# Salary Study of College Presidents and Faculty: Are Salaries for Institutions in the Council of Christian Colleges and Universities Different from Other Private Institutions?

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ABSTRACT: This study examines the salaries of college presidents and faculty at private colleges and universities in the United States. This study identifies factors influencing the salary of college presidents and faculty and identifies differences between salaries at member institutions of the Council of Christian Colleges and Universities (CCCU) and non-CCCU schools. Data was gathered from numerous sources (e.g. U.S. News & WORLD REPORT, Marquis Who's Who, the Integrated Postsecondary Education Data System, and The Chronicle of Higher Education) in order to compare benchmark salary figures for college presidents and faculty while controlling for size, academic reputation and other institutional variables.

# INTRODUCTION

The CCCU is an international higher education association of private, intentionally Christian colleges and universities (Council for Christian Colleges and Universities, 2006). A feel for the uniqueness of CCCU schools is captured in the following statement taken from the CCCU Web site:

The U.S. Department of Education reports that there are more than 4,000 degree-granting institutions of higher education in the United States alone. About 1,600 of those are private, non-profit campuses and about 900 of these colleges and universities describe themselves as "religiously affiliated." However, only 102 are intentionally Christ-centered institutions that have qualified for membership in the CCCU (Council for Christian Colleges and Universities, 2006).

Christian presidents and faculty often consider their service to CCCU institutions as a calling (Delbecq, 2004; Palmer, 2000). It is this author's belief that sometimes this calling comes under question when personal finances get tight. A faculty member may wonder if God wants them to seek employment in the non-academic world. Perhaps a Christian faculty member wonders what they could or should be earning if they were employed at a secular institution. This paper seeks to provide benchmark salary figures for college presidents and faculty for CCCU and non-CCCU schools. This paper seeks to identify and quantify any financial sacrifice that is incurred when serving as the president or a faculty member at a CCCU school.

## LITERATURE REVIEW

The compensation of corporate, government, and non-profit leaders has been a popular research topic. Research

into the level of corporate CEO compensation and the link between pay and performance has been studied by Gomez-Meijia, Tosi, & Hinkin (1987), Murphy (1999), and Hall & Liebman (1998). Government and nonprofit executive compensation has been studied by Ehrenberg, Chaykowski, & Enrenberg (1988), Preston (1989), and Hallock (2002).

College and university president salaries have been studied by Pfeffer & Ross (1988); Ehrenberg, Cheslock, & Epifantseva (2001); Sorokina (2003); and Baliles (2006). Baliles (2006) notes that the "compensation of most college and university presidents is far less than that of the chief executives of comparable for-profit enterprises. As nonprofit, mission-centered institutions, colleges and universities are more likely to regard the presidency as a calling, and many of the values that motivate presidents of these institutions cannot be quantified in terms of compensation" (p. 20). Baliles' point notes the difference between the for-profit and the nonprofit world. This paper will examine the difference between religious affiliation and non-religious affiliation within the non-profit world of private colleges and universities.

Pfeffer & Ross (1988) use annual survey data from the College and University Personnel Association to explain about 50% of the variation in college president salaries. They find that salary is positively related to institution type, size, and resources. Also, they find that female presidents and inside hires earn significantly less, other factors held constant.

Ehrenberg, Cheslock, & Epifantseva (2001) use information on personal and university characteristics to explain about 65% of the variation in college president salaries. They find that salary is positively related to seniority in their current position, years at a prior presidency, professor average salary, endowment per student, enrollment, freshman test scores and if the university is in the research/doctoral Carnegie classification. University presidents who are members of the clergy receive 19% less than other presidents, other factors held constant. This finding is related to the current study which will seek to identify the factors that determine the salary and compensation of Christian university presidents.

Sorokina (2003) studies the level and change in liberal arts college president's salaries. Using both personal and university characteristics, she is able to explain about 55% of the variation in the level of liberal arts college presidents' salaries. She finds that salary is positively related to the *U.S. News & World Report* tier ranking, being a female, job tenure, and being listed in Marquis' Who's Who.

Both Sorokina (2003) and Ehrenberg, Cheslock, & Epifantseva (2001) attempt to explain changes in president salaries. In both cases they find weak evidence that presi-

dents are rewarded for their performance. The adjusted R<sup>2</sup> values for their models range from 0.04 to 0.13. This study will not attempt to explain changes in salary but rather the level of presidential and faculty salary with a specific look at whether presidents and faculty in the CCCU earn more, less, or the same as their colleagues outside of the CCCU.

