ISSUES IN ACCOUNTING EDUCATION
Vol. 27, No. 4
2012
pp. 943–978

American Accounting Association
DOI: 10.2308/iace-50253

Benchmarking the Research Productivity of Accounting Doctorates

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ABSTRACT: Increasing attention to faculty research productivity suggests a need for reliable benchmarks, which the literature has provided. We add to this literature by providing alternative benchmarks based on records of 5,607 accounting doctoral graduates from 1971–2005. We measure research productivity in four ways: (1) unadjusted number of published articles in the Best 3, Best 13, Best 24, and Best 40 journals, (2) published articles adjusted for journal quality scores, (3) published articles adjusted for coauthorship, and (4) published articles adjusted for both journal quality and coauthorship. We find evidence that average publication productivity of accounting faculty per year has steadily increased over the 35 years under study. We present benchmark measures based on faculty productivity in four sets of journals both from 1971–2005 and for each year of 2001–2005. The former shows that a significant proportion of doctoral graduates have never published in any of the 40 journals studied. The latter shows nine years of productivity in the most recent years. These data can be useful as a benchmark for promotion and tenure decisions. We also present productivity percentiles as another benchmark, followed by research productivity of the top 10 most productive faculty (based on the most conservative measure of published articles adjusted for both journal quality and coauthorship) from 1971–2005 as yet another benchmark.

Additional analysis indicates very high correlations between productivity measures. This evidence indicates that productive researchers rank high regardless of the productivity measure used to evaluate them. Finally, multivariate tests reveal effects for gender (male faculty generally scoring higher than female faculty), school of affiliation (faculty at doctoral granting institutions as significantly more productive than their counterparts at nondoctoral schools), professorial rank (professors scoring higher than those in administrative and other roles), and teaching years since doctorate (those with 10 years or less of service since doctoral year being more productive than those with 11 years or more).

The benchmarks identified in the study can help with tenure, promotion, merit pay, appointment and renewal of chaired professorships, and other resource allocation decisions.

Keywords: benchmark; research productivity; faculty recruiting.

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We thank the editor, the anonymous associate editor, and the two anonymous reviewers for their helpful guidance and constructive comments. We also appreciate the comments of Larry Brown (Georgia State University), Tim Fogarty (Case Western Reserve University), Mark Riley (University of Northern Illinois), David Stout (Youngstown State University), Greg Trompeter (University of Central Florida), Doyle Williams (University of Arkansas, Retired), and David Wood (Brigham Young University) on earlier versions of this manuscript.

Published Online: November 2012

INTRODUCTION

The accounting literature provides many studies that use accounting faculty research productivity to rank accounting programs (e.g., Hasselback and Reinstein 1995a; Glover et al. 2006); doctoral-granting programs (e.g., Everett et al. 2004; Chan et al. 2008), and individuals (e.g., Brown and Gardner 1985a; Hasselback et al. 2000, 2003). More recently, in a series of papers, Coyne and his coauthors (e.g., Coyne et al. 2010) have introduced multiple benchmarks for doctoral programs and individuals by topical area and research methodology. The literature suggests that benchmarks are often used as critical evidence for (1) promotion and tenure (P&T) and merit pay purposes; (2) prospective students selecting doctoral programs; and (3) accounting programs deciding on their slates of doctoral recruiting schools. Focusing on individual research benchmarks (percentile analysis and the top ten researchers overall and by the year of graduation) can help identify (1) the research productivity of faculty members' national peers (e.g., to help them set their personal research goals); (2) criteria for awarding new faculty members ranks of associate professor or full professor, or tenure; and (3) standards to select or retain chaired professors.

Hasselback's *Accounting Faculty Directory 2011–2012* (Hasselback 2011) shows that U.S. accounting doctoral programs produced annually about 200 graduates from 1991–1994; about 110 from 2000–2003; and about 140 from 2007–2010. The huge time and cost demands to earn such degrees probably have contributed greatly to the lower enrollments in recent years, while, as presented later, faculty members publish ever-greater numbers of research papers in various journals, a phenomenon that may be related to increasing requirements to earn P&T. The decreasing number of doctoral graduates led the 70 largest accounting firms, 47 state societies of CPAs, and others to commit $17 million dollars to the Accounting Doctoral Scholars (ADS) program to help fund 120 incremental enrollments in accounting doctoral programs in areas of particularly high faculty shortage—auditing and tax (American Institute of CPAs Foundation 2011). Research benchmarks can help prospective ADS students, and the universities seeking ADS students and funding, to develop realistic expectations for their research productivity.

Research benchmarks are also important in light of American Assembly of Collegiate Schools of Business (AACSB 2010) guidelines asking member schools to adhere to their mission statements, including research productivity standards that have led many accounting programs to develop journal-ranking lists.[1] Lucertini et al. (1995) urge schools to seek benchmarks to "continuously search, measure, and compare" their competitors' best practices.

Several benchmarking studies rank research outlets or examine research productivity that show three general research productivity measures: (1) qualitative rank ordering of accounting and related journals, (2) quantitative measures of total and average faculty research productivity, and (3) quantitative measures of total and average research productivity of faculty based on where they earned their doctoral degrees. These studies face such general challenges as: (1) how many journals to count and how many points to assign to each one; (2) how many journals to place into each journal quality category; (3) how to weigh coauthored articles, (e.g., 1/n credit for n-person articles, or full credit for each author); and (4) how to measure time since doctorate, thus enabling more valid comparison between years of doctoral graduation (e.g., 1990 compared with 2010 graduates).

Hasselback and Reinstein (1995a, 1995b; hereafter H&R) and Hasselback et al. (2000, 2003; hereafter HRS) examined about 40 journals for up to 30 years, giving each coauthor both full and partial credit to develop benchmarks for individual, school, and doctoral-granting programs. Given the decline in doctoral enrollments and that nine years have elapsed since performing the most

[1] Lewis (2008) notes that the AACSB International found that about 40 percent of its members created internal journal lists to assess their faculty's research quality.

recent of these studies, we updated the datasets analyzed for this study. We examine the quality and quantity of research productivity of the 5,607 accounting faculty graduates of U.S. accounting doctoral programs from 1971 and 2005, and who published their research in 40 highly rated accounting and business journals through 2009. We first present unadjusted raw numbers (i.e., full credit) of articles published by doctoral graduates through 2009. We then assign coauthorship weights and journal quality weights using methodologies of prior studies to develop four measures of productivity. A Spearman correlation analysis of the non-zero publication data detects four very highly correlated measures, providing similar rankings of productive researchers. Our multivariate linear regression analysis investigates the sensitivity of the overall results to demographic variables. The results indicate significant effects for associations between research productivity (as the dependent variable) and gender, doctoral versus nondoctoral institutions, professorial versus other roles, and teaching experience (10 years or less versus 11 years or more).

LITERATURE REVIEW

Benchmarking studies first must determine which journals to consider and what weights to assign to them. Benjamin and Brenner (1974), Brown and Huefner (1994), Hall and Ross (1991), Howard and Nikolai (1983), Hull and Wright (1990), Jolly et al. (1995), Reinstein and Calderon (2006), Herron and Hall (2004), and Barniv and Fetyko (2007), among others, have surveyed accounting faculty, administrators, or practitioners to assess the quality of academic and practitioner journals. Herron and Hall (2004) and others have developed benchmarks by accounting research discipline (e.g., auditing and tax).

Everett et al. (2004) ranked U.S. doctoral programs based on the 1992–1996 publication productivity of 30 highly rated academic accounting journals. They focused on the breadth and depth of faculty members' achievements (e.g., proportion of tenured and tenure-track faculty members publishing in these journals) based on their rank on the 30 journals investigated. Bean and Bernardi (2005) analyzed the journals' acceptance rates and time in existence, and their audiences to assess journal quality, which Matherly and Shortridge (2009) improved by including journal Social Science Citation Index (SSCI) scores, submission fees, availability on electronic search engines (e.g., *ABI-Inform*), and page length. After synthesizing the Best 25 accounting journals from six other studies and conducting their own survey, Barniv and Fetyko (2007) developed a set of journal quality rankings. Herron and Hall (2004) ranked the best accounting journals by surveying 616 accounting faculty nationwide and compared their results to prior studies. Coyne et al. (2010) examined the research productivity of faculty publishing in 11 high-quality accounting journals from 1990 through 2009 to help rank the top accounting doctoral programs, and Pickerd et al. (2011) used a similar methodology to rank individual faculty members by topical area and methodology. HRS (2000, 2003) used several of these studies to rank 40 journals into four strata.

Overall, the benchmarking studies of faculty research productivity have used three general methods: (1) count the number of articles written; (2) perform citation analysis; or (3) survey key constituents (e.g., faculty members, deans). These methods have had certain limitations. For example, Dwyer (1994), Zivney et al. (1995), Glover et al. (2006), Stephens et al. (2011), and Coyne et al. (2010) count the number of a faculty member's or program's publications to rate programs; but they assess the published material's quantity, not its quality, including only articles appearing in the most prestigious journals.

Problems also arise in identifying the journals to "count" and whether to (1) consider notes, letters to the editors, and other types of published works; (2) give full or partial credit (or disclose both results) for coauthored articles; and (3) allow publication credit to the faculty member's present institution or to the affiliation when the article was written. For example, Englebrecht et al. (2008) analyze the 1979–2004 coauthorship patterns for eight premier accounting and four premier

non-accounting business journals. They find increased coauthorship rates over time and that coauthorship within premier nonaccounting business journals has long exceeded those of accounting journals. The authors considered only12 journals and did not calculate individual yearly research output data. Danielson and Heck (2010) examined the publication patterns of the authors of 15 "high-impact" accounting journals, finding that the same sets of authors dominate both the first- and second-tier of such journals, and listed the "Best" authors in each of these 15 journals. They ignored the authors' time since earning their doctorates, thereby placing more experienced authors generally ahead of less experienced ones.

Citation analysis measures how often other articles reference ("cite") articles, authors, or journals, presuming that high-quality articles and journals are cited more often than low-quality ones. Garfield's (1955) early study developed this method to track an article's "history." Recent technological advances have led to extensive progress using this method, where SSCI databases show the frequency of citation by a SSCI-listed article. However, this method considers, perhaps unequally, only about 10 accounting journals, ignoring, for example, *The Journal of the American Tax Association* (*JATA*) but including *Auditing: A Journal of Practice & Theory* (*AJPT*). McRae (1974) first used citation analysis on accounting publications to measure the frequency of citations of 17 articles, while Brown and Gardner (1985a) used it to assess the research contributions of accounting faculty and doctoral programs. Brown and Gardner (1985a) and Chan et al. (2008) also used it to measure the impact of high-level publications.

Citation frequency is presumed to have the valued attribute of objectivity—either an article is cited or it is not, ignoring the article's quality or reasons for making the citation. The author's reputation, the contentiousness of the subject matter, and the journal's circulation, coverage, and timeliness can all influence citation frequency. Further, the efficacy of citation analysis depends greatly on the representativeness of the publications used to conduct the frequency analysis of cited works. Reinstein et al. (2011) point out many problems in relying on citation counts to assess the quality of scholarly research in accounting.

Surveys of faculty, administrators, or practitioners to assess academic and practitioner journal quality also present challenges, such as nonresponse bias; proper ordinal, interval, or ratio scales to use in ranking journals relative to an "anchor;" and whether respondents can competently assess the journals listed.

H&R (1995a, 1995b) and HRS (2000, 2003) addressed many of these issues in assessing individual and accounting and doctoral programs' quality based upon publication records in 40 accounting and business journals. Their comprehensive accounting faculty benchmarks relate publication expectations to both the quantity of articles and the quality of journals. They based journal quality on a composite of five other studies, weighted their results by the number of coauthors and journal quality to develop a quality composite index, and considered all 2,708 graduates from 73 U.S. doctoral programs in 1978–1992.

Stephens et al. (2011) examined the research records of 1990–2000 accounting doctoral graduates publishing their articles in 11 major academic journals for both their first three and first six years after graduation. They used their data to rank doctoral programs, by examining the faculty authors' topical and research methodologies. Stephens et al. (2011) weighed the 11 journals equally and ignored that larger programs have more graduates available to publish than smaller programs.

The research questions we seek to address in the current study are as follows:

RQ1: What is the faculty research productivity for 1971–2005 doctoral graduates?

Hasselback et al. (2011) report that 1999–2003 U.S. accounting doctoral graduates had greater research productivity than their 1989–1993 counterparts. We investigate this issue for 1971–2005 doctoral graduates by using the following research question:

RQ2: What is the trend in faculty research productivity over the years 1971–2005?

Finally, we develop the following research question to help identify faculty research-productivity benchmarks:

RQ3: What are benchmarks for accounting faculty research productivity?

RESEARCH METHOD

Hasselback's *Database of Publications* served as the source of data for faculty publication records in our Best 40 journals. We adjusted individual faculty publication records for coauthorship and journal quality to derive several sets of benchmarks that help formulate trends in coauthorship and publication quality over time (e.g., time in grade). We also list the Best 10 researchers based on the number of publications adjusted for coauthorship and journal quality for 1971–2005. We compare these researchers based on their Best 40 journal ranks, their coauthor adjusted ranks, and their coauthored and journal-quality ranks to investigate the sensitivity of these ranks to coauthorship and journal quality. We examined no post-2005 graduates in order to give them time to amass research records through 2009.

