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Why Is the *Journal of Agricultural & Applied Economics* Not in the Major Citation Indices and Does It Really Matter?

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Why is it that we care about citation indices? Like proverbial silverback gorillas, we beat our chests at every change in our "h-index" or grunt loudly at every e-mail alert of a new citation to our papers. What does it all really mean though? Is there some deeper significance to a citation index? Does having a journal in the index enhance its own or sponsoring association's reputation? Inquiring minds want to know.

In reality, some administrators pay attention to citations and papers in indexed journals for promotion and tenure processes. At some level, having others recognize our work and use it is the only real reward we get for our efforts in research. Some may argue that indices are self-perpetuating. An author only cites articles that are already in indices and, thus, journals that are not in indices do not receive attention and are then never included in future editions of the index. Others argue that they are the definitive and final authority on journal, article, and scientist quality.

The simple fact at this point is that the *Journal of Agricultural and Applied Economics* (hereafter referred to as the *Journal*) is not included in either the *Journal Citation Reports* (*JCR*) published by Thomas Reuters or *Scopus* published by Elsevier. Two relevant questions for our association are: 1) Why is the *Journal* not included in these indices? (2) Does it really matter that we are not? In this article, we examine the possible reasons for our previously rejected applications to be indexed with available data from the *Journal* and other journals. Ultimately, we will offer our own answer to the question of whether indexing really matters to the *Journal* and to the Southern Agricultural Economics Association.

An Overview of the Major Citation Indices

The *JCR* published by Thomas Reuters is considered by most to be the leading index for journal rankings. Reuters claims that it: "Offers a systematic, objective means to critically evaluate the world's leading journals, with quantifiable, statistical information based on citation data. By compiling articles' cited references, *JCR* helps to measure research influence and impact at the journal and category levels, and shows the relationship between citing and cited journals" (Reuters, 2013).

There are two versions of the report: A Science Edition and a Social Science Edition. Both are relevant for the *Journal* because agricultural economics journals can be listed either in the Agricultural Economics category of the Science Edition or the Economics category of the Social Science Edition. The *Journal* is excluded from both editions of the *JCR*.

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Another source of journal ranking is *Scopus*. Owned by Elsevier, it claims to be "the largest abstract and citation database of peer-reviewed literature" (Elsevier, 2013). As far as we can tell, *Scopus* indexes all of what we would consider the major and other relevant journals of our profession except for the *Journal*.[1]

RePEc (Research Papers in Economics) also indexes economics journals as well as other series such as departmental working papers and proceedings. It claims to be: "[A] collaborative effort of hundreds of volunteers in 75 countries to enhance the dissemination of research in economics and related sciences. The heart of the project is a decentralized bibliographic database of working papers, journal articles, books, book chapters, and software components, all maintained by volunteers... So far, over 1400 archives from 75 countries have contributed about 1.2 million research pieces from 1500 journals and 3300 working paper series" (Research Papers in Economics, 2013).

In contrast to Thomas Reuters and Elsevier, RePEc indexes the *Journal*. There are other indices and rankings out there, but these three are probably the most relevant to our profession. Although each index offers its own ranking system, the most commonly referred to index is the impact factor used by Thomas Reuters. Although much mystique seems to surround these impact factors, they are simply the ratio of the sum of citations during a given time period over the sum of articles published during that same time period.[2]

Although rankings are becoming increasingly important in terms of evaluating journals and the authors who write for them, these rankings are not necessarily consistent with the perceived reputation of journals among professionals. Burton, Lusk, and Rigby (2012), for example, conducted a survey of members of the major economics and applied economics associations (but did not include the Southern Agricultural Economics Association) and compared perceived reputation of journals for career advancement vs. impact factors and found that many journals diverge in terms of these two indicators. Only three of the journals evaluated fell into the "high ranking/high impact factor": *Science, Review of Economics & Statistics,* and the *Journal of Environmental Economics & Management* (*JEEM*). The *American Journal of Agricultural Economics* (*AJAE*) fell into the "high ranking/low impact factor" category, and the *Journal of Agricultural & Resource Economics* (*JARE*) fell into the "low ranking/low impact factor" category.

Review of the Literature

In the Burton, Lusk, and Rigby (2012) study cited earlier, 58% of their sample resided in North America and 63% of the sample worked in either an agricultural economics or environmental/natural-resource economics department, yet the *Journal* was excluded from the list of 22 journals evaluated. Similarly, Herrmann et al. (2011) conducted a ranking and classification of 160 agricultural economics journals and the *Journal* was not among that 160.

