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AJAE EDITORSHIP LOCATION AND
REGIONAL DISTRIBUTION OF AUTHORS: 1944-89

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Research

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AJAE EDITORSHIP LOCATION AND
REGIONAL DISTRIBUTION OF AUTHORS: 1944-89

Abstract

Relationships between editorship location and regional distribution of authors in the *AJAE* are examined for 15 editorship changes from 1944-1989. Mann-Whitney U tests of changes in citations were conducted. Results indicate that editorship location had short-term effects on the regional distribution of authors. Implications for editorial policies were discussed.

AJAE EDITORSHIP LOCATION AND
REGIONAL DISTRIBUTION OF AUTHORS: 1944-89

Academic agricultural economists are sensitive to matters of professional performance and the promotion process. Published articles in refereed economic journals are viewed by many as the single most important criteria for salary increases and promotion. Considerable weight is given to national journals from one's own discipline or subject-matter area. University promotion committees generally view publishing in national journals as evidence of national prominence and seldom question the factors influencing article acceptance.

The importance of editorial neutrality is evident. Many believe that some journals accept or reject manuscripts based on quality alone, with the journal review process being neutral in the process. This study examines the assumption of regional neutrality associated with the *American Journal of Agricultural Economics (AJAE)*. Specifically, this study hypothesized that acceptance in the AJAE is partially a function of editorship location. The objective of this study is to determine whether changes in editorship location are accompanied by statistically significant changes in the regional distribution of authors in the AJAE.

Previous Studies

Contributions to the *AJAE* have been examined in previous studies. Arnold and Barlowe examined articles in the *Journal of Farm Economics* (now the *AJAE*) by classifying contributions according to subject matter, institutional affiliation, author, and article type. Redman examined the geographic distribution of the American Agricultural

Economics Association membership and *Journal* authorship. Holland and Redman updated the results of Arnold and Barlowe classifying the institutional affiliation of authors appearing in the *AJAE* for the period 1953-1972. Studies by Finley and later Opaluch and Just attempted to rank institutions by contributions to the *AJEA* on the basis of productivity per department member.

Although the institutional affiliation of authors in the *AJAE* has been the focus of numerous studies, few have examined the issue of editorship neutrality and the editorship selection process. Ziemer and Stamoulis examined the relationship between editorship location and authorship affiliation in the *AJAE* for the period 1944-1978. Non-parametric test results indicated that changes in editorship were accompanied by significant changes in the distribution of authorship affiliation. The current study will extend the analysis of Ziemer and Stamoulis to include editorship changes since 1978. With a longer time period, this study will examine both the short and long-term effects of editorship location on the regional distribution of authors.

The literature on factors contributing to academic advancement is extensive. Katz found that department chairpersons and heads could easily evaluate research ability by examining the quality of journals in which articles appeared. He determined that research ability, publication record, and national reputation were the most important factors influencing salary and promotion decisions. Siegfried and White found that research and publications were the most important determinants of salaries at the University of Wisconsin. Their study reported a per article increase in salary of \$392 per year for articles published in national journals, and a per article increase in salary of \$345 per year for articles published in regional or specialty journals.

Ferber measured productivity by publications, papers read at meetings, honors, and highest degree earned. Of the variables indicating productivity, highest degree earned and professional honors received were significant contributors to academic salary. A study by Tuckman and Leahey identified several types of monetary returns realized by faculty. First, many departments provide direct salary increments to those who publish. Second, in many departments faculty must publish to gain promotion to a higher rank which is accompanied by a higher salary. Third, higher earnings may be realized if future career options are affected by publications. This would be the case if, for example, a faculty member must publish to become a department chairman or dean. Finally, faculty mobility is increased through publication which can affect salary and the number of job offers received.

Determinants of agricultural economics faculty salaries were examined by Broder and Ziemer. Their findings indicate that a published article in the *AJAE* yielded an estimated increase in annual salary of \$184 (1979 dollars). Salary increments to *AJAE* publications tended to be higher for faculty who published in the *AJAE* on a regular basis. For example, faculty who succeed in publishing in the *AJAE* every four years would realize an annual salary increment of \$369 (1979 dollars).

These studies illustrate the importance of publishing for academic advancement. While research quality should be a primary factor in article acceptance, it is suspected that other factors may influence the review process. When factors other than research quality enter into the review process, use of national journal articles as a measure of research excellence must be qualified. The influence of editorship changes on the *AJAE's* review process is viewed as a non-quality factor.

Methods

The time period selected for studying editorship effects of the *AJAE* was based on two factors. First, the period had to be long enough to observe a large number of different editorship locations. Second the period had to be short enough to maintain interest and relevancy to the present situation. Thus the period 1944 through 1989 was examined for regional neutrality. During this period 15 editorship changes occurred.

Editorships were tested for significant differences in the distribution of authors by regions. Authors affiliated with U.S. educational institutions were separated into five regions (Peck and Babb): 1) Northeast; Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; 2) South; Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia; 3) North Central; Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin; 4) Mountains, Plains and Southwest; Arizona, Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming; and 5) Pacific; Alaska, California, Hawaii, Nevada, Oregon, and Washington. Editorship locations during the study period are listed in Table 1.