Hull and Wright (1990) used a faculty survey to give relative rankings to each journal in their study. They based a particular journal's ranking upon a geometric mean computed from the magnitude estimation values the respondents assigned as compared to the *Journal of Accountancy*. We updated the journal rankings by reviewing Glover et al. (2006), Barniv and Fetyko (2007), Chan et al. (2008), Matherly and Shortridge (2009), and other ranking studies.

Table 1 presents the 40 journals under study arranged in a descending order of their ratings. Similar to Morris et al. (1990) and Glover et al. (2006) we assign each journal to a category. As the first column in Table 1 shows we use four categories to organize the journals. Category I includes the top three journals of accounting (*Journal of Accounting Research* [*JAR*], *The Accounting Review* [*TAR*], and *Journal of Accounting and Economics* [*JAE*]), followed by ten journals in Category II with *Journal of Finance* and *Auditing: A Journal of Practice & Theory* in it. The third category contains 11 journals (e.g., *Decision Sciences*, *Journal of Accounting and Public Policy*), followed by Category IV that contains 16 journals (e.g., *Financial Analysts Journal*, *Issues in Accounting Education*). We also list each journal's publication period in Column 2.

To identify each faculty member's publication record, we created a database of journals, authors, and publication dates from each selected journal's table of contents used in this study. Including all articles in the 40 journals through 2009, we resolved problems such as author name changes, author misspellings, using initials rather than first names, and cases where authors shared the same name, by checking the actual articles or author *vitae*.

RESULTS

In this section we present the results organized by the study's three research questions. This is followed by a section on additional analyses to address the sensitivity of the main results to some alternative quality measures and several demographic variables.

Faculty Research Productivity (RQ1)

In the first two columns of Table 2, we present the total number of 1971–2005 doctoral graduates for each year, followed by the next four columns that report the total number of articles published in the Best 40 journals by year of graduation. The "Full Credit" category counts all articles published regardless of journal quality or coauthorship. Journal quality (Q1) and authorship (Q2) adjustments are reported in the next three columns as Q1, Q2, and Q1&Q2. Q1 indicates that the raw number of

TABLE 1

Best 40 Journals Quality Weights and Years Examined

Category	Journal Name	Rating
I. Top 3	*Journal of Accounting Research* [1971–2009]	2.25
	The Accounting Review [1971–2009]	2.25
	Journal of Accounting and Economics [1979–2009]	2.00
II. Next 10	*Journal of Finance* [1971–2009]	2.00[a]
	Accounting, Organizations and Society [1976–2009]	1.60
	Auditing: A Journal of Practice & Theory [1981–2009]	1.60
	Contemporary Accounting Research [1984–2009]	1.60
	Journal of Accounting, Auditing and Finance [1977–2009]	1.60
	The Journal of the American Taxation Association [1979–2009]	1.60
	Journal of Finance and Quantitative Analysis [1971–2009]	1.60[a]
	Journal of Financial Economics [1974–2009]	1.60[a]
	Management Science [1971–2009]	1.60[a]
	Review of Accounting Studies [1996–2009]	1.60
III. Next 11	*Decision Sciences* [1971–2009]	1.35[a]
	Journal of Accounting and Public Policy [1982–2009]	1.35
	*Journal of Business, Finance and Accou*nting [1974–2009]	1.35
	Journal of Taxation [1971–2009]	1.35[b]
	National Tax Journal [1971–2009]	1.35
	Abacus [1971–2009]	1.15
	Accounting and Business Research [1971–2009]	1.15
	Accounting Horizons [1987–2009]	1.15
	Behavioral Research in Accounting [1989–2009]	1.15
	Journal of Accounting Literature [1982–2009]	1.15
	Journal of Management Accounting Research [1989–2009]	1.15
IV. Next 16	*Financial Analysts Journal* [1971–2009]	1.00[b]
	Issues in Accounting Education [1983–2009]	1.00
	Journal of Accountancy [1971–2009]	1.00[b]
	Advances in Accounting/Advances in International Accounting [1984/1987–2009]	0.95
	Advances in Taxation [1987–2009]	0.95
	The International Journal of Accounting [1971–2009]	0.95
	Journal of Accounting Education [1983–2009]	0.95
	Journal of International Accounting, Auditing and Taxation [1992–2009]	0.90
	The Journal of Information Systems [1986–2009]	0.90
	Research in Accounting Regulation [1987–2009]	0.90
	Research in Governmental and Nonprofit Accounting [1985–2009]	0.90
	Accounting Educators' Journal [1988–2009]	0.85
	Accounting Historians Journal [1974–2009]	0.85
	Critical Perspectives on Accounting [1990–2009]	0.85
	Strategic Finance/Management Accounting [1971–2009]	0.85[b]
	The CPA Journal [1971–2009]	0.85[b]

[a] Top-five rated business journals.
[b] Top-five recognized practitioner journals.

TABLE 2

Doctoral Research Productivity by Year of Doctoral Degree

Doctoral Graduates		Number of Articles in Best 40				Articles per Faculty in Best 40				Articles per Faculty per Year in Best 40			
Degree Year	No. of Grads.	Full Credit	Q1 Adj.	Q2 Adj.	Q1&Q2 Adj.	Full Credit	Q1 Adj.	Q2 Adj.	Q1&Q2 Adj.	Full Credit	Q1 Adj.	Q2 Adj.	Q1&Q2 Adj.
1971	140	518	684.95	319.71	423.80	3.70	4.89	2.28	3.03	0.09	0.13	0.06	0.08
1972	142	621	868.95	401.73	564.68	4.37	6.12	2.83	3.98	0.12	0.16	0.07	0.10
1973	152	648	924.90	384.21	551.54	4.26	6.08	2.53	3.63	0.12	0.16	0.07	0.10
1974	167	723	1011.00	413.68	575.58	4.33	6.05	2.48	3.45	0.12	0.17	0.07	0.10
1975	152	749	1010.25	419.29	563.86	4.93	6.65	2.76	3.71	0.14	0.19	0.08	0.11
1976	135	649	804.60	378.26	471.81	4.81	5.96	2.80	3.49	0.14	0.18	0.08	0.10
1977	133	803	1156.05	437.81	638.91	6.04	8.69	3.29	4.80	0.18	0.26	0.10	0.15
1978	179	1161	1551.50	635.27	843.55	6.49	8.67	3.55	4.71	0.20	0.27	0.11	0.15
1979	131	622	840.20	330.71	452.01	4.75	6.41	2.52	3.45	0.15	0.21	0.08	0.11
1980	137	760	1052.50	388.25	542.56	5.55	7.68	2.83	3.96	0.18	0.26	0.09	0.13
1981	174	890	1167.80	461.68	608.88	5.11	6.71	2.65	3.50	0.18	0.23	0.09	0.12
1982	176	964	1283.75	501.37	670.99	5.48	7.29	2.85	3.81	0.20	0.26	0.10	0.14
1983	163	821	1136.60	420.96	582.26	5.04	6.97	2.58	3.57	0.19	0.26	0.10	0.13
1984	162	740	1040.50	375.79	532.46	4.57	6.42	2.32	3.29	0.18	0.25	0.09	0.13
1985	173	734	991.80	384.98	514.62	4.24	5.73	2.23	2.97	0.17	0.23	0.09	0.12
1986	187	866	1166.80	439.48	583.40	4.63	6.24	2.35	3.12	0.19	0.26	0.10	0.13
1987	199	927	1190.40	478.21	609.98	4.66	5.98	2.40	3.07	0.20	0.26	0.11	0.13
1988	207	844	1173.15	425.89	594.56	4.08	5.67	2.06	2.87	0.19	0.26	0.09	0.13
1989	216	870	1158.80	449.77	593.14	4.03	5.37	2.08	2.75	0.19	0.26	0.10	0.13
1990	175	862	1288.05	409.49	611.75	4.93	7.36	2.34	3.50	0.25	0.37	0.12	0.17
1991	198	743	943.10	380.53	477.96	3.75	4.76	1.92	2.41	0.20	0.25	0.10	0.13
1992	201	765	1047.85	359.17	487.23	3.81	5.21	1.77	2.42	0.21	0.29	0.10	0.13
1993	205	574	742.15	269.95	345.89	2.80	3.62	1.32	1.69	0.17	0.21	0.08	0.10
1994	196	767	1041.60	367.03	498.59	3.91	5.31	1.87	2.54	0.24	0.33	0.12	0.16
1995	169	649	921.00	302.12	431.84	3.82	5.45	1.79	2.56	0.26	0.36	0.12	0.17

(continued on next page)

TABLE 2 (continued)

Doctoral Graduates		Number of Articles in Best 40				Articles per Faculty in Best 40				Articles per Faculty per Year in Best 40			
Degree Year	No. of Grads.	Full Credit	Q1 Adj.	Q2 Adj.	Q1&Q2 Adj.	Full Credit	Q1 Adj.	Q2 Adj.	Q1&Q2 Adj.	Full Credit	Q1 Adj.	Q2 Adj.	Q1&Q2 Adj.
1996	166	507	717.45	246.74	345.13	3.05	4.32	1.49	2.08	0.22	0.31	0.11	0.15
1997	161	568	777.60	265.74	362.24	3.53	4.83	1.65	2.25	0.27	0.37	0.13	0.17
1998	151	530	805.60	246.48	372.65	3.51	5.34	1.63	2.47	0.29	0.45	0.14	0.21
1999	127	321	488.20	152.72	230.55	2.53	3.84	1.20	1.81	0.23	0.35	0.11	0.17
2000	108	300	448.25	145.53	215.24	2.78	4.15	1.35	1.99	0.28	0.42	0.13	0.20
2001	126	281	392.15	138.70	192.20	2.23	3.11	1.10	1.53	0.25	0.35	0.12	0.17
2002	113	234	336.95	112.85	163.72	2.07	2.98	1.00	1.45	0.26	0.37	0.12	0.18
2003	104	197	299.45	88.22	130.45	1.89	2.88	0.85	1.25	0.27	0.41	0.12	0.18
2004	139	206	314.55	98.52	153.62	1.48	2.26	0.71	1.11	0.25	0.38	0.12	0.18
2005	143	165	263.55	79.70	128.05	1.15	1.84	0.56	0.90	0.23	0.37	0.11	0.18
Total	5,607	22,579	31042.00	11710.54	16065.70	4.03	5.54	2.09	2.88	0.20	0.28	0.10	0.14

Full Credit refers to giving equal credit for each publication in the Best 40 journals.
Q1 denotes the number of articles adjusted for journal quality per Table 1.
Q2 denotes the number of articles adjusted for coauthorship (if n authors, then each author receives 1/n credit).
Q1&Q2 denotes the product of Q1 and Q2, i.e., considering both articles adjusted for journal quality and adjusted for coauthorship.

publications is adjusted for the quality of the journals in which they were published per Table 1. Q2 makes adjustments to full credit articles for coauthorship, where each of n coauthors receives 1/n credit for a coauthored article. Nathan et al. (1998) found that the vast majority of programs give full credit for coauthored publications. Englebrecht et al. (2008) add that such factors as each coauthor bringing specialized talents and the time requirements for sole-authored articles required to meet increasingly competitive publication standards, lead to increases of coauthorships.

Q1&Q2 is the fourth measure that adjusts full credit articles for both journal quality and coauthorship, and is repeated in the next four columns in Table 2, which identifies the average numbers of articles per faculty. The last four columns report these measures scaled by the number of years since doctoral graduation. The denominators for the number of years since graduation are the differences between the year 2009 and the years since graduation. For example, we divided the number of articles published by 1971 graduates by 39, 1972 by 38, and so on, to develop faculty productivity per year.[2] To illustrate, an author with one sole-authored article in *Journal of Accounting & Economics* (*JAE*) and one single coauthored article in *Auditing: A Journal of Practice & Theory* (*AJPT*) would accumulate to: 1×2.00 points (for *JAE*) $+ 0.5 \times 1.6$ points (for *AJPT*), for a total of 2.8 points.

As shown in the final row of Table 2, the 5,607 graduates of 1971–2005 have published 22,579 articles in the Best 40 journals through 2009. Adjusted for coauthorship and journal quality, the publication credit indicates a 31,042 measure for journal quality (Q1), an 11,710.54 measure for coauthored articles (Q2), and a 16,065.70 measure for both journal quality and coauthorship (Q1&Q2). Scaling these data by the number of doctoral graduates renders 4.03 papers per faculty over the years (5.54, 2.09, and 2.88, respectively, when adjusted for Q1, Q2, and Q1&Q2). Further scaling of these data renders 0.20 Full Credit, 0.28 Q1, 0.10 Q2, and 0.14 Q1&Q2 publications per faculty per year. In summary, the last line in Table 2 shows that on average each faculty member wrote 0.20 articles per year, with a 0.28 weight when considering journal quality, but only 0.10 when considering coauthorship, and only 0.14 when considering both journal quality and coauthorship. The remainder of the table provides this information for each of the 35 years under study.

