# SELECTING COMPARATOR INSTITUTIONS FOR THE FOUR CAMPUSES OF THE UNIVERSITY OF MISSOURI

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The use of inter-institutional comparative data by administrators and policy analysts in higher education continues to increase as many colleges and universities experience financial and programmatic constraints and are increasingly held accountable for management decisions. Inter-institutional comparisons are often incorporated into the strategic planning and decision-making process of institutions. Comparative data provide administrators with a useful tool for gauging competition, for assessing institutional performance, and for guiding policy development. Comparative data also can be used to explain and justify budget requests, salary increases, teaching loads, tuition increases, and numerous other policy issues (Teeter and Brinkman, 1992).

The usefulness of inter-institutional comparisons hinges on selecting an appropriate set of institutions with which to compare the "home" institution. The process of selecting comparator institutions can, at times, be very political and fraught with problems (Prather and Carlson, 1991). Typically, comparison institutions consist of peer entities, however, other types of comparison groups can be identified and legitimately used in planning and policy decision-making.

## **Type of Comparator Groups**

Brinkman and Krakower (1983) provide a convenient typology of comparator groups: *competitor*, *aspiration*, *predetermined*, and *peer*. More often than not the particular issue being addressed will govern the selection of a specific type of comparator group.

In the Brinkman and Krakower typology, a *competitor group* consists of institutions that compete with the "home" institution for students, faculty, dollars, and other similar resources. Frequently, a competitor group consists of institutions that are substantially different in terms of mission, role, and scope. The usefuln

A *peer group* consists of institutions that are similar in mission, role, and scope. In developing a peer group, it is unrealistic to expect to find a perfect match with the "home" institution. Rather, the goal is to find a group of institutions that are sufficiently similar to the

In recognition of these principles and in light of the fact that campuses must report some strategic planning performance indicators in comparison to peers, the University embarked on an effort to define comparators in the summer of 1999. Specifically, the Chancellors were instructed

variables for each peer candidate are then screened to determine if their value lies within the acceptable range of variation. For each variable whose value lies outside the range, the peer candidate is penalized in the selection process according to the importance assigned to the variable. The ranking that results from this process can then be used to identify institutions most similar to the "home" institution.

The specific threshold technique used to select peers for each of the UM campuses was adopted from the work of the National Center for Higher Education Management Systems (Teeter and Christal, 1987). In employing this approach relevant interval and ratio variables were selected, the relative importance of each variable was determined, and the acceptable range of values for each variable was specified.

in other words, how closely it m

Worcester Polytechnic, Clarkson, Colorado School of Mines, Kettering, Michigan Tech, Rensselaer Polytechnic, Rose-Hulman, and the South Dakota School of Mines. Even among these, only Rose-Hulman has as heavy an engineering concentration. It will be interesting to note whether the inclusion of private schools has a significant impact on the usefulness of comparative statistics.

### UM-St Louis

The St Louis comparator set was restricted to public universities with graduate instruction through the doctoral level whether classified as comprehensive or doctoral. St Louis selected 9 Doctoral II, Doctoral I and Research II institutions from the pool of 26 institutions resulting from the restriction. The comparative set for St Louis was Wright State, Florida International University, UT at Arlington, San Diego State, University of Akron, Wisconsin-Milwaukee, University of Toledo and University of Memphis.

#### References

Brinkman, P.T. and Krakower, J. (1983). <u>Comparative data for administrator in higher education</u>. Boulder, CO: National Center for Higher Education Management Systems.

Eimers, M.T. (1993). <u>Status on research funding at the University of Missouri</u>. (Report No. 93-12). Columbia, MO: University of Missouri, Office of Planning and Budget.

Prather, J.E., and Carlson, C.E. (1991, May). <u>Using institutional comparisons for administrative decision support</u>. Paper presented at the 31<sup>st</sup> Annual Forum of the Association of Institutional Research, San Francisco, CA.