Issues 1-4 of the journal during the study period represented an observation in the analysis. Because the contents of the annual proceedings issue (issue number 5) is not determined by the editor, this issue was excluded from the analysis. For each issue, the percentage of "Pages" and the percentage of "Articles & Notes" by regional affiliation of authors were determined. Mean percentages were obtained for each contribution classification, "Pages" and "Articles & Notes." Mean percentage of "Pages" and

Table 1. Editorship Location of the *American Journal of Agricultural Economics*^a, 1944-1989.

Code	Location	Region	Period ^b
I	Minnesota	North Central	Aug. 1944 - Feb. 1949
II	Wisconsin	North Central	May 1949 - Dec. 1951
III	Michigan	North Central	Feb. 1952 - Dec. 1954
IV	Connecticut	Northeast	Feb. 1955 - Dec. 1957
V	Wisconsin	North Central	Feb. 1958 - Aug. 1959
VI	Pennsylvania	Northeast	Nov. 1959 - Aug. 1962
VII	Michigan	North Central	Nov. 1962 - Aug. 1965
VIII	Illinois	North Central	Nov. 1965 - Dec. 1968
IX	California	Pacific	Feb. 1969 - Dec. 1971
X	Florida	South	Feb. 1972 - Dec. 1974
XI	New York	Northeast	Feb. 1975 - Dec. 1977
XII	Missouri	North Central	Feb. 1978 - Dec. 1980
XIII	Minnesota	North Central	Feb. 1981 - Dec. 1983
XIV	California	Pacific	Feb. 1984 - Dec. 1986
XV	Illinois	North Central	Feb. 1987 - Dec. 1989

^a Formerly Journal of Farm Economics

^b By issue of the Journal

"Articles & Notes" were used (instead of mean number) because of the variability in the number of pages, articles, and notes across issues, volumes, and editors. Editorships returning to, or remaining in, the same region were considered separate and unrelated.

The null hypothesis can be stated as follows: the regional distribution of authors appearing in the *AJAE* is not related to editorship location. That is, the probability of an article being published is not affected by the regional affiliation of the author or editor. Such a hypothesis could be tested in several ways. Analysis of variance could be used to determine if the percentage mean number of "Pages" and "Articles & Notes" for a given region were equal across all editorships. However, given differences in research productivity across regions and over time and, changes in submission rates among regions, the results of such a test might be biased. Furthermore, such a general test lends no indication as to the direction or time interval of possible differences. To obtain such information, another testing procedure was employed.

To dampen the possible effect of changing submission rates over time, each editorship was compared to the prior and subsequent editorships using the Mann-Whitney U test statistic. The test was constructed such that editorship "i" was compared to the "i-1" and "i+1" editorship for each contribution classification. Such a testing procedure allows for identification of the direction and time interval of significant differences. Furthermore, pooling the "i-1" and "i+1" editorships tends to eliminate the possibility of rejecting the null hypothesis due to changing submission rates over time. Rejection should occur only when an editorship is significantly different from a submission "trend" set by the prior and subsequent editorships. That is, rejection will occur if the mean percentage of articles from a given region, published by a given editor,

is significantly different from the mean percentage of articles from that region published by the previous and subsequent editor.

For a given contribution classification the null hypothesis can be stated as:

$$H_0: u_i = (u_{i-1} + u_{i+1})/2 \quad (1)$$

where u_i is the mean for editorship "i" and $(u_{i-1} + u_{i+1})/2$ represents the mean for the prior and subsequent editorship combined. A test of this hypothesis could be based on a t-statistic. However, because of limited sample size, the normality assumptions of the standard two-sample t-test were not used. Alternatively the Mann-Whitney U statistic was used for its distribution-free or non-parametric properties. The Mann-Whitney U statistic is defined as:

$$U = mn + [m(n+1)/2] - T \quad (2)$$

where m and n are the number of observations of the two samples, and T is the Wilcoxon Rank statistic defined as the sum of the order statistics (ranks) of sample "m" in the "m+n" or pooled sample.

The Mann-Whitney U test is based on the notion that if the two independent random samples have been drawn from the same population, then the average of the sample ranks $(m + n)/2$ should be approximately equal. If the average of one of the ranks is much greater or smaller than the other, then this indicates that the two samples likely come from different populations.

The U statistic can also be calculated by interchanging "m" and "n" (and calculating T for sample "N") as their assignment is arbitrary. Because the resulting value will usually be different, both values are calculated for comparison with a critical value. If either U statistic is greater than the critical value, the null hypothesis can be

rejected (Zar). The Mann-Whitney U test is robust, being about 95 percent as powerful as the t-test when the t-test is applicable, and more powerful when the samples are from distributions that are not close to normal. The Mann-Whitney U test has the advantage of requiring fewer assumptions than the corresponding "standard" tests and is easier to perform (Zar).

