

University of North Texas

Faculty Salary Study

Executive Summary

2020-21

Introduction:

This Executive Summary highlights key findings from a faculty salary study conducted in Spring 2021. A seven-member task force, appointed by Provost Jennifer Cowley, completed the study.

Task Force Members:

- Paul Hutchison (Chair; Faculty Senate Representative)
- Mary Barber (Faculty Senate Representative)
- Karen Anderson-Lain (Committee on the Status of Women Faculty)
- Mary Barton (DAIR)
- Cassie West (DAIR)
- Brandi Everett (Academic Resources)
- Jennifer Stevenson (Provost Office)

The task force was asked to respond to four key research questions addressing median salary comparisons with R1/R2 public institutions, internal compression, entry level salary comparisons, and systemic equity issues. All UNT Denton faculty employed in Fall 2020 were included in the analysis. Chairs and associate deans were included in the study; 12-month salaries were converted to nine-month equivalents prior to analysis. Deans and other Vice-Provosts with faculty appointments were not included in the analysis. Ten additional faculty members were removed as outliers; their salaries caused undue influence on the analysis. Findings for the faculty salary study are listed below.

Variables of interest in the systematic equity analysis included the following: nine-month salary, gender, ethnicity, highest degree earned, honorarium (i.e., Distinguished Research Professor, Distinguished Teaching Professor, or Regents Professor), current rank (Professor, Associate Professor, Assistant Professor, and Lecturer), dean status, tenure/tenure-track, time in current rank, time at UNT before current rank, degree to hire (number of years between date of hire and highest degree – used as a proxy variable for experience prior to UNT), college, market salary median (market salary data from annual CUPA-HR 2019-20 Faculty Salary Survey). Performance was not included as a variable. For detailed explanations, please refer to *University of North Texas Faculty Salary Equity Study 2020-21* and *Data and Summary Tables* (see Excel File).

Research Questions/Key Findings:

1. Where does UNT fall at a disciplinary level relative to other R1/R2 public institutions? How much would it cost to bring UNT faculty within 70%, 80%, 85%, 90% and 100% of median salary?

The average salary to market ratio across all 1,140 faculty members is 104.2%. The cost to bring faculty to a percentage of median salary and the number of faculty members impacted is noted (see Table 1a). Comparative 2017 data is also provided.

Table 1a. Cost to Raise Average Salary to Market Median Salary

	70% of median		80% of median		85% of median		90% of median		100% of median	
	2017	2020	2017	2020	2017	2020	2017	2020	2017	2020
Number of faculty impacted	9	9	63	28	136	70	247	145	591	458
Cost	\$81,380.07	\$48,838.56	\$443,386.21	\$251,488.49	\$938,714.60	\$531,488.71	\$1,897,895.87	\$1,096,160.74	\$5,778,554.32	\$3,848,223.21

The Annual CUPA Four-Year Faculty Salaries: Multi-Discipline Report (4YF) was used as the comparison (i.e., 2019 Carnegie-Doctoral Institution- Highest & Higher Research Activity). Median salaries for R1/R2 combined.

Salaries for 96% of all UNT faculty fall between 0.60 and 1.39 of salary to market ratio, the remaining 4% are above 1.39 of their market salary (see Figure 1). Other comparative faculty salary to market ratio data is provided (see Table 1b).

