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ABSTRACT

For a number of years, the California community colleges have used data from annual statewide surveys conducted by the Kern Community College District and the California Community College Trustees (CCCT) for comparative faculty salary information. Both the Kern and CCCT studies rely upon the device of selecting benchmark points (such as the "maximum non-doctorate" salary) on each schedule rather than reporting all salaries on the schedule, an approach which presents certain methodological limitations. A more appropriate method would be to develop standardized salary schedules using the newer technology of the desk-top computer spreadsheet. With an electronic spreadsheet program, it is possible to compare or average the large groups of data found in salary schedules, either in a pay-scale step-by-step, or faculty member-by-faculty member basis. To test this approach, salary schedules of the 15 largest single-college districts in California were analyzed using a spreadsheet matrix which contained standardized salary rankings along the X-axis, with each district represented along the Y-axis. All colleges were fit into the matrix, making it possible to arrive at schedule averages for each college. Based on these figures, a series of salary comparisons were made, including a cell-by-cell comparison, a comparison adjusting for the cost-of-living differences between districts, and a comparison of actual salaries paid to a college's faculty with salaries these same faculty would be paid if employed under another college's salary schedule. Tables of spreadsheet results are included. (JMC)

The Standardized Faculty Salary Schedule

A New Methodology for Interinstitutional Comparison of Faculty Salaries

Ernest C. Cooper, Executive Assistant to the President
San Joaquin Delta College

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Introduction

When the subject of faculty salaries is raised on any college campus, one of the most immediate and common practices of Boards of Trustees, administrators, and faculty members alike is to compare faculty salaries on their campus with salaries paid to faculty at other colleges. For a number of years, the California community colleges have relied, for comparative faculty salary information, upon statewide surveys conducted annually by the Kern Community College District and the California Community College Trustees (CCCT). These are both well established sources of information with timely and accurate participation by all of the California community college districts.

Limitations of Current Sources of Comparative Information

When reporting information about salary schedules at various community college districts, both the Kern and the CCCT studies rely upon the device of selecting benchmark points on each schedule for which to report salaries. This is understandable given the lack of uniformity in the format of salary schedules from district to district, and given the mass of information which would be involved in reporting all salaries on the schedule. This method of reporting presents some limitations, however.

It is very possible that a particular district may be high (or low) with regard to one of the benchmark comparisons, yet have more comparable salaries elsewhere on the schedule. A district's ranking in comparative faculty salaries may depend as much upon which benchmarks are reported as upon the actual level of compensation paid to faculty.

The use of the "Maximum Non-Doctorate" salary as one of the major benchmarks for comparison presents special problems. Unlike the "Minimum Salary with a Masters Degree" benchmark, which will always occur at step 1 of any salary schedule, the "Maximum Non-Doctorate" salary may occur at step 12 (or less) or step 40 or anywhere in-between. Thus a faculty member who is at the "Maximum Non-Doctorate" salary at one institution might, if employed at another, be less than half-way to the maximum. The "Maximum Non-Doctorate" salary also fails to take into account the number of credit hours of graduate instruction required of the faculty member to reach the "Maximum Non-Doctorate" column on the salary schedule. At some colleges as few as 30 hours beyond the Masters are required, others may require as many as 60.

A Proposed Solution

One way to address the problems identified might be to select more and better defined benchmarks with which to compare faculty salary schedules. This approach could improve the comparability of information, but would still retain

the problem of trying to compare all faculty salaries based upon a selected few. The use of benchmarks was probably a necessity in the days before the advent of the electronic spreadsheet. It was simply not possible (without inordinate use of tedious manual calculations) to compare or average large groups of data such as faculty salary schedules. Using a desk-top computer, however, it is now possible to compare salary schedules on a step-by-step or faculty member-by-faculty member basis.

Developing Standardized Salary Schedules

In order to directly compare salary schedules, it is first necessary to develop a standard format into which all of the district-to-district variations in salary schedules can be fit. [For the purposes of this study, the fifteen largest single-college community college districts were used as a comparison group. There is no logistical reason why the same methodology could not be used with other comparison groups or expanded to include all California Community Colleges.] In comparing salary schedules, it appeared that they could all be fit into a standard salary schedule matrix which used as columns: BA, MA, MA w/45, MA w/60, MA w/75, MA w/90, and Earned Doctorate. (Table A) "MA w/45", for example, means Masters degree with 45 graduate hours beyond the Bachelors level. If you assume that the Masters degree requires approximately 30 graduate hours, the matrix has a symmetry beyond the MA column, with each move to a new column requiring 15 additional graduate hours. Almost all salary schedules fit nicely into this matrix. Using 30 graduate hours as a standard for the MA, a schedule designation of "MA+15" (for example) could be readily fit into the "MA w/45" column of the matrix.

