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Leveling the Playing Field: A Comparative Analysis of Business School Journal Productivity

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ABSTRACT

Equity across academic disciplines is taken for granted in contemporary business schools. The status of a discipline is crucial for such fairness. One might assume, therefore, that IS scholars are treated fairly during tenure and promotion processes when compared to scholars from other business school academic fields. In fact, this may not be the case. The playing field used by business academic disciplines may not be level.

This study addresses three questions related to this issue. The first asks whether there is a level playing field for publication among the various business disciplines, and second, assuming an unlevel playing field, what are the relative productivity differences between dissemination of scientific results among these disciplines? The third question is how could the playing field be leveled, assuming it is not at the present time. To answer these questions, existing data sources were tapped, one of these containing well over 18,000 data points. Further, original data was gathered from U.S. business schools, and all the data was analyzed in relation to AACSB data on the relative sizes of business school disciplines. Given our finding that the playing field is not level, the differences between the IS discipline and four other disciplines – Accounting, Finance, Management, and Marketing – are examined, and the consequences of the disadvantage to the IS discipline are discussed. The article concludes with recommendations of actions to level the field, and these are presented as a challenge to leaders in the Information Systems discipline.

Keywords: academic and scientific publishing; research productivity; business disciplines; Information Systems; Marketing; Management; Finance; Accounting; human resources equity; tenure; promotion; A-journals.

I. INTRODUCTION

Equity across academic disciplines is taken for granted in contemporary business schools. The status of a discipline is crucial for such fairness, and, in this regard, Lyytinen and King [2004] have argued that the IS field "is about as far along as might reasonably be expected in terms of size, quality, and institutional status" (p. 221). One might assume, therefore, that IS scholars are treated fairly during tenure and promotion processes when compared to scholars from other business school academic fields. In fact, to the extent that the IS field has short and long term problems, this may not be the case. The playing field used by business academic disciplines may not be level.

In spite of arguments that the IS field is doing well enough, not a year goes by without new stories about some of the IS field's most promising faculty encountering serious personnel decision problems or being denied tenure. Lyytinen and King [2004] went as far as to suggest that other fields may engage in conscious efforts to deny IS faculty promotions, but could offer no empirical evidence for the assertion. Given these serious charges, examination of the empirical evidence becomes crucial to meaningful discussion.

This article asserts that the rules of disciplinary comparisons within business schools favor disciplines other than IS. To assess this proposition, two questions are examined in the context of research evaluation in U.S. business schools. First, is the playing field level for IS when compared to other primary business disciplines? Second, if the playing field is not level, what is the relative extent of such differences? The third question follows naturally from the second: What can be done to level the playing field for future IS scholars? To examine these questions, well over 18,000 data points were collected to allow a comparison across five academic fields in three U.S. business schools. Other papers on the status of the IS field, such as Larsen and Kozar [2003] and Dennis et al. [2006], should be viewed as complementary and as building a more complete understanding of publication in the IS field.

II. LITERATURE REVIEW

How level is the playing field in business schools? Comparisons of the business disciplines inevitably involve a consideration of research productivity, and productivity inevitably raises the question of what schools believe to be an A-journal. While there is substantial debate within IS and other disciplines about what defines "A journals," in this article, the concept "A-journal" refers to any journal that a college or department designates as a high-level publication target for its faculty. Publishing in such a journal generally leads to significantly higher rewards than publishing in journals not designated as A-journals. In fact, in some schools, only publications in designated A-journals will count towards tenure, internal reputation, and compensation. Given the value of such rewards, a certain level of fairness between disciplines is assumed. What, then, constitutes equity across disciplines? Starting with the assumption that intelligence is distributed evenly across academic fields, the number of articles published in a field's A-journals (slots) relative to the number of faculty in the field should provide a reasonable proxy of fairness.

What then constitutes a level playing field? Even if all schools evaluated their faculty using exactly the same A-journals for each discipline and an equal number of these journals per field, the playing field might still not be level. Journals publish varying numbers of articles per year, and these variations can have profound implications on publishing opportunities and the potential for faculty to have their work accepted in top journals. For example, assuming disciplines of equal size, if Discipline A evaluates work in three A-journals that together publish 150 articles per year, and Discipline B has three that publish only 100 articles, it is 33.3% easier for Discipline A's faculty to publish than Discipline B's.

To determine research productivity, Trieschmann et al. [2000] used empirical evidence from what they selected to be top journals in each discipline. They included a set of top journals commensurate with the number of faculty in each field, thereby attempting to ensure fairness. In

their study, they suggested that the IS field should have one to two A-journals, and selected two journals for IS (*MISQ* and *ISR*). However, Trieschmann et al. [2000] have in all likelihood short-changed the IS field by limiting the field to only two journals. First, what Trieschmann et al. [2000] did not consider was the fact that most schools with A-journal lists are not very sensitive to page-lengths of articles. Therefore, Trieschmann et al. did not consider the fact that many schools allocate summer support and other rewards based purely on whether an individual publishes a paper in one of the journals on the school's A-journals during the evaluative period. Second, Trieschmann et al. [2000] applied an adjusted normal-count approach [Chua et al., 2002], that is, assigning a score of 1 to the school of each coauthor of an article [Chua et al., 2002]. Their approach did not adjust for the number of authors on each paper. In essence their approach counts a paper with coauthors from 10 different schools as an order of magnitude more valuable for ranking purposes than a single-authored paper. Third and finally, they used one year of an AACSB survey to determine the number of faculty in each field, a choice that leads to major methodological problems [for an overview of such problems, see Swanson, 2004, p. 224]. This is particularly problematic because the authors used a now outdated AACSB survey that surveyed only AACSB members in 1998 rather than all business schools over a longer period of time. These observations lead us to question the accuracy of the evaluations, and whether Trieschmann et al. [2000] did, in fact, level the playing field. This set of limitations leads us to our first research question:

RQ 1: Is there currently a level playing field for research productivity evaluations between the academic fields in business schools?