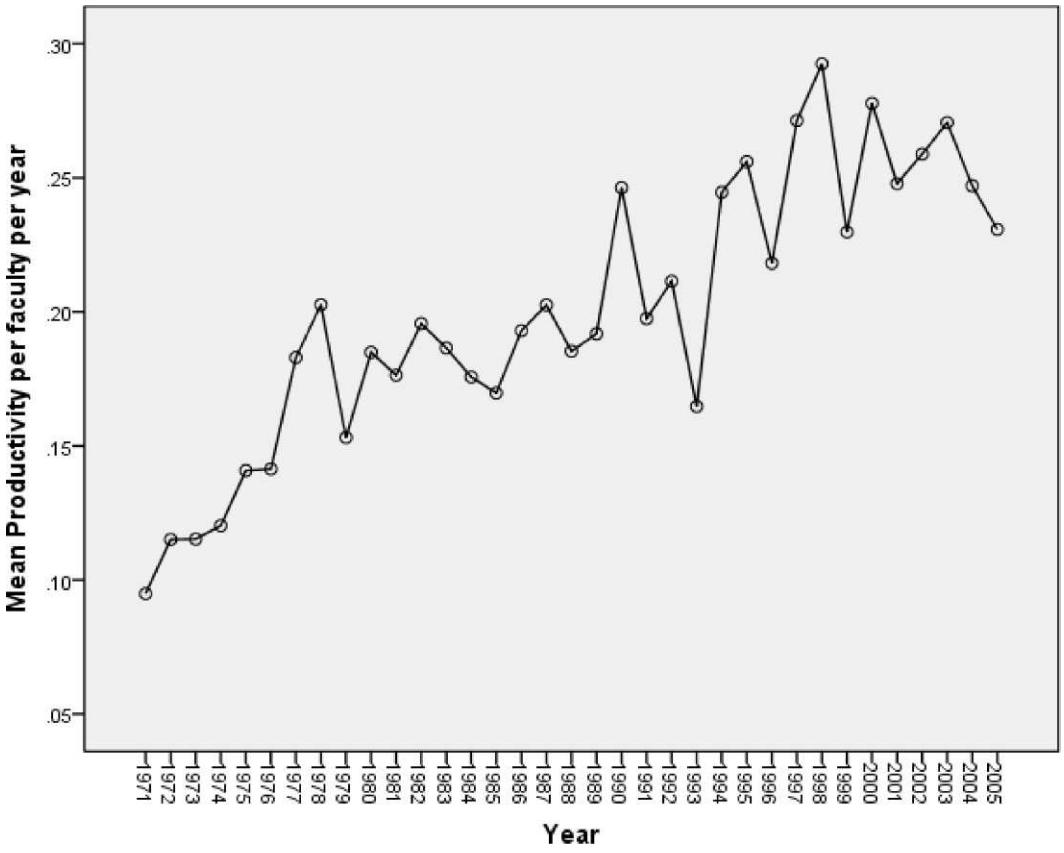
Trends in Faculty Research Productivity (RQ2)

The scaled data for articles per faculty, per year in Table 2 reveal great variation from 1971–2005. For example, the mean "Full Credit" articles per faculty per year ranges from 0.09 for the 1971 graduates to 0.29 for the 1998 graduates. Using Analysis of Variance (ANOVA) to investigate the statistical significance of variation from Table 2, the untabulated results indicated highly significant differences for all four productivity measures in Table 2 at the $p < 0.001$ level by year of doctoral degree. Similar significant differences were found for "Full Credit," Q1, Q2, and Q1&Q2 measures for the articles per faculty, per year in the Best 40 journals.

Another important observation from the data in Table 2 indicates increased productivity from 1971–2005. For example, as depicted in Figure 1, the Full Credit measure of productivity per faculty per year has an increasing trend over the years 1971–2005. The only exception is that in 1993 the productivity dropped somewhat and then picked up again in 1994. Plots of Q1, Q2, and Q1&Q2 (not tabulated) provided similar patterns over time. The recent attention to research and publication in an increasing number of schools, as well as better and longer training in doctoral programs for research productivity, can help to explain the steady increase in publication from 1971–2005.

[2] We recognize the limitation of not adjusting our results for faculty who left academe, e.g., by retirement or death.

FIGURE 1
Research Productivity of Doctoral Graduates of 1971–2005
(Mean Number of Articles in Best 40 Journals per Faculty per Year)



The increasing trend in research productivity shown in Table 2 and Figure 1 may also reflect higher productivity in doctoral faculty members' early careers when they must publish in order to receive P&T. In the next section we address this issue by comparing the proportion of faculty publishing in the top n journals from 1971–2005 as compared with years 2001–2005.

Benchmarks for Faculty Research Productivity (RQ3)

An increasing number of accounting programs have recently developed journal quality rankings for their faculty evaluations, often using varying weights for the quality of journals in which their faculty has published. To assist with this process, we present data on benchmarks of faculty publications in the Best 3 accounting journals, followed by the number of publications in the Best 13, Best 24, and Best 40 journals.

Bonner et al. (2006) and Chan et al. (2008) found disproportionally more citations of higher-level academic journals in financial accounting, implying a financial accounting bias in the literature. Some institutions expect their faculty to publish in journals dedicated to their special interests, rather than in the most respected journals. Therefore, we developed a database of faculty

publications for the Best 13 journals (top three plus next 10) shown in Table 1—four of which are "business" rather than "accounting" journals. To more broadly describe journal quality, we developed a database of faculty publications for the Best 24 journals (top three plus next 10 plus next 11) that incorporates about half of the journals shown in Table 1. These journals are still selective and well respected overall, as they appear in most of the above listings of high-quality research journals (e.g., Stephens et al. 2011; Coyne et al. 2010).

We also recognize that our database of publications in 40 journals does not contain *all* accounting faculty publications, only the best 40 of over 100 considered journals. Thus, the Best 40 benchmark offers a level of quality in the top-half of all journals to help generalize our benchmarks, including five "business" and five "practitioner" journals. These benchmarks tend to be most useful for teaching institutions and those interested in the quantity of faculty research. In particular, they include several journals such as *Journal of Accounting Education* and *Issues in Accounting Education* that are widely read by those interested in pedagogical issues.

Per Panel A in Table 3, 75.1 percent of all 1971–2005 graduates published no articles in the best three journals, 10.2 percent published only one article, 4.8 percent published two articles, 2.8 percent published three articles, 1.7 percent published four articles, and only 5.4 percent published five or more articles. As expected, Table 3, Panel A shows that when including more journals, the number of faculty not publishing in the journals decreases. For example, while 75.1 percent of faculties do not publish in the Best 3, 61.6 percent do not publish in the Best 13, 52.8 percent in the Best 24, and 32.2 percent in the Best 40. Thus, a significant proportion of accounting faculty publishes no articles in any Best 40 journal.

In Panel B of Table 3, we report the results of an analysis that parallels Panel A of Table 3, but does so at the year level for each of the five years 2001–2005. Since our database traces publications to the year 2009, the analysis by the year of doctoral graduation provides faculty productivity for 5, 6, 7, 8, and 9 years. This analysis can be helpful as a benchmark for P&T decisions. Similar to Panel A, these data show that a significant proportion of faculty has never published in the Best 3, Best 13, Best 24, or Best 40 journals. For example, for year 2001, 81.7 percent never published in the Best 3, 62.7 percent never published in the Best 13, 55.6 percent never published in the Best 24, and 32.5 percent never published in the Best 40. Thus, only 22.2 percent of the 2001 doctoral graduates published one article, 13.5 percent published two articles, 8.7 percent published three articles, and 7.1 percent published four articles, leaving only 15.9 percent who published more than four papers in the Best 40 journals.

Panel C in Table 3 complements the analysis performed in Table 3, Panel B. Panel C shows whether the proportions of doctorates publishing one or more, two or more, three or more, four or more, and five or more in Best n journals in 2001–2005 differ significantly from those from 1971–2005. This analysis was motivated by a question raised in the last section regarding whether the increasing productivity trend shown in Table 2 and Figure 1 reflects higher productivity in faculty members' early careers. For each of the Best n journals we performed a non-parametric k-related sample where a χ^2 and its significance appear in Panel C. Two interesting observations arise. First, the differences in proportions for the Best 3 journals are only marginally significant ($\chi^2 = 10.509$, $p = 0.062$), indicating that the proportion of doctorates publishing in these journals has not changed much over time. The same can be said for the Best 13 ($\chi^2 = 10.843$, $p = 0.055$). But the results are highly significant for the Best 24 ($\chi^2 = 20.625$, $p = 0.001$) and Best 40 journals ($\chi^2 = 23.815$, $p < 0.001$), indicating more variation.

A second major observation from Table 3, Panel C is that compared to the 1971–2005 period, the more recent the year, the lower the proportion of doctorates publishing in Best n journals. For example, for the Best 24 journals, all proportions for 2001–2005 graduates who publish at least one paper in the Best 24 are lower than that for 1971–2005, which also occurs for the Best 40 journals. As reported above, for the Best 3 and Best 13 journals, the proportions only differ marginally.

TABLE 3

Number and Proportion of Faculty Publishing in Best n Journals

Panel A: Entire Thirty-Five Years under Study (1971–2005)

	Number of Faculty (Percent of Total)			
No. of Articles	**Best 3**	**Best 13**	**Best 24**	**Best 40**
0	4,212 (75.1%)	3,454 (61.6%)	2,959 (52.8%)	1,805 (32.2%)
1	574 (10.2%)	754 (13.4%)	821 (14.6%)	853 (15.2%)
2	267 (4.8%)	366 (6.5%)	442 (7.9%)	555 (9.9%)
3	155 (2.8%)	224 (4.0%)	287 (5.1%)	426 (7.6%)
4	94 (1.7%)	154 (2.7%)	191 (3.4%)	327 (5.8%)
5	77 (1.4%)	119 (2.1%)	168 (3.0%)	233 (4.2%)
6	48 (0.9%)	96 (1.7%)	113 (2.0%)	238 (4.2%)
7	40 (0.7%)	88 (1.6%)	115 (2.1%)	190 (3.4%)
8	28 (0.5%)	61 (1.1%)	81 (1.4%)	156 (2.8%)
9	21 (0.4%)	48 (0.9%)	57 (1.0%)	121 (2.2%)
10	20 (0.3%)	39 (0.7%)	60 (1.1%)	126 (2.2%)
Over 10	71 (1.2%)	204 (3.7%)	314 (5.6%)	577 (10.3%)
Total	5,607 (100.0%)	5,607 (100.0%)	5,607 (100.0%)	5,607 (100.0%)

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The four levels of journal quality allow decision makers to "count" articles published in certain journals rather than make quality adjustments for each article written. This also considers that many doctoral programs and research-focused institutions count only certain articles in top-tier journals and often ignore those written in lower-level journals. Other institutions make relative evaluations by looking at their faculty productivity relative to their nationwide peers. To help with this process, Table 4 shows research productivity benchmarks by using percentiles of all faculty publishing in the Best 3, 13, 24, and 40 journals. As shown in Panel A, the first quartile is zero for these journals, indicating that 25 percent of faculties publish no articles in any journal category. Except for the Best 40 journals, the same conclusion arises for the second quartile. The second quartile shows publications only when considering the Best 40 category, and then with only two publications. The third quartile shows one article in the Best 13, two in the Best 24, and six in the Best 40 journals, but no publications in the Best 3. Only when considering the 90th percentile one finds publications in all four categories of best journals (2, 5, 7, and 11, respectively). The 99th percentile data found

TABLE 3 (continued)

Panel B: Most Recent Five Doctoral Years (i.e., 5–9 Years of Productivity)

No. of Articles	Best 3	Best 13	Best 24	Best 40
2005 Productivity to 2009 (Five Years, n = 143)				
0	106	88	79	63
	(74.1%)	(60.1%)	(55.2%)	(44.1%)
1	21	30	32	35
	(14.7%)	(21.0%)	(22.4%)	(24.5%)
2	12	16	18	21
	(8.4%)	(11.2%)	(12.6%)	(14.7%)
3	2	6	9	15
	(1.4%)	(4.2%)	(6.3%)	(10.5%)
4	1	4	4	6
	(0.7%)	(2.8%)	(2.8%)	(4.2%)
Over 4	1	1	1	3
	(0.7%)	(0.7%)	(0.7%)	(2.1%)
Total	143	143	143	143
	(100.0%)	(100.0%)	(100.0%)	(100.0%)
2004 Productivity to 2009 (Six Years, n = 139)				
0	99	84	80	53
	(71.2%)	(60.4%)	(57.6%)	(38.1%)
1	24	25	24	36
	(17.3%)	(18.0%)	(17.3%)	(25.9%)
2	8	14	15	22
	(5.8%)	(10.1%)	(10.8%)	(15.8%)
3	4	10	12	11
	(2.9%)	(7.2%)	(8.6%)	(7.9%)
4	3	3	3	4
	(2.2%)	(2.2%)	(2.2%)	(2.9%)
Over 4	1	3	5	13
	(0.7%)	(2.2%)	(3.5%)	(9.4%)
Total	139	139	139	139
	(100.0%)	(100.0%)	(100.0%)	(100.0%)
2003 Productivity to 2009 (Seven Years, n = 104)				
0	81	71	61	44
	(77.9%)	(68.3%)	(58.7%)	(42.3%)
1	8	10	13	22
	(7.7%)	(9.6%)	(12.5%)	(21.2%)
2	7	8	9	9
	(6.7%)	(7.7%)	(8.7%)	(8.7%)
3	2	6	11	9
	(1.9%)	(5.8%)	(10.6%)	(8.7%)
4	2	3	3	7
	(1.9%)	(2.9%)	(2.9%)	(6.7%)
Over 4	4	6	7	13
	(3.8%)	(5.8%)	(6.7%)	(12.5%)
Total	104	104	104	104
	(100.0%)	(100.0%)	(100.0%)	(100.0%)

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TABLE 3 (continued)

No. of Articles	Best 3	Best 13	Best 24	Best 40
2002 Productivity to 2009 (Eight Years, n = 113)				
0	92	74	60	37
	(81.4%)	(65.5%)	(53.1%)	(32.7%)
1	7	16	18	23
	(6.2%)	(14.2%)	(15.9%)	(20.4%)
2	2	8	13	19
	(1.8%)	(7.1%)	(11.5%)	(16.8%)
3	5	4	7	10
	(4.4%)	(3.5%)	(6.2%)	(8.8%)
4	3	3	6	9
	(2.7%)	(2.7%)	(5.3%)	(8.0%)
Over 4	4	8	9	15
	(3.5%)	(7.1%)	(8.0%)	(13.3%)
Total	113	113	113	113
	(100%)	(100%)	(100%)	(100%)
2001 Productivity to 2009 (Nine Years, n = 126)				
0	103	79	70	41
	(81.7%)	(62.7%)	(55.6%)	(32.5%)
1	8	19	19	28
	(6.3%)	(15.1%)	(15.1%)	(22.2%)
2	3	9	12	17
	(2.4%)	(7.1%)	(9.5%)	(13.5%)
3	6	6	7	11
	(4.8%)	(4.8%)	(5.6%)	(8.7%)
4	4	6	5	9
	(3.2%)	(4.8%)	(4.0%)	(7.1%)
Over 4	2	7	13	20
	(1.6%)	(5.6%)	(10.3%)	(15.9%)
Total	126	126	126	126
	(100%)	(100%)	(100%)	(100%)

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in the final row in Panel A of Table 4 show that only 1 percent of faculty has achieved 11, 18, 22, and 28 publications respectively in the Best 3, Best 13, Best 24, and Best 40 journals.