Rather than attempt to fit an average for the number of steps in each column, thirty steps were arbitrarily assigned to each column on the assumption that it represented the maximum number of years (or steps) which would typically be reached by most faculty members.

A standard salary schedule matrix was then laid out for each community college district on an electronic spreadsheet. Each matrix consisted of the seven columns and thirty rows. Into each matrix was entered the salary from the district's schedule which was applicable to the particular cell. The minimum salary with a BA was entered into step 1 of the BA column, the salary for an MA with five years experience was entered into step 5 of the MA column, and so forth, until all cells in the matrix were filled. Where a college did not have a column to match one in the matrix, the salaries from the previous column were carried forward. Where the maximum salary for the column was reached before the use of all thirty rows, the maximum salary was simply filled down to the end of the column (as would be done for the salary for any individual still in that column with years beyond the maximum). The use of thirty rows in each column allowed the introduction of longevity increments where allowed on various schedules. The result was a standardized salary schedule for each community college.

Comparing Schedules

A number of methods can be used to compare the standardized salary schedules, once developed. It is often very handy to have a single number that can be used for

comparison, and for this purpose the "Schedule Average" was developed. The "Schedule Average" is the arithmetic average of all cells in the 7x30 matrix and represents the average of all possible salaries on the standardized salary schedule. This single number can be readily used to compare the relative scale of various college's salary schedules. (Table B) [One is often forced to use year-old data for some colleges due to the vagarities of the collective bargaining process. On Table B some standardized schedules have been inflated by an assumed wage inflation rate to allow for current comparison.]

Given the availability of comparative cost-of-living data, the Schedule Averages can be adjusted for cost-of-living differences between districts. (Table C)

Using the standardized salary schedules, it is also possible to construct an "Average Faculty Salary Schedule" which is the arithmetic average of the individual cells of each college's salary matrix. (Table D) This "Average Faculty Salary Schedule" allows a researcher to be able to tell at a glance the average salary paid (for example) to a faculty member with an MA, 60 graduate hours, and thirteen years of experience.

An individual college's standardized schedule can also be compared on a cell-by-cell basis with the average schedule. (Table E) This can provide a graphic picture of salary cells, or groups of cells, which are dramatically above or below the average. The same comparison can be made with the standardized schedule of any other selected college or subset of colleges.

Using the standardized schedule and a matrix of the education and experience of your own college's faculty, the standardized schedules also allow the comparison of actual salaries paid to the college's faculty with what the same faculty would be paid if it were employed under another college's salary schedule. (Tables A and B) This is an extremely powerful comparison as it takes into account not only comparative salary schedules but also the education and experience of the individual faculty members of one's own college.

Conclusions

The use of electronic spreadsheets and the development of a standardized salary schedule can present powerful new tools for the accurate evaluation of comparative faculty salaries. Development of a common methodology for standardization of salary schedules and agreement on the appropriate computation of a "schedule average" could lead to wider use of this method and prove beneficial for all California community colleges in making accurate and meaningful faculty salary comparisons. The exchange among colleges of electronic spreadsheets containing standardized salary schedule information could also greatly expand the ease and value of such comparisons.

Paper presented at the California Association of Community Colleges (CACC) Annual Research Conference, Asilomar, April 19, 1990.

TABLE A

Salary Schedule Comparison

	BA	BA <x> MA	MA	MA w/ 45	MA w/ 60	MA w/ 75	MA w/ 90	Doctorate
Cerritos	BA		MA	MA w/ 50		MA w/ 70	MA w/ 90	Doctorate
Chaffey	Additions to scheduled salary on a per-unit basis, with extra additions for degrees.							
El Camino	BA		MA		MA + 24	MA + 48		Doctorate
Glendale	BA		MA		MA w/ 56	MA w/ 70	MA w/ 84 #	Doctorate
Long Beach	< MA		MA	MA w/ 42	MA w/ 56	MA w/ 70	MA w/ 84	Doctorate
Mt. San Antonio	BA		MA		MA w/ 60	MA w/ 80 #		Doctorate
Palomar	BA	BA + 24	MA	MA w/ 48		MA w/ 72	MA w/ 96	Doctorate
Pasadena	CCC Credential			MA + 18	MA + 36		MA + 54	Doctorate
Rio Hondo	BA	BA + 30	MA		MA w/ 60	MA w/ 80		Doctorate
Riverside	BA		MA	MA + 15	MA + 30	MA + 45	MA + 60	Doctorate
San Joaquin Delta	BA	BA + 30	MA	MA w/ 45	MA w/ 60			Doctorate
Santa Barbara	BA		MA	MA w/ 45	MA w/ 60	MA w/ 75		Doctorate
Santa Monica	BA		MA	MA + 14	MA + 28	MA + 42	MA + 56	Doctorate
Sonoma	BA	BA + 30	MA		MA w/ 55	MA w/ 75		Doctorate
Southwestern	CCC Credential		MA	MA w/ 45	MA w/ 60	MA w/ 75	MA w/ 90	Doctorate

