

Editorial: The Seventh *Interfaces* Ranking of Universities' Contributions to the Practice Literature

Michael H. Rothkopf

Smeal School of Business, Pennsylvania State University University Park, Pennsylvania 16802, rothkopf@psu.edu

For the seventh time, I rank universities according to their contributions to the INFORMS practice literature and trace the evolution of the rankings of the top universities. Two universities are tied for the top ranking this time: the Georgia Institute of Technology and the University of Pennsylvania. Erasmus University, the University of British Columbia, and the University of Chile are now tied for the top ranking among non-US universities. The number of non-US universities contributing to the practice literature is growing.

Key words: professional; comments on.

In a 1996 *Interfaces* editorial, I reported the results of a simple method of measuring universities' contributions to the INFORMS practice literature (Rothkopf 1996). The purpose of the rankings was to measure, at least roughly, such contributions to facilitate recognition and rewards to those academics and academic institutions concerned with OR/MS practice. In that editorial, I described the method, the rationale, and the results of using it to rank universities using the 1988 through 1994 INFORMS literature. I promised to update the rankings periodically. I have done so five times, each time using two years worth of more recent literature (Rothkopf 1997, 1999, 2002, 2004, 2005). In this editorial, I use the literature from 2000 through 2006 to report and analyze the seventh in the series of rankings. I also look back at how the rankings have evolved over time.

I have used the same methodology in all of the rankings. I base the rankings on the most recent seven-year total of papers in *Interfaces* and in the "OR Practice" section of *Operations Research*. I count *Interfaces* columns as half papers. I count a paper or column for any college or university that any coauthor gave as his or her affiliation. Thus, one paper can count for several universities. I credit a university even when the authors were in departments that did not have OR/MS programs, such as a medical school or a school of hotel management. Thus, in deciding what to count, I used little subjective judgment beyond that involved in the *Interfaces* and

Operations Research review processes. I ranked US and non-US universities separately. In the editorial discussing the first ranking, I discussed my rationale for this approach.

I give the rankings of the 51 US universities that had two or more practice papers in the seven-year ranking period (Table 1). The top two schools with 30 papers each are the Georgia Institute of Technology and the University of Pennsylvania. The former moved up from third place two years ago, and the latter moved up from second place. The third place ranking went to the Colorado School of Mines, up from a tie for ninth place in the previous rankings. It had credit for nine and a half papers, including two regular papers and five columns that Gene Woolsey wrote in the last two years.

The Naval Postgraduate School remained in fourth place with nine papers. MIT is in fifth place with seven and a half papers. Carnegie Mellon University, last year's leader, and Temple University are tied for sixth place with seven papers each. Cornell University, Rutgers University, the University of North Carolina, and the University of Virginia tied for eighth place with six papers each.

I also give the rankings of the 16 non-US universities that had two or more papers over the seven years (Table 2). There is a three-way tie (Erasmus University, the University of British Columbia, and the University of Chile) for the top ranking. Each had five papers. London Business School was in fourth place