Detre et al. (2011) conducted an international survey of agricultural economists, focused on agribusiness and extension faculty. The *Journal* ranked fourth behind the *Journal of Agribusiness* (*JOA*), the *International Food and Agribusiness Management Review* (*IFAMR*), and the *AJAE* among those journals in which agribusiness faculty typically publish. When limited to those faculty in departments that require publication in specific journals, however, the *Journal* ranked third behind the *AJAE* and *IFAMR*. In response to the question of journals agribusiness faculty want to publish their work in, the *Journal* ranked fourth behind the *AJAE, IFAMR*, and *JOA*. The *Journal* did receive two first-place votes, four second-place votes, and six third-place votes to this last question.

[1] The *Journal* was included in the *Scopus* index in 1995 only and was mysteriously classified in Physical Sciences, Earth and Planetary Sciences, and Environmental Sciences.

[2] For example, the *American Economic Review* has a 5-year impact factor of 4.076. This is calculated using the ratio of a total of 3933 citations during the years 2006–2010 over a total of 965 articles published during those years: 3933/965 = 4.076. The typical time periods used are two and five years, which are the two time periods reported by Thomas Reuters in the *JCR*.

Lusk and Hudson (2009) focused on the *AJAE, JEEM, JARE,* and the *Review of Agricultural Economics* (*RAE*) to analyze the flow of new and rejected submissions from one journal to another. They found that the *Journal* seems to be an outlet where authors send articles the first time (as a result of higher acceptance rates), whereas the *JARE* is a "step-down" journal for the *AJAE*. Their other findings are best summarized by quoting the authors directly: "Results reveal that the *AJAE* is the most preferred journal in the sample. The least preferred journal in the entire sample of respondents is the *JAAE*" (p. 704). "People employed in an economics department do not find the *JAAE* or *RAE* to be remotely desirable" (p. 705). Findings are a bit more promising among those employed by government agencies: "The *AJAE*, *JAAE*, *JEEM*, and *RAE* each have share estimates of around 15% for those employed in government agencies. The *JARE* is relatively unattractive to government employees" (p. 707).

Zhang (2007) conducted a citation analysis of the number of times a journal was cited in the *AJAE* or the *JARE* during the 2001–2005 period. Although the *Journal* was not the most heavily cited of the sample, it was tied with or ahead of some well-recognized journals in the profession such as *Agricultural Economics, Environmental and Resource Economics,* and the *Canadian Journal of Agricultural Economics*.

Data and Analysis

Impact factors are not the only measure of journal quality. So in addition to impact factor data from the *JCR* and RePEc, we collected data on the number of *AgEcon Search* downloads by journal (*AgEcon Search* is the host site for the *Journal's* online collection) as well as number of manuscripts handled annually, review turnaround times, and acceptance rates taken from annual journal editor reports. To provide some direct comparison, we chose the *JARE* as the best peer journal because it is also the publication of a regional agricultural economics association (the Western Agricultural Economics Association) and has its online collection housed at *AgEcon Search*. In contrast to the *Journal*, the *JARE* is indexed both by the *JCR* and *Scopus*.

Figure 1 shows data on the total number of manuscripts handled (here, we are not differentiating among new, revised, and resubmitted manuscripts). On average, the *JARE* handled

