

PROFILING THE RESEARCH PRODUCTIVITY OF TENURED INFORMATION SYSTEMS FACULTY AT U.S. INSTITUTIONS

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Appendix A

U.S. News & World Report's Ranking of Top Business Specialties: Information Systems

2008	2007	School	Carnegie Classification
1	1	Massachusetts Institute of Technology (Sloan)	RUVH
2	2	Carnegie Mellon University (Tepper) (PA)	RUVH
3	3	University of Texas–Austin (McCombs)	RUVH
4	4	University of Minnesota–Twin Cities (Carlson)	RUVH
5	5	University of Arizona (Eller)	RUVH
6	6	University of Maryland–College Park (Smith)	RUVH
10	7	University of Pennsylvania (Wharton)	RUVH
7	8	Stanford University (CA)	RUVH
8	9	New York University (Stern)	RUVH
9	10	Georgia State University (Robinson)	RUH
11	11	Indiana University–Bloomington (Kelley)	RUVH
15 (tie)	12	University of Michigan–Ann Arbor (Ross)	RUVH
13 (tie)	13	University of California–Berkeley (Haas)	RUVH
12	14	Purdue University–West Lafayette (Krannert) (IN)	RUVH
13 (tie)	15 (tie)	Arizona State University–Main Campus (Carey)	RUVH
17	15 (tie)	University of Georgia (Terry)	RUVH
	18 (tie)	University of California–Irvine (Merage)	RUVH
18 (tie)	18 (tie)	University of Pittsburgh (Katz)	RUVH

2008	2007	School	Carnegie Classification
18 (tie)	20 (tie)	Bentley University (McCallum) (MA)	Master's/L
	20 (tie)	Case Western Reserve University (Weatherhead) (OH)	RUVH
	20 (tie)	Northwestern University (Kellogg) (IL)	RUVH
	20 (tie)	University of Washington	RUVH
	24 (tie)	Georgia Institute of Technology	RUVH
	24 (tie)	Harvard University (MA)	RUVH
	24 (tie)	University of California—Los Angeles (Anderson)	RUVH
	24 (tie)	University of Connecticut	RUVH
	24 (tie)	University of Southern California (Marshall)	RUVH
19	28	Count of Top Schools Shown in Ranking	

Note: When multiple schools receive an equivalent score in the USNWR ranking algorithm, they are given the same ranking (marked “tie” in the table). Rankings for subsequent schools are incremented for all tied institutions. For example, in the 2007 ranking, Arizona State University received the same algorithm score as University of Illinois—Urbana Champaign. Both are given the ranking of 15. No school is shown as having a rank of 16. Both are given the rank of 15 and the next ranked school, University of Georgia, is ranked as 17. The 2005 Carnegie Classification of Institutions of Higher Learning™ is as follows: research universities with very high research activity (RUVH), research universities with high research activity (RU/H), doctoral and research universities (DRU), and master’s colleges and universities with large programs (Master’s/L). Note that Bentley College changed its name to Bentley University in 2008 and has dramatically increased its focus on doctoral studies and research so that the school now behaves much more like an RUVH/RUH university than a Master’s/L university.

Appendix B

Journal Categorization Methodology

As noted in the article, the historical data in Table 10 and the benchmarks in Table 11 are based on journals assigned to tiers in Scenario 6. This appendix describes the method used to assign journals to tiers T1, T2, and T3 for Scenario 6. We categorized journals as Tier 1 (T1), Tier 2 (T2), or Tier 3 (T3), where T1 journals are the best, most difficult outlets in which to publish (i.e., premier journals). We categorized each journal outlet based on the outlet’s dominant content into these three categories: information systems (IS); business, which includes journals on traditional business disciplines and other behavioral fields; and computer science and engineering (CE), which includes information science and other technical fields. To do this, we used a combination of journal rankings and citation impact factors. Notably, we used IS journal rankings to find the best journals in which IS faculty normally publish. IS journal rankings have recently been shown to be empirically sound and excellent indicators of quality that are consistent over time (Lewis et al. 2007; Straub 2008). To this baseline, we add ISI impact factor ratings, which have been empirically shown to be a quality surrogate that provides a valid manner in which to consistently compare the scientific impact of journals between disciplines (something that cannot be well accomplished with discipline-specific journal rankings), and likewise to be able to compare contributions of individual scientists (Mangematin and Baden-Fuller 2008; Straub 2008).

