### **UTK Faculty Salary Report covering AY 2020-2021**

Prepared for the UTK Faculty Senate, Budget and Planning Committee by Tamah Fridman, Alex Rodriguez, and Phillip Daves, April 2022.

This report analyzes data from two datasets provided by the Office of Institutional Research and Assessment (OIRA). The first dataset includes average 9-month salaries for tenure track faculty (TTF) by college, department, and tenure-track rank for UTK and a selection of peer, aspirational, and highly ranked research universities (RUVH) for academic year 2020-2021. See the Appendix for more detail on this dataset.

The second dataset is a more comprehensive listing of UT 9-month full-time base salaries for both tenure-track and non-tenure track (NTTF) faculty as of November, 2021 but does not have any data on universities other than UT. This second dataset is used for the NTTF analysis as well as TTF/NTTF comparisons. PDFs of the data files are included in the Appendix folder.

#### Peer/Aspirational/RUVH comparisons of average salaries

All colleges				
Rank	UTK	Peer	Aspirational	RUVH
All Ranks	117,126	105,731	124,951	117,448
<b>Assistant Professor</b>	82,973	83,604	94,271	88,199
<b>Associate Professor</b>	103,422	97,692	110,205	104,269
Professor	144,920	133,212	152,727	149,046

At the UTK aggregate level, UTK average salaries exceed peer average salaries and are less than the salaries of aspirational and RUVH institutions.

#### **Peer comparisons**

College	итк	Peer	Ratio UTK/Peer	Cost to increase to peer
Architecture & Design	126,038	119,309	1.06	40,290
Arts & Sciences - Humanities	111,136	104,811	1.06	73,406
Arts & Sciences - Natural Sciences	143,256	129,185	1.11	55,126
Arts & Sciences - Social Sciences	132,594	125,236	1.06	173,111
Arts and Sciences (All)	130,608	119,513	1.09	301,643
Communication & Information	143,967	114,766	1.25	-
Education, Health, & Human Sciences	122,665	123,717	0.99	319,666
Haslam College of Business	254,312	189,115	1.34	-
Herbert College of Agriculture	117,074	124,057	0.94	394,649
Tickle College of Engineering	185,885	156,745	1.19	18,275
University	148,966	134,260	1.11	1,579,884

Average UTK salaries for almost all colleges are comparable to or exceed peer university salaries at all ranks with a few exceptions. At the low end, Herbert College of Agriculture salaries average 94% of peer salaries for each rank. At the high end, Haslam College of Business salaries average 122% of peer salaries. Nonetheless, the cost to increase average salaries in each college at each rank to the corresponding salaries of comparable institutions is \$2.8 million with the vast majority, \$1.6 million, required at the Professor rank.

#### **Aspirational comparisons**

College	итк	Aspirational	Ratio UTK/Aspr	Cost to increase to aspirational
Architecture & Design	126,038	128,235	0.98	59,654
Arts & Sciences - Humanities	111,136	121,596	0.91	662,769
Arts & Sciences - Natural Sciences	143,256	149,919	0.96	858,064
Arts & Sciences - Social Sciences	132,594	153,522	0.86	1,332,472
Arts and Sciences (AII)	130,608	140,833	0.93	2,853,305
Communication & Information	143,967	137,948	1.04	114,984
Education, Health, & Human Sciences	122,665	137,509	0.89	619,616
Haslam College of Business	254,312	228,857	1.11	68,244
Herbert College of Agriculture	117,074	139,832	0.84	1,134,541
Tickle College of Engineering	185,885	169,771	1.09	31,045
University	148,966	152,959	0.97	6,244,094

The situation is different for aspirational universities. UTK salaries, virtually across the board, are less than those of aspirational universities. Only the College of Architecture & Design, the Tickle College of Engineering, and the Haslam College of Business have salaries on par with those of the aspirational universities. The College of Education, Health and Human Sciences salaries as well as the Arts and Sciences Social Sciences departments average 87% of those of aspirational schools. In total, UTK salaries average 95% of the of aspirational universities, and the estimated cost to increase average salaries in each college at each rank to the corresponding salaries of aspirational universities is estimated to be \$12.1 million. Of this required increase, more than half, \$6.2 million, comes from the deficit in Professor salaries.