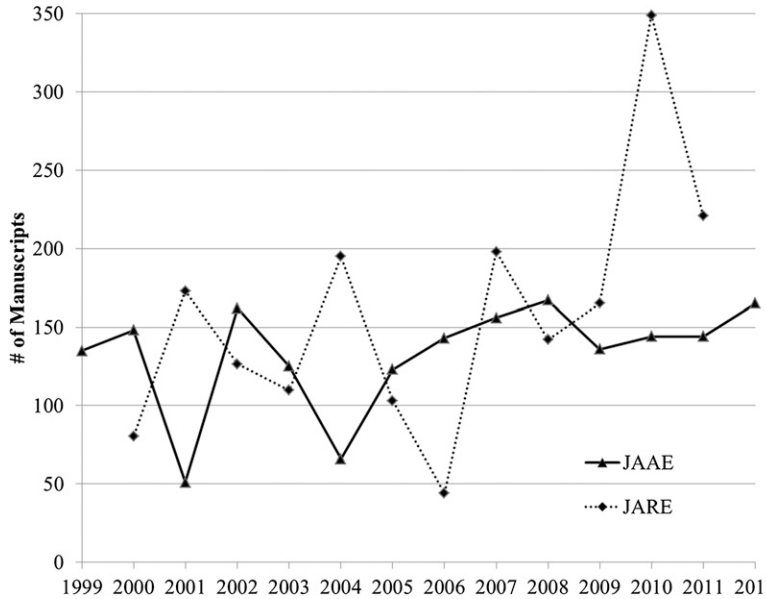

Figure 1. Total Manuscripts Handled for the *Journal of Agricultural & Applied Economics* (*JAAE*) and the *Journal of Agricultural & Resource Economics* (*JARE*) during 1999–2012

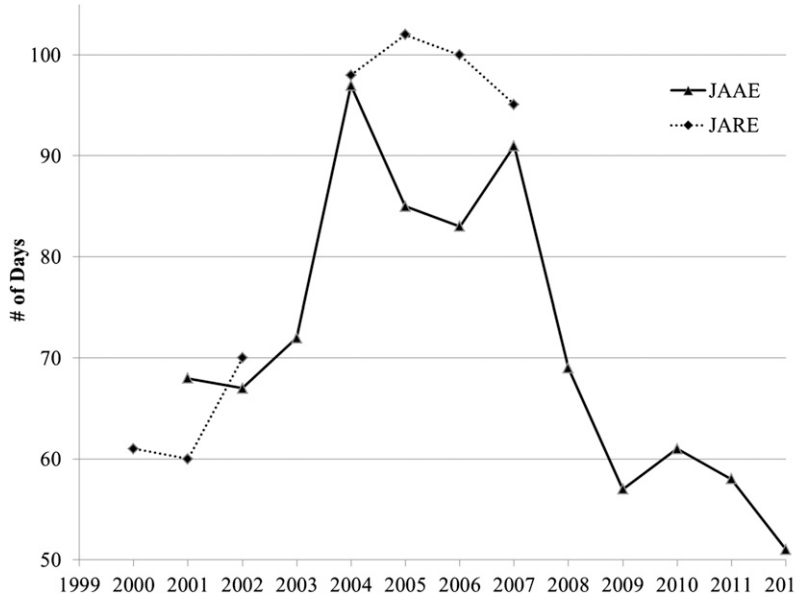

Figure 2. Average Number of Days from Submission to Decision for the *Journal of Agricultural & Applied Economics* (*JAAE*) and the *Journal of Agricultural & Resource Economics* (*JARE*), 1999–2012

approximately 160 manuscripts per year, whereas the *Journal* handled approximately 120 manuscripts per year, but the *JARE* number was much more volatile and heavily influenced by the large number (349) in one year. From these data, we can conclude that the two journals are comparable in terms of total throughput of manuscripts.

Another element of interest to both authors and indexing firms is the number of days from submission to decision. Figure 2 shows the *Journal* vs. *JARE* comparison (where *JARE* data were available). Clearly, both journals saw a spike in days in review early in the period. Although data for the *JARE* are not available in the latter years, the *Journal* saw a nearly 70% drop in review time as editors made a concerted effort to address this issue.

The relationship between handled manuscripts and acceptance rates might also indicate something about the rigors of the review process. Figure 3 shows the available data for the *JARE*. As one might expect, there is an inverse relationship between manuscripts handled and acceptance rate (correlation coefficient = −0.65). However, as Figure 4 shows, the *Journal* exhibits almost the exact opposite relationship (correlation coefficient = 0.63). This result may be at least partially explained by the fact that the *Journal* expanded from two to three issues in 1999 and expanded again from three to four issues in 2010 and thus may have faced excess demand. Alternatively, it may be partially explained by the relatively low percentage of revise-and-resubmit articles comprising the total number of manuscripts handled in the earlier years (as shown in Figure 4). Whatever the case, the relationship has changed in recent years (correlation over the past five years declined to 0.48).

Switching over to a measure of accessibility of articles, Figure 5 shows the monthly downloads of papers for the *Journal* and six other comparable journals (including the *JARE*) that are housed in *AgEcon Search*.[3] This, of course, is not a hard measure of impact but

[3] This includes the *JARE, IFAMR, JOA,* the *Journal of the Food Distribution Research Society* (*JFDRS*), *Marine Resource Economics* (*MRE*), and the *Agricultural and Resource Economics Review* (*ARER*). *AgEcon Search* is a free, open-access repository of full-text scholarly literature in agricultural and applied economics, including working papers, conference papers, and journal articles. It is sponsored and hosted by the Department of Applied Economics at the University of Minnesota.