Teeter, D.J., and Brinkman, P.T. (1992). Peer institutions. In M.A. Whiteley, J.D. Porter, and R.H. Fenske (Ed.) <u>The primer for institutional research</u> (pp. 63-72). Tallahassee, FL: Association of Institutional Research.

Teeter, D.J. and Christal, J.E. (1987). Establishing peer groups: A comparison of methodologies. <u>Planning for Higher Education</u>. 15(2), 8-17.

The Carnegie Foundation for the Advancement of Teaching. (1987). <u>A classification of institutions of higher education</u>. Princeton, NJ: Princeton University Press.

**Table 1C: UM-Columbia Comparator Candidate Institution Specifications** 

	UM-Value	Range			
Institutional Characteristics (Peer set restrictions)					
Public Universities					
Carnegie Research 1 or Research 2					
Medical and/or Veterinary Program					
Plus UM-Columbia's initial list					
Enrollment Variables			4	3	1
Total Headcount	22,552	20,000-35,000		X	
FTE Enrollment	20,154	17,600-30,800		X	
Undergraduate HC % Total	77%	70%-80%	X		
Graduate HC % Total	18%	15%-25%	X		
1st Professional HC % Total	5%	3%-8%	X		
FT Undergraduate HC % Undergraduates	91%	87%-97%	X		
FT Graduate HC % Graduates	48%	40%-55%		X	
Degree Level Variables			4	3	1
% AA Degrees		0%-2%			X
% Baccalaureate Degrees	67%	60%-75%		X	
% Masters Degrees	21%	17%-27%	X		
% Doctoral Degrees	6%	3%-7%	X		
% First-Professional Degrees	6%	4%-8%		X	
Program Variables			3	2	1
Agriculture	6%	3%-9%		X	
Avocational		0%-2%			X
Business	10%	7%-13%	X		
Communications	8%	5%-11%		X	
Computer Science	1%	0.1%-4%			X
Education	13%	10%-16%	X		
Engineering	10%	7%-13%	X		
Fine Arts	1%	0.1%-4%			X
Foreign Language	2%	0.1%-5%			X
Health 1st Professional	3%	0.1%-6%	X		
Health Other	8%	5%-11%	X		
Home Economics	5%	2%-8%	X		

Table 2C: Disciplinary and Compositional Comparator Candidates for UM-Columbia

		Weighted	Carnegie	Land				
Rank	Institution	Score	Classification	Grant	Medicine	Vet. Med.	AAU	
Unive	ersity of Missouri-Columbia		R1	X	X	X	X	

**Table 3C: UM-Columbia Comparator Candidate Institution Enrollment Distributions** 

		Total Headcount	FTE	% Undergrad	% Graduate	% 1st Prof.	Undergrad	Graduate
	University of Missouri-Columbia	22,552	20,154	77%	18%	5%	91%	48%
1	University of Kentucky	23,540	20,227	72%	22%	6%	87%	48%
2	University of Tennessee-Knoxville	25,401	22,042	75%	22%	3%	87%	55%
3	University of Georgia	29,693	26,992	78%	18%	4%	89%	71%
4	Ohio State University-Main Campus	48,278	42,131	74%	21%	6%	85%	61%
5	University of Florida	41,713	37,704	76%	18%	6%	90%	65%
6	Michigan State University	42,603	37,248	78%	19%	3%	87%	54%
7	Louisiana State University	28,686	25,085	79%	18%	3%	85%	62%
8	University of Nebraska at Lincoln	22,827	19,895	80%	18%	2%	88%	48%
9	University of Cincinnati-Main Campus	28,161	22,670	74%	22%	3%	74%	55%
10	West Virginia University	22,238	19,083	67%	28%	4%	94%	39%
11	University of Wisconsin-Madison	39,699	36,092	73%	22%	5%	88%	79%
12	University of Arizona	33,737	28,831	76%	21%	3%	82%	59%
13	Southern Illinois University-Carbondale	21,908	19,406	81%	16%	3%	89%	50%
14	Oklahoma State University-Main Campus	19,332	16,465	76%	23%	1%	90%	36%
15	University of Utah	25,889	20,349	81%	16%	3%	65%	77%
16	University of Minnesota-Twin Cities	45,410	33,937	71%	23%	6%	67%	39%
17	Virginia Polytechnic Institute and State Univ	27,208	25,169	77%	22%	1%	97%	57%
18 19	Washington State University University of Washington	20,243	17,939	82%	15%	3%	86%	62%