If RQ 1 is answered in the negative, two follow-up questions are inevitable:

RQ 2: Given a playing field that is not level, what is the extent of relative differences between IS and other business fields with respect to productivity?

RQ 3: Given a playing field that is not level, what can be done to level the playing field for IS scholars?

III. RESEARCH METHODS

Data collection

To provide answers to these three questions, data from four different sources were collected. As an overview, rankings from the University of Texas at Dallas' (UTD) journal publication database were first collected to examine the value of one single-authored paper in different disciplines as defined by Trieschmann et al. [2000]. Second, while schools may have been affected by the Trieschmann et al. [2000] study, no school is likely to use this journal list in an unchanged manner – will rather modify it for their own needs. We therefore collected data about the specific A-journal lists used by a set of schools ranked at different levels. Third, using a combined set of A-journals from three such schools, data on number of research papers and notes published in each was collected from the Social Science Citation Index and ABI Inform databases. Finally, data was then combined with AACSB data on size of different disciplines.

First, a determination of the impact of articles on rankings was needed for individual fields. The UTD journal publication database[1] was used to examine the value of one article published by one person or a set of coauthors from the same school within the Trieschmann et al. [2000] set of journals. For each discipline's set of journals within the Trieschmann et al. [2000] ranking, a discipline impact ranking was created for each year from 1990 to 2004. This data indicated the change in department ranking by the publication of a single article. Because there would often be several departments with the equivalent of one article published, the average ranking for

[1] http://citm.utdallas.edu/utdrankings/

publishing one article was used. This data was used later in our analysis to demonstrate the relative value of individual publications within major business school disciplines.

The second step in our analytical procedure was to create a list of ranked business schools. For this purpose, both the Trieschmann et al. [2000] list and the *Financial Times* [2002] ranking for the same time period were used. A-journal lists were requested from all schools ranked in the top 25 in either ranking. Then, administrators at 20 of these schools with IS departments were contacted and asked whether they used a list of A-journal articles to make determinations about the research quality of its faculty and departments. Of the 17 responses received, one school was in the process of creating a list, and one school used to have a list, but had recently stopped using it at the changeover of administrators and allegations of unfair evaluation criteria. Of the remaining 15 schools, seven had an A-journal list and were willing to share it. These schools and others were contacted about their use of A-journal lists. For expositional ease, the three schools with the shortest A-journal lists for all disciplines were selected for further analysis; one was an undisputed top five school (X), one was a clear top 25 school (Y), and one school was sometimes listed in the top 25 (Z) [FT, 2002, Trieschmann et al., 2000]. For these three schools, a total of 29 included journals are shown in Table 1. Excluding journals from reference fields, at most three IS journals are listed. The five disciplinary areas are denoted by acronyms or the first three letters from their names. The third column of the table, listed as "Ref.," denotes journals that completely or partly belong to a reference discipline. Among these journals were the *Communications of the ACM* and the *American Sociological Review*.

Table 1. A-journals in five focal fields at three schools (X, Y, and Z)

				Schools		
#	Journal	Ref.	In Trieschmann?	X	Y	Z
1	Accounting Review		Yes	ACC	ACC	ACC
2	Journal of Accounting & Economics		Yes	ACC	ACC	ACC
3	Journal of Accounting Research		Yes	ACC	ACC	ACC
4	Journal for Accounting and Public Policy		No		ACC	
5	Journal of Finance		Yes	FIN	FIN	FIN
6	Journal of Financial Economics		Yes	FIN	FIN	FIN
7	Review of Financial Studies		No	FIN	FIN	FIN
8	American Economic Review	+	No		FIN	
9	Journal of Consumer Research		Yes	MAR	MAR	MAR
10	Journal of Marketing Research		Yes	MAR	MAR	MAR
11	Journal of Marketing		Yes		MAR	MAR
12	Marketing Science		No	MAR	MAR	
13	Information Systems Research		Yes	IS	IS	IS
14	MIS Quarterly		Yes		IS	IS
15	Journal of Management Information Systems		No		IS	
16	Communications of the ACM	+	No	IS		
17	Administrative Science Quarterly		Yes	MAN	MAN	MAN
18	Academy of Management Journal		Yes		MAN	MAN
19	Academy of Management Review		Yes		MAN	MAN
20	Strategic Management Journal		Yes		MAN	MAN
21	Journal of Applied Psychology	+	No	MAN	MAN	
22	Organizational Behavior and Human Decision Processes		No	MAN	MAN	
23	Harvard Business Review		No			MAN
24	Journal of Business Ethics		No			MAN
25	Sloan Management Review		No			MAN
26	Journal of International Business Studies		Yes*		MAN	
27	Organization Science		No		MAN	
28	American Sociological Review	+	No	MAN		
29	Journal of Personality and Social Psychology	+	No	MAN		
	Sum			16	23	18

** Listed in Trieschmann et al (2000), but not in Management category. + Reference field journal.*

To analyze the number of research papers and notes published in all the A-journals listed for the three schools, all articles for these journals during the 1990 – 2004 time period were downloaded from the Social Science Citation Index database for those journals available there, and the remaining articles were downloaded from the ABI-Inform database. All articles, including abstracts, were loaded into Endnote, which allowed us to remove book reviews, editorial statements, etc. Numbers that deviated significantly from expectations were checked against print copies in the library. After these removals, a total of 18,678 research articles and research notes were retained from the 29 journals shown in Table 1.

To calculate the number of faculty in each discipline, survey data from the Association to Advance Collegiate Schools of Business (AACSB) on the size of disciplines between 1990 and 2004 were requested and received. In constituting the total number of faculty for the management field, the AACSB categories of *management, strategic management, behavioral science/organizational behavior,* and *human resource management* were combined. The data on the Finance field also includes *banking*, thereby leading to a higher number of faculty for Finance than shown in Trieschmann et al. [2000]. A scatter-plot with the total numbers is shown in Figure 1.