Results

The test procedure was performed using Anderson-Bell Corporation's ABstat release 5.02 micro computer software. Results of this analysis are presented in Table 2. All values in this table represent mean percentages of contributions by issue by region for the entire editorship period. For example, the value for "Articles & Notes" from the Northeast for editorship X indicates that 8.42 percent of the publications under that editorship period came from that particular region. The sum of the percentage contributions for the entire editorship period does not equal 100 percent because only U.S. publications are considered in the analysis.

To interpret the results found in Table 2, consider the mean percentage "Pages" originating from the Northeast during editorship IV (13.40^{***}). The mean percentage of "Pages" per issue occurring during editorships III and V appear immediately to the left and right of this value: i.e., 6.50^{*} and 8.49, respectively. The superscript defining the level of significance indicates that the mean percentage of "Pages" per issue from the Northeast during editorship IV was significantly different (higher in this case) than the mean percentage of "Pages" per issue during editorships III and V based on the Mann-Whitney U test. Because the test procedure compares each editorship to the mean of

Table 2. Mean Percentage Contributions to the *American Journal of Agricultural Economics* by Region, 1944 - 1989

Region	I	II	III	IV	V	VI	Editorship		IX	X	XI	XII	XIII	XIV	XV
							VII	VIII							
Northeast:															
Pages	8.91	7.13'	6.50'	13.40***	8.49	6.87	7.75	12.40	13.70	7.51'	7.61	11.95	11.42	13.69	10.82
Articles															
& Notes	9.49	8.23'	8.43	12.02'	9.62	6.74'	9.00	13.83	14.03	8.42	8.90	10.68	9.29	11.48	9.67
South:															
Pages	3.07	2.61**	9.18	11.19'	3.44**	5.83	13.55	6.07	8.14	11.33	14.90**	11.36'	16.70	12.09	10.86
Articles															
& Notes	3.35	2.53**	10.67	12.57'	2.88***	5.18	12.00	7.45	8.77	12.87	17.12**	13.52'	17.31**	11.85'	10.67
North Central:															
Pages	28.15	32.68	35.38	32.83	31.36	36.83'	27.05	31.82	31.75	19.50'	22.45	26.23'	16.29	14.31'	18.92
Articles															
& Notes	24.58	32.91	34.27	34.43	31.73	33.16	22.50	31.38	30.41	19.13**	23.63'	23.84	16.03	12.59**	18.33
Mountains, Plains, and Southwest:															
Page	4.35	7.64	5.53	6.54	6.12	7.51	8.43	11.10*	5.83***	20.58'	14.58	12.96	14.01	13.89	14.95
Articles															
& Notes	4.37	6.96	6.18	6.56'	4.81**	8.81**	7.50	10.64	5.85***	19.80**	14.04	13.52	12.82	11.11'	13.33
Pacific:															
Pages	6.08	12.74	12.95	9.18**	16.97	17.35	16.23	7.85**	10.31	13.27	11.41	11.84	13.45	16.01	11.15
Articles															
& Notes	6.42	11.39	11.80	9.29	13.46	16.06	15.50	6.91**	11.11	14.36	9.93	10.68	14.42'	13.33	10.00

Mann-Whitney U-Test

*Significant at the .10 level

**Significant at the .05 level

***Significant at the .01 level

the preceding and succeeding editorships, the first and last editorships in the study period are presented only for comparative purposes. No hypothesis concerning editorships I and XV were tested.

Mann-Whitney U test results in Table 2 indicate that significant differences in "Pages" and "Articles & Notes" occurred in all regions. With the exception of editorship VII, significant differences occurred under all editorships. In some cases significant increases in the number of publications from the editor's region were observed. That is, some editors appeared to publish more "Articles & Notes" from their respective regions. Twenty six (26) mean difference tests for both classifications (i.e., "Pages," and "Articles & Notes") were conducted for each region. Of the 130 tests performed on all regions, 39 differences were found to be significant at the 0.10 level. Overall, 30 percent of the tests found significant differences. The number of significant differences by region (percentages in parentheses) are: Northeast, 7 (27%); South, 12 (46%); North Central, 7 (27%); Mountains, Plains, and Southwest, 9 (35%); and Pacific, 4 (15%).

The data in Table 2 indicate that the regional distribution of authorship affiliation may have been affected by editorship location. However, regional gains experienced under a particular editorship tended to disappear with a shift in editorship location. The pattern of gains and losses in regional shares of publications in the *AJAE* suggest that the editorial selection process may be self-adjusting. That is, negative differences are followed by positive differences and vice-versa. For example, considering the Southern region for editorships II, IV, V, XI, the differences were negative, positive, negative, positive, and negative, respectively. Evidence of this self-adjustment process was also found in the Northeast region and the Mountains, Plains, and Southwest region.

Although the results do not permit definitive conclusions to be made, they do suggest that the editor selection process may be designed to achieve a regional accessibility to the Journal.

Of the journal contributions considered in this study, "Articles & Notes" (as compared to "Pages") are judged to be more important by university promotional committees for academic advancement (Katz). However, by including "Pages" in the study, the differences in the length of the "Articles & