and Wisconsin. The university comparisons use the major public comprehensive university in each of the states. Unless that institution includes, or is the land grant institution as is the case in four of the states, the land grant schools are not included. For example, the surveys include the University of Oregon, but not Oregon State University. The state colleges use twenty institutions in the same states, selected to produce a distribution of faculty among the states on a basis reasonably close to that of the universities. The community colleges do not use these states, nor as of this date, any other group of states, for salary comparison purposes.

## Basis for Selection of the States and Institutions

There is a lack of written documentation concerning the original basis for selection of the particular states and institutions. A review of available reports, especially a document prepared for the Central Budget Agency by Dr. Paul Ellis \* in 1963, and discussions with former budget officials indicate that the following is a reasonable account of the history of the selection of the institutions.

In the early 1950's, the University of Washington concluded that it was desirable to establish a consistent group of institutions for salary comparison purposes. Based on the information gained in earlier studies, an assessment of the strength and reputation of major public universities and quite probably, the consideration that the faculty salary levels at those institutions were above the average of the nation as a whole, an exchange of salary data was arranged with five mid-west universities and the University of California. The University of Oregon was added to the group due to its geographical proximity. The survey information was then used to develop a consistent data series in support of faculty salary requests for the University of Washington.

The other four year institutions in the state soon adopted a similar approach. Washington State University, (then College) used several of the same institutions and land grant institutions in the same states and in two other states, Iowa and Ohio. The state colleges (then colleges of education) used similar institutions in those nine states plus New Jersey and Connecticut. This practice of separate surveys continued for several years.

\*Faculty Salaries - Institutions of Higher Education, Dr. Paul W. Ellis, Central Budget Agency, December 1963. (Dr. Ellis is a former Legislative Auditor for the State of Washington)



In 1959, following the suggestions of the Central Budget Agency (now the Office of Program Planning and Fiscal Management) and the legislative auditor, the two universities agreed to use the same institutions for salary comparisons. The institutions were those which had been used by the University of Washington. These institutions and states were also accepted by the Central Budget Agency and the Legislative Budget Committee for use in budgeting faculty salary increases. By 1962, the state colleges also agreed to use the same seven states, retaining the twenty-two institutions in those states as the basis for their surveys. (In 1968, the state college comparison group was reviewed and six institutions were deleted and four were added within the same states. This revision was in response to changes in institutional size over the previous years).

The Ellis report indicates that the University of Washington was "primarily concerned...with the character of the other universities: whether they have about the same kind of programs, and whether they employ the same kind of staff." In that 1963 report, Dr. Ellis evaluated the selection of the states based on total income and per capita income data. Dr. Ellis excluded eastern seaboard states because, in his judgement, they were not competitive with Washington institutions for a variety of reasons. He concluded that only five states, in addition to the seven, might be included in a comparison group on these bases. These states were Ohio, Colorado, Missouri, Iowa and Kansas. Dr. Ellis did not recommend that the seven state group be altered however.

From the above review of the development of the seven state group it is evident that three factors were involved in the selection process:

1. Public institutions competing in the same "market place" for faculty; with highly competitive faculty salary levels
2. Public institutions having a comprehensive program and a reputation for quality (the latter most particularly related to the universities); and
3. An evaluation based on exclusion of states with total income less than 59% of the State of Washington, states outside a reasonable range of similarity in per capita personal income and eastern seaboard states.

The Council on Higher Education has concentrated on a review of these factors to determine if they are as applicable to the seven state group at this time as they were in the late 1950's and early 1960's.

## The Market Place and Salary Levels

While in the 1950's, the universities in the seven comparison states tended to dominate the market place for faculty, all evidence indicates that their influence has lessened. The emergence of the public system in New York and the growth of several southern institutions has tended to make the real market place for university and college faculty national in scope and not limited to certain states. The comparison institutions are still an important segment of the national faculty market place however.

As their influence in the faculty market place has declined, so have the salary levels of those institutions in relation to the nation as a whole. In the first half of the 1960's the faculty salaries of the comparison institutions were from four to six percent higher than national averages of similar public institutions. From 1965 to 1969 the salary levels were from three to five percent higher in the comparison states.

The tables on the following two pages indicate the relationship of the institutions in the seven state group to national faculty salary data for similar institutions for 1970-71 and 1971-72. Table I illustrates the average salaries for each faculty rank for the two years while Table II compares the weighted all ranks salary averages for the university and state college groups using both the seven state survey information and national faculty data.