As can be seen in Figure 1, Accounting has traditionally been the largest discipline, with Management advancing in numbers during the last few years. Finance and Marketing have tended to be about the same size, with Finance creating more of a gap lately. IS started out as a clearly smaller field, but because of strong growth from 1998 to 2001 was poised to catch up with Marketing, but then lost faculty after the dot-com bubble burst.

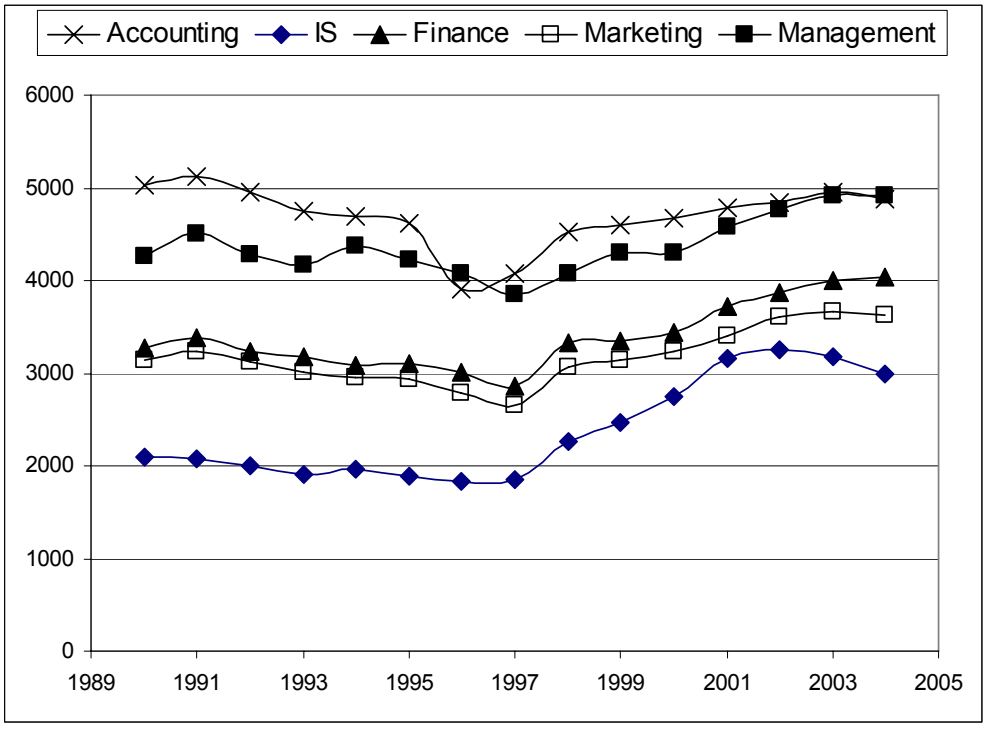

Figure 1. Number of faculty in each field by year according to AACSB surveys

Finally, to address the question of whether IS researchers are expanding their boundaries by publishing in Management discipline A-journals, all articles in a set of the four management journals were examined during a six year period. For each article, two coders examined whether these articles had IS content. In cases where the two coders disagreed, the article was discussed and a resolution was reached. In such cases, an inclusive definition of what constitutes an IS article was used.

Together, these datasets made possible a comprehensive examination of the research questions for this paper: RQ1, is there currently a level playing field for research evaluations between the academic fields? And, RQ2, if not, what are relative differences between IS and other academic fields, given adjustments in the data analysis that level the playing field? By looking at the possibilities for publication in three schools, we were also able to answer RQ3 with these datasets.

IV. FINDINGS

A Level Playing Field?

The question of a level playing field for IS vs. the other main disciplines must be examined through several related issues. First, do top schools as well as lower-ranked schools employ A-journal lists? Second, compared to the size of a discipline, are business schools with A-journal lists allowing a fair set of journals for each discipline? Third, can IS faculty reliably publish in other fields' A-journals?

The existence and use of A-journal lists

For the schools that were willing to share their A-journal lists, all seven listed *Information Systems Research*, six listed *MIS Quarterly,* five listed the *Journal of Management Information Systems*, and three listed the *Communications of the ACM.* At one school, the complete list for all disciplines contained almost 150 journals, including several computer science journals on the IS list.

Nine schools out of 17 contacted at one time did have such a list, were in the act of creating it, or now have an A-journal list, suggesting that such lists may be an emerging norm rather than the exception. It should be noted that schools without A-journal lists may encourage their faculty to target exactly the same journals without being willing to establish a target list. To quote responses from a set of Associate Deans at schools *without* explicit A-journal lists:

"We go with the judgment of our senior faculty."

"Although we put great emphasis on publication in 'A' level journals, we do not maintain a formal list."

"We don't have a school-wide list of A-journals. One of our departments has a formal list, but our other four only have an informal understanding of what are its A-journals."

"The school does not officially maintain an A-list of journals. However, we are very interested in the journal lists *Business Week* and *The Financial Times* use for their faculty research rankings."

Factoring in the above comments, 13 out of 17 respondents at one time used or currently use implicit or explicit A-journal lists. Van Fleet et al. [2000] found an inverse correlation between perceived quality of a department and that department's probability of adopting an A-journal list, suggesting that the likelihood of schools having an A-journal list would be higher for those not in the top-25 rankings than for the top schools in this dataset. Those numbers show the immense importance of examining whether such lists are likely to provide a level playing field.

A fair set of journals for each discipline?

For the schools in Table 1, most departments used the journals on Trieschmann et al.'s [2000] list (with some additions and deletions). To determine whether each of the disciplines was allocated a reasonable set of journals (i.e., a journal basket), we used two different analytical approaches. First, the fairness of Trieschmann et al.'s [2000] list was examined in terms of the ranking provided to a department for the publication of a paper in one of the discipline's journals. Second, using a logic similar to that of Trieschmann et al. [2000], but with appropriate data on

disciplinary sizes over time, the A-journal lists of the three business schools listed in Table 1 were re-examined in terms of fairness over time measured by the number of slots available per 100 researchers in the field.