US University	2005–2006 papers				2000–2006 papers				Rank
	Int	Int C	ORP	Points	Int	Int C	ORP	Points	
Georgia Institute of Technology	3	0	0	3	8	0	2	10	1
University of Pennsylvania	2	0	0	2	8	2	1	10	1
Colorado School of Mines	2	5	0	4.5	5	9	0	9.5	3
Naval Postgraduate School	1	0	1	2	7	0	2	9	4
Massachusetts Institute of Technology	3	0	0	3	6	1	1	7.5	5
Carnegie Mellon University	0	0	0	0	5	0	2	7	6
Temple University	1	3	0	2.5	5	4	0	7	6
Cornell University	1	0	0	1	6	0	0	6	8
Rutgers University	1	1	0	1.5	3	6	0	6	8
University of North Carolina	0	0	0	0	6	0	0	6	8
University of Virginia	0	0	0	0	6	0	0	6	8
Pennsylvania State University, University Park	1	0	0	1	5	1	0	5.5	12
University of Maryland, College Park	2	2	0	3	3	5	0	5.5	12
University of California, Los Angeles	0	0	0	0	3	0	2	5	14
University of Texas Austin	1	0	0	1	5	0	0	5	14
Stanford University	0	0	0	0	3	0	1	4	16
University of California, Berkeley	1	0	0	1	3	0	1	4	16
University of Minnesota	0	0	0	0	4	0	0	4	16
University of Southern California	0	0	0	0	3	1	0	3.5	19
Arizona State University	2	0	0	2	3	0	0	3	20
Dartmouth College	2	0	0	2	3	0	0	3	20
George Mason University	1	0	0	1	3	0	0	3	20
Lehigh University	1	0	0	1	1	0	2	3	20
New York University	0	0	0	0	1	0	2	3	20
Ohio State University	1	0	0	1	3	0	0	3	20
Purdue University	1	0	1	2	2	0	1	3	20
Rensselaer Polytechnic Institute	0	0	0	0	3	0	0	3	20
San Francisco State University	0	0	0	0	3	0	0	3	20
University of Michigan	1	0	0	1	3	0	0	3	20
University of Pittsburgh	1	0	0	1	3	0	0	3	20
University of South Carolina, Columbia	2	0	0	2	3	0	0	3	20
University of Tennessee, Knoxville	1	0	0	1	3	0	0	3	20
Vanderbilt University	0	0	0	0	3	0	0	3	20
Washington State University	0	0	0	0	3	0	0	3	20
California Institute of Technology	0	0	0	0	2	1	0	2.5	35
Bowling Green State University	0	0	0	0	2	0	0	2	36
Case Western Reserve University	1	0	0	1	1	2	0	2	36
Columbia University	0	0	0	0	2	0	0	2	36
Harvard University	1	0	0	1	2	0	0	2	36
Indiana University, Bloomington	0	0	0	0	2	0	0	2	36
Mississippi State University	0	0	0	0	2	0	0	2	36
Oregon State University	1	0	1	2	1	0	1	2	36
Princeton University	0	0	0	0	1	0	1	2	36
Santa Clara University	2	0	0	2	2	0	0	2	36
Southern Methodist University	0	0	0	0	2	0	0	2	36
Texas A & M University	2	0	0	2	2	0	0	2	36
University of Dayton	2	0	0	2	2	0	0	2	36
University of Florida	1	0	0	1	2	0	0	2	36
University of Missouri, St. Louis	1	0	0	1	2	0	0	2	36
University of Rochester	0	0	0	0	1	0	1	2	36
Virginia Commonwealth University	1	0	0	1	2	0	0	2	36

Table 1: This seventh *Interfaces* ranking of US universities for their contributions to the INFORMS practice literature covers the seven years from 2000 through 2006. A university's score is the total number of its papers in *Interfaces* (Int) and in the "OR Practice" section of *Operations Research* (ORP) plus half the number of unrefereed *Interfaces* columns (Int C). I show the universities' scores for the last two years (2005–2006) only, their total seven-year scores for 2000 through 2006, and their rankings based on the latter.

Non-US University	2005-2006 papers				2000-2006 papers				Rank
	Int	Int C	ORP	Points	Int	Int C	ORP	Points	
Erasmus University	0	0	0	0	5	0	0	5	1
University of British Columbia	1	0	0	1	4	0	1	5	1
University of Chile	1	0	1	2	3	0	2	5	1
London Business School	0	0	0	0	2	0	1	3	4
Chinese University of Hong Kong	1	0	0	1	2	0	0	2	5
Ecole Polytechnique de Montreal	1	0	0	1	2	0	0	2	5
Eindhoven University of Technology	1	0	0	1	2	0	0	2	5
Hong Kong University of Science and Technology	1	0	0	1	2	0	0	2	5
Indian Institute of Technology	0	0	0	0	2	0	0	2	5
INSEAD	1	0	0	1	2	0	0	2	5
Katholieke Universiteit Leuven	1	0	0	1	2	0	0	2	5
London School of Economics	0	0	0	0	2	0	0	2	5
University of Alberta	0	0	0	0	2	0	0	2	5
University of Auckland	0	0	0	0	2	0	0	2	5
University of Cambridge	1	0	0	1	2	0	0	2	5
University of Waikato	1	0	0	1	2	0	0	2	5