Figure 1. 2020 Distribution of Faculty Salary to Market Ratio

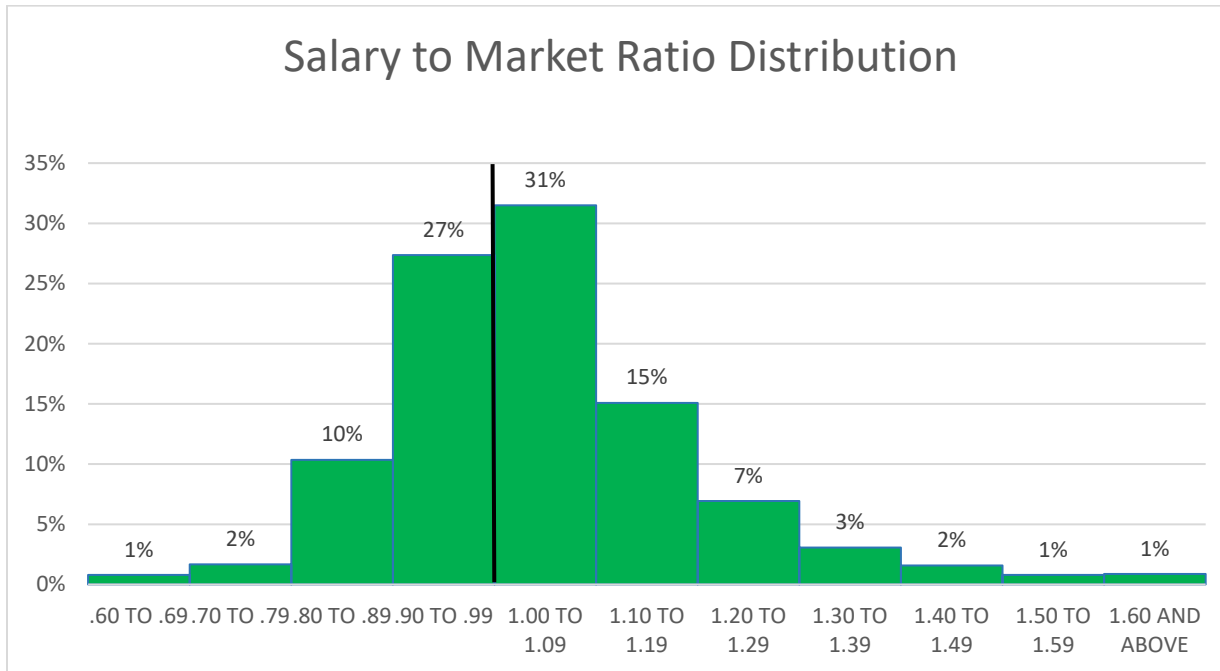


Table 1b. Distribution of Faculty Salary to Market Ratio

Salary to Market Ratio	% of Total Faculty	
	2017	2020
.90 to 1.09	57%	58%
.80 to 1.19	84%	83%
.70 to 1.29	94%	92%
.60 to 1.39	98%	96%

2. What are the salary compression issues by UNT faculty rank?

Salary compression across ranks and within colleges was assessed in this study. To examine compression, the average salary of a rank within a college was compared to the average salary of the next highest rank. If the average salary for the lower rank is higher than the average salary of the higher rank, it indicates possible compression between the ranks. For Non-Tenure Track ranks, this included a comparison between Lectures and Senior Lectures, and Senior and Principal Lecturers. For Tenure/Tenure-Track positions this included comparisons between Assistant and Associate Professors, and Associate and Full Professors.

In 2020, areas of compression were found in the following colleges and across the following ranks: (non-tenure track) CMHT and COI - Senior to Principal Lecturer and New College (Frisco) - Lecturer to Senior Lecturer; (tenure-track) RCoB - Assistant to Associate Professor.(see Table 2a & Table 3a.) Comparable data from 2017 is also included (see Table 2b and Table 3b). Additional detail is available for analysis of compression at the department level.

Table 2a. 2020 Min. Max. Average Difference to Next Highest Rank, Non-Tenure Track¹