To ensure that we included the major journals in which IS researchers publish (IS or otherwise), we combined all of the journals found in the last six IS journal-ranking articles (Hardgrave and Walstrom 1997; Lowry et al. 2004; Mylonopolous and Theoharakis 2001; Peffer and Ya 2003; Walstrom and Hardgrave 2001; Whitman et al. 1999). These six journal articles ranked journal outlets based on surveys of IS faculty between 1997 and 2004. After combining the outlets ranked in these articles, we developed three lists—one each for IS, business, and CE. All journals on the business list were included in the combination of the top-20 business journals list from Dennis et al. (2006) and the 2006 London *Financial Times* list of journals (LFTL). The LFTL is a particularly useful journal ranking because it represents the 38 top business journals as determined by leading business schools throughout the world. However, a couple of these journals had low or no ISI impact factors. Others were practitioner-oriented journals (e.g., *Harvard Business Review*, *Sloan Management Review*, *California Management Review*). Thus, not every LFTL journal was automatically considered a T1 journal.

To differentiate among T1, T2, and T3 journals, and to develop criteria to assign journals to tiers that were not on these top journal lists, we derived criteria based on the 2006 LFTL. We applied the following decision rules:

1. We calculated four years of ISI citation factors for all LFTL journals (2004–2007). Over this period, the average impact factor was 1.97, and the standard deviation was 0.930. We then applied the decision rule that if the four-year impact average of any journal is greater than or equal to one-half the standard deviation (0.465) below the LFTL average (1.97 minus 0.465 = 1.505), then the journal is considered a T1 journal. If the four-year impact average is between that 1.505 and 1.5 SD below the LFTL average (1.97 minus $(1.5 \times 0.930) = 0.575$), then the journal qualifies as a T2 journal. Any journal with a four-year impact average of less than 0.575 is a T3 journal.
2. Any journal on the LFTL is at a minimum a T2 journal. For categorization within treatment analysis Scenarios 3 through 6, some of the LFTL journals are promoted to T1 because of their higher impact factors according to the impact-factor-based rules described in Step 1.
3. Any IS journal not listed in Table 9 was assigned as T2 or T3 using the citation impact factors categorization approach discussed in Step 1.
4. All *ACM* and *IEEE Transactions* journals are a minimum of T2. High impact factor averages promote some of these to T1 according to the impact-factor-based rules described in Step 1.
5. No practitioner-oriented “hybrid” journals, regardless of their impact factors, can be categorized higher than a T2. Notably, this includes high-impact journals such as *Communications of the ACM*, *IEEE Computer*, *IEEE Software*, *IEEE Intelligent Systems*, *Harvard Business Review*, *Sloan Management Review*, and *California Management Review*. This places a premium on research journals over practitioner-oriented journals.

Using the above rules, we assigned all journals on each of the three lists to tiers. However, not all the journals used to assess faculty productivity are shown in this appendix. Because our intent is to show journal outlets that IS faculty consider important for tenure and promotion, in this appendix we show only journals on the three lists that qualify as T1 and T2 according to our tier-assignment rules. T3 journals are not shown.

Based on these rules, Table B1 lists the top business journals, Table B2 lists the top IS journals, and Table B3 lists the top computer science, engineering, information science, and other technical (CE) journals. For additional face validity, we checked this list against the last several major IS journal ranking studies. All of the tier assignments fit well with these rankings, with the exception of *Communications of the AIS* and *DATA BASE*, both of which are highly ranked on journal rankings. Thus, in deference to the collective wisdom of the IS community represented in these rankings, both were elevated from T3 to T2. These heuristics appeared to provide strong face validity and provided the advantage of being able to fairly and systematically compare journals across different disciplines. In addition to the journals drawn from the six IS journal ranking articles, we show T1 and T2 journals that have at least three authorships. Our sample included 2,432 authorships in 594 peer-reviewed journals.