#### **RUVH** comparisons

			Ratio	Cost to increase to
College	UTK	RUVH	UTK/RUVH	RUVH
Architecture & Design	126,038	127,103	0.99	63,310
Arts & Sciences - Humanities	111,136	126,369	0.88	971,384
Arts & Sciences - Natural Sciences	143,256	150,182	0.95	1,037,300
Arts & Sciences - Social Sciences	132,594	149,542	0.89	1,089,159
Arts and Sciences (All)	130,608	141,131	0.93	3,097,843
Communication & Information	143,967	130,989	1.10	-
Education, Health, & Human Sciences	122,665	130,980	0.94	421,610
Haslam College of Business	254,312	217,597	1.17	-
Herbert College of Agriculture	117,074	132,933	0.88	766,890
Tickle College of Engineering	185,885	170,266	1.09	4,580
University	148,966	151,493	0.98	5,591,116

The salary gap between UTK salaries and RUVH universities is a bit less than the gap for aspirational universities. Salaries in the colleges of Architecture, Communication, Business, and Engineering all exceed those of their comparable RUVH salaries while, UTK salaries on average are 98% of the RUVH salaries. Despite the overall comparability, the estimated cost of bringing all average salaries for all colleges at all ranks to their RUVH levels is \$8.6 million, with \$5.6 million from eliminating the deficit in Professor salaries.

Seven-year salary growth for all ranks compared to RUVH universities is shown below.

	UTK A/Y 2013/14 mean salary	UTK A/Y 2020/21 mean salary	% change UTK	RUVH A/Y 2013/14 mean salary	RUVH A/Y 2020/21 mean salary	% change
ALL	\$101,380	\$117,126	15.5%	\$105,470	\$117,448	11.4%
Assistant	\$75,478	\$82,973	9.9%	\$78,107	\$88,199	12.9%
Associate	\$87,191	\$103,422	18.6%	\$88,912	\$104,269	17.3%
Professor	\$127,384	\$144,920	13.8%	\$131,317	\$149,046	13.5%

Associate professor and Professor salary growth at UTK was comparable to growth at RUVH universities, but Assistant Professor salary growth at UTK substantially lagged the growth at other ranks at UTK as well as Assistant Professor growth at RUVH universities.

### Statistical Analysis of UTK Faculty Base Salaries

The Budget and Planning Committee, Faculty Senate

11/2021 raw data on 9 months base salary and longevity received from the Office of Institutional Research and Assessment, University of Tennessee

The total faculty at UTK campus as of 11/2021: 1838, deans are not included.

72 of the 1838 faculty hold a dual appointment (+ Head or Director). Some data may contain entry errors (5). Both dual appointments and entry errors data were excluded from the average/median salary computations. The former was done to present a more realistic picture of salaries.

- Three of the faculty are Artist in Residence
- Instructors (clinical instructors), 34
- Lecturers, 215
- Senior Lecturers, 97
- Distinguished Lecturers, 64
- Assistant professors, 428. T/TT: 305, NTT: 123 NTT assistant professor positions are
  - Research Assistant Professor, 40, average salary 77,784
  - Clinical Assistant Professor 59, average salary 83,325
  - Assistant Professor of Practice 21, average salary 61,671
  - Extension Assistant Professor, 2, average salary 79,492
- Associate Professors, 440. T/TT: 386, NTT: 54 NTT associate professor positions are:
  - Research Associate Professor, 10, 97,318
  - Clinical Associate Professor, 34, 93,493
  - Associate Professor of Practice, 9, 74,845
  - Extension Associate Professor, 1
- Professors, 557. TT/T: 532, NTT:25
   NTT professor positions are:
  - Research Professor, 6, 123,740
  - Clinical Professor, 13, 115, 186
  - Professor of Practice, 6, 116,594.

## Statistical Analysis of UTK Faculty Base Salaries

The Budget and Planning Committee, Faculty Senate

11/2021 raw data on 9 months base salary and longevity received from the Office of Institutional Research and Assessment, University of Tennessee

Dual appointments (72) and entry errors (5) data were excluded from the computations to present a more realistic picture of salaries. N column represents the number of faculty,  $N_{stat}$  is the number of faculty not holding a dual appointment,  $\sigma$  is the standard deviation for the average salary.