	Lecturers			Average Difference to Sr Lecturers	Senior Lecturers			Average Difference to Prin Lecturers	Principal Lecturers		
	Min	Max	Average		Min	Max	Average		Min	Max	Average
CENG	\$67,000	\$71,050	\$69,350	\$4,559	\$65,548	\$79,731	\$73,909	\$9,044	\$76,806	\$86,281	\$82,953
CHPS	50,160	60,461	53,828	10,772	56,639	78,030	64,600	16,083	71,960	91,720	80,683
CLASS_CMP	52,000	62,198	55,763	4,779	52,700	73,899	60,542	14,407	61,846	97,068	74,949
CLASS_HUM	44,748	56,757	47,387	4,139	49,559	53,517	51,525	7,945	55,964	68,049	59,471
CLASS_SS	50,000	65,804	54,606	2,834	53,278	59,973	57,441	16,778	69,902	80,118	74,219
CMHT	59,231	60,784	60,008	9,252	58,284	97,097	69,260	-3,159	63,931	68,250	66,100
COE	46,589	75,928	55,114	543	54,000	57,501	55,657	14,662	64,044	81,439	70,318
COI	56,172	56,250	56,230	9,577	58,133	74,886	65,807	-7,081	58,726	58,726	58,726
COM	50,000	55,592	52,777	4,945	50,653	61,380	57,722	3,797	58,001	68,501	61,520
COS	47,361	66,287	56,439	2,502	53,198	74,895	58,941	6,937	58,334	77,856	65,878
CVAD	50,645	51,557	50,874	6,568	54,793	59,275	57,441	10,515	64,727	71,185	67,956
NEW COLLEGE	53,000	57,000	54,833	-833	54,000	54,000	54,000	18,963	72,963	72,963	72,963
RCOB	67,279	97,567	77,262	12,478	75,114	128,236	89,740	12,304	86,633	120,705	102,043
Grand total	\$44,748	\$97,567	\$57,893	\$4,869	\$49,559	\$128,236	\$62,762	\$6,651	\$55,964	\$120,705	\$69,413

Table 2b. 2017 Min. Max. Average Difference to Next Highest Rank, Non-Tenure Track

	Lecturers			Average Difference to Sr Lecturers	Senior Lecturers			Average Difference to Prin Lecturers	Principal Lecturers		
	Min	Max	Average		Min	Max	Average		Min	Max	Average
CENG	\$60,000	\$71,094	\$65,135	\$14,038	\$66,928	\$105,000	\$79,173	\$3,289	\$73,459	\$95,439	\$82,462
CHPS	50,000	62,338	55,320	10,980	56,606	81,000	66,299	11,090	70,000	81,544	77,390
CLASS_CMP	50,613	60,000	53,798	3,261	50,190	70,276	57,059	11,776	57,157	75,510	68,835
CLASS_HUM	43,500	54,500	46,060	4,397	47,785	59,924	50,458	5,124	52,477	63,681	55,581
CLASS_SS	48,014	64,000	54,384	7,588	51,351	67,610	61,972	11,891	64,132	91,159	73,863
CMHT	52,707	88,000	62,248	-3,188	55,671	62,577	59,060	n/a			
COB	61,706	90,000	70,492	20,819	66,718	122,275	91,311	-13,820	77,491	77,491	77,491
COE	45,000	70,875	52,601	4,736	51,359	71,004	57,337	11,870	61,041	80,618	69,207
COI	51,625	56,250	53,515	10,243	61,028	68,931	63,758	-8,891	54,867	54,867	54,867
COM	50,000	52,022	51,159	3,500	47,064	60,000	54,659	2,270	52,288	63,787	56,929
COS	45,244	66,512	53,913	3,154	47,704	70,958	57,067	4,166	60,186	62,279	61,232
CVAD	51,500	52,000	51,750	3,361	52,000	57,481	55,111	9,889	65,000	65,000	65,000
SOJ	50,000	58,576	53,539	6,461	60,000	60,000	60,000	19,599	67,682	91,516	79,599
Grand Total	\$43,500	\$90,000	\$55,547	\$6,444	\$47,064	\$122,275	\$61,991	\$4,825	\$52,288	\$95,439	\$66,816

¹ CMHT: NTT faculty experiencing compression due to longevity of faculty currently holding this rank (i.e., 5+ years of service = 9 out of 11 faculty); COI: Due to discrepancy within CUPA median salaries between the two disciplines assigned to this college (i.e., wide discrepancy between Info Sys and Library Svcs disciplines CUPA median); NCF (New College-Frisco): Due to multi-disciplinary faculty assigned within this college; compression issues may be due to hire of faculty in different disciplines. Currently have 12 disciplines assigned within the college with a current focus on disciplines within a higher market (i.e., business).

