BENCHMARKING PUBLISHING ACTIVITY OF U.S. COLLEGES AND UNIVERSITIES ACROSS THE LEADING JOURNALS: A GROUPED EVALUATION

Michael Jay Polonsky, Victoria University
John D. Mittelstaedt, Clemson University
Jesse N. Moore, Clemson University

ABSTRACT

This paper examines institutional research productivity across two sets of journals – Hult et al. (1997) and Polonsky and Whitelaw (2006), based on institutions' Carnegie Foundation Classification, funding type (private or public) and whether institutions' offer PhD's in marketing. It is identified that while Research Intensive institutions publish more than other types of organizations across journal types, the type of funding and offering PhD's in Marketing are equally if not more important. As such, institutions seeking to compare themselves to other institutions should choose a "similar" set of institutions on which to base any comparisons.

INTRODUCTION

Publication of research in peer reviewed journals is an important part of one's career in marketing, as in any academic discipline. Publications are the vehicle by which theoretical and empirical contributions are developed, refined and tested, and serve as the basis for knowledge development in our field. Journal articles are open letters among colleagues – diaries of progress in our discipline. The accumulated work found in peer reviewed journals and synthesized in textbooks and trade publications, represents the body of knowledge we call "Marketing."

As well, these open letters among colleagues serve as the primary mechanism by which the reputations of scholars and institutions are established and sustained. Journal articles are the currency of the realm in academe, and expectations for continued employment and promotion are tied to individuals' publication and research performance (they are the basis of the old phrase, "publish or perish"). They are how we establish tenure in the discipline, not just at our universities. But a system of "publish or perish" begs the question, how much is enough not to "perish?" What are appropriate expectations for contribution to the discipline? It is easy for top schools, whose faculty regularly publish in "top" journals to answer this question, since there is an expectation that these faculty members will either be thought leaders in their chosen field, or they will find an academic home elsewhere. Should everyone be held to the same publishing standards? The answer is of course no and this appears to be recognized in the development or tenure requirements at different types of institutions. For example, it is suggested that at "research intensive private schools" 2.79 A-journal articles are required for tenure whereas at "balanced state schools" 0.78 A-journal articles are required for tenure (DocSig 2006). The question still needs to be asked – What is an appropriate level of performance at different types of universities?

The *Journal of Marketing Education* and *Marketing Education Review*, as well as other journals play a central role in moving forward the scholarly conversation of research standards and contributions in the field of marketing (cf., Bakir, Vitell, and Rose 2000; Hult, Neese, and Bashaw 1997; Polonky and Whitelaw 2005). Articles on this topic have tended to focus on two kinds of questions: what are the leading journals in our area (Hult, Neese, and Bashaw 1997; Polonsky and Whitelaw 2005); and, who are the leading researchers and institutions in our field (Bakir, Vitell, and Rose 2000; Cheng, Chan, and Chan 2003)? The measurement of institutional performance is important and uses the institution as the unit of analysis, rather than the journal or scholar. Institutions are enduring and while faculty are hired or fired, move or retire, the research performance of universities might be expected to be more stable over time. Given this, the research question becomes, "what is an appropriate level of research performance, when the unit of analysis is the university?" Because schools differ in size, mission, resources, public support and graduate productivity, it is reasonable that the standards for publication will vary with university assets and educations (Hawes and Keiller 2002; Hult et al. 1997; Koojaroenprasit et al. 1998; Polonsky and Whitelaw 2005). Further, it is reasonable to expect that larger departments will produce more research than smaller

departments, both because of efforts of individuals and synergies among scholars (Bakir et al. 2000).

To examine the research productivity of U.S. faculties, data from 23 leading marketing journals, over a five-year period, were collected and analysed. Given that one might suggest there is not one universal set of leading journals, two different sets of "leading journals" were used, i.e., Hult et al. (1997) and Polonsky and Whitelaw (2006). The research examined whether research performance varied based on the type of institution – public/private support, presence or absence of a doctoral programs, and Carnegie research classification. The data was also adjusted for institutional size, as this might affect productivity. While the focus of the work is not to produce a pecking order of institutions, we do also report on the research performance as well, which can be used as a benchmark for different types of institutions.

THE LITERATURE

Through publication in peer reviewed journals, ownership of ideas is assigned. It is little wonder, then, that within the academy interest and attention is paid to who publishes what, and where. Globally, there has been an increasing interest in understanding academic research productivity (Bakir et al. 2000; Chang et al. 2003; Easton and Easton 2003; Polonsky et al. 2003). In many instances this work has focused on which individuals or institutions are the most productive in the "top" journals (Bakir et al. 2000; Helm et al. 2003), within given regions (Cheng et al. 2003; Polonsky and Mittelstaedt 2006; Polonsky, Mittelstaedt, and Moore 2006) or within various sub-areas of marketing (Henthorne et al. 1998; Zinkhan and Leigh 1999).

Policy makers have taken an interest in research productivity, as well. In Australia, publication patterns have been used to rank research universities (Williams and van Dyke 2004). In other countries, e.g., the United Kingdom, New Zealand, and Hong Kong, research productivity has even been used to allocate government funding among universities (Allen Consulting Group 2005; Daiziel 2005; Tertiary Education Commission 2005). Thus, while the purpose of journal articles is to evaluate the merits of an idea, publishing has also become an instrument by which the merits of institutions and authors are being evaluated. In environments of increasing academic expectations and accountability, success in publishing has become as important (if not more so) than the significance of what is published.