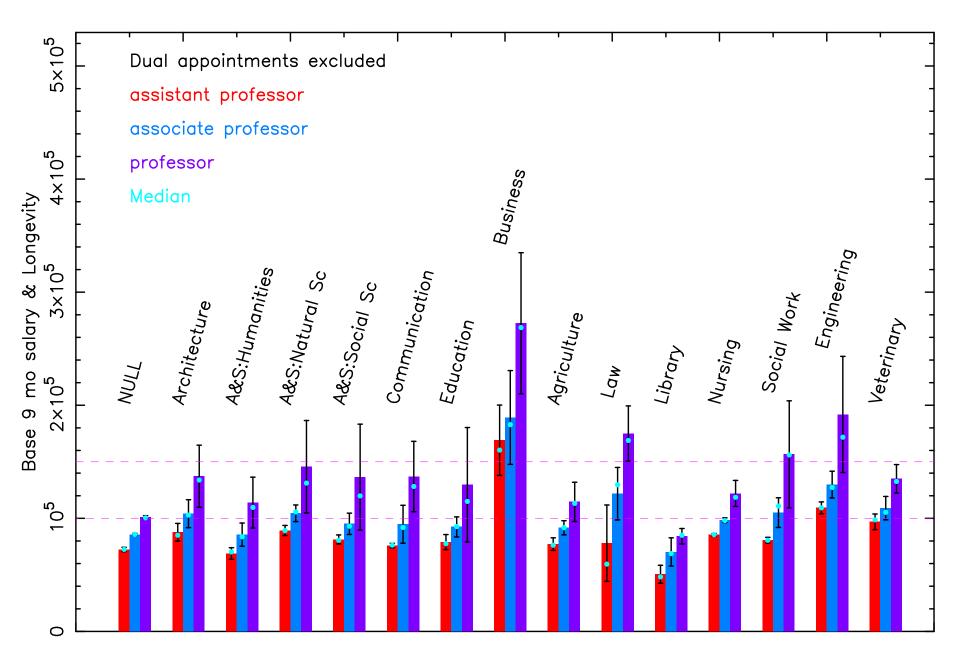
college/rank	N	$N_{stat}$	median	average	$\sigma$
NULL					
Instructor	1	0			
Lecturer	8	8	124,966	126,945	25,269
Senior Lecturer	1	1			
Distinguished Lecturer	2	2	153,854	153,854	25,091
NTT Assistant Professor, Research	4	4	60,062	66,149	16,775
NTT Assistant Professor, Extention	1	1			
TT/T Assistant Professor	3	2	$72,\!486$	$72,\!486$	1,928
TT/T Associate Professor	2	2	85,779	85,779	1,013
TT/T Professor	3	3	100,445	100,915	1,455
Architecture and Design					
Lecturer	11	11	57,000	58,657	7,773
Senior Lecturer	2	2	85,815	85,815	12,268.
Distinguished Lecture	1	1			
NTT Assistant Professor of Practice	1	1			
TT/T Assistant Professor	6	6	85,040	87,691	7,781
TT/T Associate Professor	9	7	102,861	104,118	12,361
TT/T Professor	12	11	133,919	$137,\!275$	27,462