It is evident that the seven state comparison data is now much more reflective of averages for the nation as a whole than they were ten years ago. The Fall, 1972 seven state surveys were completed December 5, 1972 and indicate that faculty salaries in the comparison states have increased by approximately 7.5% over 1971. This should be somewhat higher than the growth for the nation as a whole (that information will not be available until

TABLE I

COMPARISON OF NINE MONTHS FACULTY SALARIES BY RANK  
 NATIONAL DATA AND INSTITUTIONS IN SEVEN COMPARISON STATES  
 1970-71 and 1971-72

## -Universities-

<u>Rank</u>	<u>All Public Universities 1/</u>	<u>Seven State Universities</u>	<u>Difference</u>
<u>1970-71</u>			
Professor	\$ 19,150	\$ 20,140	+ \$ 990
Assoc. Prof.	14,350	14,262	- 88
Assist. Prof.	11,760	11,617	- 143
Instructor	8,970	9,213	+ 243
<u>1971-72</u>			
Professor	\$ 19,820	\$ 20,666	+ \$ 846
Assoc. Prof.	14,870	14,577	- 293
Assist. Prof.	12,190	11,921	- 269
Instructor	9,430	9,687	+ 257

## -State Colleges-

<u>Rank</u>	<u>All State Colleges 2/</u>	<u>Colleges in Seven States</u>	<u>Difference</u>
<u>1970-71</u>			
Professor	\$ 17,420	\$ 17,782	+ \$ 362
Assoc. Prof.	13,830	13,806	- 24
Assist. Prof.	11,440	11,367	- 73
Instructor	9,220	9,200	- 20
<u>1971-72</u>			
Professor	\$ 17,850	\$ 17,986	+ \$ 136
Assoc. Prof.	14,140	13,909	- 231
Assist. Prof.	11,800	11,543	- 257
Instructor	9,540	9,442	- 98

1/ Public institutions which offer the doctorate degree, and which conferred in the most recent three years an annual average of fifteen or more earned doctorates covering a minimum of three nonrelated disciplines.

2/ Public institutions awarding degrees above the baccalaureate but not included in 1/ above.

Sources: American Association of University Professors - Bulletins, 1971 and 1972, Seven State Salary Studies, 1970-71 and 1971-72; Office of Interinstitutional Business Studies.

TABLE II  
 COMPARISON OF WEIGHTED FACULTY SALARY AVERAGES  
 NATIONAL DATA AND INSTITUTIONS IN SEVEN COMPARISON STATES  
 1970-71 AND 1971-72

<u>1970-71</u>	<u>National Faculty Salary Data</u>	<u>Seven State Faculty Salary Data</u>	<u>Percentage Difference</u>
Universities	\$ 15,023	\$ 15,284	+ 1.7%
State Colleges	13,308	13,340	+ 0.2%
 <u>1971-72</u>			
Universities	\$ 15,707	\$ 15,829	+ 0.8%
State Colleges	13,851	13,694	- 1.1%

NOTE: The above averages are not the actual averages for Washington institutions. In 1970-71 Washington salaries were approximately five percent lower than the seven states and approximately nine percent lower in 1971-72.

Sources: American Association of University Professors: Bulletins, 1971 and 1972  
 Seven State Salary Studies, 1970-71 and 1971-72; Office of Interinstitutional Business Studies

June, 1973) and should place the seven state group in approximately the same relationship as existed in 1970-71 which was approximately equal to the national average.

CONCLUSION: While the market place for faculty at four year institutions has become more national in scope, the salary levels of the seven comparison states are reasonably reflective of the nation as a whole. The comparison group is probably as good an indicator, if not better, of competitive market conditions as when it was established.

NOTE: With the seven state group reflecting salaries approximating national averages, the past practice of maintaining Washington salaries at approximately 95% of the average of those states should be eliminated. Efforts should now be made to reach the average of those states since they are more reflective of the national market.

## Institutional Quality and Comprehensiveness

One of the major criteria used in the selection of the university sample was the perceived strength and reputation for quality of the institutions. While exact indicators of institutional quality are few, a study conducted in 1969-70 by the American Council on Education gives a good indication of the relative quality of graduate programs in American universities. Rankings based on this study were developed independently by Dr. Edward Ullman of the University of Washington, Dr. H.W. Magoun of U.C.L.A. and Dr. R. Ewell of the State University of New York at Buffalo. Table III on the following page contains the results of those rankings and the ACE ratings of strong and distinguished departments for the top 33 institutions, both public and private.

The table indicates that the major institutions in six of the seven states are the top rated public universities in terms of quality of graduate programs. The University of Oregon, included in the comparison group for primarily geographic reasons, ranks 31st in the nation and 14th among public universities.