**Table 4C: UM-Columbia Comparator Candidate Institution Degree Distributions** 

						First
Rank	Institution	Associates	Bachelors	Masters	Doctoral	Professional
						_
	University of Missouri-Columbia		67%	21%	6%	6%
1	University of Kentucky		66%	22%	5%	7%
2	University of Tennessee-Knoxville		62%	30%	5%	4%
3	University of Georgia		70%	21%	5%	5%
4	Ohio State University-Main Campus	3%	60%	24%	7%	6%
5	University of Florida	9%	63%	18%	4%	7%
6	Michigan State University	1%	72%	18%	5%	4%
7	Louisiana State University		65%	25%	5%	6%
8	University of Nebraska at Lincoln	1%	71%	18%	7%	3%
9	University of Cincinnati-Main Campus	8%	56%	24%	6%	6%
10	West Virginia University		62%	29%	3%	6%
11	University of Wisconsin-Madison		63%	23%	9%	6%
12	University of Arizona		68%	21%	7%	4%
13	Southern Illinois University-Carbondale	7%	75%	13%	3%	3%
14	Oklahoma State University-Main Campus	<1%	73%	20%	5%	2%
15	University of Utah		73%	18%	4%	4%
16	University of Minnesota-Twin Cities	1%	56%	28%	8%	8%
17	Virginia Polytechnic Institute and State Univ	1%	66%	25%	7%	1%
18	Washington State University		81%	14%	4%	2%
19	University of Washington		68%	22%	6%	4%
20	University of Iowa	<1%	61%	22%	6%	10%
21	University of North Carolina at Chapel Hill	<1%	60%	25%	7%	8%
22	University of California-Davis		77%	10%	7%	7%
23	Colorado State University		75%	18%	4%	3%
24	University of Illinois at Urbana	<1%	64%	25%	8%	3%
25	Oregon State University		73%	20%	5%	1%
26	Auburn University Main Campus		79%	16%	4%	2%
27	Kansas State University	2%	75%	16%	4%	2%
28	SUNY at Buffalo	<1%	58%	27%	6%	9%
29	University of South Carolina at Columbia	<1%	53%	36%	5%	6%
30	University of Virginia-Main Campus		55%	27%	7%	10%
31	University of Hawaii at Manoa	<1%	65%	27%	4%	3%
32	University of New Mexico-Main Campus	1%	62%	28%	4%	4%
33	Mississippi State University		71%	24%	4%	2%
34	North Carolina State University at Raleigh	3%	70%	20%	6%	1%
35	Wayne State University		42%	46%	4%	8%
36	University of California-Los Angeles		62%	25%	7%	6%
37	University of South Florida	3%	71%	23%	2%	1%
38	Iowa State University		77%	16%	5%	2%
39	University of Pittsburgh-Main Campus	4%	51%	31%	6%	8%
40	University of Vermont	1%	77%	15%	2%	4%
41	Temple University	<1%	54%	29%	6%	11%
42	University of Michigan-Ann Arbor		56%	30%	7%	7%
43	Virginia Commonwealth University	1%	59%	31%	3%	7%
44	Purdue University-Main Campus	9%	67%	16%	6%	1%
45	University of California-San Diego		77%	12%	7%	5%
46	University of California-Irvine		79%	13%	6%	2%
47	University of Illinois at Chicago		55%	30%	5%	10%
48	SUNY at Stony Brook		56%	33%	7%	3%
49	University of Alabama at Birmingham	<1%	53%	35%	4%	8%
50	Texas A & M University		78%	14%	6%	2%
51	University of California-San Francisco		11%	27%	16%	46%