Panel B in Table 4 presents similar data for the number of publications in the Best 40 journals (Full Credit) per faculty per year, as well as Q1, Q2, and Q1&Q2 adjusted publication numbers. As reported in the bottom, at the 99th percentile, accounting doctorates have published 1.23 papers per year (Full Credit), 2.02 Q1-adjusted, 0.62 Q2-adjusted, and 0.98 Q1&Q2-adjusted articles. At the 25th percentile, the number of publications is zero for all categories, and for the 50th percentile, which are 0.09, 010, 0.05, and 0.05 publications, respectively.

We now identify the top 10 productive faculties as another productivity benchmark. We list the top 10 faculties in Table 5 (Column 1) from 1971–2005 arranged in a 1–10 rank order by the most conservative measure of publication quality (Q1&Q2) that appears in the last column. We also report faculty productivity ranks using the remaining three productivity measures (i.e., Full Credit, Q1, and Q2) that correspond to the 1–10 Q1&Q2 ranks. Column 2 presents the number of articles in each of the four categories of journals per Table 1. Column 3 in Table 5 presents the number of publications adjusted for each of Q1, Q2, and Q1&Q2, the current institution or affiliation (Column 4), and university that granted the doctoral degree (Column 5).

TABLE 3 (continued)

Panel C: Most Recent 5–9 Years of Productivity Compared with 1971–2005

Journals	1971–2005	2001	2002	2003	2004	2005
Best 3: $\chi^2 = 10.509$, $p = 0.062$						
≥ 1	25.1%	18.3%	18.6%	22.0%	28.9%	25.9%
≥ 2	14.9%	12.0%	12.4%	14.3%	11.6%	11.2%
≥ 3	10.1%	9.6%	10.6%	7.6%	5.8%	2.8%
≥ 4	7.3%	4.8%	6.2%	5.7%	2.9%	1.4%
≥ 5	5.6%	1.6%	3.5%	3.8%	0.7%	0.7%
Best 13: $\chi^2 = 10.843$, $p = 0.055$						
≥ 1	38.3%	37.4%	34.6%	31.8%	39.7%	39.9%
≥ 2	24.9%	22.3%	20.4%	22.2%	21.7%	18.9%
≥ 3	18.4%	15.2%	13.3%	14.5%	11.6%	7.7%
≥ 4	14.4%	10.4%	9.8%	8.7%	4.4%	3.5%
≥ 5	11.7%	5.6%	7.1%	5.8%	2.2%	0.7%
Best 24: $\chi^2 = 20.625$, $p = 0.001$						
≥ 1	47.2%	44.5%	46.9%	41.4%	42.4%	44.8%
≥ 2	32.6%	29.4%	31.0%	28.9%	25.1%	22.4%
≥ 3	24.7%	19.9%	19.5%	20.2%	14.3%	9.8%
≥ 4	19.6%	14.3%	13.3%	9.6%	5.7%	3.5%
≥ 5	16.2%	10.3%	8.0%	6.7%	3.5%	0.7%
Best 40: $\chi^2 = 23.815$, $p < 0.001$						
≥ 1	67.8%	67.4%	67.3%	57.8%	61.9%	56.0%
≥ 2	52.6%	45.2%	46.9%	36.6%	36.0%	31.5%
≥ 3	42.7%	31.7%	30.1%	27.9%	20.2%	16.8%
≥ 4	35.1%	23.0%	21.3%	19.2%	12.3%	6.3%
≥ 5	29.3%	15.9%	13.3%	12.5%	9.4%	2.1%

The resulting top ten faculty members in Table 5 provide benchmarks for accounting programs aspiring to compete at the highest productivity level. For example, in 1971, Professor Ross Watts ranked No. 1 under productivity measures of Best 40, Q1, and Q1&Q2. Only for Q2 (number of articles adjusted for coauthorship) did he rank below number 1. Professor Edward McIntyre ranked number 9 under the Q1&Q2 measure, but number 26, 13, and 18 respectively for the Best 40, Q1, and Q2 measures.

As expected, Table 5 shows that while many of the top ten ranked faculties regularly publish in the Best 3 premier journals, many others do not. This is consistent with the data in Table 3, Panel A, indicating that over 75 percent of all faculty have published no articles in the Best 3 journals. These results suggest that limiting publication in the Best 3 journals as a research productivity benchmark may be too limiting and, thus, is likely to be useful primarily for the highest rated institutions, which likely will expect their faculty to publish in the top journals only.

Expanding the discussion of those publishing in premier journals to include Category II (the *Next 10*) journals—four of which are "business" journals—generates a broader coverage to help set benchmarks for schools focusing on strong, but not the Best 3 premier academic journals. Finally, disclosing the number of faculty publishing articles in the Best 24 and the Best 40 journals should help establish benchmarks for programs encouraging their faculty to publish in a broader set of journals, including practitioner and educational publications. These tables could provide benchmarks for institutions that place equal emphasis on teaching and research. The productivity

TABLE 4

Percentile Measures of Faculty Productivity

Panel A: Full Credit in Best n Journals, 1971–2005

Percentile	Best 3	Best 13	Best 24	Best 40
25th	0	0	0	0
50th	0	0	0	2
75th	0	1	2	6
90th	2	5	7	11
95th	5	9	11	16
99th	11	18	22	28

Panel B: Per Faculty per Year 1971–2005

Percentile	Full Credit	Q1 Adj.	Q2 Adj.	Q1&Q2 Adj.
25th	0.00	0.00	0.00	0.00
50th	0.09	0.10	0.05	0.05
75th	0.28	0.35	0.14	0.18
90th	0.57	0.82	0.28	0.41
95th	0.75	1.16	0.38	0.58
99th	1.23	2.02	0.62	0.98

Full Credit refers to giving equal credit for each publication in the Best 40 journals.
Q1 denotes the number of articles adjusted for journal quality per Table 1.
Q2 denotes the number of articles adjusted for coauthorship (if n authors, then each author receives 1/n credit).
Q1&Q2 denotes the product of Q1 and Q2, i.e., considering both articles adjusted for journal quality and adjusted for coauthorship.

measures of the past several years (say 2001–2005) may be particularly helpful in assessing faculty productivity in their first several years in the professorate.

Sensitivity Analysis

This section further analyzes the robustness of the results discussed above. The first analysis appears in Table 6, which presents a nonparametric bivariate Spearman correlation matrix of the four productivity measures for the entire 35 years under study (1971–2005). Only the non-zero publication data are included in this analysis ($n = 3{,}802$). The coefficients are all in the 0.9 plus level, with a minimum of 0.920 representing the relationship between Q1 and Q2, and all coefficients are highly significant at < 0.001 level. Similar correlation matrices were prepared for each of the 35 years with the analysis indicating highly significant ($p < 0.001$) coefficients in the 0.9 plus range with occasional minor dips below 0.9. For example, the correlation coefficients between Q1 and Q2 for the years 2004 and 2005 were 0.784 and 0.782, respectively. These results show that alternative methods of measurement of productivity are highly correlated for faculty publishing one or more articles in the top 40 journals. In other words, productive faculty rank high regardless of the productivity measure used to evaluate them. Examining the publication patterns of the authors of 15 "high-impact" accounting journals, Danielson and Heck (2010) came to a similar conclusion.

TABLE 5

Most Productive Accounting Doctorates by Publication in the Best 40 Journals for the Years 1971–2005

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
1971														
Watts, Ross L.	28	19	6	3	0	54.60	14.65	27.13	MIT	Chicago	T1[a]	1	2	1
Miller, Paul B. W.	28	0	0	4	24	27.10	21.00	20.20	Colorado Spr.	Tx-Austin	T1	4	1	2
Graham, John R.	22	2	15	3	2	37.25	11.83	20.06		Arkansas	4	2	4	3
Largay, James A. III	19	3	3	5	8	25.65	10.67	15.29	Lehigh	Cornell	T5	5	5	4
Bailey, Andrew D. Jr.	19	7	7	0	5	31.50	7.92	13.45	Illinois	Ohio St	T5	3	10	5
Salamon, Gerald L.	12	7	1	4	0	22.30	7.00	13.18	Indiana	Ohio St	T8	6	13	6
Greer, Willis R. Jr.	12	2	2	4	4	16.55	9.00	12.47	No Iowa	Michigan	T8	10	8	7
Sundem, Gary L.	10	5	2	2	1	18.60	6.17	12.07	U Washington	Stanford	T13	8	16	8
McIntyre, Edward V.	6	5	1	0	0	12.85	5.50	11.72	Florida St	N Carol	T26	13	18	9
Reichardt, Karl E.	23	0	0	0	23	19.55	12.33	10.48	Valparaiso	Missouri	3	7	3	10
1972														
Ohlson, James A.	51	21	28	2	0	95.60	36.50	67.46	New York U	Berkeley	T1	1	2	1
Riahi-Belkaoui, Ahmed	41	3	5	15	18	51.50	37.33	47.32	Ill-Chicago	Syracuse	3	4	1	2
Abdel-khalik, A. Rashad	30	19	7	2	2	58.60	23.83	46.35	Illinois	Illinois	5	3	4	3
Ball, Raymond J.	32	20	8	3	1	61.65	18.50	35.30	Chicago	Chicago	4	2	5	4
Previts, Gary John	51	1	2	9	39	51.05	29.50	28.54	Case Western	Florida	T7	5	3	5
Deakin, Edward B.	16	10	0	2	4	28.50	11.67	21.47	Texas	Illinois	10	6	7	6
Choi, Frederick D. S.	19	1	1	2	15	19.85	17.00	17.80	New York U	U Wash	T6	11	6	7
Lusk, Edward J.	12	6	2	4	0	21.50	9.50	16.52	SUNY-Plattsb	Nrthwstrn	14	9	12	8
Hagerman, Robert L	17	6	5	1	5	27.75	10.17	16.31	SUNY-Buffalo	Rochester	T8	7	9	9
Granof, Michael H.	14	3	1	4	6	18.60	9.83	12.65	Texas-Austin	Michigan	12	12	11	10
1973														
Sunder, Shyam	37	19	7	9	2	66.90	27.67	48.29	Yale	Car Mellon	2	1	1	1
Ashton, Robert H.	31	17	8	3	3	57.40	21.33	39.82	Duke	Minnesota	3	2	2	2
Gordon, Lawrence A.	38	3	8	23	4	53.60	20.42	27.97	Maryland	Rensselaer	1	4	3	3