Across countries there would appear to be an increased pressure to "improve" academics' and institutions' research performance and research standing (Times 2004). For example, tenure expectations of new PhD's in Marketing appear to be increasing in both quantity and quality (DocSig 2006).[1] For example, tenure expectations in regards to A journal publications, for new faculty vary across institution type – Public research institutions expect 1.76 A's, whereas private research institutions expect 2.79 A's (DocSig 2006). It does of course need to be acknowledged that these are the expectations that are conveyed to newly hired Ph.D.s, but are these realistic expectations? Should institutions and their scholars be judged by some generic set of standards, or do the publication patterns among institutions warrant different expectations for different kinds of colleges and universities? While establishing measurable goals and targets is valuable (Mort et al. 2004), on an institutional level it is essential that organizations have an understanding of the performance of individuals and the school relative to appropriate individual and institutional peers.

Existing works frequently set out performance of "leading" journals and/or institutions (Bakir et al. 2000; Bettencourt and Houston 2001; Theoharakis and Hirst 2002) which may be relevant to those aspiring to be employed within this group. But these measures and goals may be unrealistic for the vast majority of academics and instructions who are not employed within this cohort. As such, universities and marketing departments seeking to improve research performance must first have an understanding of where they are *relative* to appropriate sets of "competitors." Performance improvements should not be benchmarked against performance of dissimilar institutions, but consider relative peer institutions' performance.

Institutions differ in their purpose, resources, missions and objectives, and their modes of contribution, and these should be recognized when considering the merits of academic publication. Previous works looking at productivity (mentioned earlier) have not undertaken any comparisons based on the constituent groups of institutions other then within narrowly defined domains (other than Bakir et al. 2000), which looked at small and large marketing departments. Broad-based comparisons might have limited value for the majority of the 1,398 U.S. Universities and Colleges offering degrees in business disciplines. For example, only 261, or 18.7 percent, are classified as "Research" universities (Carnegie Foundation 2004) and only 94 U.S. institutions offer a doctorate (Ph.D. or D.B.A.) in Marketing (AMA 2005). It is unlikely that individuals at a generalist college (336 institutions or 24%) or marketing non-doctoral granting institutions (93% of all institutions) would want to compare themselves with individuals at research-focused universities. What would be a relative basis of research output comparison for the large percentage of people (i.e., 81.3% assuming they are distributed evenly across institutions) who are not based at research-intensive institutions? To date there are no such comparisons available.

Institutional objectives should also translate into different publication activities (Hawes and Keiller 2002; Lawrence and Dangerfield 2001). This would especially apply to all AACSB accredited institutions with AACSB (2004) guidelines stating: "AACSB member Schools

reflect a diverse range of Missions . . . each institution must achieve and demonstrate an acceptable level of performance consistent with its mission . . .” (p. 1). In terms of intellectual contributions, “The mission statement or associated documents includes *a definition of the intellectual contributions appropriate to the mission*. The definition may be made in terms of content, or in terms of audience, or both (italics added)” p. 23.

“Top” institutions or other groupings could value different types of activity, and thus any global list of rankings (journals, institutions, or individuals) should at least acknowledge this, if not expressly reflect this in rankings (Polonsky 2004). Different focus of institutions might partly explain why Easton and Easton (2003) found that U.K. academics appeared to be targeting a wide spread of journals with their work and that “top” U.S. journals appeared to be under-targeted. Such a result would not be as negative as Easton and Easton suggested.

The purpose of this study is to examine publishing activity across different institutional groupings within highly regarded journals, to determine whether there are differences in the publication behavior among kinds of institutions. Institutions, rather than individuals, are the unit of analysis, since they endure over time (while individuals tend to come and go), and because they set the publication expectations for their faculties. The effects of organizational support (public v. private), Carnegie classification, presence of a doctoral program, and faculty size were examined. Findings suggest that differences should be appreciated among institutions when it comes to evaluating their contributions to academic journals in marketing.

METHODOLOGY

We examined the publication activity of universities over a five-year period of time (1999–2003), for marketing journals generally accepted as “top” by our field (Hult et al. 1997), and among those judged as the best along multiple dimensions (Polonsky and Whitelaw 2006). Five years was chosen as the period of analysis for two reasons: it diminished the effects of any single good or bad year of publishing for any institution; and because it represents the realistic period of time for a newly hired Ph.D. to “fill the pipeline.” The authorship of five years of articles was examined by classification of institution using the Carnegie foundation categories (Carnegie Foundation 2004), state or private support, and whether they offer doctoral education in marketing as reported by the AMA (AMA 2005). Faculty size was benchmarked to the beginning of the period of analysis, using the *1998–1999 Prentice Hall Guide to Marketing Faculty* (Hasselback 1998). This is a potential limitation as the number of faculty would vary over the five years, and some faculty would move among institutions. However, no attempt was made to track the movement of faculty, since the unit of interest was the institution, rather than the individual.