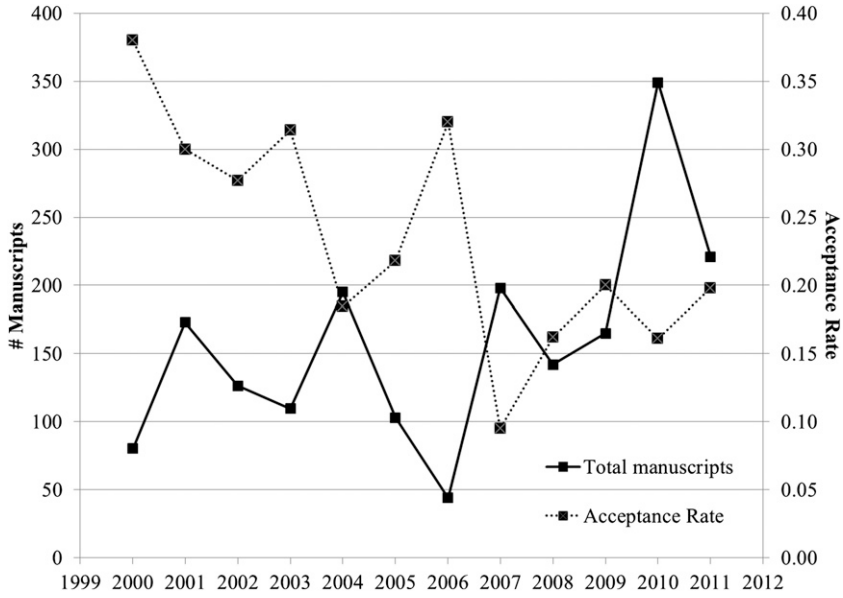

Figure 3. Relationship between Total Manuscripts Handled and Acceptance Rate, *Journal of Agricultural & Resource Economics* (*JARE*), 1999–2011

does provide some perspective on which journals (and their articles) are receiving immediate attention. Here, the *Journal* compared favorably with other journals that are already in the *JCR* (which, in this set, includes the *JARE, Marine Resource Economics* [*MRE*], and *IFAMR*).

Finally, Table 1 shows the comparative rankings of economics/agricultural economics journals by two sources: 1) the discounted impact factors reported by RePEc; and 2) the 5-year average impact factors from the Economics category of the *JCR* Social Science Edition.[4] Of course, journal quality is subjective, but the journals at the top of the list are generally considered those of higher quality. What is interesting, however, is that the *Journal* appears consistent in terms of impact with other journals that are already indexed in the *JCR*. It should be noted that those journals whose online collection is housed in *AgEcon Search* tend to fall toward the bottom in terms of impact factor.

Discussion

The available data appear to send mixed signals regarding the quality of the *Journal*. It is comparable in size, scope, issues, and manuscripts handled with the *JARE* but appears to be lagging in terms of impact factors and other measures of quality. Specifically, the subjective indicators are inconsistent with the goal of a high-quality journal: surveys of journal quality tend to rank the *Journal* toward the bottom when reviewing authors even include the *Journal* in the survey. This latter point is troubling because it suggests that our colleagues view the *Journal* poorly enough to not even consider it in a review. In terms of objective indicators, where the *Journal* is indexed (RePEc), its impact factor is consistent with some other agricultural economics journals but lower than what we likely view as our peers (e.g., the *Journal of Agricultural and Resource Economics*), which seems to indicate that researchers are finding and downloading articles from the *Journal* but are not citing them.

[4] We chose the discounted RePEc impact factor over the simple impact factor simply because the discounted values tended to be of similar scale to the *JCR* impact factors. However, the differences in the discounted and simple factors, in terms of relative ranking, are minor.