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
Imhoff, Eugene A. Jr.	25	9	5	5	6	39.20	17.67	26.18	Michigan	Mich St	5	5	4	4
Collins, Daniel W.	28	20	6	0	2	54.10	12.08	23.22	Iowa	Iowa	4	3	7	5
Uecker, Wilfred C.	14	11	3	0	0	29.55	8.33	17.61	Rice	Tx-Austin	13	7	12	6
Schnee, Edward J.	24	0	4	10	10	28.70	12.83	15.48	Alabama	Mich St	T6	8	6	7
Boatsman, James R.	19	11	2	4	2	34.40	8.92	15.27	Arizona St	Tx-Austin	10	6	11	8
Scott, William R.	10	4	4	2	0	17.90	8.00	14.83	U Waterloo	Chicago	T15	16	T13	9
Warren, Carl S.	11	6	2	0	3	19.55	7.50	14.07	Georgia	Mich St	14	14	15	10
1974														
Libby, Robert	40	28	10	1	1	81.00	20.50	41.52	Cornell	Illinois	1	1	1	1
Hughes, John S.	35	19	15	1	0	66.85	16.07	31.37	UCLA	Purdue	2	2	3	2
Zimmerman, Jerold L.	25	22	1	0	2	50.45	15.40	30.74	Rochester	Berkeley	4	3	4	3
Ferris, Kenneth R.	34	3	13	7	11	46.85	19.92	27.93	Arizona St	Ohio St	3	5	2	4
Baiman, Stanley	24	17	6	1	0	48.75	12.42	24.65	Pennsylvania	Sanford	5	4	7	5
Magee, Robert P.	18	13	4	1	0	36.50	11.58	24.43	Northwestern	Cornell	T10	6	9	6
Griffin, Paul A.	17	8	4	4	1	29.55	11.17	18.99	Cal-Davis	Ohio St	13	8	10	7
Liao, Woody M.	20	4	1	9	6	27.05	12.67	17.59	Cal-Riverside	Florida	T7	9	5	8
Holder, William W.	21	1	3	1	16	23.05	12.17	14.19	So Calif	Oklahoma	6	12	8	9
Blocher, Edward J.	18	3	4	1	10	23.55	11.00	14.18	No Carolina	Tx-Austin	T10	11	11	10
1975														
Foster, George	28	12	9	6	1	49.20	19.33	35.00	Sanford	Sanford	4	3	1	1
Dirsmith, Mark W.	42	0	25	7	10	57.85	19.17	26.16	PennState	Nrthwstrn	1	1	2	2
Vickrey, Don W.	21	5	1	12	3	30.95	14.33	20.75	Arizona St	Tx-Austin	7	8	5	3
Fellingham, John C.	33	7	10	10	6	50.30	12.95	20.11	Ohio State	UCLA	2	2	6	4
Wright, William F.	16	3	8	3	2	25.45	12.17	19.05		Berkeley	T10	10	8	5
Harrell, Adrian M.	24	2	11	6	5	33.95	12.58	17.54	So Carolina	Tx-Austin	5	6	7	6
Givoly, Dan	20	10	5	2	3	35.15	9.67	17.08	PennState	NYU	T8	5	11	7
Baker, C. Richard	20	2	1	2	15	21.90	14.83	17.02	Adelphi	UCLA	T8	13	4	8
Lorek, Kenneth S.	23	11	2	3	7	38.65	9.58	16.68	No Arizona	Illinois	6	4	12	9

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
Flesher, Dale L.	31	1	3	3	24	31.85	16.33	16.43	Mississippi	Cincinnati	3	7	3	10
1976														
Maples, Larry	32	0	0	10	22	33.95	23.33	25.48	Tenn State	Miss St	3	5	1	1
Dillard, Jesse F.	28	1	6	8	13	33.40	17.25	20.98	Portland St	S Carol	4	6	4	2
Englebrecht, Ted D.	42	1	4	4	33	42.40	20.33	20.41	Louisiana Te	S Carol	2	1	3	3
Bloom, Robert	43	0	1	3	39	41.15	20.58	19.75	John Carroll	NYU	1	2	2	4
Gibbins, Michael	21	7	11	3	0	36.80	10.25	18.27	Univ Alberta	Cornell	7	3	8	5
Porcano, Thomas M.	22	1	4	1	16	24.75	14.58	17.52	Miami U-Ohio	Indiana	6	9	5	6
Ro, Byung T.	17	5	5	6	1	27.60	10.33	17.48	Purdue	Mich St	9	7	7	7
Pastena, Victor S.	18	11	6	0	1	34.60	7.92	15.39	SUNY-Buffalo	NYU	8	4	10	8
Graham, Lynford E.	23	0	8	0	15	26.35	13.50	14.44		Penn	5	8	6	9
Patton, James M.	15	6	1	2	6	22.85	8.08	12.94	Pittsburgh	Wash U	10	10	9	10
1977														
Ingram, Robert W.	44	13	4	9	18	64.45	22.75	34.31	Alabama	Tx Tech	1	2	1	1
Dhaliwal, Dan S.	42	17	15	9	1	73.35	19.33	33.10	Arizona	Arizona	2	1	2	2
Schipper, Katherine	26	14	6	6	0	47.20	12.53	22.35	Duke	Chicago	T3	3	8	3
Pratt, Jamie H.	23	10	8	1	4	40.30	12.00	20.08	Indiana	Indiana	T8	5	9	4
Ketz, J. Edward	26	3	4	6	13	32.45	14.83	19.32	Penn State	Va Tech	T3	7	4	5
Jiambalvo, James J.	21	8	11	1	1	37.10	10.08	18.36	U Washington	Ohio St	10	6	11	6
Grimlund, Richard A.	17	6	7	3	1	29.35	10.42	18.24	U Washington		T15	10	10	7
Williams, Paul F.	20	2	6	1	11	24.80	13.83	18.12	N Carol St	N Carol	T11	17	5	8
McEnroe, John E.	24	0	2	10	12	26.25	16.17	17.88	DePaul	Kentucky	T6	13	3	9
Wolfson, Mark A.	23	12	6	3	2	42.40	9.75	17.84	Sanford	Tx-Austin	T8	4	14	10
1978														
Wallace, Wanda A.	53	3	8	4	38	58.60	42.92	47.40	Wm & Mary	Florida	2	5	1	1
Penman, Stephen H.	34	16	15	3	0	63.35	24.17	43.62	Columbia	Chicago	8	4	3	2
Reckers, Philip M. J.	79	5	20	20	34	99.80	34.67	42.90	Arizona St	Illinois	1	1	2	3
Larcker, David F.	49	29	13	7	0	93.10	22.08	41.89	Sanford	Kansas	3	2	5	4
Shields, Michael D.	43	7	23	11	2	67.10	20.25	31.21	Michigan St	Pittsburgh	4	3	7	5

(continued on next page)

TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
Pany, Kurt J.	38	7	8	7	16	51.60	15.67	21.58	Arizona St	Illinois	6	6	8	6
Merchant, Kenneth A.	24	4	11	4	5	35.95	14.75	21.49	So Calif	Berkeley	10	11	9	7
Hopwood, William S	23	15	5	1	2	44.70	10.33	20.45	Fla Atlantic	Florida	11	7	13	8
Ratcliffe, Thomas A.	37	0	1	1	35	33.40	22.42	20.19	Troy	Alabama	7	12	4	9
Munter, Paul	42	1	1	2	38	38.95	21.33	19.44	KPMG	Colorado	5	8	6	10
1979														
Wright, Arnold M.	57	6	23	13	15	79.35	30.08	42.34	Northeastern	So Calif	1	1	1	1
Raman, K. K.	38	5	12	13	8	55.30	20.17	29.99	North Texas	Indiana	2	2	2	2
Messier, William F. Jr.	29	6	17	4	2	47.45	14.25	22.93	Nev-L Vegas	Indiana	3	3	3	3
Mensah, Yaw M.	21	5	3	12	1	32.20	13.00	20.85	Rutgers-N Br	Illinois	6	6	4	4
Brownell, Peter	14	8	5	1	0	27.15	10.50	20.58		Berkeley	T12	9	7	5
Solomon, Ira	25	8	10	6	1	42.05	11.00	18.68	Illinois	Tx-Austin	5	4	6	6
Covaleski, Mark A.	28	0	18	6	4	39.95	11.92	17.16	Wisconsin	Penn St	4	5	5	7
Baldwin, Bruce A.	16	4	0	0	12	20.55	10.08	13.58	Ariz St-West	Ariz St	T9	11	8	8
Ashton, Alison Hubbard	8	6	1	0	1	16.10	6.33	13.51	Duke	Tx-Austin	T23	16	15	9
Simunic, Dan A	15	7	7	1	0	27.60	6.67	12.78	British Colu	Chicago	11	8	14	10
1980														
Banker, Rajiv D.	54	17	24	6	7	88.80	22.03	35.66	Temple	Harvard	1	1	1	1
DeAngelo, Linda E.	24	8	15	0	1	42.30	13.50	24.87	So Calif	U Wash	5	3	3	2
Baber, William R.	20	11	2	6	1	35.80	10.67	18.78	George Wash	N Carol	7	5	6	3
Smieliauskas, Wally	16	5	9	2	0	27.95	10.33	18.65	Univ Toronto	Wisconsin	14	10	7	4
Holthausen, Robert W.	19	13	6	0	0	37.00	9.42	18.62	Pennsylvania	Rochester	T8	4	10	5
Evans, John H. III	24	13	3	6	2	42.65	10.00	17.85	Pittsburgh	Car Mellon	T4	2	8	6
Bamber, E. Michael	23	3	10	3	7	32.70	11.25	16.13	Georgia	Ohio St	6	6	4	7
Leftwich, Richard W.	16	10	6	0	0	31.25	7.83	15.47	Chicago	Rochester	T11	8	14	8
Silhan, Peter A.	12	5	2	3	2	20.30	8.83	14.93	Illinois	Tennessee	T16	16	12	9
Biddle, Gary C.	16	9	5	2	0	30.05	7.67	14.68	Un Hong Kong	Chicago	T11	9	T15	10

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
1981														
Chow, Chee W.	68	8	13	17	30	87.35	30.42	40.37	San Diego St	Oregon	1	1	1	1
Knechel, W. Robert	31	6	12	8	5	47.65	19.58	29.33	Florida	N Carol	3	2	3	2
Knight, Lee G.	47	0	0	5	42	44.90	22.33	21.38	Wake Forest	Alabama	2	3	2	3
Waller, William S.	21	10	9	1	1	38.90	11.17	21.06	Arizona	U Wash	T8	5	8	4
Smith, Abbie J.	17	12	5	0	0	33.90	8.75	17.32	Chicago	Cornel	T12	6	12	5
Murray, Dennis F.	21	4	5	6	6	29.50	12.00	17.27	Colo-Denver	Mass	T8	10	6	6
Antle, Rick	16	9	5	2	0	30.95	8.50	16.97	Yale	Stanford	T14	9	T13	7
Stone, Mary S.	24	5	3	9	7	33.40	12.40	16.66	Alabama	Illinois	5	7	5	8
Robinson, John R.	26	4	10	9	3	40.05	10.25	15.96	Texas-Austin	Michigan	4	4	9	9
Burgstahler, David C.	18	11	2	3	2	32.95	8.17	14.96	U Washington	Iowa	11	8	15	10
1982														
Kaplan, Steven E.	55	2	19	21	13	72.15	27.17	36.02	Arizona St	Illinois	1	1	1	1
Palmrose, Zoe-Vonna	18	11	4	1	2	34.25	13.58	25.74	So Calif	U Wash	T13	7	5	2
Lys, Thomas Z.	27	18	8	1	0	50.90	12.40	23.31	Northwestern	Rochester	T4	2	6	3
Lambert, Richard A.	19	16	1	2	0	38.80	9.83	20.13	Pennsylvania	Sanford	T10	5	12	4
Bernard, Victor L.	18	10	6	1	1	34.35	10.50	20.01	Michigan	Illinois	T13	6	9	5
Stout, David E.	46	0	0	3	43	43.55	19.40	18.32	Youngstown	Pittsburgh	2	3	2	6
Pincus, Morton	18	10	4	2	2	32.80	10.50	18.16	Calif-Irvine	Wash U	T13	8	T9	7
Abdolmohammadi, Mohammad	24	1	5	7	11	28.70	14.08	17.30	Bentley	Indiana	6	11	4	8
Schneider, Arnold	20	3	2	8	7	26.40	11.58	16.44	Georgia Tech	Ohio St	T8	14	7	9
Borthick, A. Faye	29	1	1	1	26	28.70	15.67	15.28	Georgia St	Tennessee	3	10	3	10
1983														
Penno, Mark C.	16	9	3	4	0	29.85	11.58	22.22	Iowa	Nrthwstrn	T16	10	3	1
Tse, Senyo Y.	17	7	9	1	0	31.45	8.75	16.56	Texas A&M	Berkeley	T12	7	8	2
Bamber, Linda Smith	21	6	7	2	6	33.15	9.17	15.64	Georgia	Ohio St	T5	3	6	3
Healy, Paul M.	18	10	5	2	1	32.50	8.58	15.57	Harvard	Rochester	T9	4	10	4
Wild, John J.	16	8	5	3	0	29.55	8.33	15.54	Wisconsin	Wisconsin	T16	11	12	5