While a similar scale is not available for state colleges, evidence indicates that all of the institutions included in the college survey group are comprehensive and offer masters degrees. Eighteen of the twenty schools are classified in group "II-A" by the American Association of University Professors. This category contains institutions offering degrees above the baccalaureate, but which do not confer an average of fifteen or more doctorates covering three non related disciplines. Two of the institutions fall in the "university" class but have compensation levels approximately the same as Category II-A institutions in the same state which are also in the survey group.

TABLE III

## RANKING OF AMERICAN UNIVERSITIES, 1968-69

Based on Quality of Graduate Faculty

Ranking Based on Quality Graduate Faculty ACE, 1968-69			University	Number Ranked Depts. ACE, 1968-69			Ranking 8 Largest Ph.D. Departments	
Ullman	Magoun	Ewell		Strong and Distin- guished	Distin- guished	Total (5+6)	Mean	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	2	2	Harvard	33	15	48	1.5	1
1	1	1	*Calif. (Berkeley)	35	20	55	2.5	2
3	4	3	Stanford	30	3	33	4.4	3
3	5	8	Chicago	30	6	36	8.5	5
3	3	4	Yale	30	5	35	8.3	4
6	7	6	*Wisconsin	30	3	33	8.6	6
7	6	7	Princeton	28	6	34	9.6	7
8	8	5	*Michigan	24	3	37	12.6	10
9	12	12	Columbia	30	3	33	12.6	11
9	9	10	Cornell	28		28	11.8	8
9	11	9	*Illinois	28	2	30	12.3	9
9	10	11	*UCLA	29		29	12.4	12
13	(3)	14	MIT	19	8	27	20.0	17
14	14	18	Johns Hopkins	24		24	16.3	13
15	17	16	*Minnesota	25	1	26	19.0	15
16	13	15	Pennsylvania	23		23	17.4	14
17	15	13	Wash. (Seattle)	22		22	19.3	16
18	16	19	*Indiana	22		22	23.6	19
19	18	17	Texas	23		23	29.1	26
20	20	21	Northwestern	17		17	21.8	18
21	26	26	Brown	17		17	24.9	20
22	(5)	20	Calif. Tech.	14	4	18	29.6	27
23	19	23	Duke	13		13	25.0	21
24	22	30	Rochester	12		12	26.8	23
25	21	25	North Carolina	12		12	29.0	24
26	25	24	Michigan State	12		12	29.1	24
27	(20)	37	Brandeis	12		12	26.0	22
28	24	27	NYU	11	1	12	30.7	28
29	(23)	22	Purdue	14		14	32.7	29
30	23	28	Wash. (St. Louis)	9		9	35.6	32
31	27	36	*Oregon	8		8	34.6	30
32	29	29	Ohio State	7		7	34.9	31
33		33	Penn. State	5		5	36.0	33

\* Institution included in seven state comparison group

Source: Dr. Edward Ullman, University of Washington, December 1971.

Based on data contained in: Kenneth D. Roose and Charles J. Andersen,  
A Rating of Graduate Programs, American Council on Education, Washington, D.C.,  
1970



CONCLUSION: An assessment of the quality and comprehensiveness of public institutions indicates that there would probably be no change in the states selected if the comparison group were to be reconstituted.

### Income Analysis

While factors such as total state income and per capita personal income were probably taken into account in the selection of the states, the 1963 analysis by Dr. Ellis concentrated on these factors. In his analysis, Dr. Ellis used income data from the Survey of Current Business, U.S. Department of Commerce for 1961. The results of his study are reproduced as Table IV on the following page. Table V which follows, reflects the same study using 1971 data from the same source. Only two changes were made. The bracketing of per capita personal income has been slightly altered to reflect the local 1971 economic conditions and the states of Florida and Hawaii were excluded; the first on the basis of Dr. Ellis' eastern seaboard criteria and the second due to its unique cost of living factors.

The tables indicate that the same states which met the criteria in 1961 still met that criteria in 1971. No additional mid-west, southern or western states meet the criteria used by Dr. Ellis.

CONCLUSION: There has been no marked change in total or per capita personal income in the past ten years which would indicate that states not included in 1961 would be included at this time.

TABLE IV

CENTRAL BUDGET AGENCY

Washington Income Compared with That of Other States - 1961

States listed include all states with both:

(1) Total income equal to over 59% of Washington Income.

(2) Income Per Capita between 89% and 117% of Washington Income Per Capita.

Except, no Atlantic Coast states are included (this deletes Massachusetts, New Jersey, Pennsylvania, and Maryland).