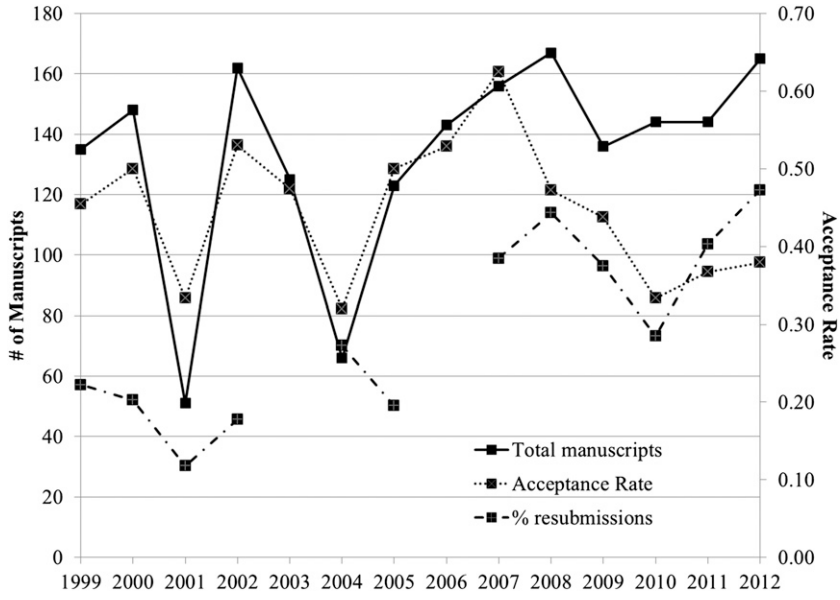

Figure 4. Relationship between Total Manuscripts Handled and Acceptance Rate for the *Journal of Agricultural & Applied Economics* (*JAAE*), 1999–2012

Moving Forward

Much has been done in recent years to improve the reputation and efficiency of the *Journal* with the goal of getting it "up to speed" for consideration by Thomas Reuters, Elsevier, and others for indexing. As noted earlier, the *Journal* expanded from three to four issues in 2010, acceptance rates have declined, and review turnaround times have improved dramatically. The diversity of the editorial board has improved both in terms of gender and international reputation. The posting of current issues to *AgEcon Search* is now up to date.

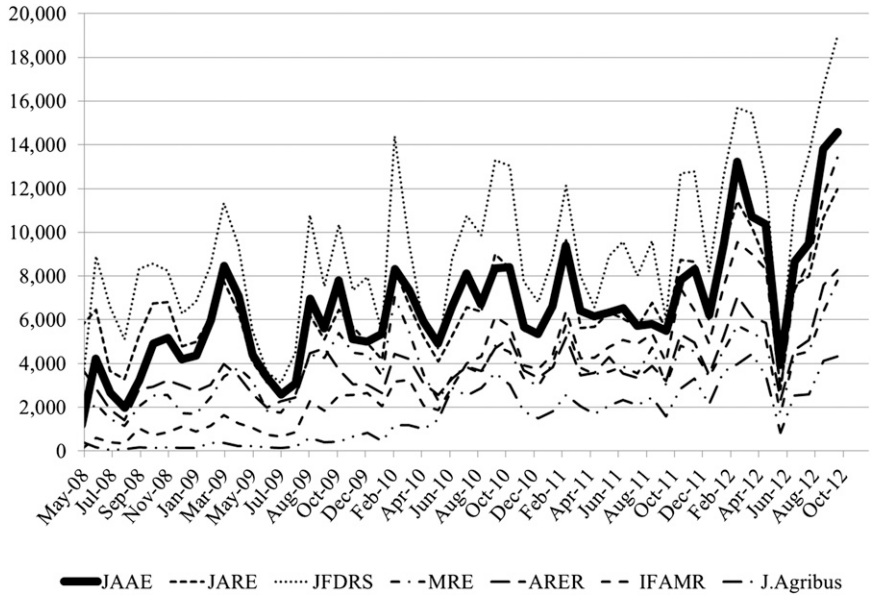

Figure 5. Monthly Downloads of Papers on *AgEcon Search*

Table 1. Relative Rankings of Journals using the *JCR* Social Science Edition (Economics) and the RePEc Online Indices

	RePEc	*JCR*
	Discounted	5-year Average
Quarterly Journal of Economics	10.51	8.18
Journal of Economic Literature	9.90	9.43
Econometrica	8.85	4.70
American Economic Review	4.84	4.08
AEJ: Applied Economics	3.37	2.81
Journal of Environmental Economics & Management	2.52	3.06
Journal of Risk and Uncertainty	2.31	2.22
Journal of Economic Behavior & Organization	1.40	1.44
American Journal of Agricultural Economics	1.29	1.57
Environmental & Resource Economics	1.25	1.71
Resource & Energy Economics	0.97	1.56
Land Economics	0.95	1.80
Agricultural Economics	0.84	1.25
Journal of Agricultural Economics	0.81	1.80
*Journal of Agricultural & Resource Economics**	0.72	0.80
Applied Economics	0.64	0.77
Applied Economic Perspectives & Policy	0.52	1.55
*Agricultural & Resource Economics Review**	0.38	
*Journal of Agricultural & Applied Economics**	0.37	
*Marine Resource Economics**	0.34	*1.08*
Agribusiness	0.27	0.67
*International Food & Agribusiness Management Review**	0.19	0.28
*Journal of Agribusiness**	0.12	
Canadian Journal of Agricultural Economics	0.11	1.10
*Journal of the Food Distribution Research Society**	0.07	