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
Hassell, John M.	31	7	2	2	20	40.05	11.50	15.23	Indiana-Indy	Indiana	2	1	4	6
Palepu, Krishna G.	17	9	6	1	1	31.25	8.25	14.87	Harvard	MIT	T12	8	13	7
Smith, L. Murphy	32	0	2	1	29	30.25	15.50	14.69	Texas A&M	La Tech	1	9	1	8
Knapp, Michael C.	15	2	3	1	9	19.00	11.00	14.40	Oklahoma	Oklahoma	18	25	5	9
Sullivan, Julie H.	19	7	7	3	2	32.45	8.50	14.37	Cal-San Diego	Florida	T7	5	11	10
1984														
Landsman, Wayne R.	40	19	10	8	3	70.65	16.58	28.79	No Carolina	Sanford	1	1	1	1
Waymire, Gregory B.	26	17	6	3	0	51.05	13.67	27.64	Emory	Chicago	3	3	2	2
McNichols, Maureen F.	27	17	7	2	1	52.20	12.75	24.68	Sanford	UCLA	2	2	3	3
Easton, Peter	23	14	3	6	0	43.45	12.50	23.37	Notre Dame	Berkeley	T4	4	4	4
Jain, Prem C.	17	6	9	0	2	30.35	10.87	20.04	Georgetown	Florida	T9	6	5	5
Thomas, Jacob K.	20	11	7	1	1	37.70	10.33	19.88	Yale	Michigan	7	5	7	6
Srinidhi, Bin N.	19	3	8	7	1	29.75	10.83	16.74	SUNY-Albany	Columbia	8	7	6	7
Swenson, Charles W.	16	4	5	5	2	25.65	9.50	15.11	So Calif	So Calif	T11	9	9	8
Williams, David D.	17	3	7	5	2	25.95	8.50	12.99	Ohio State	Penn St	T9	8	11	9
Read, William J.	23	0	2	6	15	24.55	10.12	10.72	Bentley	Va Tech	T4	10	8	10
1985														
Shaw, Wayne H.	18	7	10	1	0	34.70	10.33	19.82	So Methodist	Tx-Austin	T6	5	4	1
Bedard, Jean C.	31	7	13	4	7	47.60	12.17	19.38	Bentley	Wisconsin	1	1	3	2
Zarowin, Paul A.	18	10	8	0	0	34.95	10.00	19.04	New York U	Chicago	T6	T3	5	3
Rezaee, Zabihollah	30	2	4	2	22	32.90	18.58	18.99	Memphis	Miss	2	6	1	4
Strawser, Jerry R.	29	1	5	12	11	34.95	14.42	17.66	Texas A&M	Tx A&M	3	T3	2	5
Datar, Srikant M.	24	11	11	0	2	43.60	8.70	15.92	Harvard	Sanford	4	2	10	6
Lipe, Marlys Gascho	13	5	4	0	4	21.65	8.33	13.58	Oklahoma	Chicago	15	11	11	7
Melumad, Nahum D.	15	7	7	0	1	27.95	7.00	13.17	Columbia	Berkeley	9	7	14	8
Pownall, Grace	13	7	4	2	0	24.45	6.17	11.88	Emory	Chicago	T12	8	16	9
Chen, Kevin C. W.	13	5	4	3	1	22.45	6.67	11.44	Hong Kong Sc	Illinois	T12	9	15	10

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
1986														
Kothari, S. P.	40	24	15	0	1	75.95	16.73	31.60	MIT	Iowa	1	1	1	1
Shevlin, Terry	30	17	10	3	0	55.20	13.33	24.70	U Washington	Sanford	2	2	4	2
King, Ronald R.	28	10	14	4	0	49.20	13.50	24.28	Wash Univ	Arizona	3	3	3	3
Krishnan, Gopal V.	22	1	9	7	5	29.85	13.58	18.70	Lehigh	North Tx	T4	5	2	4
Balakrishnan, Ramji	22	4	10	5	3	33.75	12.00	18.33	Iowa	Columbia	T4	4	6	5
Hite, Peggy A.	22	1	6	3	12	26.65	12.58	14.79	Indiana	Colorado	T4	7	5	6
O'Leary, Daniel E.	12	0	2	4	6	14.05	11.50	13.57	So Calif	Case Wes	T22	31	7	7
Gaver, Jennifer J	15	8	4	3	0	27.25	7.00	12.58	Georgia	Arizona	T13	6	15	8
Viator, Ralph E.	17	0	5	3	9	19.70	10.33	12.32	Texas Tech	Tx A&M	T10	15	8	9
Church, Bryan K.	20	2	5	7	6	26.40	9.00	12.12	Georgia Tech	Florida	T7	10	9	10
1987														
Lundholm, Russell J.	20	10	8	2	0	38.00	12.25	23.01	Michigan	Iowa	T7	4	4	1
Francis, Jennifer	25	22	2	1	0	52.05	10.70	22.62	Duke	Cornell	4	1	6	2
Hand, John R. M.	17	8	8	1	0	32.05	9.58	19.25	No Carolina	Chicago	T11	5	T11	3
DeFond, Mark L.	22	14	6	1	1	41.35	9.92	18.53	So Calif	U Wash	T5	3	10	4
Cohen, Jeffrey R.	36	1	10	9	16	44.40	15.50	18.45	Boston Coll	Mass	1	2	2	5
Beneish, Messod D.	18	6	5	5	2	30.40	10.50	16.96	Indiana	Chicago	10	6	7	6
Tyson, Thomas N.	26	0	0	4	22	23.85	17.33	15.86	St John Fshr	Geo St	3	10	1	7
Patten, Dennis M.	13	1	5	5	2	18.30	10.00	14.28	Illinois St	Nebraska	15	17	9	8
Bricker, Robert J.	20	2	7	5	6	27.90	10.42	14.23	Case Western	Case Wes	T7	7	8	9
Roberts, Robin W.	19	1	5	2	11	22.55	10.83	12.47	Cen Florida	Arkansas	9	13	5	10
1988														
Geiger, Marshall A.	36	1	9	5	21	42.00	18.62	21.27	Richmond	Penn St	1	2	1	1
Ryan, Stephen G.	23	12	7	1	3	42.10	11.58	21.05	New York U	Sanford	2	1	2	2
Bonner, Sarah E.	19	11	5	2	1	36.05	9.33	16.92	So Calif	Michigan	4	4	T5	3
Sivaramakrishnan, K.	21	9	8	4	0	37.60	9.42	16.52	Houston	Nrthwstrn	3	3	4	4
Kaplan, Steven N.	14	0	14	0	0	25.20	9.33	16.47	Chicago	Harvard	T12	7	T5	5
Ali, Ashiq	18	10	6	2	0	33.80	7.83	14.85	Texas-Dallas	Columbia	T5	5	T8	6

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
Kachelmeier, Steven J.	18	7	6	3	2	30.85	8.92	14.71	Texas-Austin	Florida	T5	6	7	7
Clinch, Gregory J.	13	9	2	2	0	24.95	7.00	13.20	U Melbourne	Stanford	T16	8	12	8
Ely, Kirsten M.	11	5	4	2	0	20.15	6.67	12.67	Sonoma State	Chicago	T23	17	T14	9
Roberts, Michael L.	15	0	5	4	6	18.40	8.83	11.34	Colo-Denver	Geo St	T8	22	T8	10
1989														
Skinner, Douglas J.	30	19	9	1	1	56.45	18.32	33.60	Chicago	Rochester	3	2	2	1
Barth, Mary E.	40	23	9	6	2	73.75	18.25	33.35	Sanford	Sanford	1	1	3	2
Fogarty, Timothy J.	37	0	7	6	24	40.20	19.50	21.53	Case Western	Penn St	2	3	1	3
Bartov, Eli	19	11	8	0	0	36.95	10.00	19.67	New York U	Berkeley	5	6	5	4
Khurana, Inder K.	24	6	8	5	5	37.50	9.89	15.77	Missouri	Ariz St	4	4	6	5
Bushman, Robert M.	18	14	4	0	0	37.05	7.50	15.57	No Carolina	Minnesota	T6	5	11	6
Ponemon, Lawrence A.	16	1	7	1	7	20.95	11.33	14.73		Union-NY	T8	11	4	7
Indjejikian, Raffi J.	15	12	3	0	0	30.80	6.92	14.44	Michigan	Penn	10	7	13	8
Frost, Carol A.	12	6	3	2	1	21.35	7.83	14.03	North Texas	Michigan	T15	10	9	9
Warfield, Terry D.	18	5	1	5	7	25.00	8.08	11.17	Wisconsin	Iowa	T6	8	T7	10
1990														
Sansing, Richard C.	28	10	14	4	0	49.55	18.14	32.17	Dartmouth	Tx-Austin	3	4	2	1
Raghunandan, K.	53	3	21	15	14	70.95	21.17	28.53	Fla Internat	Iowa	1	1	1	2
Rajan, Madhav V.	26	17	8	1	0	52.40	12.33	25.25	Sanford	Car Mellon	T4	2	3	3
Nelson, Mark W.	26	14	10	2	0	49.80	11.58	21.94	Cornell	Ohio St	T4	3	4	4
Shackelford, Douglas A.	23	14	6	3	0	43.95	10.17	19.70	No Carolina	Michigan	6	5	6	5
Lee, Charles M. C.	20	7	11	1	1	37.95	9.83	18.69	Sanford	Cornell	T9	9	7	6
Lang, Mark H.	21	15	5	1	0	42.55	9.08	18.44	No Carolina	Chicago	8	7	10	7
Guenther, David A	16	11	3	1	1	30.55	9.67	18.38	Oregon	U Wash	T12	12	8	8
Koonce, Lisa	22	8	10	3	1	38.15	9.50	16.54	Texas-Austin	Illinois	7	8	9	9
Sridhar, Sri S.	16	9	6	1	0	30.70	8.33	16.21	Northwestern	Pittsburgh	T12	11	11	10
1991														
Amir, Eli	16	7	6	3	0	29.15	8.33	15.69	London Bus	Berkeley	T3	2	5	1

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
Young, Joni J.	16	0	8	0	8	19.70	12.33	15.31	New Mexico	Illinois	T3	10	1	2
Balsam, Steven	20	4	6	6	4	29.30	10.67	14.83	Temple	Baruch	1	1	3	3
Ghosh, Dipankar	16	0	3	11	2	20.25	11.50	14.33	Oklahoma	Penn St	T3	9	2	4
Huddart, Steven J.	13	7	4	2	0	22.70	7.83	13.33	Penn State	Yale	T9	5	7	5
Krishnan, Jagan	14	2	7	5	0	21.65	6.67	10.84	Temple	Ohio St	T7	6	T10	6
Tuttle, Brad M.	17	0	8	6	3	22.80	8.00	10.72	So Carolina	Ariz St	2	4	6	7
Wahlen, James M.	13	7	4	1	1	24.30	5.33	10.17	Indiana	Michigan	T9	3	17	8
Cullinan, Charles P.	14	0	1	5	8	15.10	9.08	9.76	Bryant	Kentucky	T7	15	4	9
Ramsay, Robert J.	15	1	5	6	3	20.35	6.58	9.52	Kentucky	Indiana	6	8	13	10
1992														
Sloan, Richard G.	28	20	8	0	0	55.45	12.83	25.55	Cal-Berkeley	Rochester	1	1	1	1
Ittner, Christopher D.	21	10	7	4	0	37.75	9.25	16.22	Pennsylvania	Harvard	3	2	5	2
Beatty, Anne	18	12	4	1	1	34.00	8.83	16.16	Ohio State	MIT	T5	3	T7	3
Cloyd, C. Bryan	17	5	7	4	1	28.80	8.83	15.53	Virg Tech	Indiana	7	6	T7	4
Luft, Joan L.	16	5	5	6	0	25.90	8.92	14.10	Michigan St	Cornell	8	8	T7	5
Gigler, Frank B.	13	12	1	0	0	28.35	6.25	13.72	Minnesota	Minnesota	T10	7	T7	6
Lowe, D. Jordan	27	1	6	9	11	32.70	10.31	12.30	Arizona St	Ariz St	2	4	3	7
Hirst, D. Eric	13	8	3	1	1	24.85	6.17	11.87	Texas-Austin	Minnesota	T10	9	12	8
Kennedy, S. Jane	12	9	2	1	0	24.60	5.42	11.39	U Washington	Duke	T14	10	T14	9
Glover, Jonathan C.	18	5	10	2	1	30.30	6.62	11.34	Carnegie Mel	Ohio St	T5	5	9	10
1993														
Hermanson, Dana R.	46	0	10	13	23	52.65	16.92	18.92	Kennesaw St	Wisconsin	1	1	1	1
Subramanyam, K. R.	18	12	4	2	0	34.85	8.42	16.53	So Calif	Wisconsin	T2	2	3	2
Dechow, Patricia M.	18	10	8	0	0	34.30	7.58	14.52	Cal-Berkeley	Rochester	T2	3	4	3
Rees, Lynn L.	17	4	6	3	4	26.55	9.17	13.32	Texas A&M	Ariz St	4	4	2	4
Salterio, Steven E.	15	3	12	0	0	25.95	7.20	12.28	Queen's Univ	Michigan	5	5	5	5
Anderson, Shannon W.	11	2	5	4	0	17.10	6.17	9.72	Rice	Harvard	T9	9	8	6
Barron, Orie E.	12	8	4	0	0	24.40	4.67	9.53	Penn State	Oregon	T6	6	T13	7

