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# U.S. Institutional Representation on Editorial Boards of U.S. Statistics Journals

JEAN D. GIBBONS\*

This article presents two different, but similar, rankings of U.S. statistics faculties according to their current representation on editorial boards of 14 U.S. statistics journals. The data show that there is a widespread balance of individuals, institutions, and geographical locations in the U.S. with respect to publication officers.

**KEY WORDS:** Editorial board memberships; Ranking of institutions.

Two articles recently published used editorial review board memberships as a basis for obtaining at least somewhat objective rankings of the faculties of U.S. institutions granting Ph.D. degrees. Kaufman (1984) presented a ranking of finance faculties, and Kurtz and Boone (1988) ranked marketing faculties. This article presents rankings of U.S. statistics faculties based on the same criterion. We discuss arguments for and against using editorial board memberships as a proxy measure for ranking institutional faculties.

In a time when tenure and promotion in academia rest so heavily on publication of articles in refereed journals, information about institutional affiliations and locations of persons making final decisions about publication of articles submitted is of special interest to all statisticians. The data from this survey specifically give answers to the following two questions of concern:

1. Do a few institutions and/or individuals dominate the decisions about what is publishable?
2. Does any particular geographical area of the U.S. dominate publication decisions?

The results of this survey give highly reassuring answers to both questions, in that there appears to be a widespread balance of individuals, institutions, and U.S. geographical areas on editorial boards.

## METHODOLOGY

The data used for this study are the 419 names of persons listed as editor, associate editor, or editorial board member in the July, August, or September 1988 issue of 14 U.S. statistics journals (see Table 1). (Book review editors were not included.) Their affiliations were determined from the journal listing, when possible; otherwise, determination was made from the most current membership directories available from the American Statistical Association, the Institute

of Mathematical Statistics, the Biometric Society, and the International Statistical Institute. Four persons had to be eliminated because of undeterminable affiliation. Persons who served on more than one journal were counted as many times as their names appeared, because this study focuses on representation according to affiliation rather than name.

Of the 415 editorial board memberships, about two-thirds, or 267, listed their affiliations as U.S. academic institutions. These affiliations provide the data for the results that follow.

## FINDINGS

The first column in Table 1 shows the number of U.S. faculty persons with editorial board memberships on the various journals. The second column shows the corresponding number of different U.S. institutions represented by these memberships. The difference of the corresponding numbers shows the institutional duplications. Each of the journals has a small proportion of duplication of institutions. The largest relative duplication is the *Journal of the American Statistical Association*, but that is only 33%.

The number of individual duplications is extremely small. No one person served on more than three journals. Three persons had membership on three different journals and 23 were on two journals. The total number of different persons with at least one editorial board membership is 238, or 89% of the 267.

Thus there is little duplication among either individuals or institutions, which sharply reduces the possibility of bias resulting from certain institutions being favored.

Table 2 shows the distribution of the 267 U.S. editorial board memberships on the 14 journals, aggregated by institutional affiliation. Only the 20 institutions with five or more editorial board memberships are itemized. The corresponding percentages of all 415 editorial board memberships are also given. The final column in Table 2 gives a ranking of these 20 institutions according to number of board memberships, with 1 being the largest; mid-ranks are used to represent ties. Stanford has the most memberships, with 13, followed by Michigan, with 12 memberships.

The facts are that (a) no single institution has more than 13 editorial board memberships and (b) the modal number of memberships is one. Obviously, then, editorial responsibilities are widely spread among U.S. institutions, both public and private. These results suggest that most editors pay equal attention to maintaining a wide variety of specializations within statistics and to achieving a balance of institutional representation.

Table 3 lists the 23 U.S. institutions with at least one faculty representative on four or more different journals. Again Stanford takes the lead with representatives on eight of the 14 journals in this study. Each institution listed in Table 2 also appears in Table 3, but the resulting rankings differ. The only institutions appearing in Table 3 but not in

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Table 1. Statistics Journals, Number of U.S. Faculty Editorial Board Memberships, and Number of U.S. Institutions Represented

Journal*	Number of U.S. faculty persons	Number of institutions
<i>Biometrics</i>	8	6
<i>Communications in Statistics, Part B—Simulation and Computation</i>	14	11
<i>Communications in Statistics, Part A—Theory and Methods</i>	43	32
<i>Journal of Business and Economic Statistics</i>	25	19
<i>Journal of Educational Statistics</i>	20	17
<i>Journal of Multivariate Analysis</i>	11	9
<i>Journal of Quality Technology</i>	13	12
<i>Journal of Statistical Computation and Simulation</i>	12	9
<i>Journal of Statistical Planning and Inference</i>	22	19
<i>Journal of the American Statistical Association</i>	45	30
<i>Statistical Science</i>	3	3
<i>Technometrics</i>	10	8
<i>The American Statistician</i>	24	19
<i>The Annals of Statistics</i>	17	12
Total	267	176

\*The *Annals of Probability* was not included because the affiliation of the majority of its editorial board could not be determined from the directories used.