Classifying Journals

The most commonly accepted standard for journal rankings is found in Hult, Neese, and Bashaw’s 1997 *Journal of Marketing Education* article, “Faculty Perceptions of Marketing Journals.” Intended to “aid in evaluating publication importance via their selected reference groups,” it developed a hierarchy of journals for both doctoral and non-doctoral universities, based on the perceptions of marketing faculty. Results included both marketing and general business journals, as well as some conference proceedings. This article has become important in the evaluation of journals and of faculty, since its publication. Though the Journal of Marketing Education is not included in the Social Science Citation Index, “Faculty Perceptions . . .” has been referenced 26 times in other journals that are listed. While Hult et al. rank journals, they do not identify A-level or B-level journals, or otherwise, leaving open the question of what is an A. In this study we included for analysis those journals in the Overall Ranking Top 30, excluding those that were conference proceedings or general business journals. This left 20 peer reviewed, marketing journals (included in Table 1).

Polonsky and Whitelaw (2005) grouped journals as “A,” “B,” or “C,” according to how the “average” U.S. academic viewed a set of marketing journals on four dimensions – prestige, contribution to theory, contribution to practice, and contribution to teaching. Within their study Polonsky and Whitelaw identified 20 journals that their sample was most familiar with, i.e., able to evaluate, and these then formed the basis of their work in regards to develop rankings of these journals (see Table 1). This set of journals was selected for use because it covered a cross section of marketing oriented journals and focused on U.S. marketing academics’ perceptions. Polonsky and Whitelaw (2000a) also identified that these 20 journals had for the most part been included in previous ranking studies, although they and others have acknowledged that there is always some disagreement regarding any set of journals to be examined across the discipline (Hawes and Keiller 2002; Hult et al. 1997; Mort et al. 2004; Polonsky et al. 1999; Theoharakis and Hirst 2002). Polonsky and Whitelaw (2005) suggest that their rankings are statistically consistent with others such as those developed by Theoharakis and Hirst (2002) and Baumgarter and Pieters (2003).

The added benefit to using Polonsky and Whitelaw’s set of journals is that their multi-dimensional nature allowed journals to be “clustered” using the four evaluative criteria, which is also presented in Table 1. In this way their groupings allow the research presented in this paper

to examine performance across clusters of journals, which reflect broad groups used in regards to evaluation of performance. For example, the tenure expectations of new faculty are specified in "A's and B's" rather than in terms of specific journals (DocSig 2006). This allows for a more straightforward comparison between types of institutions, although it should be noted that there might be some disagreement in regards to how journals are classified, especially if they "adopt" mission-based evaluations.

TABLE 1
JOURNAL CRITERIA SCORES AND RANKINGS
(ADAPTED FROM POLONSKY AND WHITELAW 2004A AND 2004B)

JOURNAL	Hult et al. Rank	P&W Prestige Score	P&W Theory Score	P&W Practice Score	P&W Teaching Score	P&W Rating
Journal of Marketing	1	6.52	6.17	5.47	4.59	A
Journal of Marketing Research	2	6.52	6.35	5.09	4.08	A
Journal of Consumer Research	3	6.58	6.45	4.34	4.13	A
Journal of Retailing	4	5.59	5.32	5.14	4.07	A
Journal of the Academy of Marketing Science	5	5.52	5.41	4.67	3.91	A
Marketing Science	6	6.24	6.05	4.98	4.00	A
Journal of Advertising	9	5.24	5.06	4.76	3.92	B
Journal of Advertising Research	10	4.86	4.66	5.06	4.14	B
Journal of Personal Selling & Sales Management	12	4.43	4.43	4.86	4.09	B
Journal of Public Policy & Marketing	14	5.20	4.80	4.85	4.03	B
Journal of Marketing Education	15	4.11	3.74	3.61	5.39	B
Psychology & Marketing	16	4.57	4.59	3.82	3.30	B
Industrial Marketing Management	20	4.42	3.95	4.71	4.08	B
International Journal of Research in Marketing	26	4.79	4.82	4.18	3.68	B
Journal of Consumer Psychology	27	5.26	5.26	4.02	3.55	B
European Journal of Marketing	30	4.13	4.10	4.23	3.33	B
Marketing Letters	*	4.68	4.49	4.10	3.44	B
Journal of Consumer Marketing	21	3.69	3.71	3.66	2.94	C
Academy of Marketing Science Review	-	3.16	3.55	2.84	2.08	C
Advances in Consumer Research	*	4.26	4.69	2.85	3.04	C
Journal of International Marketing	24					–
Journal of Services Marketing	25					–
Journal of Marketing Theory and Practice	28					–

* Ranked but not included in as part of the Hult et al. measure.
** Not ranked by Hult et al. and not included in the Hult et al. measure
*** Not included in the Polonsky and Whitelaw measure.