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
Prawitt, Douglas F.	12	3	4	2	3	18.45	4.83	8.00	Brigham Yg	Arizona	T6	8	12	8
Frankel, Richard M.	10	9	1	0	0	20.60	3.83	7.87	Wash Univ	Sanford	T13	7	T21	9
Spilker, Brian C.	10	3	3	1	3	15.65	4.33	7.38	Brigham Yg	Tx-Austin	T13	13	17	10
1994														
Hunton, James E.	60	7	8	12	33	74.25	30.08	35.49	Bentley	Tx-Arlin	1	1	1	1
Vafeas, Nikos	15	1	6	7	1	21.85	11.42	16.98	Cyprus	Kansas	5	7	2	2
Maydew, Edward L.	18	12	3	3	0	35.00	7.83	15.40	No Carolina	Iowa	4	2	T4	3
Dutta, Sunil	13	8	5	0	0	26.00	6.58	13.35	Cal-Berkeley	Minnesota	T6	5	T7	4
Beasley, Mark S.	21	2	6	2	11	26.85	8.33	11.55	N Carol St	Mich St	2	4	3	5
Wilkins, Michael S.	19	2	9	5	3	28.25	7.83	11.53	Texas A&M	Arizona	3	3	T4	6
Schrand, Catherine M	11	4	6	1	0	20.70	5.75	11.38	Pennsylvania	Chicago	T15	8	13	7
Hogan, Chris E.	11	4	7	0	0	19.95	5.92	11.12	Michigan St	Ohio St	T15	9	11	8
Boone, Jeff P.	13	1	3	4	5	17.20	6.58	9.32	Tx-S Antonio	NorthTx	T6	14	T7	9
Park, Chul W.	10	6	3	1	0	18.65	4.83	8.99	Un Hong Kong	Wash U	T20	12	20	10
1995														
Thomas, Wayne B.	23	7	3	9	4	35.35	9.67	15.10	Oklahoma	Okla St	1	1	1	1
Aboody, David	15	11	4	0	0	30.55	7.08	14.57	UCLA	Berkeley	T4	2	3	2
Kasznik, Ron	15	11	4	0	0	30.15	6.42	13.10	Sanford	Berkeley	T4	4	6	3
Core, John E.	16	9	7	0	0	30.35	6.67	12.76	Pennsylvania	Penn	3	3	5	4
Walther, Beverly R.	15	8	6	1	0	28.50	6.00	11.57	Northwestern	Chicago	T4	5	T10	5
Dichev, Ilia D.	10	6	2	2	0	19.50	6.00	11.33	Emory	U Wash	T17	10	T10	6
DeZoort, F. Todd	17	0	8	7	2	23.25	7.50	10.35	Alabama	Alabama	2	6	2	7
Hopkins, Patrick E.	13	7	2	1	3	23.20	5.50	10.07	Indiana	Tx-Austin	T10	7	12	8
Payne, Jeff L.	11	2	7	1	1	17.95	6.08	9.45	Kentucky	Florida	15	13	9	9
Botosan, Christine A.	8	5	1	2	0	15.15	4.83	9.01	Utah	Michigan	T27	18	T19	10
1996														
Mills, Lillian F.	20	5	8	7	0	33.00	10.39	17.27	Texas-Austin	Michigan	1	2	1	1
Erickson, Merle M.	19	11	6	2	0	36.05	8.08	15.57	Chicago	Arizona	2	1	4	2
Venkatachalam, Mohan	15	10	5	0	0	30.00	6.75	13.39	Duke	Iowa	6	4	8	3

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
Ayers, Benjamin C.	18	5	11	2	0	31.50	6.98	12.56	Georgia	Tx-Austin	T3	3	7	4
Narayanan, V. G.	8	4	4	0	0	15.15	5.83	11.48	Harvard	Sanford	T19	12	10	5
Phillips, Fred	18	1	0	0	17	19.15	10.00	11.21	Saskatchewan	Tx-Austin	T3	8	2	6
Sprinkle, Geoffrey B.	13	4	4	3	2	20.85	6.25	10.29	Indiana	Iowa	8	6	9	7
Kadous, Kathryn	11	4	7	0	0	20.20	5.33	9.83	Emory	Illinois	T9	7	12	8
Willenborg, Michael	10	9	1	0	0	21.10	4.50	9.51	Connecticut	Penn St	T11	5	T15	9
Hayes, Rachel M.	9	6	3	0	0	17.55	4.50	8.86	Utah	Sanford	T15	9	T15	10
1997														
Johnstone, Karla M.	19	4	6	4	5	28.10	8.33	12.62	Wisconsin	Conn	1	1	1	1
Bushee, Brian J.	10	9	1	0	0	21.35	5.50	11.52	Pennsylvania	Michigan	T13	5	9	2
Marquardt, Carol A.	11	6	3	2	0	20.80	5.67	10.78	CUNY-Baruch	Cornell	T8	6	7	3
Mayhew, Brian W.	13	5	8	0	0	24.05	5.33	10.16	Wisconsin	Arizona	T4	2	T10	4
Lehavy, Reuven	11	4	6	0	1	19.90	5.58	9.93	Michigan	Nrthwstrn	T8	8	8	5
Nelson, Karen K.	10	8	2	0	0	20.70	4.67	9.90	Rice	Michigan	T13	7	14	6
Skaife, Hollis	13	7	1	2	3	22.30	6.17	9.78	Wisconsin	Iowa	T4	4	5	7
Leone, Andrew J.	12	9	2	1	0	23.35	4.75	8.75	U Miami	Pittsburgh	T6	3	13	8
Mauldin, Elaine G.	11	2	1	3	5	14.55	6.92	8.19	Missouri	Nebraska	T8	14	2	9
Wong, M. H. Franco	9	6	3	0	0	17.80	4.08	8.18	Univ Toronto	Penn	T17	9	23	10
1998														
Guay, Wayne R.	19	10	8	1	0	35.35	9.17	16.95	Pennsylvania	Rochester	2	2	1	1
Rajgopal, Shivaram	20	12	7	0	1	37.95	7.75	15.06	U Washington	Iowa	1	1	2	2
Zhang, Xiao-Jun	12	9	2	1	0	24.30	6.00	12.18	Cal-Berkeley	Columbia	T6	3	T5	3
Davila, Antonio	14	3	9	1	1	22.90	7.25	11.85	Univ Navarra	Harvard	4	4	3	4
Smith, Michael J.	8	2	5	1	0	13.65	6.00	10.12	Boston Univ	Stanford	T18	16	T5	5
Miller, Gregory S.	8	7	1	0	0	17.10	4.33	9.34	Michigan	Michigan	T18	10	T16	6
Krishnan, Ranjani	10	7	2	1	0	19.85	4.42	8.72	Michigan St	Pittsburgh	T9	5	15	7
Hatfield, Richard C.	13	3	4	2	4	19.15	6.17	8.70	Alabama	Florida	5	7	4	8
Liang, Pierre Jinghong	7	4	2	1	0	13.10	4.83	8.35	Carnegie Mel	Florida	T26	17	10	9

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
Nissim, Doron	10	2	7	0	1	17.50	4.50	7.94	Columbia	Berkeley	T11	T8	14	10
1999														
Nagar, Venky	12	8	2	2	0	23.20	6.83	13.36	Michigan	Penn	T3	2	1	1
Ke, Bin	14	11	3	0	0	28.30	6.33	12.93	Penn State	Mich St	1	1	3	2
Piotroski, Joseph D.	9	6	2	1	0	18.35	4.67	9.59	Sanford	Michigan	T6	4	4	3
Liu, Jing	12	6	5	0	1	22.50	4.42	8.28	UCLA	Columbia	T3	3	7	4
Lo, Kin	7	6	1	0	0	13.85	4.00	7.93	British Colu	Nrthwstrn	T12	9	10	T5
Kohlbeck, Mark J.	13	0	4	2	7	15.55	6.58	7.93	FlaAtlantic	Tx-Austin	2	8	2	T5
Gu, Zhaoyang	7	4	2	1	0	12.80	4.33	7.61	Minnesota	Tulane	T12	13	8	7
Hung, Mingyi Y.	7	5	2	0	0	13.70	3.67	7.14	So Calif	MIT	T12	11	12	8
Wu, Joanna Shuang	8	7	0	0	1	15.70	3.50	6.81	Rochester	Tulane	T10	7	13	9
Widener, Sally K.	9	1	4	3	1	12.85	4.67	6.80	Rice	Colorado	T6	12	5	10
2000														
Bradshaw, Mark T.	8	6	1	1	0	16.00	5.00	9.74	Boston Coll	Michigan	T7	4	T3	1
Roulstone, Darren T.	6	4	1	1	0	11.50	5.00	9.38	Ohio State	Michigan	T13	12	T3	2
Yetman, Robert J.	10	3	3	4	0	16.70	5.48	9.20	Cal-Davis	N Carol	T2	3	2	3
Weber, Joseph P.	9	9	0	0	0	19.25	4.00	8.50	MIT	Penn St	T5	1	10	4
Hodge, Frank D.	10	4	5	1	0	18.15	4.75	8.40	U Washington	Indiana	T2	2	T5	5
Sedatole, Karen L.	9	3	2	2	2	14.10	4.08	6.68	Michigan St	Michigan	T5	5	9	6
Wilks, T. Jeffrey	8	2	3	3	0	12.75	3.75	6.49	Brigham Yg	Cornell	T7	7	12	7
Mueller-Phillips, Jennifer	12	0	0	3	9	11.80	6.42	6.33	Auburn	Va Tech	1	11	1	8
Gore, Angela K	4	2	0	2	0	7.20	3.50	6.07	George Wash	SUNY-Buf	T29	25	14	9
Robinson, Dahlia	8	1	3	1	3	10.80	4.50	5.98	SouthFla	Georgia	T7	13	7	10
2001														
Hope, Ole-Kristian	16	4	4	6	2	25.10	7.92	12.12	Univ Toronto	Nrthwstrn	1	1	1	1
Yee, Kenton K.	8	0	6	1	1	11.95	7.33	10.88		Sanford	T6	7	2	2
Louis, Henock	7	4	3	0	0	13.05	4.50	8.58	Penn State	Ohio St	T9	4	6	3
Mercer, Molly	6	3	1	2	0	10.40	3.67	6.26	Arizona St	Tx-Austin	T11	T9	7	T4
Krull, Linda K.	6	5	1	0	0	12.60	2.92	6.26	Oregon	Arizona	T11	5	13	T4

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
Parsons, Linda M.	8	1	1	3	3	10.25	4.67	5.63	Alabama	Houston	T6	12	5	6
Hodder, Leslie D.	9	5	2	1	1	16.60	3.08	5.57	Indiana	Tx-Austin	T4	2	12	7
Myring, Mark J.	11	1	1	1	8	12.35	5.08	5.35	Ball State	Kent St	2	6	3	8
Janvrin, Diane J.	10	0	1	2	7	10.40	4.83	4.92	Iowa State	Iowa	3	T9	4	9
Johnston, Derek	5	0	2	3	0	7.25	3.25	4.76	Colorado St	Colorado	T18	20	11	10
2002														
Cheng, Qiang	9	5	3	0	1	16.95	5.00	9.61	Wisconsin	Wisconsin	4	3	3	1
Mittendorf, Brian	11	5	3	2	1	18.55	5.58	9.40	Ohio State	Ohio St	2	2	2	2
Hanlon, Michelle	10	7	0	3	0	18.85	5.00	9.10	MIT	U Wash	3	1	4	3
Hilary, Gilles	6	4	1	0	1	11.05	3.67	6.09	HEC Paris	Chicago	T8	6	6	4
Kimbrough, Michael D.	4	4	0	0	0	9.00	2.67	6.00	Harvard	Indiana	T16	11	12	5
Towry, Kristy L.	7	3	3	0	1	12.40	2.95	5.72	Emory	Tx-Austin	T6	5	11	6
Hayes, David C.	13	0	0	0	13	12.45	5.67	5.47	Jms Madison	S Fla	1	4	1	7
Krische, Susan D.	5	4	1	0	0	11.00	2.25	5.00	Illinois	Cornell	T10	7	14	8
Hofmann, Mary Ann	5	0	2	2	1	6.65	3.75	4.84	Appalach St	Ariz St	T10	17	5	9
Markov, Stanimir	5	5	0	0	0	10.50	2.17	4.54	Texas-Dallas	Rochester	T10	8	T15	10
2003														
Richardson, Scott A.	17	8	7	2	0	31.40	7.58	12.92	Barclays	Michigan	1	1	1	1
Li, Oliver Zhen	12	5	6	1	0	21.85	4.92	8.72	Arizona	Arizona	2	2	2	2
Soliman, Mark T.	8	5	3	0	0	15.55	3.17	6.33	U Washington	Michigan	4	3	7	3
Chen, Shuping	7	4	3	0	0	13.55	2.50	4.89	Texas-Austin	So Calif	T5	5	9	4
Zhang, Yuan	3	3	0	0	0	6.25	2.33	4.75	Columbia	So Calif	T21	15	T10	5
Hales, Jeffrey W.	4	2	2	0	0	7.70	2.33	4.71	Georgia Tech	Cornell	T14	11	T10	6
Tuna, Irem	7	5	2	0	0	14.20	2.17	4.38	London Bus	Michigan	T5	4	14	7
Kang, Tony	7	1	3	2	1	10.65	3.08	4.33	Oklahoma St	Illinois	T5	7	8	8
Brandon, Duane M.	10	0	2	1	7	10.75	3.92	4.16	Auburn	Va Tech	3	6	3	9
Doyle, Jeffrey T.	5	4	1	0	0	10.35	1.83	3.82	Michigan	Utah State	T10	8	T16	10

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TABLE 5 (continued)