INCOME PER CAPITA			TOTAL INCOME		
Rank	State	Amount	Rank	State	Millions
5	California	\$ 2,780	2	California	\$ 45,586
8	Illinois	2,672	3	Illinois	27,410
11	Colorado	2,421	5	Ohio	23,013
13	WASHINGTON	2,381	7	Michigan	18,054
14	Ohio	2,330	10	Indiana	10,426
15	Oregon	2,273	12	Missouri	9,869
17	Michigan	2,270	13	Wisconsin	8,825
19	Missouri	2,254	18	Minnesota	7,458
21	Indiana	2,213	19	WASHINGTON	6,911
22	Wisconsin	2,194	21	Iowa	5,902
24	Minnesota	2,149	26	Kansas	4,693
25	Kansas	2,139	28	Colorado	4,312
27	Iowa	2,124	29	Oregon	4,089

Other States with Income Per Capita among the top 27 States (with Rank indicated) are:

1	Delaware	10	Maryland
2	Nevada	12	Hawaii
3	Connecticut	16	Wyoming
4	New York	18	Pennsylvania
6	New Jersey	20	Rhode Island
7	Alaska	23	Nebraska
9	Massachusetts	26	New Hampshire

Other States with Total Income among the top 29 States with Rank indicated) are:

1	New York	16	N.C.
4	Penna.	17	Conn.
6	Texas	20	Georgia
8	New Jersey	22	Tennessee
9	Mass.	23	Louisiana
11	Florida	24	Kentucky
14	Maryland	25	Alabama
15	Virginia	27	Oklahoma

Source: Survey of Current Business  
U. S. Department of Commerce

TABLE V

COUNCIL ON HIGHER EDUCATION

Washington Income Compared with That of Other States - 1971

States listed include all states with both:

- (1) Total income equal to over 59% of Washington Income.
- (2) Income Per Capita between 93% and 117% of Washington Income Per Capita.

Except, no Atlantic Coast states are included (this deletes Massachusetts, New Jersey, Pennsylvania, Maryland and Florida)

INCOME PER CAPITA			TOTAL INCOME		
Rank	State	Amount	Rank	State	Millions
6	Illinois	\$ 4,775	1	California	\$ 94,118
9	California	4,640	3	Illinois	53,400
11	Kansas	4,522	5	Ohio	44,833
12	Michigan	4,430	7	Michigan	39,850
13	Ohio	4,175	11	Indiana	21,120
14	Colorado	4,153	12	Missouri	18,587
16	WASHINGTON	4,132	16	Wisconsin	17,496
18	Minnesota	4,032	18	Minnesota	15,564
20	Indiana	4,027	20	WASHINGTON	14,221
21	Oregon	3,959	23	Iowa	11,088
22	Missouri	3,940	26	Kansas	9,460
26	Wisconsin	3,912	27	Colorado	9,457
27	Iowa	3,877	29	Oregon	8,470

Other States with Income Per Capita among the top 27 States (with Rank indicated) are:

1	New York	10	Massachusetts
2	Connecticut	15	Pennsylvania
3	Alaska	17	Rhode Island
4	Nevada	19	Nebraska
5	New Jersey	23	Florida
7	Hawaii	24	Wyoming
8	Delaware	25	Arizona

Other States with Total Income among the top 29 States (with Rank indicated) are:

2	New York	15	N. C.
4	Pennsylvania	17	Georgia
6	Texas	19	Conn.
8	New Jersey	21	Tennessee
9	Florida	22	Louisiana
10	Mass.	24	Kentucky
13	Virginia	25	Alabama
14	Maryland	28	Oklahoma

Source: Survey of Current Business  
U. S. Department of Commerce

### Higher Education Comparisons Generally

The House Resolution asks whether comparisons with other states - particularly the seven state group - serve a useful and valid purpose. Our study indicates that insofar as faculty salary comparisons of the four year institutions are concerned, they are useful and perhaps have more validity than in the past. They are useful since the information is both timely and is well understood by those providing and interpreting the information. In the case of national salary data, the complete picture is not known until June of the following year and is of no assistance in determining appropriation levels. The knowledge that the seven state group is reflective of the national faculty salary picture should assist in establishing their validity for salary comparison purposes.

It is not suggested that the seven states be applied to the community college system. The community college market place is primarily local (less than ten percent of new faculty are hired from out of state) and two of the seven states have no community college systems. In cases where community college factors might be compared with other states, the states used for comparison should be selected on the basis of the community college systems in those states. Factors such as maturity of the system, academic-occupational emphasis, state and local funding etc., should be taken into account in the selection of states.

Insofar as the question of the validity of the seven states for other types of comparisons with the four year institutions is concerned, the answer de-

depends on the type of comparison desired. Comparisons which relate in some way to faculty compensation, e.g., benefits, supporting staff, workloads etc., would probably be appropriate. Other comparisons should be made only after determining if the results will provide the best available data and that the elements to be compared are reasonably comparable with the Washington institutions.