Table 2 are Massachusetts Institute of Technology, University of Maryland, and University of Texas, Austin. Each of these institutions has one representative on each of four different journals.

The facts that no institution has at least one representative on more than eight journals and that 23 different institutions are represented on four or more journals imply that the decisions about publications are well dispersed among departments. Further, the majority of institutions that have any representation on editorial boards usually are represented on only one journal. In addition, the total number of different institutions with at least one editorial board member is 82. The most recent *AmStat News* listing of institutions offering degrees in statistics contains 116 colleges and universities offering the Ph.D. with a major or concentration in statistics. Therefore, almost 71% of these listed institutions have representation on editorial boards.

The 267 editorial board memberships are well spread among institutions located in 33, or 65%, of the 50 states and the District of Columbia. Figure 1 shows the geographical dis-

tribution of number of memberships, aggregated by state. California has the most, with 37; followed by Texas, with 24; then North Carolina and New York, with 21 and 20, respectively. The number in parentheses for each state on the figure represents the total number of journals (out of 14) with at least one editorial board member. California's 37 memberships are spread among 10 journals. Michigan, New York, and North Carolina each have representatives on nine journals, and Illinois and Iowa have eight each.

These findings present a clear signal that there is no select group of individuals, institutions, or geographical areas in the U.S. that dominates decisions about manuscripts submitted to these 14 statistics journals.

### ARE THESE RANKINGS MEANINGFUL?

It can be argued that the rankings given in this article measure the relative quality of the top U.S. institutions in our field. Arguments for using editorial board membership as a proxy for quality are that (a) these are the persons making the decisions about publication of manuscripts,

Table 2. U.S. Statistics Faculties According to Number of Editorial Board Memberships

University*	Number of memberships	Percentage of memberships (n = 415)	Rank (n = 20)
Stanford University	13	3.1	1
University of Michigan	12	2.9	2
North Carolina State University	11	2.7	3.5
Texas A & M University	11	2.7	3.5
Iowa State University	9	2.2	5.5
University of California, Berkeley	9	2.2	5.5
University of Florida	8	1.9	7
Cornell University	7	1.7	9.5
University of Chicago	7	1.7	9.5
University of Wisconsin	7	1.7	9.5
Virginia Polytechnic Institute & S. U.	7	1.7	9.5
Ohio State University	6	1.4	13.5
Purdue University	6	1.4	13.5
University of Minnesota	6	1.4	13.5
University of North Carolina	6	1.4	13.5
Carnegie-Mellon University	5	1.2	18
Pennsylvania State University	5	1.2	18
University of California, Los Angeles	5	1.2	18
University of Georgia	5	1.2	18
University of South Carolina	5	1.2	18

\*There are 62 other U.S. institutions with four memberships or less, giving a total of 117, or 28.2% of the 415 memberships.

Table 3. U.S. Statistics Faculties According to Number of Journals With Editorial Board Representatives

University*	Number of journals	Percentage of journals (n = 14)	Rank (n = 23)
Stanford University	8	57.1	1
Iowa State University	7	50.0	2.5
University of Michigan	7	50.0	2.5
Cornell University	6	42.9	4
North Carolina State University	5	35.7	7.5
Texas A & M University	5	35.7	7.5
University of California, Berkeley	5	35.7	7.5
University of Florida	5	35.7	7.5
University of Minnesota	5	35.7	7.5
University of North Carolina	5	35.7	7.5
Carnegie-Mellon University	4	28.6	17
Massachusetts Institute of Technology	4	28.6	17
Ohio State University	4	28.6	17
Pennsylvania State University	4	28.6	17
Purdue University	4	28.6	17
University of California, Los Angeles	4	28.6	17
University of Chicago	4	28.6	17
University of Georgia	4	28.6	17
University of Maryland	4	28.6	17
University of South Carolina	4	28.6	17
University of Texas, Austin	4	28.6	17
University of Wisconsin	4	28.6	17
Virginia Polytechnic Institute & S. U.	4	28.6	17

\*There are 59 other U.S. institutions with representatives on three or less journals.