1.	2. Research Productivity (Full Credit)					3. Quality Adjustments			4. Affiliation	5. Doctoral Program	6. Top Ranks by Four Measures			
	Best 40	I	II	III	IV	Q1	Q2	Q1&Q2			Best 40	Q1	Q2	Q1&Q2
2004														
McVay, Sarah E.	6	5	1	0	0	12.35	2.67	5.62	Utah	Michigan	T5	2	4	1
Roychowdhury, Sugata	4	4	0	0	0	8.50	2.50	5.25	MIT	Rochester	T14	7	T7	2
Brazel, Joseph F.	8	2	2	0	4	11.15	3.83	4.84	N Carol St	Drexel	1	4	1	3
Sandino, Tatiana	5	3	0	0	2	8.60	2.53	4.79	So Calif	Harvard	T8	6	6	4
Blouin, Jennifer L.	7	4	2	1	0	13.55	2.42	4.78	Pennsylvania	N Carol	T2	1	T9	5
Wang, Dechun	4	2	2	0	0	7.70	2.33	4.60	Texas A&M	Missouri	T14	8	T11	6
Cohen, Daniel A.	6	4	2	0	0	11.45	2.42	4.58	New York U	Nrthwstrn	T5	3	T9	7
Lin, Haijin H.	7	1	2	4	0	10.45	2.73	4.19	Houston	Car Mellon	T2	5	3	8
Srinivasan, Suraj	3	3	0	0	0	6.75	1.83	4.12	Harvard	Harvard	T18	T13	T17	T9
Tucker, Jennifer W.	3	3	0	0	0	6.75	1.83	4.12	Florida	NYU	T11	T13	T17	T9
2005														
LaFond, Ryan	9	8	0	1	0	18.85	2.92	6.19	Industry	Wisconsin	1	1	1	1
Rogers, Jonathan L.	4	4	0	0	0	8.50	2.33	5.04	Chicago	Penn	T4	2	T3	2
Sadka, Gil	4	2	2	0	0	7.70	2.17	4.33	Columbia	Chicago	T4	3	T5	3
Jiang, John (Xuefeng)	3	2	1	0	0	6.10	1.67	3.53	Michigan St	Georgia	T10	9	T12	4
Dey, Aiyesha	3	3	0	0	0	6.50	1.58	3.50	Chicago	Nrthwstrn	T10	6	15	5
Williamson, Michael G.	4	1	2	0	1	6.45	2.17	3.38	Texas-Austin	Indiana	T4	7	T5	6
Wynn, Jinyoung P.	2	2	0	0	0	4.25	1.50	3.25	Houston	Purdue	T23	T17	T16	7
Tang, Vicki Wei	4	2	2	0	0	7.45	1.67	3.19	Georgetown	Michigan	T4	T4	T12	8
Li, Feng	2	2	0	0	0	4.25	1.50	3.12	Michigan	Chicago	T23	T17	T16	9
Cassar, Gavin J.	2	1	1	0	0	3.85	1.50	3.05	Pennsylvania	Berkeley	T23	T24	T16	10

Full Credit refers to giving equal credit for each publication in the Best 40 journals.
Q1 denotes the number of articles adjusted for journal quality per Table 1.
Q2 denotes the number of articles adjusted for coauthorship (if n authors, then each author receives 1/n credit).
Q1&Q2 denotes the product of Q1 and Q2, i.e., considering both articles adjusted for journal quality and adjusted for coauthorship.
[a] T denotes ties.

TABLE 6

Correlation Matrix Of Productivity Measures
(Spearman Rank Correlations of Non-Zero Values, n = 3,802)

	Full Credit	Q1 Adjusted	Q2 Adjusted	Q1&Q2 Adjusted
Full Credit	1.000			
Q1 Adjusted	0.966	1.000		
Q2 Adjusted	0.956	0.920	1.000	
Q1&Q2 Adjusted	0.934	0.961	0.968	1.000

All Spearman correlation coefficients are significant at < 0.001 level.

Next we use multivariate analysis to simultaneously investigate the effects of several demographic variables on productivity measures. We determine whether gender, school type (doctoral/nondoctoral granting) where faculty serves, teaching years since the doctorate year, interaction of school type and teaching years since the doctorate year, and professorial rank (i.e., assistant, associate, or full professor) *vis-à-vis* others (i.e., department chair, dean, or retired) are significantly associated with research productivity. The increasing number of women receiving doctoral degrees and serving on accounting faculties motivates an investigation of gender. Our database contains 4,103 male and 1,504 female faculty members.

We expected to find significant differences in research productivity between faculty serving at doctoral-granting (n = 1,027) compared to nondoctoral (n = 4,580) programs, expecting those working at the former to publish more, and in higher-level journals than those at the latter ones. We also expect that faculty in professorial ranks (i.e., assistant, associate, or full professor, n = 2,967) will have significantly higher research productivity than those in administrative or other roles (n = 2,640). We next included the "Teaching Years since Doctorate" variable. Most faculty members work to achieve tenure and promotion to the ranks of associate and full professor in their first 10 years after doctoral year. We argue that faculty members in their first 10 years (n = 733) are motivated to be more productive than those with 11 or more years (n = 4,874).

Regression results are presented in Table 7. For this analysis we report the results of the regression analysis with Q1&Q2 as its dependent variable because this measure is the most conservative measure of productivity. We also used Full Credit, Q1, and Q2 measures as dependent variables and estimated the regression model (untabulated) and found generally consistent results.

Per Table 7, the regression model is highly significant (F-statistic = 450.907, $p < 0.001$) with adjusted $R^2 = 0.286$, indicating that the variables in the model explain 28.6 percent of variation in the dependent variable Q1&Q2. The model finds a significant gender effect (t-statistic = 3.274, p = 0.001), indicating that male faculty members had higher levels of research productivity than female faculty members. The remaining variables in the model are also highly significant. First, as expected, faculty members serving at doctoral-granting schools have significantly higher levels of research productivity than those at non-doctoral schools (t-statistic = 40.208, $p < 0.001$). Second, faculty members with 10 years or less since their doctoral graduation are significantly more productive than those with over 10 years (t-statistic = −2.767, p = 0.006).

Third, the interaction of Teaching Years since Doctorate with school type is also highly significant in the regression model, indicating that increasing research productivity over time differs between doctoral-granting and nondoctoral-granting schools for the 10-year or less versus over 10 years since doctoral graduation. Specifically, untabulated t-tests of this effect indicated that no significant difference in faculty research productivity exists between faculty with 10 years or less

TABLE 7

Effects of Demographic Variables on Research Productivity
Dependent Variable: Publication in Best 40 Journals Adjusted for Journal Quality and Co-Authorship Scaled by Faculty and Year (i.e., Q1&Q2)

Model	Beta	t-statistic	Significance
Constant	0.040	7.270	<0.001
Gender	0.018	3.274	0.001
School	0.259	40.208	<0.001
Teaching Years since Doctorate	−0.081	−2.767	0.006
School * Teaching Years since Doctorate	0.011	2.934	0.003
Professorial Rank	0.072	14.104	<0.001
F-statistic		450.907	
Significance		<0.001	
Adjusted R^2		0.286	

Gender: Male = 1, Female = 0.
School: Doctoral-granting School = 1, Nondoctoral-granting School = 0.
Professorial Rank: Assistant/Associate/Full Professor = 1, 0 otherwise.
Teaching Years since Doctorate: 10 or less years since doctorate = 1, 11 years or more = 0.
School * Teaching Years since Doctorate = Interaction between School and Teaching Years Variables.

and 11 years, or for the doctoral-granting schools (per faculty per year mean = 0.34 and 0.38, respectively, with t-statistic = 1.36, which is not statistically significant). For non-doctoral granting schools, the difference between these groups is highly significant with per faculty per year mean = 0.12 and 0.08, respectively and t-statistic = 5.27, $p < 0.001$. Finally, the regression results in Table 7 indicate that faculty members in professorial ranks are significantly more productive than those in administrative or other roles are.

SUMMARY, LIMITATIONS, AND CONCLUSIONS

Summary

Tracing the 1971–2005 population of accounting doctoral graduates' publication records through 2009, we measure faculty productivity by publication in the Best 3, 13, 24, and 40 journals. We present the raw number of publications (Full Credit) for all 35 years under study, and the number of journal publications adjusted for journal ranking per Table 1 (Q1), followed by number of journal articles adjusted for coauthorship (Q2), and adjusted for both journal quality and coauthorship (Q1&Q2). Scaling the four measures by the number of years since doctoral graduation (5–39 years), we observe that, except for 1993 (when productivity measures dropped and then picked up in the following year), annual faculty publication has steadily grown from 1971–2005 for all four productivity measures (Full Credit, Q1, Q2, and Q1&Q2—see Table 2 and Figure 1). But many faculty members (75.1 percent, 61.6 percent, 52.8 percent, and 32.2 percent, respectively for the Best 3, Best 13, Best 24, and Best 40) published no articles in these journals (Table 3, Panel A).

We introduce multiple benchmark measures for faculty use. One measure is nine years of productivity in the most recent years, which can serve as a useful benchmark for promotion and tenure decisions. Productivity percentiles add another benchmark for faculty to identify their corresponding productivity percentile. For example, schools that are interested in the 75th percentile of productivity can compare their faculty with the top 75 percent by consulting our

benchmark in this paper. Panel A of Table 4 shows that at this level of productivity faculty has published one article in the Best 13, two in the Best 24, and six in the Best 40 journals, but none in the Best 3. At the 90th percentile, we find faculty publishing 2, 5, 7, and 11 articles respectively in the best journals. Thus only 10 percent of faculties publish 11 articles or more in the Best 40 journals since their doctoral year, which improves to 22 articles at the 99th percentile. Panel B in Table 4 shows percentile data for Full Credit, Q1, Q2, and Q1&Q2 publications in the Best 40 journals.

As another benchmark we present the top ten productive faculty based on their publications in the Best 40 journals, adjusted for journal quality and coauthorship (see Table 5). We list these faculty members by their rank of productivity according to the most conservative Q1&Q2 measure, and identify their ranks according to the other three measures (Full Credit, Q1, and Q2). Using the nonparametric Spearman correlation of non-zero productivity measures, we find that researchers' productivity measures are very highly correlated, indicating that productive faculty rank highly regardless of the productivity measure used to evaluate them.

Finally, we use multivariate linear regression to investigate the sensitivity of our productivity measures to the effects of several demographic variables (Table 7). We find that gender has a significant effect in the regression with Q1&Q2 as dependent variable, indicating that male faculty was more productive than female faculty. For example, under the Q1&Q2 measure, the mean productivity per year for men is 0.1425 and for women is 0.1296, which, given the large sample sizes, indicates statistically significant differences. However, while the same result was observed for "Full Credit" as the dependent variable, gender became less significant for Q1and Q2 as the dependent variables. These results suggest a need for further research on gender differences in research productivity in accounting. Kirchmeyer et al. (2000) suggest that future research in this area should investigate such variables as gender similarity among department colleagues and graduation from a highly ranked doctoral program.

Other results from our regression analysis were generally expected, suggesting that (1) faculty serving at doctoral-granting programs significantly outperform those serving at nondoctoral-granting institutions; (2) faculty holding professorial ranks outperform their colleagues in administrative positions; and (3) more recent graduates (over the past 10 years or less), on average, have higher levels of productivity than those with 11 or more years since their doctoral graduation. While this difference is statistically significant for nondoctoral schools, it is not significant for doctoral-granting schools.

Limitations and Extensions

As with prior studies measuring faculty research productivity, this study has limitations. First, we compiled data from only 40 journals, omitting data from many other journals and publication outlets (e.g., monographs) where accounting faculty might publish. We also omitted notes and commentaries appearing in the 40 journals of the study and ignored the productivity of accounting faculty who earned doctoral degrees outside of accounting.

We developed four measures of the quantity and quality of research productivity to evaluate faculty research productivity. These measures may be sensitive to the accurate perceptions of those who rated the quality of journals. While perceived journal quality is a surrogate for the quality of specific articles, we note that journals of lower perceived quality often publish seminal articles, and not all articles in premier journals are of high quality.

Our multiple benchmark measures (proportion publishing 1, 2, 3, or more articles in Best 3, 13, 24, and 40 journals in the five most recent years of doctoral graduation, percentiles associated with productivity, and top ten faculty) should help accounting programs evaluate their faculty for merit and P&T decision purposes in comparison with their peers nationwide. However, some schools

should recognize that a large proportion of faculty do not publish, or publish very few articles in our journal lists. Other schools with distinct research missions and resources may make their own customized adjustments to the benchmarks in our study. Our data may also be limited for comparisons among nondoctoral and doctoral-granting programs, and among research institutions and teaching institutions. Also, while productive researchers in our study rank about the same regardless of the productivity measure used to evaluate them, other productivity methodologies may produce different results.

We also recognize that more journals existed in later than in earlier years, e.g., only 15 of the 40 existed for the full 1971–2009 period, and some journals (e.g., *The Accounting Review*) published more issues annually in later years than in the earlier ones. However, these trends affect all doctorates equally, which allows "fair" comparisons among those graduating around the same time. Also, much anecdotal evidence and AACSB standards indicate that new accounting doctoral-trained faculty are better trained than ever and face increasing "pressure" to publish in "highly ranked" journals.

Conclusions

The limitations aside, our results can help (1) faculty compare themselves to their national colleagues; (2) administrators assess the required number and quality of articles for P&T and merit pay purposes; and (3) justify granting associate/full professor or tenure to outside candidates, or chaired professorships to current or external faculty members. We also note some significant differences by year for publication productivity (Table 2), with a general increasing trend over time (Figure 1), that could reflect more programs demanding increased levels of faculty research. Extrapolating this trend can help indicate future levels of expected productivity that could be a fruitful avenue for future research.

Future research can also extend our list of 40 journals and examine the research records of accounting faculty who have earned doctoral degrees in fields outside of accounting, or from non-U.S. programs. Analyzing these data by the schools that authors earned their doctoral degrees can provide productivity rankings of doctoral and non-doctoral-granting accounting programs.

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