Table 2: This seventh *Interfaces* ranking of non-US universities for their contribution to the INFORMS practice literature covers the seven years from 2000 through 2006. A university's score is the total number of its papers in *Interfaces* (Int) and in the "OR Practice" section of *Operations Research* (ORP) plus half the number of unrefereed *Interfaces* columns (Int C). I show the universities' scores for the last two years (2005-2006) only, their total seven-year scores for 2000 through 2006, and their rankings based on the latter.

with three papers. Twelve non-US universities tied for fifth place with two papers each.

Of the US universities, 15 added two or more papers in the past two years; this was up from 14. However, only one non-US university added two or more papers during this period; this was down from two. On the other hand, the number of non-US universities contributing at least one paper in the past two years increased from 20 two years ago to 35; this is just seven fewer than the number of US universities.

Stanford University, one of the four US universities that had always been in the top 10 in previous rankings, fell into a three-way tie for 16th place. It had no new papers in the past two years. Two universities that were in the top 10 in the previous ranking, the University of Texas at Austin and the University of Southern California, also fell out of the top 10 this time.

In the first five rankings, the number of papers for the top US university fell consistently over time. This trend extended to the contributions of the top 5, the top 10, and the top 25 US universities. As a table in the sixth ranking illustrated, this trend was reversed. The result this time is mixed. This time, the 10 papers by each of the co-leaders are the same as Carnegie

Mellon's number of papers two years ago. The average number of papers for the top 5 and top 10 US universities increased from 8.4 to 9.2 and from 7.6 to 7.8, respectively. However, the number for the top 25 dropped from 5.76 to 5.54. The total number of papers for the top non-US university dropped from seven papers in the sixth ranking and six in the fifth ranking to five this time.

The rankings always had substantially more papers from *Interfaces* than from the "OR Practice" section of *Operations Research*. However, this time the disparity is as great as it has ever been. I think that this reflects the failure of an approach that a previous editor of *Operations Research* tried. This approach, which addressed how the "OR Practice" section would get and handle papers, has since been abandoned. I hope I'm right about this.

Conclusions

We cannot measure everything that matters, but we do tend to pay more attention to what we do measure. The purpose of these rankings is to measure the contributions of universities to the INFORMS practice literature. The rankings identify the universities that are contributing to the practice literature and, implicitly, those that are not. This knowledge can be useful in

many ways I hope that those making decisions about OR programs at universities will find the rankings helpful. I hope that prospective students who are interested in applications of OR and those who advise these students will find the rankings useful in locating universities with faculty members who will be helpful with their interests. I hope that firms that hire students will use the rankings to locate universities from which to recruit. I hope that faculties and deans will use the rankings to improve their programs. Finally, I hope that these rankings will stir the competitive spirits of universities and lead to additional, and much needed, contributions to the practice literature. How is your school doing? Do you have a practice paper to write that would tell a worthwhile story?

References

- Rothkopf, M. H. 1996. Editorial: Which universities contribute to the practice literature? The first *Interfaces* ranking. *Interfaces* 26(2) 16-21.
- Rothkopf, M. H. 1997. Editorial: Which universities contribute to the practice literature? The second *Interfaces* ranking. *Interfaces* 27(4) 19-22.
- Rothkopf, M. H. 1999. Editorial: The third *Interfaces* ranking of universities' contributions to the practice literature. *Interfaces* 29(6) 107-111.
- Rothkopf, M. H. 2002. Editorial: Leveling the field? The fourth *Interfaces* ranking of universities' contributions to the practice literature. *Interfaces* 32(2) 23-27.
- Rothkopf, M. H. 2004. Editorial: The fifth *Interfaces* ranking of universities' contributions to the practice literature. *Interfaces* 34(2) 135-136.
- Rothkopf, M. H. 2005. Editorial: The sixth *Interfaces* ranking of universities' contributions to the practice literature. *Interfaces* 35(5) 425-428.