Table 5C: UM-Columbia Comparator Candidate Institution Disciplinary Distributions

Rank Institution Agric Avoc Busn Comm CSci Educ Engr FArt FLng H1st HOth Home Humn Life Math OPrf Phys Publ SRel SocS Voca

**Table 1K: UM-Kansas City Comparator Candidate Institution Specifications** 

	UM-Value	Range	Imp	ortance (We	ight)
Institutional Characteristics (Peer set restrictions)					
Public urban universities with strong					
professional programs, but not major					
research institutions.					
Plus UM-Kansas City's initial list.					
Enrollment Variables			4	3	1
Total Headcount	10,444	0,000-20,000		X	
FTE Enrollment	7,423	7,500-15,000		X	
Undergraduate HC % Total	57%	55%-80%	X		
Graduate HC % Total	32%	20%-35%	X		
1st Professional HC % Total	12%	10%-20%	X		
FT Undergraduate HC % Undergraduat		55%-75%	X		
FT Graduate HC % Graduates	28%	20%-45%		X	
Degree Level Variables			4	3	1
% AA Degrees		0%-2%			X
% Baccalaureate Degrees	47%	45%-70%		X	
% Masters Degrees	36%	25%-45%	X		
% Doctoral Degrees	2%	1%-5%	X		
% First-Professional Degrees	15%	10%-20%		X	
Program Variables			3	2	1
Agriculture		0%-2%		X	
Avocational		0%-2%			X
Business	16%	13%-19%	X		
Communications	2%	0.1%-5%		X	
Computer Science	3%	0.1%-6%			X
Education	15%	12%-18%	X		
Engineering		0%-2%	X		
Fine Arts	7%	4%-10%			X
Foreign Language	1%	0.1%-4%			X
Health 1st Professional	8%	5%-11%	X		
Health Other	7%	4%-10%	X		
Home Economics		0%-2%	X		
Humanities	11%	8%-14%		X	
Life Science	6%	3%-9%			X
Mathematics	1%	0.1%-4%			X
Other Professional	8%	5%-11%		X	
Physical Sciences	2%	0.1%-5%		· <del>-</del>	X
Public Service	3%	0.1%-6%			X
Science Related		0%-2%			X
		C/C =/0			4.
Social Sciences	11%	8%-14%		X	

Table 2K: Disciplinary and Compositional Comparator Candidates for UM-Kansas City

Institutional Characteristics

		Weighted	Carnegie			
Rank	Institution	Score	Classification	Medicine	Dentistry	AAU
	University of Missouri-Kansas City		D1	X	X	
1	University of Louisville	8	D1	X	X	
2	Temple University	11	R1	X	X	
3	University of Wisconsin-Milwaukee	14	R2			
4	University of Alabama at Birmingham	17	R1	X	X	
5	University of Houston-University Park	20	R2			
6	University of Illinois at Chicago	21	R1	X	X	
7	SUNY at Buffalo	21	R1	X	X	X
8	Virginia Commonwealth University	21	R1	X	X	
9	Wayne State University	22	R1	X	X	
10	University of Nevada-Reno	22	D2	X		
11	Wright State University-Main Campus	26	D2	X		
12	Univ of Cincinnati-Main Campus	27	R1	X	X	
13	Indiana Univ-Purdue Univ- Indianapolis	29	D2	X	X	
14	Univ of Pittsburgh-Main Campus	29	R1	X	X	X

Weighted score is actually maximum score minus specification table weights based on similarity.