*Indicates journals whose online collection is housed in *AgEcon Search*.
JCR, Journal Citation Reports.

A contract with EBSCO indexing has been initiated to have the *Journal* indexed in this domain. An application for indexing in *Scopus* is currently pending. Finally, a major overhaul of the association and *Journal* web site is coming soon.

The next big decision for the association is whether to renew the current contracts with Sheridan and Dartmouth Journals, which expire in 2014, or to seek out a new publisher. It appears that the editors have been very pleased with Sheridan and Dartmouth Journals but they offer no online/marketing services. An alternative is to consider a publisher that offers such services, thus relieving the association of the burden of marketing and having to design and maintain the *Journal's* web site.

The issue of "bundling" plays a role here. Signing on with one of the large publishing houses such as Oxford or Elsevier may provide negotiating power to the *Journal* that may facilitate the indexing process but may come at a significant cost in terms of reduced revenue and/or giving up ownership of the *Journal's* content and/or brand name.

Conclusions: So Does It Really Matter?

We argue emphatically yes. Whether we like it or not, journals, articles, and the people who write the articles are judged, at least in part, by citation indices and ranks. The role that the major indices play is clearly to the benefit of our authors in terms of exposure for their work and potential for promotion and tenure decisions. Will this be the case in the long term? Who knows? Right now, however, it matters, and we argue that we do a disservice to our

association's members by not doing everything in our power to elevate the status of the *Journal*.[5]

A reasonable question to ask, based on the impact factor comparison in the previous section, is whether not being indexed at all is better than being indexed with a potentially low impact factor (at least in the short run). Our own opinion is no. We argue that being ranked low is bad, but not being ranked at all is even worse. We speculate that improving the *Journal's* reputation will be very challenging as long as the journal is not in the index.[6]

As to why the *Journal* is not included in the major citation indices, the answer seems to be varied and complex. One is tempted to say that quality is the primary issue. Clearly, we have a lower impact factor than other major regional journals, but we also have a higher impact factor according to RePEc as compared with several journals already being indexed. The danger of using impact factors as a quality measurement is that they are somewhat of a self-fulfilling prophecy. If a journal is not indexed, its papers are often overlooked for citations, and with few citations, the impact factor is low (which further contributes to the evidence that a journal should not be indexed).

In closing, the editors of the *Journal* have now applied three times for indexing in the *JCR,* most recently in 2010. Whether the *Journal* ultimately gets indexed or not, the process has forced the association to make much-needed improvements to the *Journal*. Ultimately, we have no control over what Thomas Reuters or Elsevier does, but we can work to make the *Journal* as good as it possibly can be by focusing on those things we can control. As we attempt to make improvements, we need to focus on the big issues. However, perhaps most importantly, if we focus on those changes that are most likely to get the *Journal* indexed, it will also greatly improve its general quality, which can only benefit the members of the association as well as past, present, and future authors who contribute to the *Journal*.

[5] It was noted by an audience member during the presentation of this paper at the 2013 SAEA Annual Meeting that perhaps the aims of the *Journal* are different than those journals indexed in the major indices. Although we sympathize with this view, the fact is that the *Journal* currently publishes research articles only, which are exactly what the major indices endeavor to evaluate. Were the SAEA to see fit to alter the aims and scope of the *Journal* to publish, say, teaching and extension publications (similar to what the *Review of Agricultural Economics* did before its restructuring and renaming), then it would be clear how the aims of the *Journal* may run counter to these indices, but at this time, we do not believe this to be the case.

[6] Another aspect of this is that, for researchers at universities that subscribe to the Web of Science (Thomas Reuters) or *Scopus* as primary databases for the purposes of literature searches, the *Journal's* articles will not be found not because of the index issue *per se,* but rather because the *Journal* is not included in these key databases.

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