To see if the methodological choices in Trieschmann et al. [2000] created a level playing field for the IS field, we assessed the value of one article published by one person or a set of coauthors from the same school utilizing the Trieschmann et al. [2000] journal baskets for each academic field. Figure 2 compares IS and the main four business fields for the 15 years from 1990-2004 as well as regression lines for each of the five fields. For example, in 1990, one such article in the IS field could lead to a department ranking somewhere between tenth through seventeenth. In Figure 2, this is represented by the average score, in this case 13.5. All points in the diagram represent such scores.

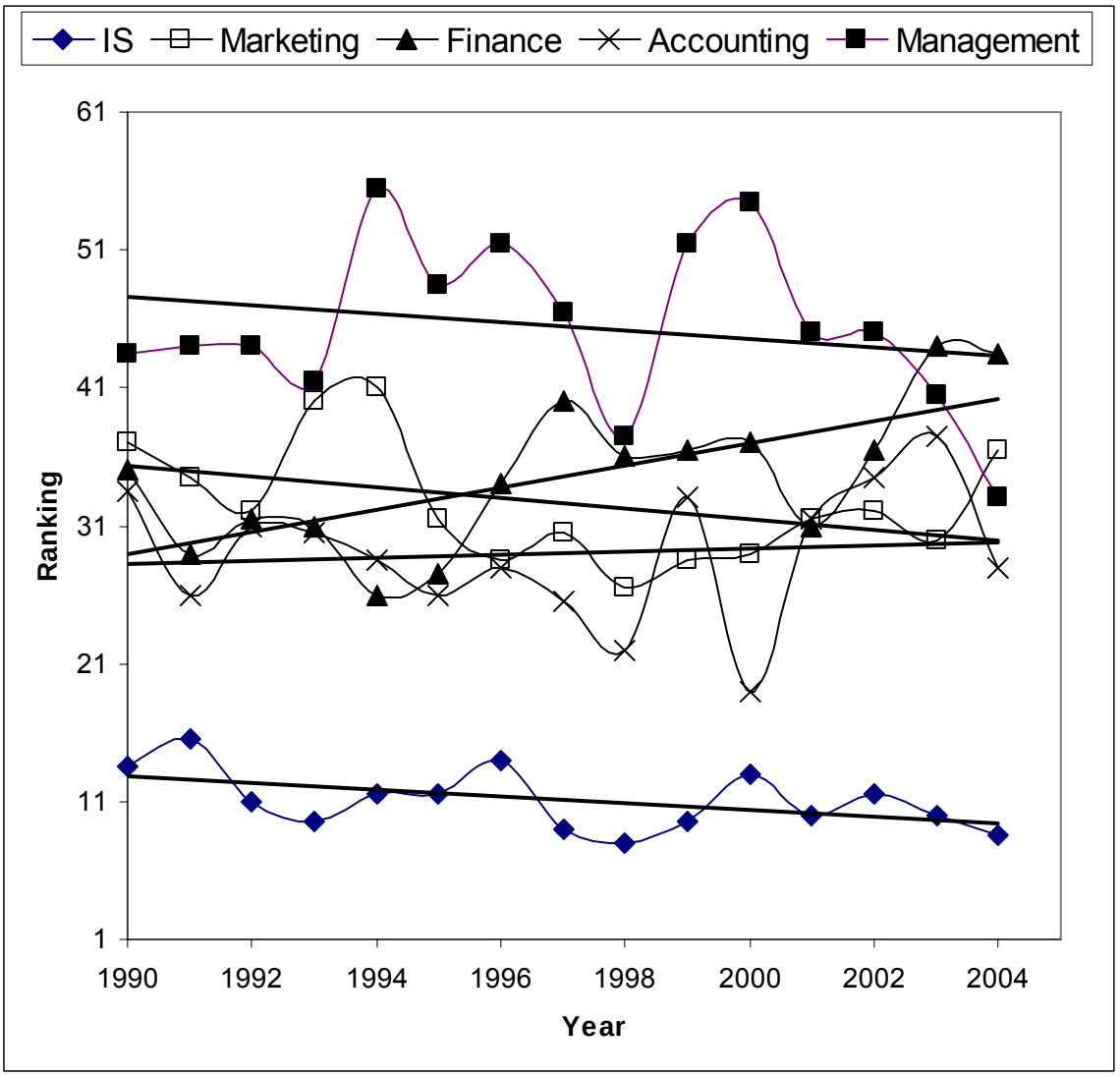

Figure 2. Disciplinary ranking for publishing one paper in the set of Trieschmann et al. (2000) journals

As may be deduced from Figure 2, one article per year in either *Information Systems Research (ISR)* or *MIS Quarterly (MISQ*) leads to an IS department ranking of 11.12 for the midpoint of the regression line and 9.40 in 2004. The number has been decreasing over time, with the 2004 year leading to an average ranking of 8.5 based on the publication of one article. The average impact

ranking of one article per year over the 15 year period and ranking for 2004 for the other fields were: Accounting (28.96, 29.75), Marketing (32.60, 29.89), Finance (34.56, 40.25), and Management (45.53, 43.36). During this period, individual articles in the Management A-journals had the lowest impact on department rankings for most of the period, with a recent contraction. At the same time, Finance articles have steadily decreased in individual value. In essence, publishing one paper in Finance during the year of 2004 had the lowest impact based on the journals in the Trieschmann et al. ranking.

Two conclusions are quite clear from this analysis. First, Trieschmann et al. [2000] should not be used as a justification for restricting the IS field to two A-journals based on fairness principles, because a single IS publication has the greatest impact by a factor of three or more. Second, IS is in a class of its own, with each article being much more heavily weighted than articles in the other primary business school disciplines.