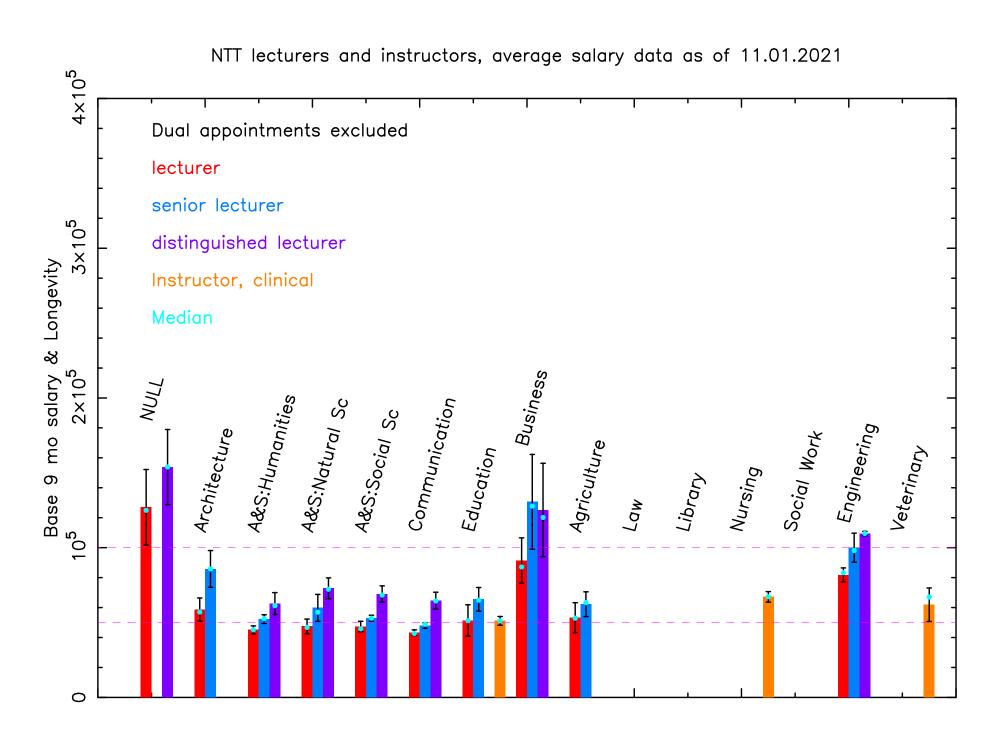
college/rank	N	$N_{stat}$	median	average	$\sigma$
Arts and Sciences-Humanities					
Lecturer	77	76	45,214	45,114	2,662
Senior Lecturer	42	42	52,551	52,343	2,887
Distinguished Lecture	26	26	61,218	62,700	7,326
NTT Assistant Professor, Research	2	2	43,525	43,525	3,995
TT/T Assistant Professor	42	42	70,285	68,904	5,124
NTT Associate Professor, Research	2	2	69,284	69,284	408
TT/T Associate Professor	77	73	83,860	85,760	10,473
TT/T Professor	69	69	109,690	113,922	22,510
Arts and Sciences-Natural Sciences					
Lecturer	34	34	46,755	47,438	4,915
Senior Lecturer	19	19	56,935	59,799	9,018
Distinguished Lecture	9	9	72,267	72,894	6,907
NTT Assistant Professor, Research	3	3	49,491	54,016	9,615
TT/T Assistant Professor	36	36	89,042	89,242	4,466
NTT Associate Professor, Research	3	3	99,852	114,638	38,711
TT/T Associate Professor	40	40	105,733	104,479	7,330
TT/T Professor	91	91	131,195	145,625	40,897
Arts and Sciences-Social Sciences					
Lecturer	21	21	45,750	47,374	3,458
Senior Lecturer	3	2	52,928	52,928	1,934
Distinguished Lecture	7	7	68,339	69,095	$5,\!429$
NTT Assistant Professor, Research	2	2	59,887	59,887	7,875
TT/T Assistant Professor	24	24	80,534	81,312	3,973
NTT Associate Professor, Research	1	1			
NTT Associate Professor, Clinical	1	1			
TT/T Associate Professor	27	26	93,046	95,176	$9,\!397$
TT/T Professor	46	45	119,917	136,442	46,851

college/rank	N	N <sub>stat</sub>	median	average	$\sigma$
Communication and Information					
Lecturer	10	10	42,692	43,256	1,893
Senior Lecturer	5	5	48,882	48,014	1,866
Distinguished Lecture	4	4	64,375	64,666	5,602
NTT Assistant Professor, Clinical	1	1			
NTT Assistant Professor of Practice	3	3	60,000	58,415	3,646
TT/T Assistant Professor	12	12	76,369	75,958	1,989
NTT Associate Professor, Clinical	1	1	·		
TT/T Associate Professor	18	18	91,971	94,806	16,766
TT/T Professor	19	16	128,219	136,984	31,089
Education, Health and Human Sciences					
Instructor	3	2	51,137	51,137	2,893
Lecturer	6	6	51,255	51,447	10,453
Senior Lecturer	5	4	64,930	65,534	7,875
Distinguished Lecture	1	1	·		
NTT Assistant Professor, Research	2	2	61,500	61,500	4,950
NTT Assistant Professor, Clinical	13	13	57,340	58,080	5,245
NTT Assistant Professor of Practice	6	5	67,223	64,966	4,533
TT/T Assistant Professor	26	26	77,570	79,017	6,642.
NTT Associate Professor, Clinical	10	10	78,928	77,899	16,234
NTT Associate Professor of Practice	2	2	89,787	89,787	18,653
TT/T Associate Professor	44	44	92,722	92,446	8,876
NTT Professor, Clinical	2	2	91,922	91,922	156
NTT Professor of Practice	2	2	921,09	92,109	17,883
TT/T Professor	33	32	114,963	129,712	50,574
Haslam College of Business					
Lecturer	30	30	87,119	91,430	15,147
Senior Lecturer	7	7	127,785	130,599	31,690
Distinguished Lecture	11	11	120,192.	125,155	31,190
NTT Assistant Professor, Clinical	4	4	126,750	127,513	2,881
NTT Assistant Professor of Practice	1	1			
TT/T Assistant Professor	29	29	160,336	169,066	31,132
NTT Associate Professor, Ressearch	1	1			
NTT Associate Professor Clinical	1	1			
TT/T Associate Professor	27	27	182,889	189,194	41,499
NTT Professor Clinical	1	1			
NTT Professor Practice	1	1			
TT/T Professor	37	36	268,675	272,511	62,366