**Table 3K: UM-Kansas City Comparator Candidate Institution Enrollment Distributions** 

	Total		%	%	%	% Full	-Time
	Headcount	FTE	Undergrad	Graduate	1st Prof.	Undergrad	Graduate
University of Missouri-Kansas City	10,444	7,423	57%	32%	12%	64%	28%
1 University of Louisville	20,283	15,296	72%	22%	6%	66%	44%
2 Temple University	27,652	21,273	65%	26%	8%	78%	28%
3 University of Wisconsin-Milwaukee	21,951	16,572	79%	21%		71%	35%
4 University of Alabama at Birmingham	14,933	11,608	69%	24%	7%	65%	62%
5 University of Houston-University Park	31,602	23,638	75%	21%	4%	66%	43%
6 University of Illinois at Chicago	24,921	21,157	65%	26%	9%	86%	50%
7 SUNY at Buffalo	23,429	19,654	66%	27%	7%	85%	47%
8 Virginia Commonwealth University	22,702	17,249	66%	28%	6%	71%	40%
9 Wayne State University	30,729	20,221	58%	34%	9%	50%	33%
10 University of Nevada-Reno	12,442	9,086	73%	25%	2%	67%	35%
11 Wright State University-Main Campus	14,994	11,639	73%	25%	2%	77%	33%
12 Univ of Cincinnati-Main Campus	28,161	22,670	74%	22%	3%	74%	55%
13 Indiana Univ-Purdue Univ- Indianapolis	27,036	18,285	74%	17%	9%	54%	23%
14 Univ of Pittsburgh-Main Campus	25,461	21,368	64%	30%	7%	82%	57%

**Table 4K: UM-Kansas City Comparator Candidate Institution Degree Distributions** 

Rank	Institution	Associates	Bachelors	Masters	Doctoral	First Professional
	University of Missouri-Kansas City		47%	36%	2%	15%
1	University of Louisville	6%	53%	29%	2%	10%
2	Temple University	<1%	54%	29%	6%	11%
3	University of Wisconsin-Milwaukee		68%	29%	3%	
4	University of Alabama at Birmingham	<1%	53%	35%	4%	8%
5	University of Houston-University Park		65%	23%	4%	8%
6	University of Illinois at Chicago		55%	30%	5%	10%
7	SUNY at Buffalo	<1%	58%	27%	6%	9%
8	Virginia Commonwealth University	1%	59%	31%	3%	7%
9	Wayne State University		42%	46%	4%	8%
10	University of Nevada-Reno		74%	20%	3%	2%
11	Wright State University-Main Campus		62%	33%	1%	3%
12	Univ of Cincinnati-Main Campus	8%	56%	24%	6%	6%
13	Indiana Univ-Purdue Univ- Indianapolis	15%	54%	17%	1%	14%
14	Univ of Pittsburgh-Main Campus	4%	51%	31%	6%	8%

Table 5K: UM-Kansas City Comparator Candidate Institution Disciplinary Distributions

Ranl	K Institution	Agric	Avoc	Busn	Comm	CSci	Educ	Engr	FArt	FLng	H1st	HOth	Home	Humn	Life	Math	OPrf	Phys	Publ	SRel	SocS	Voca
	University of Missouri-Kansas City			16%	2%	3%	15%		7%	1%	8%	7%		11%	6%	1%	8%	2%	3%		11%	
1	University of Louisville			15%	3%	1%	18%	9%	3%	1%	6%	9%		4%	4%	1%	5%	1%	10%	<1%	11%	
2	Temple University	<1%		16%	5%	2%	15%	3%	6%	1%	5%	9%		3%	2%	1%	9%	1%	9%		12%	