The second stage of the analysis calls for assessment of fairness within three actual business schools by looking at the number of potential journal slots available in each discipline in relation to the number of faculty. Given an unlevel playing field, what is the extent of differences within actual business schools? If differences exist, tenure-track faculty within such schools will have been less likely to succeed during tenure reviews and are likely to have been considered less successful within their schools than justified by their records, thus unfairly denying IS a foothold at these schools.

While an examination of a small sample of business schools cannot conclusively prove a systemwide problem, consistency across the three schools could be considered suggestive of a systemwide problem, and provide incentive for administrators at schools with A-journal lists to examine the fairness of their own lists. To create a proxy for the difficulty of publishing in a specific department, the number of articles published in a department's A-journals in a given year was divided by the relative number of academics in the field. Such numbers can only be derived for each academic department in a specific school because A-journal lists vary among schools. Any department with a lower A-journal fraction will be at a disadvantage during schoolwide research productivity comparisons. Figures 3 through 5 show publication difficulty in each field using schools X through Z's A-journal lists. The numbers represent how many papers are published per 100 research faculty in a given field.

Figure 3 shows the status at School X, which counts only *ISR*, a daunting situation for IS faculty. Comparing the number of slots (papers) available in a given year for the field with the highest number of available papers, Finance, suggests that researchers in Finance had an average of 4.98 times more available articles than IS faculty at the midpoint of the data series (1997), as calculated by an examination of the regression formulas. In 2004 that multiplier was at 5.81, suggesting that the differences are increasing over time. It can be seen that while most fields are relatively stable, IS publication probability decreased somewhat over time, and Marketing increased its available outlets considerably in 2004, which is not yet reflected by the regression line.

Figure 4 shows the same data for School Y. At this school, which had the most liberal A-journal policy for IS faculty among the three schools analyzed – counting *MISQ, ISR,* and *JMIS* –IS started out being treated better than the Accounting field by a relatively solid margin (though worse than the other three fields), only to begin a decline down to Accounting's levels which were breached in 2002 in absolute numbers, and if the trend continues, the regression lines should also soon cross. Comparing the number of papers available in a given year for the field with the highest number of available papers, Management, suggests that at the midpoint of the regression lines, researchers in Management had an average of 2.15 times more publication opportunities than IS faculty. In 2004 that multiplier was at 2.76.

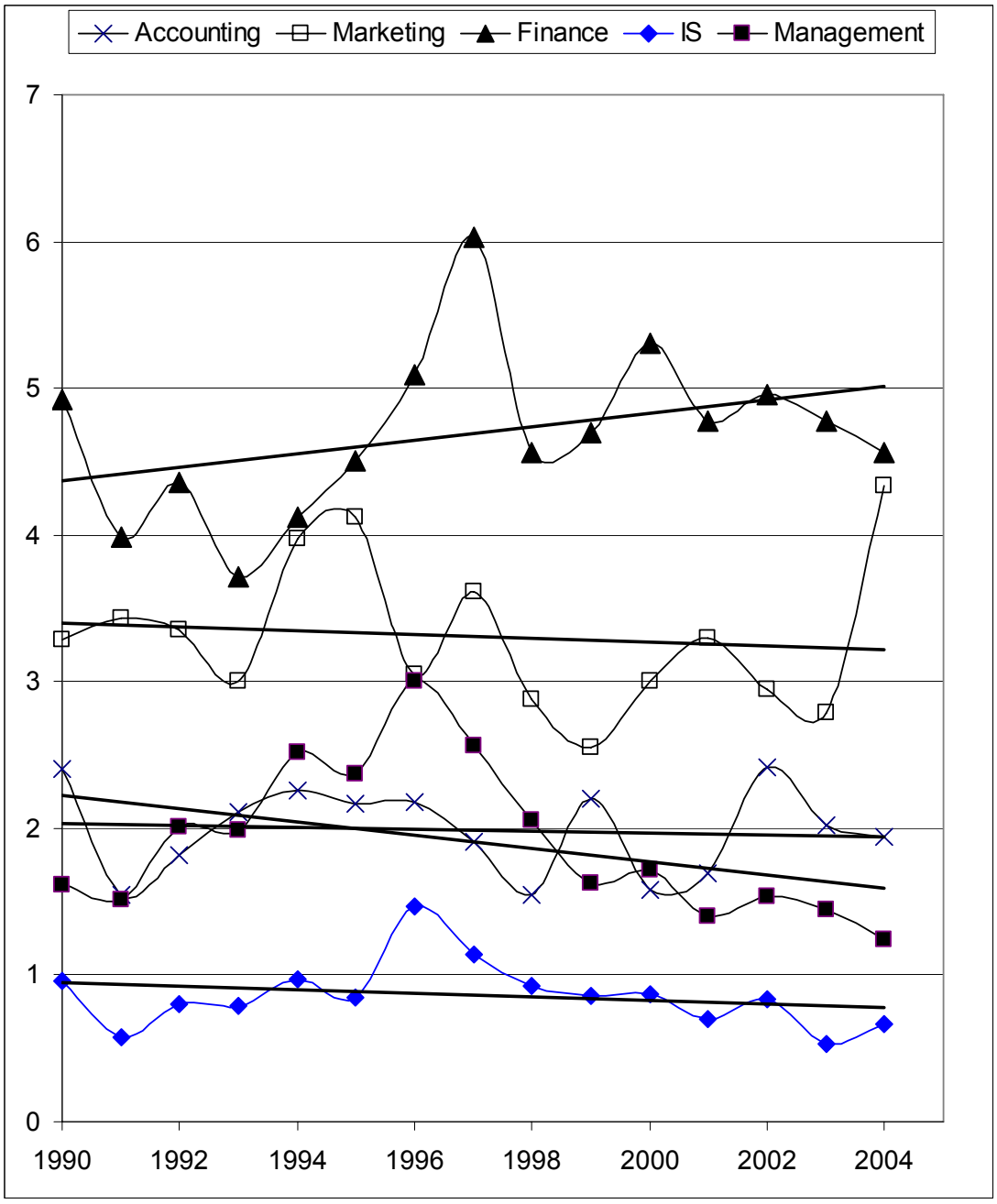

Figure 3. Slots available for each discipline per 100 researchers given School X's A-journal list

In Figure 5, School Z's A-journal list is examined. It included the same IS journals as in Trieschmann et al. [2000], i.e., *MISQ* and *ISR*. The trendlines show Accounting to be more difficult to publish in than IS until about 1994-1995, at which point the trendlines intersect, and IS becomes the hardest field in which to publish. IS's decline from the mid 1990's shows a decrease of publication opportunities to almost half the levels of 1996. Comparing the number of papers available in a given year for the field with the highest number of available papers — Management — suggests that researchers in Management had 5.40 times more publication opportunities than IS faculty at the midpoint of the analysis.