Table 3a. 2020 Min. Max. Average Difference to Next Highest Rank, Tenure/Tenure-Track

	Assistant Professors			Average Difference to Assoc Professors	Associate Professors			Average Difference to Professors	Professors		
	Min	Max	Average		Min	Max	Average		Min	Max	Average
CENG	\$85,000	\$108,875	\$90,030	\$27,795	\$88,584	\$134,943	\$117,826	\$38,092	\$108,290	\$207,647	\$155,917
CHPS	64,783	79,318	70,888	14,050	70,509	93,731	84,938	37,150	94,889	148,500	122,088
CLASS_CMP	60,000	71,953	68,155	11,817	69,535	93,645	79,973	28,812	82,971	182,006	108,785
CLASS_HUM	61,428	72,000	67,170	8,953	66,114	108,804	76,123	24,183	78,074	141,772	100,306
CLASS_SS	68,000	105,948	78,794	13,711	70,377	153,819	92,505	25,045	86,825	182,103	117,550
CMHT	73,000	76,981	75,744	17,464	84,729	102,924	93,208	25,424	89,957	164,647	118,632
COE	60,000	78,257	68,552	14,091	73,014	100,053	82,642	28,344	62,118	166,468	110,986
COI	65,000	93,000	76,167	8,407	75,000	110,033	84,574	32,449	85,971	149,788	117,022
COM	65,000	74,501	68,226	7,826	70,001	88,354	76,052	21,191	76,801	150,827	97,244
COS	55,000	91,575	80,554	8,308	72,438	123,492	88,863	43,032	87,586	200,000	131,895
CVAD	60,000	72,300	65,430	8,314	68,486	77,908	73,744	21,502	80,669	120,118	95,246
NEW COLLEGE									105,364	105,364	105,364
RCOB	133,611	178,500	155,303	-5,147	96,916	189,440	150,156	26,514	140,000	217,000	176,670
Grand total	\$55,000	\$178,500	\$82,878	\$8,953	\$66,114	\$189,440	\$91,831	\$31,815	\$62,118	\$217,000	\$123,646

Table 3b. 2017 Min. Max. Average Difference to Next Highest Rank, Tenure/Tenure-Track

	Assistant Professors			Average Difference to Assoc Professors	Associate Professors			Average Difference to Professors	Professors		
	Min	Max	Average		Min	Max	Average		Min	Max	Average
CENG	\$84,000	\$103,000	\$88,527	\$23,501	\$85,981	\$128,824	\$112,028	\$35,995	\$105,954	\$195,765	\$148,023
CHPS	61,500	76,500	66,663	16,756	72,806	118,309	83,419	28,440	95,201	135,000	111,859
CLASS_CMP	63,000	75,924	67,245	8,195	65,006	96,172	75,440	27,435	75,240	147,972	102,875
CLASS_HUM	60,000	70,000	64,119	9,459	67,749	95,000	73,578	27,770	76,443	169,291	101,347
CLASS_SS	56,000	101,000	70,942	17,387	60,617	145,305	88,329	26,208	84,988	172,530	114,537
CMHT	70,000	70,000	70,000	15,884	78,833	97,275	85,884	29,518	90,060	155,000	115,403
COB	129,211	170,500	145,661	-4,775	93,125	188,301	140,886	19,860	128,438	198,767	160,746
COE	65,000	71,300	66,902	13,064	71,574	105,221	79,966	28,077	60,000	158,026	108,043
COI	64,000	68,624	65,603	17,452	72,404	109,941	83,056	24,306	79,130	139,736	107,361
COM	60,000	70,000	63,446	9,565	66,324	84,620	73,011	19,997	63,323	144,800	93,008
COS	72,032	108,000	83,455	3,024	66,990	115,562	86,480	42,253	82,732	221,703	128,733
CVAD	60,000	80,000	65,059	8,971	66,221	104,346	74,030	14,993	72,622	112,505	89,023
SOJ	61,860	70,024	65,942	13,130	72,450	82,738	79,072	16,431	92,738	98,269	95,503
Grand Total	\$56,000	\$170,500	\$76,616	\$12,583	\$60,617	\$188,301	\$89,199	\$28,959	\$60,000	\$221,703	\$118,158

3. Is UNT at market salary with Assistant Professors hired within the last three years?

Current salary compensation guidelines set incoming UNT faculty salaries within 90-110% of CUPA median salary at the time of hire. There were 161 new Assistant Professors hired in the last three years (2018, 2019, and 2020). At the time of hire, all new faculty members were hired at market. Please note: CUPA data changes over time as market changes occur.