In terms of faculty salaries, Fairweather (2005) found that individual faculty member salary is positively related to publications and teaching in a graduate program and negatively related to teaching additional courses. This would imply that faculty salaries at teaching-oriented schools would be lower than research-oriented schools. Also, this would imply that faculty salaries at schools with graduate programs would be higher. This study will not attempt to identify the factors that affect individual faculty member salary's. This study will attempt to explain average faculty salaries based on institutional characteristics including the institution type (e.g. master's, bachelor's).

#### **MODEL AND DATA**

This study uses a framework and data similar to Ehrenberg, Cheslock, & Epifantseva (2001) and Sorokina (2003). The goal of this paper is to estimate president and faculty salaries while controlling for institutional and, in the case of president salaries, personal characteristics in order to determine if there is a difference in salaries between CCCU and non-CCCU schools. Thus, the model to be analyzed can be expressed with the following formula:

Salary =  $\alpha + \beta_1$  (institution size)

- +  $\beta_2$  (institution revenue)
- +  $\beta_3$  (institution wealth)
- +  $\beta_4$  (institution type)
- +  $\beta_5$  (institution quality)
- +  $\beta_6$  (religious affiliation)
- +  $\beta_7$ (personal characteristics)
- +  $\beta_8$ (CCCU) +  $\epsilon$

The overall compensation for college presidents is a complex mix of salary, benefits, deferred compensation, bonuses, and housing (Atwell and Wellman, 2000). IRS regulations require nonprofit colleges and universities to provide the pay and benefits of their presidents on IRS Form 990. The data on Form 990 is the most standardized form of compensation available for private nonprofit organizations (Atwell and Wellman, 2000). *The Chronicle of Higher Education* (2006) compiles and reports data from Form 990 annually for private colleges and universities.

The president salary data used in this study are for the 2004-2005 academic year, which is the most recent fiscal year available.

The Carnegie Foundation for the Advancement of Teaching (2006) classifies universities into Doctoral/Research Universities-Extensive and Intensive, Master's Colleges and Universities I and II, Baccalaureate Colleges-Liberal Arts. All CCCU schools in the *Chronicle's* data set are classified (by the 2000 Carnegie Classification) as either a Master's College/University or a Baccalaureate College. Thus, the 568 Master's College/University or Baccalaureate College classified schools on the *Chronicle's* data set and their reported president salaries form the basis for this paper's data set.

Fifty-nine of the 568 schools were removed from the data set for one or more of the following reasons: (1) the salary report includes deferred compensation as a part of their president's salary, (2) the salary reported is for only part of the year, (3) the reported president salary is \$0. It is worth noting that many religiously affiliated, particularly Catholic, college presidents do not receive a salary. As a result of these removals, the data set is reduced to 509 institutions.

Data for the average of all faculty salary, average professor salary, and average assistant professor salary is available for thousands of colleges and universities from the Integrated Postsecondary Education Data System, IPEDS (2006). The data used for faculty salaries is also for the 2004-2005 academic year.

Pfeffer and Ross (1988) note that one "of the most consistent findings in the extensive literature on executive compensation is the relationship between size and renumeration" (p. 80, citing Gomez Gomez-Meijia, Tosi, & Hinkin 1987). IPEDS data was collected for full-time equivalent (FTE) students to proxy for institution size. Additionally, IPEDS data was collected for tuition and fees to proxy for institution revenue and endowment per student to proxy for institution wealth. IPEDS did not have complete data on faculty salaries, FTE, tuition and fees, and endowment per student for 44 of the 509 schools. This reduced the data set to 465 schools.

The *U.S. News & World Report* 2004 edition of America's Best Colleges was used to gather data on institution type and quality (Sklaroff, 2003). The 2004 edition came out in the fall of 2003 which would be the most upto-date information available for determining salaries for the 2004-2005 academic year. Dummy variables were created to signify the type of institution: liberal arts bachelor's, comprehensive bachelor's, and university master's (e.g. liberal arts bachelor's and 0

otherwise). The *U.S. News & World Report* rankings have "become the 'Gold Standard' of the ranking business" (Ehrenberg, 2002, P. 146). The rankings are a weighted average of multiple factors including peer assessment, retention, student selectivity, graduation rates, and other measures. Dummy variables for the *U.S. News & World Report* classification for tiers 1, 2, 3 and 4 were created to proxy for institutional quality (e.g. tier 1 =1 if tier 1 and 0 otherwise). *U.S. News & World Report* did not have complete data on institution type and tier for 21 of the 465 schools. Thus, this paper's final data set is made up of 444 schools.