**Table 1R: UM-Rolla Comparator Candidate Institution Specifications** 

	UM-Value	Range	Impor	tance (V	Veight)
Institutional Characteristics (Peer set restrictions)					
Public and private institutions with mission o	rientation in engine	eering and science.			
Carnegie classification as specialized enginee	-	-			
Limit to 3 then number of specialized en			c sector.		
Highest degree offered must be doctorate		1			
Plus UM-Rolla's intial list.					
Enrollment Variables			4	3	1
Total Headcount	4,976	3,500-7,500		X	
FTE Enrollment	4,377	2,500-6,500			X
Undergraduate HC % Total	83%	70%-88%	X		
Graduate HC % Total	17%	12%-30%	X		
1st Professional HC % Total		0%-2%			X
FT Undergraduate HC % Undergraduates	87%	80%-100%		X	
FT Graduate HC % Graduates	58%	50%-75%		X	
Degree Level Variables			4	3	1
% AA Degrees		0%-2%			X
% Baccalaureate Degrees	68%	60%-75%		X	
% Masters Degrees	27%	20%-35%		X	
% Doctoral Degrees	5%	3%-7%		X	
% First-Professional Degrees		0%-2%			X
Program Variables			3	2	1
Agriculture		0%-2%			X
Avocational		0%-2%			X
Business		0%-2%			X
Communications		0%-2%			X
Computer Science	7%	4%-10%	X		71
Education	7 70	0%-2%	71		X
Engineering	80%	70%-90%	X		71
Fine Arts	0070	0%-2%	21		X
Foreign Language		0%-2%			X
Health 1st Professional		0%-2%			X
Health Other		0%-2%			X
Home Economics		0%-2%			X
Humanities	1%	0.1%-4%			X
Life Science	1%	0.1%-4%			X
Mathematics	2%	0.1%-5%		X	71
Other Professional	2/0	0.176-376		71	X
Physical Sciences	6%	3%-9%		X	11
Public Service	0 /0	0%-2%		71	X
Science Related		0%-2%			X
Social Sciences	4%	2%-6%			X
Vocational	<del>-1</del> 70	0%-2%			X
v ocational		0/0-270			Λ

Table 2R: Disciplinary and Compositional Comparator Candidates for UM-Rolla

Institutional Characteristics

D 1	Tourist of an	Weighted	Carnegie	Highest
Rank	Institution	Score	Classification	Degree
	University of Missouri-Rolla		D1	D
1	University of Alabama in Huntsville	5	D2	D
2	Georgia Institute of Technology	10	R1	D
3	Worcester Polytechnic Institute	10	D2	D
4	New Mexico Institute of Mining and Tech	11	En	D
5	Clarkson University	13	D2	D
6	Colorado School of Mines	14	D2	D
7	Florida Institute of Technology-Melbourne	19	D1	D
8	Kettering University	22	En	M
9	Michigan Technological University	23	D2	D
10	Rensselaer Polytechnic Institute	23	R2	D
11	Rose-Hulman Institute of Technology	24	En	M
12	South Dakota School of Mines and Tech	24	En	D
13	Illinois Institute of Technology	27	D1	D
14	Stevens Institute of Technology	29	D2	D
15	Polytechnic University	30	D1	D
16	California Institute of Technology	31	R1	D
17	New Jersey Institute of Technology	32	D2	D

Weighted score is actually maximum score minus specification table weights based on similarity.

**Table 3R: UM-Rolla Comparator Candidate Institution Enrollment Distributions** 

		Total		%	%	%		
		Headcount	FTE	Undergrad	Graduate	1st Prof.	Undergrad	Graduate
	University of Missouri-Rolla	4,976	4,377	83%	17%		87%	58%
1	University of Alabama in Huntsville	6,464	4,306	80%	20%		54%	34%
2	Georgia Institute of Technology	12,969	12,059	73%	27%		92%	81%
3	Worcester Polytechnic Institute	3,776	3,289	73%	27%		97%	38%
4	New Mexico Institute of Mining and Tech	1,393	1,222	81%	19%		83%	75%

**Table 4R: UM-Rolla Comparator Candidate Institution Degree Distributions** 

Rank	Institution	Associates	Bachelors	Masters	Doctoral	First Professional
1	University of Missouri-Rolla University of Alabama in Huntsville		68% 67%	27% 30%	5% 4%	