Currently, 72% of these new hires are at the market median or above. The remaining 28% are between 80-99% of the market median, with only 1.24% currently below 90% of the market median. Comparable data to our 2017 salary study is provided (see Table 4). (Refer to Excel file, Tab C on Data and Summary Tables for analysis by unit.)

Table 4. Current Ratio between Salary and Market Median for Assistant Professors Hired Within Last 3 Years

Current Ratio Between Salary and Market Median for Assistant Professors Hired Within Last 3 Years											
	.50 TO .59	.60 TO .69	.70 TO .79	.80 TO .89	.90 TO .99	1.00 TO 1.09	1.10 TO 1.19	1.20 TO 1.29	Grand Total	% Below 1.00	% Below .90 ¹
2017	1	0	2	10	48	45	13	3	122	50.00%	10.66%
2020	0	0	0	2	43	79	31	6	161	27.95%	1.24%

4. Are there equity issues related to gender and race/ethnicity at UNT?

The initial dataset included 1,168 faculty members. After removing 18 administrators (Deans and Vice Provosts) and 10 outliers, 1,140 faculty positions were assessed in this faculty salary equity study. Individual analysis occurred for each outlier, comparing salary within the overall sample, within college/rank groupings, and to the next highest salary within their college and rank. These outliers were removed prior to the regression analysis. It is important to note that nine of the 10 outliers were White Male Professors: 3 outliers were from Science, 3 from Business, 2 from Engineering, and 2 from Liberal Arts and Social Sciences.

A Hierarchical Linear Regression was used to examine bias in pay related to Gender and Race/Ethnicity. After controlling for all other variables (i.e., Market Salary Median, Number of Years with Degree Before Hire, Years at UNT Before Current Rank, Years in Current Rank, Highest Degree, Honorarium, Dean Status, Tenure Status, College, and Current Rank), the Gender and Race/Ethnicity variables were not statistically significant predictors of salary. Although, there are differences in salary, this result indicates there is not a systematic difference in pay for faculty at UNT based on Gender and Race/Ethnicity. It is crucial to note that the market salary median used is based on each discipline/rank group. Thus, analysis about equity demonstrates that UNT pays Non-White/Asian Male and Female Faculty a higher market value salary than White/Asian Male Faculty.

On average White/Asian Female Faculty members were paid \$341.90 less when compared to White/Asian Male Faculty. On average Non-White/Asian Female Faculty members were paid \$28.71 more when compared to White/Asian Male Faculty. On average Non-White/Asian Men faculty were paid \$1,258.69 more when compared to White/Asian Male Faculty.

Note: In the 2017 Faculty Salary Study, Asian Female Faculty members were included in the Non-White category. Based on other findings across campus and Faculty committees, this task force decided to group Asian Female Faculty members with White Female Faculty members for examination of the impact of Gender and Race/Ethnicity identities on salaries.

Recommendations & Next Steps:

- Future iterations of this faculty salary study should examine the following:
 - Colleges, departments, and ranks separately.
 - Discipline influences (i.e., STEM versus Non-STEM).
 - Updated and sophisticated analysis techniques.
- The inclusion of a standardized performance evaluation metric (e.g., 5-point ranking scale) across colleges would improve this salary study's ability to better detect compression and equity issues.
 - *Note: Since performance was not included in the current analysis, the task force recommends that adjustments to faculty salaries should be reviewed on a case-by-case basis.*
- The Provost will present this report to Faculty Senate and other representative faculty groups as requested.
- The Provost will disseminate this report to college/school deans.
- Results will be shared with the compensation task force currently working on salary and compression issues. Compression issues may be alleviated with salary adjustments upon promotion or through equity adjustments during annual salary raises.
- This task force recommends a systematic three-year review of faculty salaries using similar protocol. The next salary review would commence in Fall 2023.