Burke (2004) and Sklaroff (2003) were used to determine whether or not an institution had a religious affiliation. Two sources were used in order to double check the accuracy of whether or not a school had a religious affiliation. The religious affiliation dummy variable is 1 if the school has a religious affiliation and 0 otherwise.

Two variables were created to measure the president's personal characteristics. A gender dummy variable takes on a value of 1 if the president is a female and 0 if the president is a male. Whether or not a president has been listed in Marquis' Who's Who (2006) is a proxy for human capital and the dummy variable takes on a value of 1 if the president is listed and 0 if they are not.

Finally, in order to compare CCCU with non-CCCU schools, the CCCU school dummy variable takes on a value of 1 if the school is a CCCU member institution and 0 otherwise. All other factors that affect president and faculty salaries are assumed to be randomly distributed with a mean of 0. Thus, the estimate of e is 0

# **UNIVARIATE ANALYSIS**

Table 1 reports the mean and standard deviations for both the dependent and independent variables of this study broken down by CCCU and non-CCCU schools. Also reported is the t-statistic and 2-tailed p-value for a comparison of the means between CCCU and non-CCCU schools. A nonparametric test equivalent to the t-test was conducted for each of the variable comparisons. The statistical significance of the nonparametric test results is identical to the t-statistic test results. The nonparametric tests are not reported in this paper.

As can be seen in Table 1, the average president salary at a CCCU school is \$169,528 which is significantly less than the average salary of \$223,604 for non-CCCU school presidents. In fact, at the univariate level, all faculty salary (\$48,809 vs. \$55,586), professor salary (\$57,916 vs. \$70,021), and assistant professor salary (\$42,414 vs.

Variable	CCCU (N = 47)		Non-CCCU $(N = 397)$			2-tailed
	Mean	Std. Dev.	Mean	Std. Dev.	t-stat.	p-value
FTE	2,136	865	2,215	1,695	0.52	0.61
Tuition and Fees	\$15,555	\$3,596	\$19,496	\$5,645	6.61	0.00**
Endowment per FTE	\$11,859	\$15,342	\$50,623	\$93,390	7.46	0.00**
Liberal Arts Bach.	0.11	0.31	0.35	0.48	4.74	0.00**
Comprehensive Bach.	0.21	0.41	0.17	0.38	-0.66	0.51
University Master's	0.68	0.47	0.48	0.50	-2.80	0.01**
U.S. News Tier 1	0.28	0.45	0.38	0.48	1.40	0.17
U.S. News Tier 2	0.26	0.44	0.29	0.46	0.53	0.60
U.S. News Tier 3	0.30	0.46	0.19	0.40	-1.48	0.15
U.S. News Tier 4	0.17	0.38	0.14	0.35	-0.59	0.56
Religious Affiliation	1.00	0.00	0.63	0.48	-15.26	0.00**
President Gender	0.04	0.20	0.25	0.43	5.55	0.00**
President Who's Who	0.49	0.51	0.66	0.47	2.27	0.03*
President Salary	\$169,528	\$47,235	\$223,604	\$80,451	6.77	0.00**
All Faculty Salary	\$48,809	\$7,288	\$55,586	\$11,358	5.62	0.00**
Professor Salary	\$57,916	\$8,592	\$70,021	\$16,330	8.08	0.00**
Asst. Prof. Salary	\$42,414	\$5,154	\$46,658	\$7,227	5.08	0.00**

Table 1: CCCU and Non-CCCU Mean Comparisons

\$46,658) are all significantly lower for CCCU member institutions compared to non-CCCU institutions.

Caution should be used when comparing the mean values. There are also significant differences between CCCU and non-CCCU schools in terms of tuition and fees (\$15,555 vs. \$19,496), endowment per FTE (\$11,859 vs. \$50,623), university type (liberal arts bachelor's and university master's), and religious affiliation. In terms of religious affiliation, all CCCU schools also have a religious affiliation; whereas, only 63% on the non-CCCU schools are religiously affiliated.

Additionally, there are significant differences in the personal characteristics between CCCU and non-CCCU presidents. Only 4% of CCCU school presidents are female compared to 25% of the non-CCCU school presidents. Corrigan (2002) found that the number of female college presidents nationwide is on the rise reporting an increase

from about 9.5% in 1986 to 21% in 2001. This increase does not show up in the CCCU sample for this study. Another significant personal characteristic difference between the samples is that 49% of CCCU school presidents are listed in Marquis' Who's Who compared to 66% of the non-CCCU school presidents.

Thus, there are significant differences in president and faculty salaries between CCCU and non-CCCU schools. However, multivariate analysis must be conducted in order to determine if these differences can be explained by the variation in institutional and personal characteristics.

## **MULTIVARIATE ANALYSIS**

The model used to conduct the multivariate analysis is expressed with the following formula:

<sup>\*</sup> statistically significant at the 5% level.

<sup>\*\*</sup> statistically significant at the 1% level.

Salary =  $\alpha + \beta_1(FTE) + \beta_2(tuition and fees)$ 

 $\beta_3$ (endowment per FTE)

 $\beta_{4a}$ (liberal arts bachelors)

 $\beta_{4b}$  (comprehensive bachelors)

 $\beta_{5a}(\text{tier 1}) + \beta_{5b}(\text{tier 3}) + \beta_{5c}(\text{tier 4})$ 

 $\beta_6$  (religious affiliation)

 $\beta_{7a}$ (president gender)

 $\beta_{7b}$ (president who's who)

 $\beta_8(CCCU) + \epsilon$ 

The dummy variables for liberal arts bachelor's and comprehensive bachelor's are interpreted relative to the university masters classification. The dummy variables for tier 1, tier 3, and tier 4 are interpreted relative to the tier 2 classification. The dummy variables for president gender and president who's who are used only when estimating president salary.

Table 2 reports the results of regressions using president salary, all faculty salary, professor salary, and assistant professor salary as the dependent variables. In terms of president salary, an institution's size (FTE), revenue (tuition and fees), and wealth (endowment per student) all positively affect the salary. Female presidents earn significantly less than their male counterparts (an estimated \$15,421 less). This finding is consistent with Pfeffer & Ross (1988) who found that female presidents earned significantly less than their male counterparts. However, Sorokina (2003) found that female presidents at liberal arts schools earned significantly more than males. Presidents who are listed in Marquis Who's Who earn significantly more (an estimated \$16,912 more) when controlling for other factors. Serving as the president at a religiously affiliated school does negatively impact salary. Presidents at a religiously affiliated school earn an estimated \$25,505 less than presidents at schools with no religious affiliation. Additionally, the president at a CCCU school earns another \$22,301 less. Thus, after controlling for institutional and personal characteristics, a CCCU school president would earn \$22,301 less than other religiously affiliated non-CCCU schools and a combined \$47,806 less than a president at a non-religiously affiliated school.

In terms of faculty salaries, an institution's size (FTE), revenue (tuition and fees), and wealth (endowment per student) all positively affect salaries. Faculty at comprehensive bachelor's universities earn significantly less than faculty at master's level universities. Faculty at religiously affiliated schools earn significantly less than faculty at non-reli-

giously affiliated schools (\$4,139 less for all faculty, \$5,938 less for professors, and \$2,809 less for assistant professors). Unlike the results for president salary, after controlling for institutional characteristics, faculty at CCCU schools do not earn a significantly different amount compared to non-CCCU school faculty. CCCU faculty earn less due to their religious affiliation compared to non-religiously affiliated schools but do not earn less than other non-CCCU religiously affiliated school faculty. The CCCU professor salary is estimated to be 2,210 less than non-CCCU professors; however, the p-value for this estimate is 0.102 which is not considered to be statistically significant.

There is no existing research that would explain why being a president at a CCCU school significantly affects salary, but faculty at CCCU schools are not compensated significantly differently than non-CCCU faculty. There are differences in the significance of the independent variables used to explain president salary and faculty salary. Faculty salary is significantly affected by school type (e.g. comprehensive bachelor's) and institutional quality (e.g. U.S. News tier) whereas president salary is not affected by these variables. Professor salary is \$4,467 lower for faculty at comprehensive bachelor's schools relative to university master's schools. Professor salary is \$3,607 lower for faculty at U.S. News tier 4 schools relative to tier 2 schools and \$2,329 higher for U.S. News tier 1 schools relative to tier 2 schools. It could be that there is not as much room to adjust faculty salaries at CCCU schools. All faculty salary is roughly one-fourth the size president salary and professor salary is roughly one-third the size of president salary. It could be that CCCU presidents make a conscious effort to lead by example when accepting a salary lower than what they could earn at a non-CCCU school. Additionally, it could be that the presidents have other explanatory variables (e.g. personal attachment to the school) that affect their willingness to accept a lower salary that are not measured by the model in this manuscript.