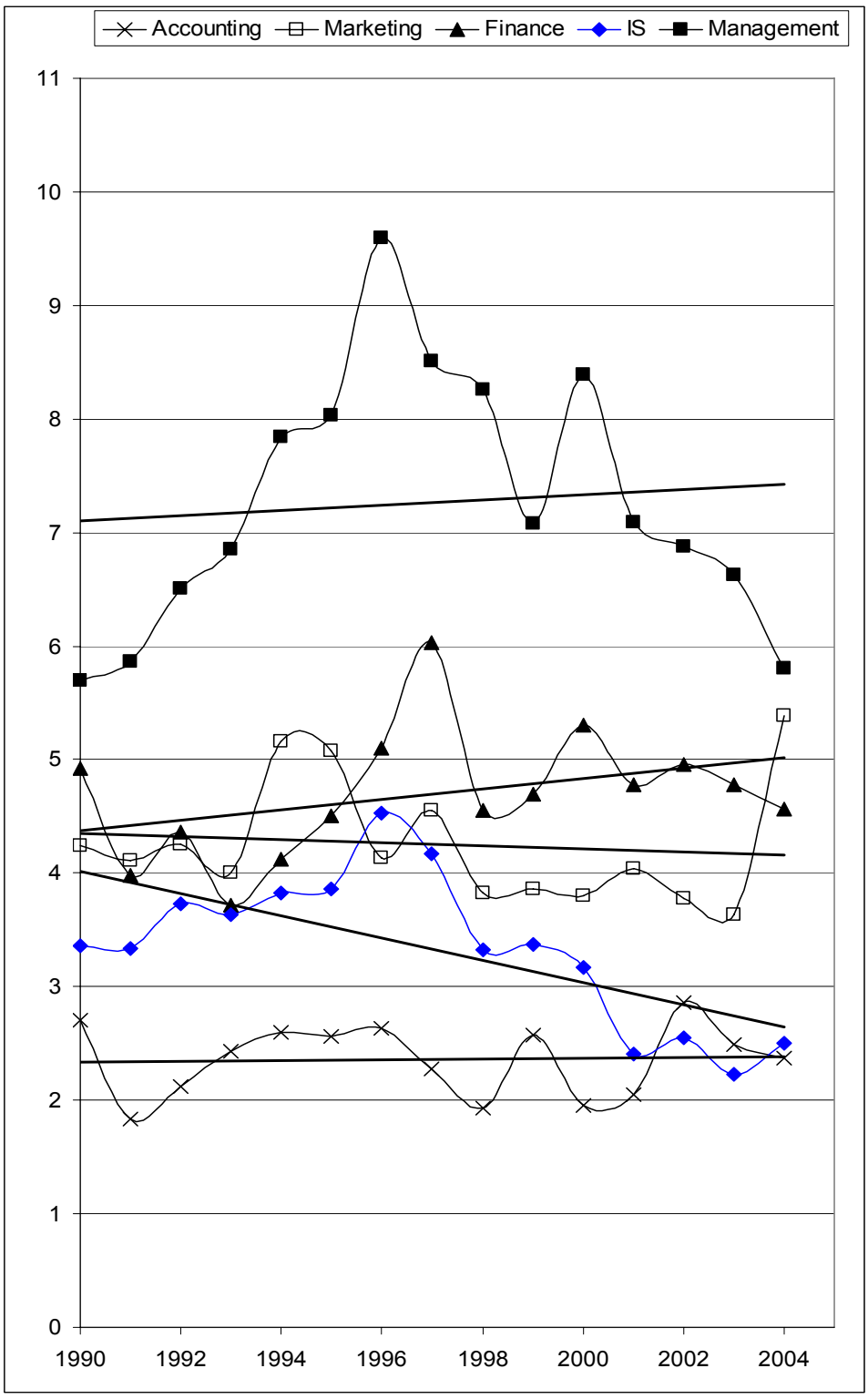

Figure 4. Slots available for each discipline per 100 researchers given School Y's A-journal list