Table 5R: UM-Rolla Comparator Candidate Institution Disciplinary Distributions

Rank	Institution	Agric	Avoc	Busn	Comm	CSci	Educ	Engr	FArt	FLng	H1st	HOth	Home	Humn	Life	Math	OPrf	Phys	Publ	SRel	SocS	Voca
	University of Missouri-Rolla					7%		80%						1%	1%	2%		6%			4%	
1	University of Alabama in Huntsville			18%		5%	1%	30%	1%	1%		25%		4%	4%	3%		4%	<1%		3%	
2	Georgia Institute of Technology			11%	<1%	5%		65%	1%			1%		<1%	2%	2%	5%	5%	<1%	1%	3%	

**Table 1S: UM-St Louis Comparator Candidate Institution Specifications** 

	UM-Value	Range	Impor	tance (V	Veight)
Institutional Characteristics (Peer set restrictions) Public urban institutions committed to graduate instruction through the doctoral level whether classified as comprehensive or doctoral. Plus UM-St Louis's initial list.					
Enrollment Variables			4	3	1
Total Headcount	15,576	12,500-25,500		X	
FTE Enrollment	8,776	7,500-15,000		X	
Undergraduate HC % Total	82%	76%-90%	X		
Graduate HC % Total	16%	12%-20%		X	
1st Professional HC % Total	1%	>0%-4%			X
FT Undergraduate HC % Undergraduates	38%	30%-55%			X
FT Graduate HC % Graduates	14%	10%-20%			X
Degree Level Variables			4	3	1
% AA Degrees		0%-2%			X
% Baccalaureate Degrees	69%	60%-80%	X		
% Masters Degrees	28%	15%-25%		X	
% Doctoral Degrees	1%	>0%-5%			X
% First-Professional Degrees	2%	>0%-5%			X
Program Variables			3	2	1
Agriculture		0%-2%			X
Avocational		0%-2%			X
Business	21%	18%-24%	X		
Communications	5%	2%-8%			X
Computer Science	1%	0.1%-4%			X
Education	30%	25%-35%	X		
Engineering	<1%	0%-2%			X
Fine Arts	<1%	0%-2%			X
Foreign Language	1%	0.1%-4%			X
Health 1st Professional	2%	0.1%-5%		X	
Health Other	11%	8%-14%		X	
Home Economics		0%-2%			X
Humanities	6%	3%-9%		X	
Life Science	4%	1%-7%			X
Mathematics	1%	0.1%-4%			X
Other Professional		0%-2%			X
Physical Sciences	2%	0.1%-5%			X
Public Service	2%	0.1%-5%		X	
Science Related		0%-2%			X
Social Sciences	14%	11%-17%		X	
		0%-2%			X

Table 2S: Disciplinary and Compositional Comparator Candidates for UM-St Lou

**Table 3S: UM-St Louis Comparator Candidate Institution Enrollment Distributions** 

	Total		%	%	%	% Full	-Time
	Headcount	FTE	Undergrad	Graduate	1st Prof.	Undergrad	Graduate
University of Missouri-St Louis	15,576	8,776	82%	16%	1%	38%	14%
<ol> <li>Univ of North Carolina at Charlotte</li> </ol>	16,511	12,628	84%	16%		73%	24%
2 Univ of Nebraska at Omaha	13,710	9,543	81%	19%		62%	22%
3 Wright State University-Main Campus	14,994	11,639	73%	25%	2%	77%	33%
4 Florida International University	30,012	19,556	80%	20%		52%	31%
5 Oakland University	14,379	9,916	78%	22%		62%	23%
6 The Univ of Texas at Arlington	19,286	13,854	80%	20%		61%	45%
7 University of Nevada-Las Vegas	19,249	13,364	80%	20%		62%	21%
8 San Diego State University	30,593	24,696	81%	19%		77%	45%
9 Wichita State University	14,061	9,316	78%	22%		54%	31%
10 University of Akron Main Campus	22,153	15,942	82%	16%	3%	59%	47%
11 Univ of Arkansas at Little Rock	10,907	7,448	79%	17%	4%	57%	27%
12 Youngstown State University	12,324	9,859	90%	10%		76%	15%
13 Univ of Wisconsin-Milwaukee	21,951	16,572	79%	21%		71%	35%
14 University of Toledo	20,307	15,928	83%	14%	3%	70%	47%
15 Univ of Houston-University Park	31,602	23,638	75%	21%	4%	66%	43%
16 The Univ of Texas at San Antonio	17,494	12,791	85%	15%		66%	24%
17 Univ of Maryland-Baltimore County	9,863	7,826	86%	14%		74%	39%
18 University of Memphis	19,851	15,214	74%	23%	3%	71%	40%
19 University of Colorado at Denver	13,772	8,387	58%	42%		53%	26%
20 Cleveland State University	15,655	11,214	68%	27%	6%	68%	28%
21 University of New Orleans	15,833	11,588	75%	25%		69%	31%
22 Univ of Massachusetts-Boston	12,828	8,436	75%	25%		57%	23%
23 Georgia State University	24,276	17,172	69%	28%	3%	57%	54%
24 Portland State University	16,997	11,232	67%	33%		58%	32%
25 Old Dominion University	18,557	12,436	66%	34%		62%	29%
26 George Mason University	23,826	15,882	58%	39%	3%	72%	17%