Table B1. List of Top Business and Other Behavioral Journals

Journal Impact Rank	Journal Name	2004-2007 ISI Average	Tier	On LFTL?	On Dennis et al. List?	Number of Authorships in Our Sample
1	<i>MIS Quarterly</i>	4.604	T1	Yes	Yes	65
2	<i>Academy of Management Review</i>	4.215	T1	Yes	Yes	1
3	<i>J of Marketing</i>	3.953	T1	Yes	Yes	2
4	<i>Marketing Science</i>	3.767	T1	Yes	No	5
5	<i>Academy of Management Journal</i>	3.304	T1	Yes	Yes	5
6	<i>J of Finance</i>	3.067	T1	Yes	Yes	0
7	<i>J of Political Economy</i>	3.063	T1	Yes	No	1
8	<i>Administrative Science Quarterly</i>	2.874	T1	Yes	Yes	2
9	<i>J of Applied Psychology</i>	2.845	T1	Yes	No	5
10	<i>J of Financial Economics</i>	2.605	T1	Yes	Yes	0
11	<i>Information Systems Research</i>	2.696	T1	Yes	Yes	61
12	<i>Organization Science</i>	2.557	T1	Yes	No	5
13	<i>J of Accounting and Economics</i>	2.541	T1	Yes	Yes	1
14	<i>Econometrica</i>	2.541	T1	Yes	No	0
15	<i>Strategic Management Journal</i>	2.335	T1	Yes	Yes	6
16	<i>J of Marketing Research</i>	2.240	T1	Yes	Yes	1
17	<i>J of Consumer Research</i>	2.101	T1	Yes	Yes	0
18	<i>J of Accounting Research</i>	2.010	T1	Yes	Yes	1
19	<i>J of the American Statistical Association</i>	1.986	T1	Yes	No	1
20	<i>Review of Financial Studies</i>	1.845	T1	Yes	No	0
21	<i>Entrepreneurship Theory and Practice</i>	1.822	T1	Yes	No	0
22	<i>Management Science</i>	1.805	T1	Yes	Yes	49
23	<i>J of Operations Management</i>	1.771	T1	Yes	Yes	8
24	<i>J of International Business Studies</i>	1.769	T1	Yes	Yes	1
25	<i>Accounting Review</i>	1.757	T1	Yes	Yes	4
26	<i>Human Resources Management</i>	1.729	T1	Yes	No	4
27	<i>J of Business Venturing</i>	1.640	T1	Yes	No	0
28	<i>Organizational Behavior and Human Decisions Processes</i>	1.527	T1	Yes	No	9
29	<i>Harvard Business Review</i>	1.346	T2	Yes	No	10
30	<i>Decision Sciences</i>	1.218	T2	No	No	31
31	<i>J of Financial and Quantitative Analysis</i>	1.200	T2	Yes	No	0
32	<i>California Management Review</i>	1.186	T2	Yes	No	4
33	<i>Operations Research</i>	1.181	T2	Yes	Yes	7
34	<i>Academy of Management Perspectives (formerly Academy of Management Executive)</i>	1.147	T2	Yes	No	1
35	<i>Accounting, Organizations and Society</i>	1.072	T2	Yes	No	1
36	<i>MIT Sloan Management Review</i>	0.867	T2	Yes	No	12
37	<i>International Journal of Human Resource Management</i>	0.580	T2	Yes	No	1
38	<i>Real Estate Economics</i>	0.574	T2	No	Yes	0
39	<i>J of Business Ethics</i>	0.557	T2	Yes	No	4
40	<i>J of Risk and Insurance</i>	0.449	T2	No	Yes	0
41	<i>Management International Review</i>	n/a	T2	Yes	No	0

Table B2. List of Top Information Systems Journals

Journal Name	2004–2007 ISI Average [†]	Number of authorships in our sample
<i>MIS Quarterly</i>	4.604	65
<i>Information Systems Research</i>	2.696	61
<i>J of Management Information System</i>	1.590	81
<i>J of the AIS</i>	n/a	12
<i>Information Systems Journal</i>	1.090	10
<i>European Journal of Information Systems</i>	0.917	11
<i>J of Information Technology</i>	1.309	4
<i>J of Strategic Information Systems</i>	0.750	11
<i>Information & Management</i>	1.772	71
<i>J of Database Management</i>	1.690	8
<i>J of Global Information Management</i>	1.241	8
<i>International Journal of Electronic Commerce</i>	1.200	5
<i>Decision Support Systems</i>	1.171	94
<i>Behavior and Information Technology</i>	0.701	5
<i>J of Computer Information Systems</i>	0.673	58
<i>Electronic Commerce Research and Applications</i>	0.600	4
<i>Communications of the AIS</i>	n/a	19
<i>Data Base for Advances in Information Systems</i>	n/a	38

[†]Impact factors for top IS journals, except *ISR*, greatly increased in 2008, further validating these categorizations: *MISQ* (5.183), *JMIS* (2.358), *J AIS* (1.836), *ISJ* (2.375), *EJIS* (1.202), *JIT* (1.966), and *JSIS* (1.484).

Table B3. Examples of Top Computer Science, Engineering, Information Science, and Other Technical Journals