Classifying Institutions

The grouping of authors' institutions was undertaken using the Carnegie Foundation Classification (2004), state or private support, and whether or not schools offered a doctoral degree in marketing. These classifications were thought to be important because, broadly speaking, they affect either the mission of the institution and/or the department, and affect research expectations (DocSig 2006) and productivity of scholars, directly or indirectly. For example, institution focus on research sets institution-wide standards for research productivity, while the presence of a doctoral program places a high department emphasis on knowledge creation, in addition to knowledge dissemination. Public versus private support may create different standards for what it means to contribute to the mission of the institution, either in goals or definitions of quality of productivity. The 1,398 U.S. universities and colleges can be broadly grouped into four main areas using the Carnegie categorizations (2004) – Research Intensive Institutions (RI), awarding ten or more doctorates per year across three or more disciplines; Research Extensive Institutions (RE), awarding 50 or more doctorates per year across at least 15 disciplines; Masters Colleges and Universities (Masters); and Baccalaureate Colleges and Associates (Bachelors). It is suggested that there might be some "commonality" in regards to the general focus of institutions within each of the four categories. As such, one would expect that publishing performance across journal type would vary.

DATA

The data were collected by reviewing all articles published in top journals between 1999 and 2003, classified as such either by Hult et al. (1997) or Polonsky and Whitelaw (2006). All author's institutions of affiliation were identified and tabulated in two ways. First, the number of authors from each institution was counted. For example, if there were four co-authors each authors' institution was allocated a "1." If more than one author was affiliated with the same institution, this institution would have been credited multiple times. Second, the data was also tabulated to reflect the contribution of each author to the article, with a sum of 1.00 points allocated between all contributors' institutions and it was assumed that each author contributed equally to the publication. In cases where an individual listed more than one affiliation their "score" was split between institutions.

The two sets of publication data were aggregated for each institution across journals, both for journals identified by Hult et al. (1997), and by Polonsky and Whitelaw (2006). Total publications for the leading marketing journals, as ranked by Hult et al. and Polonsky and Whitelaw, as well as the latter's "A" and "B" publications, were examined, with and without adjusting for faculty size. While the focus of this work is not to develop rankings of institutions, we do provide a list of the top institutions by journal types based on support type and doctoral offering (see Appendix A).

Mean publishing activity was examined for all publications, and by journal class, across and between school types and classifications. Additionally, analysis of variance was employed to assess the simultaneous effects of institution classification, support and doctoral education on research output. The results will provide guidance for research expectations across different types of institutions.

Across the journals examined there were 3,414 articles, including 929 "A" articles, and 1,861 "B" articles. The authors came from 849 different academic institutions, of which 406 were U.S. universities (47.94%), who published part or all of 65.15 percent of the articles included. The institutional data included all authors at an institution, irrespective of their department or school. The listing of institutions only included "branch" campuses separately only if this is how the authors identified themselves in their bibliographic details within journal articles.

Intuitions were classified based on their Carnegie Classification scheme in the four categories of Research Intensive, Research Extensive, Masters (Masters 1 and Masters 2), and Bachelors (aggregated all bachelor and associate institutions). Specialized Business Schools (5 institutions) and those not categorized (6 institutions) by the Carnegie Classification scheme were tabulated but excluded from the analysis. Of the 406 U.S. institutions included, 335 (82.55%) had AACSB accreditation.

ANALYSIS

Table 2 summarizes average productivity over the five years examined for the reduced set of Carnegie classifications (research extensive, research intensive, masters and bachelors). Research Extensive institutions produce more research overall, and across all levels of journals and as a percentage of institutions represented, than any other classification of institution, followed by Research Intensive institutions. Faculty at Masters and Bachelors institutions appear to have much lower research performance, but also lower expectations according to recent tenure requirement surveys (DocSig 2006), both in terms of numbers of articles published and percentage of institutions represented in the journals.

Table 3 summarizes average research productivity, by public or private support, and presence of absence of a doctoral program in marketing as reported by AMA (2005). The results indicate that doctoral granting universities produce more research than non-doctoral granting institutions, and that private institutions produce more per capita than publics, overall and among A-level journals (significance of differences is assessed below in the analysis of variance). Private, doctoral granting institu-

TABLE 2
AVERAGE DEPARTMENTAL PRODUCTIVITY, BY CARNEGIE CLASSIFICATION ADJUSTED FOR FACULTY SIZE

Category		P&W Hult, et al.	P&W TOTAL	P&W A-Level	P&W B-Level	C-Level
Research Extensive	Mean	1.9431	2.1629	0.8499	0.9883	0.3247
	N	144	144	144	144	144
	Std. Deviation	1.06944	1.2937	0.8423	0.6145	0.4352
Research Intensive	Mean	0.8829	0.9323	0.1998	0.5667	0.1658
	N	69	69	69	69	69
‘	Std. Deviation	0.88559	1.0531	0.5283	0.5914	0.3391
Masters	Mean	0.5282	0.4961	0.0749	0.3166	0.1046
	N	169	171	171	171	171
	Std. Deviation	0.52185	0.4931	0.1770	0.4059	0.2180
Bachelors	Mean	1.0304	0.9524	0.1306	0.6704	0.1514
	N	26	30	30	30	30
	Std. Deviation	1.84811	1.7142	0.2934	1.5129	0.3391

tions produce more A-level journal authorships than B-level authorships, and more A-level authorships than their public counterparts, while public, doctoral schools produce more than their private counterparts, overall, more B-level authorships than privates, and more B’s than A’s. These findings suggest that while doctoral granting institutions produce more than non-doctoral granting departments, “productivity” may mean different things between public and private institutions, again supporting differences in expectations of institutions (DocSig 2006).

Taken together, all of this suggests that research productivity seems to vary with performance expectations, and that institutional expectations appear to be driven by public/private mission, focus on graduate education, and broader institutional research objectives (i.e., Carnegie Classification). To assess the simultaneous effects of these various factors, analyses of variance were conducted, by journal level. Table 4 summarizes the full-factorial effects of doctoral programs and public/private support, across journal type, while Table 5 includes Research Extensive, Research Intensive, Masters. and Bachelor classifications as covariates.

Table 4 indicates that, overall, the presence or absence of a doctoral program is the single most important factor in determining research output. This likely reflects mission, infrastructure, work-load and rewards. For A-Level journals, there is a significant interaction between doctoral programs and public/private support, though examination of means suggest this reflects a difference in slopes rather than a cross-over effect. Among B-Level journals, there is a significant doctoral main effect, but no significant public/private effect. There is, however, a significant interaction effect ($p < .10$). Among B-level publications, publics with doctoral programs published more than their private counterparts, while the opposite was true among non-doctoral granting institutions. This

TABLE 3
AVERAGE DEPARTMENTAL PRODUCTIVITY, BY PUBLIC/PRIVATE SUPPORT AND DOCTORAL RESEARCH ADJUSTED FOR FACULTY SIZE

Public or Private	Grants Marketing Doctorates		Hult et al.	P&W TOTAL	P&W A-Level	P&W B-Level	P&W C-Level
Private	Doctoral granting	Mean	2.4786	2.8317	1.6566	0.9537	0.2213
		N	24	24	24	24	24
		Std. Deviation	1.09972	1.2463	0.9945	0.3926	0.2505
	Non-Doctoral granting	Mean	0.9498	0.9186	0.2353	0.5342	0.1491
		N	125	125	125	125	125
		Std. Deviation	1.16113	1.1650	0.4874	0.8726	0.2863
	Total	Mean	1.1960	1.2268	0.4642	0.6018	0.1607
		N	149	149	149	149	149
		Std. Deviation	1.27887	1.3698	0.7922	0.8281	0.2813
Public	Doctoral granting	Mean	2.0461	2.4429	0.8140	1.1489	0.4800
		N	75	75	75	75	75
		Std. Deviation	0.87558	1.2099	0.6724	0.6038	0.5280
	Non-Doctoral granting	Mean	0.6780	0.6455	0.1268	0.4147	0.1039
		N	199	199	199	199	199
		Std. Deviation	0.74960	0.7386	0.3671	0.5113	0.2284
	Total	Mean	1.0525	1.1375	0.3149	0.6157	0.2069
		N	274	274	274	274	274
		Std. Deviation	0.99437	1.1988	0.5608	0.6293	0.3764
Total	Doctoral granting	Mean	2.1510	2.5372	1.0182	1.1016	0.4173
		N	99	99	99	99	99
		Std. Deviation	0.94732	1.2239	0.8398	0.5643	0.4875
	Non-Doctoral granting	Mean	0.7829	0.7509	0.1687	0.4608	0.1213
		N	324	324	324	324	324
		Std. Deviation	0.93786	0.9345	0.4203	0.6752	0.2529
	Total	Mean	1.1031	1.1689	0.3675	0.6108	0.1906
		N	423	423	423	423	423
		Std. Deviation	1.10361	1.2608	0.6547	0.7048	0.3462

TABLE 4
ANALYSIS OF VARIANCE RESULTS, BY PUBLIC/PRIVATE SUPPORT AND DOCTORAL EDUCATION ADJUSTED FOR FACULTY SIZE

Source	Hult et al. F (Sig)	P&W Top 20 – Publications F (sig)	A Publications F (sig)	B Publications F (sig)	C Publications F (Sig)
Corrected Model	58.099 (.000)	83.207 (.000)	85.207 (.000)	26.024 (.000)	26.303 (.000)
Intercept	**642.344** (.000)	**685.252** (.000)	**439.909** (.000)	**324.638** (.000)	**131.772** (.000)
Doctoral	**142.405** (.000)	**201.728** (.000)	**243.711** (.000)	**46.399** (.000)	**29.088** (.000)
Pubpriv	**8.416** (.004)	**6.418** (.012)	**49.593** (.000)	0.200 (.655)	**6.600** (.011)
Doctoral * Pubpriv	0.439 (.508)	0.196 (.658)	**29.546** (.000)	**3.452** (.064)	**13.362** (.000)
R squared	.294	.373	.379	.157	.158
Adjusted R Squared	.289	.369	.374	.151	.152

Significant relationships in bold.

suggests that, at least as far as A-Level and B-Level publications are concerned, and among doctoral-granting departments, public and private institutions place different value on A-level and B-Level publications.

Table 5 includes a reduced set of Carnegie classifications for Research Extensive (RE), Research Intensive (RI), Masters and Bachelors institutions as covariate classification variables. When Carnegie classifications are included, across journal classes, research extensive schools were significantly more likely to publish than other institutions, schools with doctoral programs were more likely to publish than non-doctoral granting schools, and publics were more likely to publish than privates. The effects appear to be additive. For A-Level journals, doctoral education has a significant effect, as does public/private, and there is a significant interaction effect between doctoral status and public/private. For B-Level journals, the research extensive effect was significant, and their introduction extracts sufficient variance from other factors to make the interaction between doctoral education and public/private support significant. When the broader expectations of institutions are factored in, the differences between research expectations between doctoral and non-doctoral institutions will vary by public or private support. Again, it appears that structure and mission affect the value placed on publications by difference institutions.

CONCLUSIONS

Based on our examination of publication patterns in top marketing journals from 1999–2003, the following conclusion can be drawn: when it comes to publication expectations and productivity, one size does not fit all. While some suggest that marketing departments and scholars are in general agreement about what constitutes "top" research in the field (Baumgarter and Pieters 2003), this study demonstrates that schools should use these benchmarks of quality differently, depending on mission and focus. For doctoral granting departments, research productivity in top journals is expected. Among non-doctoral granting departments, and among non-Carnegie research universities research productivity is substantially lower, and standards for tenure and promotion should be adjusted to reflect institutional missions. Private universities and public universities have different missions and constituents, and in some cases this affects their apparent emphasis on research productivity. Regardless of whether a department has a doctoral program, scholars at Carnegie Research Extensive universities feel campus expectations to demonstrate high quality research, regardless of their role in the marketing discipline. Because factors such as these appear to affect research expectations and productivity, benchmarks are needed for all types of universities and departments, and these should reflect peer expectations, not peer pressures.

TABLE 5
ANALYSIS OF VARIANCE RESULTS, BY PUBLIC/PRIVATE SUPPORT AND DOCTORAL EDUCATION AND CARNEGIE CLASSIFICATION, ADJUSTED FOR FACULTY SIZE

	Total Authorships				
Source	**Hult et al. F (sig)**	**Top 20 – Publications F (sig)**	**A Publications F (sig)**	**B Publications F (sig)**	**C Publications F (sig)**
Corrected Model	35.759 (.000)	45.517 (.000)	43.458 (.000)	15.718 (.000)	11.833 (.000)
Intercept	**20.293** (.000)	**12.827** (.000)	**14.448** (.003)	**4.040** (.045)	0.608 (.436)
RE	**10.677** (.001)	**6.671** (.010)	1.505 (.221)	**4.597** (.033)	2.459 (.118)
RI	0.546 (.460)	0.821 (.366)	0.282 (.595)	1.283 (.258)	1.710 (.192)
Masters	0.291 (.590)	0.025 (.874)	1.284 (.258)	0.024 (.878)	1.006 (.316)
Bachelors	1.322 (.251)	1.052 (.306)	0.643 (.423)	2.416 (.121)	1.583 (.723)
Doctoral	**27.704** (.000)	**55.616** (.000)	**77.396** (.000)	**7.122** (.008)	**10.501** (.001)
Pubpriv	**7.377** (.007)	**5.628** (.018)	**49.072** (.000)	0.443 (.506)	**6.687** (.010)
Doctoral * Pubpriv	0.140 (.708)	0.027 (.868)	**27.912** (.000)	**4.265** (.040)	**13.848** (.000)
R Squared	.376	.434	.423	.210	.166
Adjusted R Squared	.366	.425	.413	.196	.152

Significant relationships in bold.

While the focus of this work is not to provide a "pecking" order of institutions, we have provided the top institutions within each institutional category. In developing this list we used percentage authorship as the indicator of performance, rather than number of articles to which authors contributed. Appendix A lists the top 10 institutions for publics and privates, doctoral- and non-doctoral granting universities. As the results above indicate, these lists provide some evidence that a single, "golden rule" for publication is not a standard that benefits anyone.

LIMITATIONS

This type of study has many potential limitations. Firstly we did not weight publications across the top 20 journals. Thus, an article in *Journal of Marketing* had the same weighing as one in the *Journal of Consumer Marketing*. It would possibly be possible to weight A, B, and C publications, but in reality any such adjustments would vary by institution. Thus, some schools which only count A's might weight B and C publications as zero, where as other institutions might weight B publications as one with A's being given a multiplier. The Carnegie Classification is rather broad and does not look at institutional or departmental objectives. This can cause problems when the institution is classified as Research Extensive, but there is no Ph.D. program in marketing. Thus, other demographic data such as number of marketing academics would be valuable.

We did not undertake any adjustments for paper length. While this has been done in previous studies (Cheng et al. 2003), it is unclear whether institutions undertake such a weighting when evaluating faculty. The fact that we did not look at individual authors is also potentially a limitation. One prolific author would impact on an institutions overall performance and, in fact, some institutions seek out to "buy" publications by hiring well-regarded authors. The impact of faculty moving between

institutions is an interesting issue. Does the individual's ex-institution maintain any benefit from the publications once the person leaves, even though the institutional name is on the publications? It might be suggested that this is not the case and thus those institutions need to continually recruit suitable replacements to maintain their image. These questions are left for future research

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APPENDIX A
TOP-PRODUCING SCHOOLS, BY FOUR MEASURES OF PRODUCTIVITY, UNADJUSTED AND ADJUSTED FOR FACULTY SIZE

Top-Producing Private, Doctoral Schools, % of Authorships

Rank	Hult et al.	P&W Overall	P&W "A" Journals	P&W "B" Journals
1	Pennsylvania (39.5)	Columbia (36.9)	Columbia (24.1)	Pennsylvania (15.9)
2	Columbia (34.0)	Northwestern (34.8)	Northwestern (20.1)	Columbia (11.6)
3	Northwestern (32.2)	Southern Cal (28.8)	Duke (18.2)	Northwestern (11.5)
4	NYU (24.9)	Pennsylvania (26.6)	Harvard (12.5)	NYU (10.0)
5	Southern Cal (23.9)	Duke (22.5)	Pennsylvania (9.7)	Stanford (7.7)
6	Harvard (20.7)	Harvard (22.0)	Carnegie Mellon (8.3)	Southern Cal (7.1)
7	Duke (19.6)	NYU (17.9)	Emory (7.6)	MIT (6.2)
8	Stanford (17.7)	Stanford (14.8)	MIT (7.3)	Case Western (6.2)
9	M.I.T. (13.3)	MIT (14.0)	NYU (6.3)	Cornell (5.1)
10	Chicago (13.2)	Case Western (13.1)	Stanford (6.2)	Chicago (4.8)

Top-Producing Private, Doctoral Schools, % of Authorships, Adjusted for Faculty Size

Rank	Hult et al.	P&W Overall	P&W "A" Journals	P&W "B" Journals
1	Columbia (2.4)	Southern Cal (2.7)	Columbia (1.7)	Columbia (0.8)
2	Yale (2.0)	Columbia (2.6)	Yale (1.5)	Case Western (0.8)
3	Stanford (2.0)	Stanford (2.3)	Carnegie Mellon (1.5)	Stanford (0.7)
4	Pennsylvania (1.9)	Pennsylvania (2.1)	Stanford ((1.4)	Cornell (0.7)
5	Carnegie Mellon (1.9)	Carnegie Mellon (2.0)	Duke (1.4)	Pennsylvania (0.7)
6	Emory (1.7)	Yale (2.0)	Pennsylvania (1.3)	Emory (0.6)
7	Duke (1.6)	Chicago (1.9)	Chicago (1.2)	Carnegie Mellon (0.6)
8	Cornell (1.6)	Duke (1.8)	Southern Cal (1.1)	Southern Cal (0.5)
9	Vanderbilt (1.5)	Emory (1.7)	Vanderbilt (1.1)	Harvard (0.5)
10	Chicago (1.5)	Vanderbilt (1.6)	Emory (1.1)	Yale (0.5)

Top-Producing Public, Doctoral Schools, % of Authorships

Rank	Hult et al.	P&W Overall	P&W "A" Journals	P&W "B" Journals
1	Michigan State (25.0)	Michigan (33.7)	Pittsburgh (20.1)	Penn State (18.7)
2	Florida (24.2)	Penn State (31.6)	Michigan (15.6)	Rutgers (13.5)
3	Illinois (23.7)	Rutgers (31.1)	Wisconsin (13.7)	Ok State (13.4)
4	Texas (23.6)	Illinois (28.6)	Minnesota (13.7)	Mich. State (12.5)
5	Michigan (22.3)	Pittsburgh (26.9)	Florida (12.2)	Michigan (12.2)
6	Rutgers (21.8)	Arizona State (23.3)	Cincinnati (11.0)	Arizona State (12.0)
7	UCLA (20.9)	Florida (23.3)	Arizona State (10.3)	Georgia (10.9)
8	Minnesota (20.7)	Ok. State (21.6)	Illinois (9.8)	Arizona (10.7)
9	Wisconsin (20.2)	Arizona (19.2)	SUNY Buffalo (9.0)	Illinois (10.7)
10	Indiana (18.9)	Mich. State (19.2)	UCLA (7.9)	Texas (10.7)

APPENDIX A (CONTINUED)

Top-Producing Public, Doctoral Schools, % of Authorships, Adjusted for Faculty Size

Rank	Hult et al.	P&W Overall	P&W "A" Journals	P&W "B" Journals
1	Purdue (2.6)	Purdue (2.9)	UCLA (1.6)	Purdue (1.8)
2	UCLA (1.9)	Rutgers (2.8)	UC Berkeley (1.4)	Old Dominion (1.3)
3	UC Berkeley (1.9)	Berkeley (2.6)	Wisconsin (1.3)	Houston (1.2)
4	Pittsburgh (1.9)	Illinois (2.4)	Pittsburgh (1.2)	Temple (1.2)
5	Illinois (1.8)	Pittsburgh (2.3)	UC Irvine ((1.1)	Rutgers (1.2)
6	Florida (1.7)	Minnesota (2.2)	North Carolina (1.1)	Illinois (1.0)
7	Wisconsin (1.7)	UNCL (2.1)	Florida (1.0)	LSU (1.0)
8	Rugters (1.7)	Nebraska (2.1)	Michigan (1.0)	Arkansas (0.9)
9	Old Dom. (1.7)	UC Irvine (2.1)	Maryland (0.9)	Kentucky (0.9)
10	Mississippi (1.7)	Florida (1.9)	Kansas (0.9)	Oklahoma State (0.9)

Top-Producing Private, Non-Doctoral Schools, % of Authorships

Rank	Hult et al.	P&W Overall	P&W "A" Journals	P&W "B" Journals
1	Notre Dame (18.1)	TCU (14.6)	Dartmouth (8.3)	Baylor (11.9)
2	Baylor (17.3)	Baylor (14.6)	TCU (7.9)	Hofstra (7.3)
3	Babson (14.7)	Dartmouth (11.6)	Santa Clara (6.2)	Drexel (7.0)
4	Miami (FL) (12.9)	DePaul (10.82)	Babson (6.0)	TCU (6.7)
5	Dartmouth (12.0)	Babson (9.8)	Northeastern (3.7)	BYU (6.7)
6	Georgetown (9.6)	Drexel (9.2)	Notre Dame (3.6)	DePaul (6.0)
7	Texas Christian (9.2)	BYU (8.8)	Tiffin Univ. (3.3)	Villanova (5.6)
8	Fordham (9.0)	Hofstra (7.8)	DePaul (3.3)	Georgetown (5.0)
9	Hofstra (7.8)	Boston Coll. (7.4)	Rensselaer (2.9)	Miami (FL) (4.7)
10	Drexel (7.7)	Villanova (7.0)	Boston College (2.7)	Wake Forest (4.5)

Top-Producing Private, Non-Doctoral Schools, % of Authorships, Adjusted for Faculty Size

Rank	Hult et al.	P&W Overall	P&W "A" Journals	P&W "B" Journals
1	Dartmouth (2.4)	Dartmouth (2.5)	Dartmouth (2.0)	Willamette (1.8)
2	Willamette (2.3)	Willamette (2.3)	Clarkson (1.0)	Portland (1.2)
3	Skidmore (1.8)	Skidmore (1.8)	Rice (1.0)	TCU (1.2)
4	Rice (1.7)	Rice (1.7)	SMU (0.7)	Notre Dame (1.0)
5	Portland (2.4)	Miami (FL) (1.6)	Santa Clara (0.6)	Widener (1.0)
6	TCU (1.5)	Portland (1.6)	Willamette (0.5)	Miami (FL) (1.0)
7	Notre Dame (1.5)	Notre Dame (1.5)	Rensselar Poly (0.5)	Baylor (0.9)
8	Widener U (1.5)	TCU (1.5)	Bucknell (0.5)	Skidmore (0.9)
9	Miami (FL) (1.4)	Rensselar Poly (1.4)	Miami (FL) (0.5)	Villanova (0.9)
10	Clark (1.3)	Howard (1.4)	Notre Dame (0.5)	Clark (0.8)

Top-Producing Public, Non-Doctoral Schools, % of Authorships

Rank	Hult et al.	P&W Overall	P&W "A" Journals	P&W "B" Journals
1	Iowa State (16.5)	Iowa State (16.1)	UC Riverside (13.2)	Iowa State (10.2)
2	Col. State (15.6)	NC State (16.0)	NC State (13.2)	Northern Iowa (10.0)
3	Kansas State (11.8)	Toledo (14.83)	So. Miss (11.6)	Col. State (9.6)
4	Bowling Green (11.2)	UC Riverside (14.0)	Toledo (9.3)	Kansas State (7.8)

APPENDIX A (CONTINUED)

Rank	Hult et al.	P&W Overall	P&W "A" Journals	P&W "B" Journals
5	Delaware (10.9)	So. Miss. (14.0)	UNC Asheville (6.7)	Delaware (7.5)
6	Clemson (9.8)	Col. State (13.1)	Portland State (6.2)	Vermont (6.5)
7	Toledo (8.8)	No. Iowa (12.6)	SDSU (4.7)	Wisc-White (6.4)
8	Auburn (8.6)	Wisc.-Milw. (11.9)	Wayne State (4.3)	Metro-State (5.8)
9	Oregon State (8.33)	Kansas State (10.9)	SW Miss. St. (4.0)	Toledo (5.5)
10	Western Mich. (7.2)	Delaware (10.3)	Iowa State (3.6)	Auburn (5.4)

Top-Producing Public, Non-Doctoral Schools, % of Authorships, Adjusted for Faculty Size

Rank	Hult et al.	P&W Overall	P&W "A" Journals	P&W "B" Journals
1	Colo State (2.2)	NC State (2.1)	NC State (1.8)	SUNY, Fredonia (1.7)
2	NC State (2.1)	Colorado State (2.1)	UC Davis (1.2)	Colorado State (1.5)
3	Iowa State (1.8)	Iowa State (1.9)	Colorado State (0.6)	Iowa State (1.2)
4	Kansas State (1.7)	UC Davis (1.8)	Oregon State (0.5)	Kansas State (1.2)
5	Oregon State (1.7)	Kansas State (1.7)	Arkansas Tech (0.5)	Winona State (1.0)
6	SUNY Fredonia (1.7)	SUNY, Fredonia (1.7)	SUNY, Geneseo (0.5)	Maine (1.0)
7	Arkansas Tech (1.5)	Oregon State (1.4)	Delaware (0.4)	Vermont (0.9)
8	Maine (1.3)	Delaware (1.2)	Iowa State (0.4)	Oregon State (0.9)
9	US Davis (1.3)	NJ Inst. Tech (1.2)	Wright State (0.4)	Bowling Green (0.7)
10	Vermont (1.2)	Vermont (1.1)	Col. - Denver (0.3)	UC Davis (0.7)

[1] Although there is also some evidence from respondents to the DocSig survey, that stated expectations are not necessarily those that will ultimately be applied.