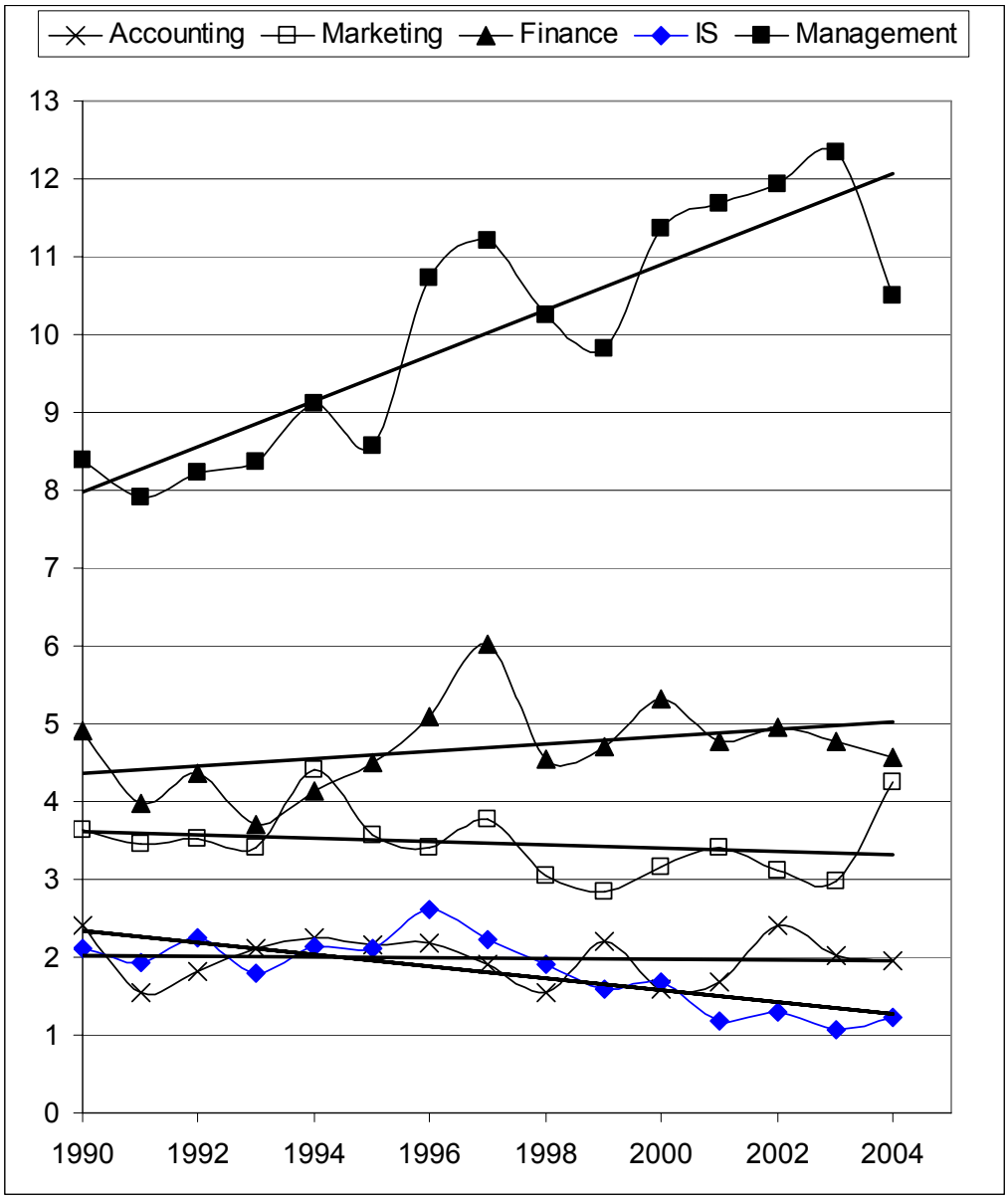

Figure 5. Slots available for each discipline per 100 researchers given School Z's A-journal list

In 2004 that multiplier was 9.16, suggesting that the differences have increased drastically over time. Reasons for the change in difficulty over time is that some of the journals increased or decreased the number of articles published per year and the number of faculty in the discipline changed.

Curiously, in all three schools, Marketing's numbers showed a high jump during the 2003-2004 period. The data were checked, and this jump was traced back to the fact that two outlets, the *Journal of Consumer Research* and *Marketing Science,* nearly doubled the number of articles they published. Conversely, the dip in Management output is based on a decrease in articles published in the recognized journals. Most important, however, is how IS fares at these schools.

Without exception, IS faculty are at a disadvantage against other fields. Any evaluation of IS faculty against faculty in other disciplines at these schools will likely lead to the perception that IS faculty are unproductive, and that faculty in the other disciplines are more deserving of rewards

such as salary increases and promotions. In fact, where an increase in publication availability of 10% must be said to be a major advantage, faculty in some departments at these three schools had advantages which at the midpoint ranged between 215% to 540%, and advantages that at the endpoint ranged between 276% and 916%, based on the journal lists shown in Table 1 and Figures 3-5. It should be remembered that the three schools were selected for inclusion in this study with no preconceived notion or knowledge of IS's status within the schools. These patterns are likely to repeat themselves in any school with or without an A-journal list unless the school counts many other IS journals beyond the top three.

Likely Consequences of an Unlevel Playing Field

Many business school administrators advocate using straight A-journal hits to allocate the often "fixed pie" of rewards among researchers in their schools, without considering that there may be greater opportunities to publish in some disciplines compared to others. The consequences of an unequal playing field are likely to affect individuals and the field in two major ways. First, a perception of low performance by IS faculty relative to the performance of other fields' faculty will lead resources to flow into those other fields at the expense of the IS field. Rewards include such categories as summer support, internal research grants, travel grants, etc. Second, such perceptions will limit IS faculty's career flexibility in terms of tenure, promotion to full professor, and ability to move between schools.

In addition to affecting personnel decisions, such as granting of tenure and promotion to full professor, decisions allowing programs to hire new faculty and at what level and salary to hire those faculty are also influenced. While it is beyond the scope of this article to examine the details of such processes, it is clear that almost all such processes are based on comparisons among academic departments. When going up for tenure or promotion, IS faculty are compared against the standards imposed on Management, Accounting, Marketing, and Finance colleagues at similar levels. Swanson [2004] suggested that:

> At many business schools, publication in highly ranked journals is the primary criterion for promotion and tenure, as well as a strong influence on salary, teaching load, and summer support. In making these decisions, especially the promotion and tenure decisions, administrators and faculty advisory committees compare publication records across business disciplines (p. 224).

These interdisciplinary comparisons can either be very subtle or very obvious. In one clear case, mid-tenure at a top-50 school was determined by a vote of all tenured faculty in the school regardless of academic department. This is an approach that, according to Swanson [2004], is in practice at several schools. For such an approach to be fair, the whole faculty must understand the nuances of publishing in all the fields. Supporting the belief that the faculty making the personnel decision did not have such an understanding, in that specific case, any faculty member without at least one A-journal paper accepted or published was terminated.