= Same as Doctorate Column

TABLE B

Average Salaries

(= Based on last year's schedule, but inflated by assumed wage inflation rate.)*

Assumed Wage Inflation Rate
5.00%

Ranked by Average of Salary Schedule	
San Joaquin Delta	$48,254
Riverside	$45,061
Santa Monica	$44,983 *
Sonoma	$44,719
Southwestern	$44,340 *
Mt San Antonio	$44,107
Rio Hondo	$43,453 *
El Camino	$43,430
Group Average	$43,231
Long Beach	$42,987
Palomar	$42,355
Glendale	$42,339
Cerritos	$42,302
Pasadena	$41,357
Chaffey	$39,751
Santa Barabara	$39,246

Alphabetic Order	
Cerritos	$42,302
Chaffey	$39,751
El Camino	$43,430
Glendale	$42,339
Long Beach	$42,987
Mt San Anto	$44,107
Palomar	$42,355
Pasadena	$41,357
Rio Hondo	$43,453 *
Riverside	$45,061
San Joaquin	$48,254
Santa Barab	$39,246
Santa Monic	$44,983 *
Sonoma	$44,719
Southwestern	$44,340 *
Group Avera	$43,231

Ranked by Average Placement of Delta College Faculty	
San Joaquin De	$51,083
Sonoma	$46,819
Santa Monica	$46,803 *
Riverside	$46,742
Mt San Antonio	$46,312
Southwestern	$45,991 *
Rio Hondo	$45,671 *
El Camino	$45,222
Group Average	$45,083
Long Beach	$44,531
Palomar	$44,158
Glendale	$44,033
Cerritos	$43,983
Pasadena	$42,728
Santa Barabara	$41,138
Chaffey	$41,032

TABLE C

Average Salaries *(adjusted for cost-of-living)*

(= Based on last year's schedule, but inflated by assumed wage inflation rate.)*

Ranked by Average of Salary Schedule		Alphabetic Order		Ranked by Average Placement of Delta College Faculty	
San Joaquin Delta	$52,427	Cerritos	$40,432	San Joaquin De	$55,501
Southwestern	$47,920 *	Chaffey	$37,744	Southwestern	$49,704 *
Sonoma	$45,585	El Camino	$40,892	Sonoma	$47,725
Riverside	$44,912	Glendale	$42,904	Rio Hondo	$46,713 *
Rio Hondo	$44,445 *	Long Beach	n/a	Riverside	$46,588
Glendale	$42,904	Mt San Anto	$40,286	Glendale	$44,620
Group Average	$42,337	Palomar	$41,278	Group Average	$44,151
Santa Monica	$41,443 *	Pasadena	$37,781	Santa Monica	$43,119 *
Palomar	$41,278	Rio Hondo	$44,445 *	Palomar	$43,035
El Camino	$40,892	Riverside	$44,912	El Camino	$42,580
Cerritos	$40,432	San Joaquin	$52,427	Mt San Antonio	$42,300
Mt San Antonio	$40,286	Santa Barab	$37,792	Cerritos	$42,038
Santa Barabara	$37,792	Santa Monic	$41,443 *	Santa Barabara	$39,614
Pasadena	$37,781	Sonoma	$45,585	Pasadena	$39,033
Chaffey	$37,744	Southwester	$47,920 *	Chaffey	$38,960
Long Beach	n/a	Group Avera	$42,337	Long Beach	n/a