college/rank	N	$N_{stat}$	median	average	sigma
Herbert College of Agriculture					
Lecturer	5	5	52,892	53,294	10,010
Senior Lecturer	5	4	63,333	62,269	8,250
Distinguished Lecture	1	0			
NTT Assistant Professor, Research	3	3	47,305	50,026	6,807
NTT Assistant Professor, Extention	1	1			
TT/T Assistant Professor	42	42	76,282	77,223	$5,\!565$
NTT Associate Professor, Research	1	1			
NTT Associate Professor, Extention	1	1			
TT/T Associate Professor	36	34	91,809	91,631	6,257
NTT Professor, Research	1	1			
TT/T Professor	84	68	113,269	114,538	17,362
Law					
Lecturer	1	1			
TT/T Assistant Professor	3	3	59,491	78,038	33,799
TT/T Associate Professor	13	10	129,733	121,788	23,238
TT/T Professor	19	16	168,879	174,976	24,437
Library					
Lecturer	1	1			
TT/TAssistant Professor	15	15	48,269	50,566	7,932
TT/T Associate Professor	22	22	68,888	70,286	12,455
TT/T Professor	4	4	84,976	84,192	6,808
Nursing					
Instructor	28	28	67,238	67,150	3,512
NTT Assistant Professor, Clinical	14	14	77,748	80,835	16,509
TT/T Assistant Professor	10	10	85,550	85,412	1,146
NTT Associate Professor, Clinical	8	8	89,113	98,112	27,642
TT/T Associate Professor	6	6	98,029	98,335	2,064
NTT Professor, Clinical	5	5	98,902	101,856	5,338
TT/T Professor	3	3	118641	122038	11519
Social Work					
NTT Assistant Professor of Practice	9	9	44,640	46,484	4,823
TT/T Assistant Professor	6	6	80,595	80,678	2,519
NTT Associate Professor, Clinical	1	1			
NTT Associate Professor of Practice	3	3	57,549	52,703	10,268
TT/T Associate Professor	5	3	110,800	105,066	13,078
TT/T Professor	6	4	156,033	156,627	47,331

college/rank	N	$N_{stat}$	median	average	sigma
Tickle College of Engineering					
Lecturer	11	11	83,275	81,837	4,656
Senior Lecturer	8	8	98,131	100,008	9,676
Distinguished Lecture	2	2	109,4501	109,4501	1,449
NTT Assistant Professor, Resserearch	24	23	84,673	93,119	25,590
NTT Assistant Professor of Practice	1	1			
TT/T Assistant Professor	40	40	109,230	109,255	5,263
NTT Associate Professor, Research	2	2	107,404	107,404	10,563
NTT Associate Professor of Practice	1	1			
TT/T Associate Professor	45	44	127,335	129,857	11,808
NTT Professor, Ressearch	1	1			
NTT Professor of Practice	2	2	94814	94814	5,634
TT/T Professor	81	70	171,743	191,850	51,343
Veterinary Medicine					
Instructor	3	3	67093	61910	11169
NTT Assistant Professor					
NTT Assistant Professor, Clinical	25	25	93,944	93,649	7,475
TT/T Assistant Professor	11	11	98,611	96,922	6,937
NTT Associate Professor, Clinical	11	11	102,053	102,221	4,302
TT/T Associate Professor	15	14	105398	109017	10350
NTT Professor, Research	1	1			
NTT Professor, Clinical	4	4	130,332	128,587	8,344
TT/T Professor	25	22	132,633	134,966	12,573





#### **Appendix:**

Some material in this Appendix is quoted from prior years' Budget and Planning Committee Reports. The report source is indicated.

#### **Data description**

From the 2020 UTK Salary Analysis Executive Summary

This report uses data compiled and provided by the UTK Office of Institutional Research and Assessment (OIRA).