Because of the IS field's low A-journal article fraction relative to other departments, IS faculty performance is likely to be perceived as below expectations, in spite of the fact that one article in an IS A-journal will increase the ranking of the IS department many-fold compared to one article published in any of the other academic fields.

In the current environment, it is likely that IS faculty will be seen as not having met expectations. Because the perception of low productivity is often based on meeting expectations, the fields in which opportunities to publish are more limited will be at a disadvantage when rewards such as salaries, tenure, and new positions are decided. If such patterns are repeated across business schools, the job mobility of IS faculty also may be seriously hampered. Clearly, when the expectations from any of these other fields are applied to IS faculty without complete understanding of the realities of publishing in IS, IS departments are likely to suffer, and resources are likely to be allocated to other departments rather than IS.

Leveling the Playing Field

Clearly, it does not make sense for tenure evaluators to simply count A-journal articles when assistant professors are evaluated for tenure or when summer support decisions are made, since the average Marketing, Management, Accounting, or Finance faculty records should include a higher number of A-journal hits compared to that of an average IS faculty member. In most cases, productivity in other disciplines should be determined by a multiplier of *2 to 5.* Another way of understanding the implications of these findings is that, given the smaller number of journal pages available to IS faculty, the total record of A-journals needed for IS faculty should likely be adjusted by dividing the school standard by 2 to 5.

In that college-level promotion and tenure committees and other evaluators may not be willing to adjust the number of A-journals for IS faculty, in spite of this compelling evidence, what else can be done to level the playing field? RQ 3 asks what options for leveling the field are available to the IS discipline, and this is the next question to be addressed.

One obvious solution is to dramatically increase the number of journals generally perceived as A-journals in the field. For such long term solutions, professional organizations in IS, especially the Association of Information Systems (AIS), should study this problem and continue to advance the *Journal of the AIS* toward the goal being generally accepted as an A-journal. Fortunately, the *Journal of Management Information Systems* is already accepted as an A-journal at many top schools, and IS scholars should be working to expand the list of schools that count this journal as equivalent to top journals in other fields, thereby approaching the judgment of the top-25 business schools examined in this sample.

Another approach most likely to succeed is to increase the number of articles being published in *MISQ* and *ISR*. Such an approach may be the only short term hope for equity for the IS field. The important question revolves around the necessary size of such an increase. Two different approaches could give this answer: (1) what multiplier would have to be applied to the IS field's regression line to allow it to intersect with the regression line from the most "favored" field at the midpoint (1997) and the endpoint (2004) of the analysis (Figure 2)? and (2) how many more papers would the IS field have to publish before the IS field proportion of A-journal articles per researcher is in line with the same number for the other four fields?

Approach (1) turns out to suggest that at the midpoint of the analysis, the multiplier required to bring the IS field regression line up to the management field regression line is 2.93, and at the endpoint that multiplier was 3.18. These results indicate that while each individual paper in Management is increasing in terms of influence on ranking, the same number is increasing faster in the IS field, suggesting that publishing is becoming even harder in the IS field. Approach (2) could be accomplished with an examination of the three top schools examined earlier, and comparing the IS departments to the mean scores for the other four departments for 2004. This analysis suggests that for one of these schools, their selected A-journals would have to increase their publication volume by a factor of 1.8, whereas at the other schools the volume would have to be increased by a factor of 4.3 and 4.52. From the data, it seems clear that the minimum start to correcting the imbalance is to *triple* the available articles in *MISQ* and *ISR*.[2]

While it seems patently obvious that the number of papers published in *MISQ* and *ISR* must be increased, such a move would only affect the detrimental effect of an unlevel playing field (see also Dennis et al. [2006] who reach similar conclusions). That is, the past effects of the unlevel playing field will not automatically go away. In other words, while the radical step of tripling the

[2] Universal acceptance of *JMIS* and *JAIS* as "A" journals will obviously ameliorate the situation as would increasing the number of articles in *JMIS* and *JAIS*. We focus on *MISQ* and *ISR* in that these are the only two journals that Trieschman et al. considered.

publication opportunities in *MISQ* and *ISR* will not in itself level the field, righting the field without taking care of this problem will be impossible.

Other solutions include communicating to school administrators that an A-journal article in the IS field should be rewarded above the level of an A-journal article published in a field with more outlet opportunities. Until the field can change this dynamic, administrators need to be informed about the above realities. A continuously updated website that provides information on which A-journals their different disciplines work toward, as well as the relative values of published articles, should go a long way toward helping IS.

V. CONCLUSIONS

U.S. business school deans and other evaluators are burdened with a system that has built-in inequities with respect to research productivity. Unfortunately, the patterns uncovered in this study may only be the tip of the iceberg. Deans who focus on rankings may be especially interested in the rankings provided by business magazines and newspapers. For example, the *Financial Times* (FT) ranking simply examines the affiliation of researchers publishing articles in a set of 40 top journals. Interestingly, in spite of FT doubling the total journal set over that suggested by Trieschmann et al. [2000], they count only *MISQ* and *ISR* from the IS field. Deans focusing on such rankings may not be aware that Management, for example, has 19 academic and practitioner journals on the list. For the purposes of the FT ranking of research productivity, any one of about 1,000 articles published in these Management journals in 2004 will count as much as one of the 37 IS articles published in 2004. Given these odds, with about 27 articles in Management to each article in IS, what will happen to IS departments? While IS can never hope to be afforded this kind of influence, enactment of some of the proposals advocated in this paper would bring the IS field influence in line with some of the other academic fields.

This study cannot conclude whether Lyytinen and King [2004] were correct or not in suggesting that other fields may engage in conscious efforts to deny IS faculty promotions. However, it is quite evident that all business school IS programs living with an A-journal list should examine the fairness of this list in the same manner as this study. Such examinations are likely to find IS departments to be at a serious disadvantage when compared to other departments.

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