TABLE D

Average Faculty Salary Schedule

Average	BA	MA	MA w/ 45	MA w/ 60	MA w/ 75	MA w/ 90	Doctorate
1	$25,634	$27,596	$28,623	$29,800	$31,103	$31,953	$33,531
2	$26,968	$28,941	$29,973	$31,154	$32,472	$33,325	$34,907
3	$28,303	$30,990	$31,328	$32,512	$33,839	$34,696	$36,281
4	$29,641	$31,641	$32,686	$33,875	$35,209	$36,071	$37,653
5	$31,680	$32,994	$34,046	$35,240	$36,586	$37,452	$39,039
6	$32,325	$34,352	$35,410	$36,609	$37,965	$38,836	$40,423
7	$33,672	$35,714	$36,779	$37,981	$39,347	$40,222	$41,810
8	$34,917	$37,078	$38,149	$39,358	$40,736	$41,615	$43,203
9	$36,247	$38,528	$39,607	$40,820	$42,210	$43,095	$44,684
10	$37,295	$39,794	$40,879	$42,204	$43,605	$44,495	$46,085
11	$37,891	$40,863	$42,155	$43,593	$45,003	$45,899	$47,490
12	$38,334	$41,740	$43,144	$44,678	$46,306	$47,309	$48,902
13	$38,482	$42,070	$43,559	$45,388	$47,300	$48,401	$49,999
14	$38,645	$42,363	$43,935	$45,735	$47,831	$49,117	$50,829
15	$38,911	$42,747	$44,319	$46,023	$48,198	$49,484	$51,195
16	$39,083	$43,017	$44,592	$46,511	$48,493	$49,788	$51,503
17	$39,341	$43,201	$44,781	$46,704	$48,782	$50,077	$51,797
18	$39,463	$43,345	$45,005	$47,012	$49,197	$47,062	$52,310
19	$39,528	$43,545	$45,208	$47,113	$49,303	$50,766	$52,489
20	$39,684	$43,724	$45,496	$47,358	$49,591	$51,011	$52,734
21	$39,957	$44,029	$45,886	$47,861	$49,987	$51,407	$53,135
22	$40,129	$44,121	$45,982	$47,962	$50,092	$51,752	$53,483
23	$40,129	$44,144	$46,004	$47,984	$50,222	$51,881	$53,613
24	$40,251	$44,396	$46,336	$48,268	$50,513	$52,172	$53,904
25	$40,407	$44,574	$46,515	$48,387	$50,692	$52,422	$54,154
26	$40,421	$44,588	$46,529	$48,508	$50,706	$52,534	$54,266
27	$40,665	$44,725	$46,665	$48,645	$50,842	$52,671	$54,402
28	$40,679	$44,739	$46,679	$48,659	$50,964	$52,792	$54,524
29	$40,693	$44,860	$46,801	$48,673	$50,978	$52,806	$54,538
30	$40,913	$45,080	$47,021	$48,893	$51,198	$53,125	$54,856

TABLE E

Own Schedule vs. Average Schedule

Showing amounts over (under) Average.

	BA	MA	MA w/ 45	MA w/ 60	MA w/ 75	MA w/ 90	Doctorate
1	$2,373	$3,165	$3,357	$3,607	$2,304	$1,454	$1,280
2	$2,602	$3,409	$3,611	$3,872	$2,554	$1,701	$1,589
3	$2,839	$2,946	$3,855	$4,130	$2,803	$1,946	$1,870
4	$3,070	$3,881	$4,099	$4,384	$3,050	$2,188	$2,075
5	$2,595	$4,112	$4,342	$4,638	$3,292	$2,426	$2,370
6	$3,521	$4,342	$4,578	$4,888	$3,532	$2,661	$2,615
7	$3,737	$4,565	$4,814	$5,134	$3,768	$2,893	$2,858
8	$4,060	$4,790	$5,045	$5,376	$3,998	$3,119	$3,094
9	$4,300	$4,922	$5,189	$5,530	$4,140	$3,255	$3,242
10	$3,252	$5,242	$5,518	$5,764	$4,363	$3,473	$3,470
11	$2,656	$5,760	$5,845	$5,991	$4,581	$3.685	$3,694
12	$2,213	$4,883	$6,460	$6,524	$4,896	$3,893	$3,937
13	$3,078	$5,719	$7,285	$8,755	$6,843	$5,742	$5,857
14	$2,915	$5,426	$6,909	$8,408	$6,212	$5,026	$6,724
15	$2,649	$5,042	$6,525	$8,120	$5,945	$4,659	$6,358
16	$2,477	$4,772	$6,252	$7,632	$5,650	$4,355	$6,050
17	$3,233	$5,754	$7,303	$8,759	$6,681	$5,386	$7,160
18	$3,111	$5,610	$7,079	$8,451	$6,266	$8,401	$6,647
19	$3,046	$5,410	$6,876	$8,350	$6,160	$4,697	$6,468
20	$2,890	$5,231	$6,588	$8,105	$5,872	$4,452	$6,223
21	$3,631	$6,091	$7,438	$8,923	$6,797	$5,377	$7,226
22	$3,459	$5,999	$7,342	$8,822	$6,692	$5,032	$6,878
23	$3,459	$5,976	$7,320	$8,800	$6,562	$4,903	$6,748
24	$3,337	$5,724	$6,988	$8,576	$6,271	$4,612	$6,457
25	$3,181	$5,546	$6,809	$8,397	$6,092	$4,362	$6,207
26	$3,167	$5,532	$6,795	$8,276	$6,078	$4,250	$6,095
27	$2,923	$5,395	$6,659	$8,139	$5,942	$4,113	$5,959
28	$2,909	$5,381	$6,645	$8,125	$5,820	$3,992	$5,837