#### The data/columns received by the committee include:

- 1. College/Department/Rank (eg. Haslam College of Business/Economics/Full Professor)
- 2. UTK Average, Minimum and Maximum Salaries by rank, and all ranks; number of positions
- 3. Average, Minimum and Maximum Salaries by rank for 'Research 1: Doctoral-Highest Research' Peer Institutions
- 4. Cost to increase Average UTK Salaries to match Average R1 Salary, by rank
- 5. Ratio of UTK Average Salary to Average R1 Salary, by rank
- 6. Average, Minimum and Maximum Salaries by rank for Comparable Peer Institutions
- 7. Cost to increase Average UTK Salary to match Average Comparable Peer Salary, by rank
- 8. Ratio of UTK Average Salary to Average Comparable Peer Salary, by rank
- 9. Average, Minimum and Maximum Salaries, by rank, for Aspirational Peer Institutions
- 10. Cost to increase Average UTK Salary to match Average Aspirational Peer Salary, by rank
- 11. Ratio of UTK Average Salary to Average Aspirational Peer Salary, by rank

The data provided also includes the numbers of faculty in each rank/department at UT and the total faculty in the data from the institutions included in the comparison groups.

#### Those **included** in the dataset are:

- All full-time tenure track faculty with an instructional appointment from UTK, UTSI and
- Department heads and those with job titles such as Professor and Associate Dean
- Job titles starting with faculty titles are considered to be primarily instructional (and are included)
- Clinical faculty

#### Those **not included** in the dataset are:

- Non-tenure-track faculty
- Library faculty
- Veterinary Medicine faculty
- Administrative Positions
- Research faculty without instructional appointments

All salaries are calculated on a nine-month basis, and include longevity pay and administrative supplements for those individuals who have them. Salaries do not include summer pay from externally-funded projects (e.g. summer funding from grants).

Note that the calculations include the funding needed to raise every unit/rank to average or above. When aggregated at the College of University level, this can lead to anomalies in that some College's average salaries may be well above the average of a comparison group at all ranks, but the report still shows that funds are needed to increase that College to the average of the comparison group. This is because funds are still needed to raise every unit/rank within the College to the respective averages of the comparison group. This approach does not account for any variance in average salaries across units/ranks relative to the peer group average that may exist at institutions in the comparison groups.

## **Appendix: List of Schools Used for Comparison to UTK**From <u>UTK Faculty Salary Survey Comparison, Academic Year 2016-2017, March\_2018</u>

### Research University – Very High (63 Total Schools)

- INCSC	arch Offiversity ve	iy iligii (05 Total Scii	00137
Arizona State U	U of Alabama, Birmingham	University of Houston (TX)	University of North Texas
Clemson University	University of Arizona	University of Illinois, Chicago	University of Oklahoma
Colorado State University	University of Arkansas	University of Illinois, Urbana	University of Oregon
Florida State University	University of California, Berkley	University of Iowa	University of South Carolina
Georgia Tech	UC, Davis	University of Kansas	University of South Florida
Iowa State University	UC, Irvine	University of Kentucky	UTK
Kansas State University	UC, LA	University of Louisville	University of Texas, Austin
Louisiana State U	UC, Riverside	University of Maryland	University of Utah
Michigan State University	UC, San Diego	University of Massachusetts	University of Virginia
North Carolina State	UC, Santa Barbara	University of Michigan	University of Wisconsin (Madison)
Ohio State University	University of Colorado, Boulder	University of Minn, Twin Cities	University of Wisconsin (Milwaukee)
Oregon State	University of Connecticut	University of Mississippi	Virginia Commonwealth
Purdue University	University of Delaware	University of Missouri	Virginia Tech
State University of NY, Buffalo	University of Florida	University of Nebraska	Wayne State University
Texas A&M University	University of Georgia	University of New Mexico	West Virginia University
Texas Tech University	University of Hawaii, Manoa	University of North Carolina	

# Comparable Peer Institutions (11 schools)

# Aspirational Peer Institutions (6 schools)

North Carolina State University	University of Minnesota
Virginia Tech	University of Florida
Auburn University	University of Wisconsin – Madison
Iowa State University	Michigan State University
University of South Carolina	Purdue University
Clemson University	University of Georgia
Louisiana State University	
University of Kentucky	
University of Missouri	
University of Alabama	
University of Nebraska	