Journal Impact Rank	Journal Name	2004–2007 ISI Average	Tier	Number of Authorships in Our Sample
1	<i>ACM Computing Surveys</i>	6.705	T1	4
2	<i>ACM Transactions on Information Systems</i>	3.914	T1	6
3	<i>Human Computer Interaction</i>	3.562	T1	3
4	<i>Artificial Intelligence</i>	2.872	T1	4
5	<i>Annual Review of Information Science and Technology</i>	2.573	T1	9
6	<i>ACM Transactions on Database Systems</i>	1.975	T1	6
7	<i>IEEE Transactions on Software Engineering</i>	1.927	T1	14
8	<i>IEEE Transactions on Knowledge and Data Engineering</i>	1.739	T1	21
9	<i>J of the American Society for Information Science and Technology (JASIST)</i>	1.665	T1	40
10	<i>IEEE Intelligent Systems</i>	2.318	T2	10
11	<i>Communications of the ACM</i>	1.691	T2	86
12	<i>IEEE Software</i>	1.382	T2	6
13	<i>Information Processing and Management</i>	1.381	T2	13
14	<i>Information Systems</i>	1.373	T2	8
15	<i>IEEE Computer</i>	1.343	T2	12
16	<i>INFORMS Journal on Computing</i>	1.264	T2	9
17	<i>International Journal of Human Computer Studies</i>	1.234	T2	20
18	<i>Computational Complexity</i>	1.231	T2	3
19	<i>Expert Systems with Applications</i>	1.154	T2	18
20	<i>Data & Knowledge Engineering (D&KE)</i>	1.142	T2	4
21	<i>Computers in Human Behavior</i>	1.075	T2	6
22	<i>J of Algorithms</i>	1.034	T2	3
23	<i>Computers in Industry</i>	0.916	T2	4
24	<i>J of Intelligent Information Systems</i>	0.908	T2	4
25	<i>J of Information Science</i>	0.895	T2	7
26	<i>Interacting with Computers</i>	0.870	T2	4
27	<i>Computers and Operations Research</i>	0.837	T2	11
28	<i>Information Society</i>	0.802	T2	5
29	<i>Theoretical Computer science</i>	0.749	T2	5
30	<i>J of Systems and Software</i>	0.713	T2	9
31	<i>Computer Journal</i>	0.680	T2	5
32	<i>IIE Transactions</i>	0.603	T2	4
33	<i>Computers and Industrial Engineering</i>	0.546	T2	9
34	<i>J of Intelligent Manufacturing</i>	0.489	T2	5
	<i>ACM Transactions (others not listed)</i>	n/a	T2	10
	<i>IEEE Transactions (others not listed)</i>	n/a	T2	85

Table B4. Journals Considered T1 in Each Analysis Scenario (in Alphabetical Order)

Journal		Type	Scenario					
			1	2	3	4	5	6
1	<i>Information Systems Research</i>	IS	Y	Y	Y	Y	Y	Y
2	<i>MIS Quarterly</i>	IS	Y	Y	Y	Y	Y	Y
3	<i>Academy of Management Journal</i>	B		Y	Y	Y	Y	Y
4	<i>Academy of Management Review</i>	B		Y	Y	Y	Y	Y
5	<i>Accounting Review</i>	B		Y	Y	Y	Y	Y
6	<i>Administrative Science Quarterly</i>	B		Y	Y	Y	Y	Y
7	<i>J of Accounting and Economics</i>	B		Y	Y	Y	Y	Y
8	<i>J of Accounting Research</i>	B		Y	Y	Y	Y	Y
9	<i>J of Consumer Research</i>	B		Y	Y	Y	Y	Y
10	<i>J of Finance</i>	B		Y	Y	Y	Y	Y
11	<i>J of Financial Economics</i>	B		Y	Y	Y	Y	Y
12	<i>J of International Business Studies</i>	B		Y	Y	Y	Y	Y
13	<i>J of Marketing</i>	B		Y	Y	Y	Y	Y
14	<i>J of Marketing Research</i>	B		Y	Y	Y	Y	Y
15	<i>J of Operations Management</i>	B		Y	Y	Y	Y	Y
16	<i>Management Science</i>	B		Y	Y	Y	Y	Y
17	<i>Strategic Management Journal</i>	B		Y	Y	Y	Y	Y
18	<i>American Economic Review</i>	B			Y	Y	Y	Y
19	<i>Econometrica</i>	B			Y	Y	Y	Y
20	<i>Entrepreneurship Theory and Practice</i>	B			Y	Y	Y	Y
21	<i>Human Resource Management</i>	B			Y	Y	Y	Y
22	<i>J of Applied Psychology</i>	B			Y	Y	Y	Y
23	<i>J of Business Venturing</i>	B			Y	Y	Y	Y
24	<i>J of Political Economy</i>	B			Y	Y	Y	Y
25	<i>J of the American Statistical Assoc.</i>	B			Y	Y	Y	Y
26	<i>Marketing Science</i>	B			Y	Y	Y	Y
27	<i>Organization Science</i>	B			Y	Y	Y	Y
28	<i>Organizational Behavior and Human Decision Processes</i>	B			Y	Y	Y	Y
29	<i>Review of Financial Studies</i>	B			Y	Y	Y	Y
30	<i>J of Management IS</i>	IS				Y	Y	Y
31	<i>J of the Association for IS</i>	IS				Y	Y	Y
32	<i>European Journal of IS</i>	IS					Y	Y
33	<i>Information Systems J</i>	IS					Y	Y
34	<i>J of Information Technology</i>	IS					Y	Y
35	<i>J of Strategic IS</i>	IS					Y	Y
CE and Other		Mix						Y

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