Table 2: Multivariate Regression Analysis

Independent	Dependent Variable:						
Variables	President Salary	All Fac. Salary	Prof. Salary	Asst. Prof. Salary			
Constant	112,058.02	37,450.93	41,390.00	35,573.34			
	(0.00)**	(0.00)**	(0.00)**	(0.00)**			
FTE	17.05	1.60	2.95	1.45			
	(0.00)**	(0.00)**	(0.00)**	(0.00)**			
Tuition and Fees	3.53	0.84	1.23	0.51			
	(0.00)**	(0.00)**	(0.00)**	(0.00)**			
Endowment per FTE	0.20	0.04	0.05	0.02			
	(0.00)**	(0.00)**	(0.00)**	(0.00)**			
Liberal Arts Bach.	-5,412.64	61.55	16.39	-1,137.77			
	(0.53)	(0.95)	(0.99)	(0.10)			
Comprehensive Bach.	-6,654.93	-3,421.32	-4,467.18	-1,799.04			
	(0.42)	(0.00)**	(0.00)**	(0.01)**			
U.S. News Tier 1	12,090.37	1,445.02	2,329.13	232.71			
	(0.11)	(0.07)	(0.03)*	(0.70)			
U.S. News Tier 3	4,565.17	-2,444.33	-1,435.20	-1,294.28			
	(0.59)	(0.01)**	(0.23)	(0.05)			
U.S. News Tier 4	7,320.72	-3,173.31	-3,606.97	-1,435.78			
	(0.46)	(0.01)**	(0.01)**	(0.07)			
Religious Affiliation	-25,505.30	-4,139.08	-5,938.29	-2,808.55			
	(0.00)**	(0.00)**	(0.00)**	(0.00)**			
President Gender	-15,420.56						
	(0.02)*						
President Who's Who	16,911.66						
	(0.02)*						
CCCU	-22,300.61	185.86	-2,209.98	-432.32			
	(0.01)**	(0.85)	(0.10)	(0.56)			
R-Squared	0.47	0.71	0.74	0.59			

<sup>\*</sup> statistically significant at the 5% level. \*\* statistically significant at the 1% level.

#### CONCLUSION

Faculty at CCCU schools do not earn significantly less than faculty at other religiously affiliated schools. After controlling for institutional characteristics, faculty at religiously affiliated schools earn about \$4,100 (8%) less than faculty at non-religiously affiliated schools. Professors at religiously affiliated schools earn about \$5,900 (9%) less and assistant professors earn about \$2,800 (6%) less compared to professors and assistant professors at non-religiously affiliated schools. This finding may cause some faculty to seek employment in secular institutions. However, you could make a case that faculty serve at religiously affiliated schools by choice. Perhaps faculty consider their service to a religiously affiliated school as a part of their giving back a portion of their gifts and abilities. Perhaps faculty at religiously affiliated institutions see compensation as a lower order motivator in the choice of where to spend their professional lives. Faculty may view their sacrificed earnings as a worthwhile investment for the opportunity to teach in an environment where they can share their whole selves without restrictions on their religious values and beliefs.

CCCU presidents earn significantly less than their non-CCCU counterparts. After controlling for institutional and personal characteristics, CCCU presidents earn about \$25,500 (12%) less due to serving at a religiously affiliated school and another \$22,300 (10%) less due to serving at a CCCU school. Overall, a CCCU president earns an estimated \$47,800 (22%) less than a president serving at a non-religiously affiliated school. This finding is frustrating. Why are the leaders of CCCU institutions working for less than their market value? Why does the market value CCCU president salaries at a discount? Or, could it be that the CCCU schools have it right? CCCU presidents are leading their institutions by example in accepting a salary that is lower than the market rate. The fact that leaders of CCCU schools willingly work for less than they could earn elsewhere speaks to their level of commitment to institutional mission and their sense of calling. Think of the type of world we could create if everyone felt as committed to their work to the point of personal sacrifice. Perhaps CCCU presidents can teach corporate CEO's a lesson in the importance of showing personal sacrifice as a means of communicating their commitment to their organization.

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