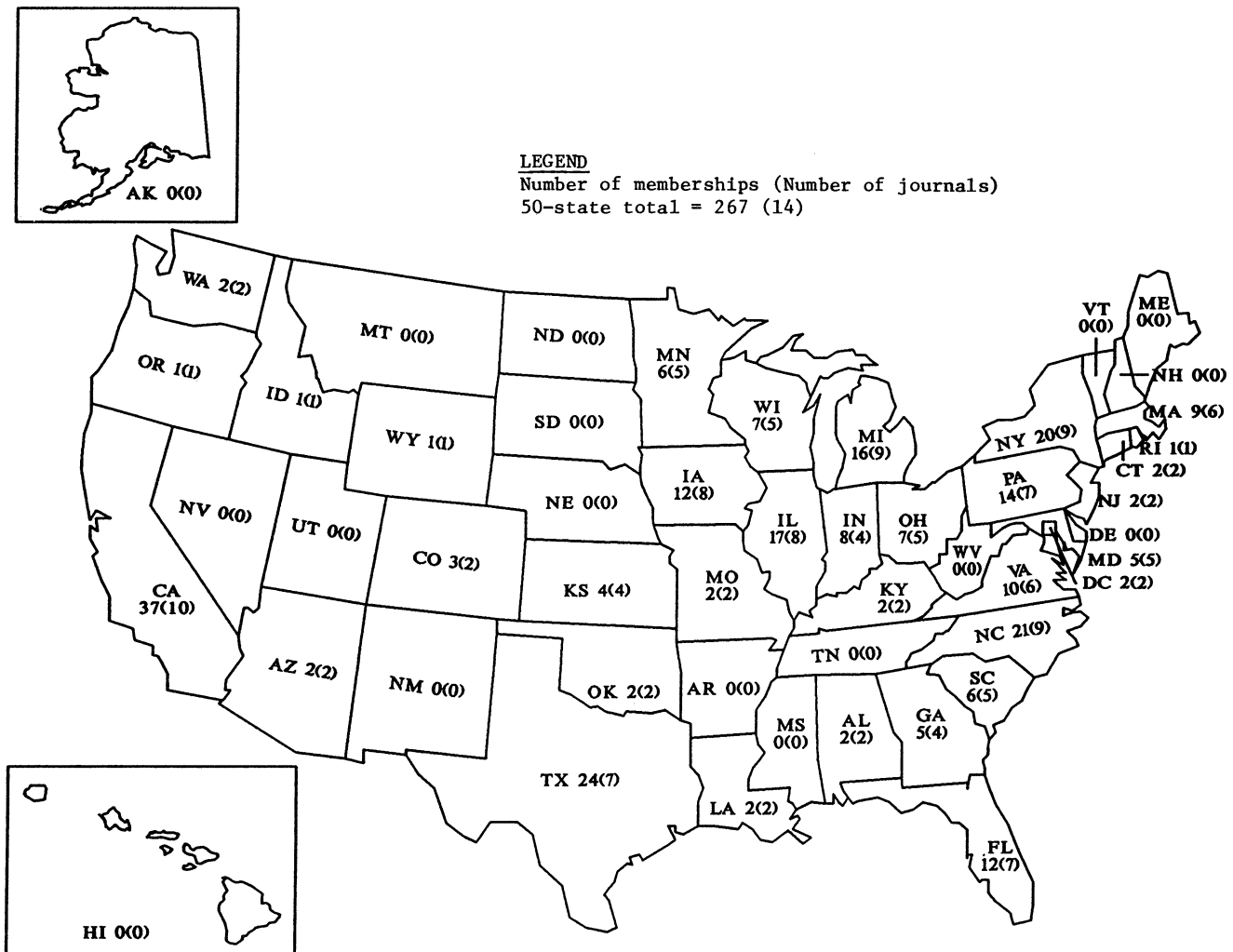


Figure 1. Number of Editorial Board Members (and number of journals), Aggregated by State.

(b) they are generally chosen because they are considered especially knowledgeable and current in their research specialty and have the confidence and respect of their peers, and (c) their names and, usually, their affiliations appear in a prominent place in each issue and, thereby, provide wide exposure.

The primary argument against using editorial board memberships as a proxy for institutional quality is that, although faculty selected for editorial board memberships are obviously held in high esteem by their peers, these persons usually are only a small minority of their own institution's faculty.

Nevertheless, in some other academic fields rankings based on editorial board memberships have been interpreted as one *possible* objective method of assessing the relative importance of institutions offering graduate degrees. Several other objective proxy measures of quality have also been used, including faculty publications, starting salaries of graduates, or performance of graduates.

Kaufman (1984) summarized the published rankings of finance departments and concluded that the various rankings based on different criteria have high correlations. Rankings of economics faculties have appeared in the literature for

more than 30 years. Brar, Nazemzadeh, and Chow (1987) found high correlations between pairs of economics department rankings based on 13 different criteria. Bell and Seater (1978) found high correlations between several different types of economics faculty rankings that covered three different and nonoverlapping time periods.

Some of the statistics journals in this study are relatively new; therefore, a complete comparison of editorial board representation over a long period of time is not practical. It will be interesting to see whether these rankings of statistics faculties are essentially the same in the year 2000.

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