**Table 4S: UM-St Louis Comparator Candidate Institution Degree Distributions** 

Rank	Institution	Associates	Bachelors	Masters	Doctoral	First Professional
	University of Missouri-St Louis		69%	28%	1%	2%
1	Univ of North Carolina at Charlotte	<1%	80%	20%	<1%	<1%
2	Univ of Nebraska at Omaha		70%	30%	<1%	
3	Wright State University-Main Campus		62%	33%	1%	3%
4	Florida International University		76%	24%	1%	
5	Oakland University		71%	29%	<1%	
6	The Univ of Texas at Arlington		70%	28%	2%	
7	University of Nevada-Las Vegas		78%	21%	1%	
- 8	San Diego State University		74%	25%	<1%	
9	Wichita State University	3%	66%	29%	1%	
10	University of Akron Main Campus	17%	54%	22%	3%	4%
11	Univ of Arkansas at Little Rock	9%	59%	24%	1%	7%
12	Youngstown State University	11%	74%	15%	<1%	
13	Univ of Wisconsin-Milwaukee		68%	29%	3%	
14	University of Toledo	15%	59%	19%	2%	5%
15	Univ of Houston-University Park		65%	23%	4%	8%
16	The Univ of Texas at San Antonio		81%	19%	<1%	
17	Univ of Maryland-Baltimore County	2%	80%	15%	3%	<1%
18	University of Memphis	1%	62%	29%	4%	4%
19	University of Colorado at Denver		42%	57%	1%	_
20	Cleveland State University		55%	36%	1%	9%
21	University of New Orleans		64%	33%	2%	
22	Univ of Massachusetts-Boston	4%	65%	31%	<1%	
23	Georgia State University	<1%	54%	39%	2%	4%
24	Portland State University		70%	29%	1%	
25	Old Dominion University		59%	39%	2%	
26	George Mason University		58%	36%	2%	4%

Table 5S: UM-St Louis Comparator Candidate Institution Disciplinary Distributions

Ranl	x Institution	Agric	Avoc	Busn	Comm	CSci	Educ	Engr	FArt	FLng	H1st	HOth	Home	Humn	Life	Math	OPrf	Phys	Publ	SRel	SocS	Voca
	University of Missouri-St Louis			21%	5%	1%	30%	<1%	<1%	1%	2%	11%		6%	4%	1%		2%	2%		14%	
1	Univ of North Carolina at Charlotte			21%	1%	4%	13%	7%	2%	1%		6%	1%	5%	4%	1%	2%	3%	8%	3%	19%	
2	Univ of Nebraska at Omaha			21%	5%	3%	25%		3%	1%				6%	6%	1%	<1%	<1%	17%		11%	
3	Wright State University-Main Campus			20%	3%	2%	22%	7%	2%	<1%	3%	12%	<1%	4%	4%	1%		3%	2%		15%	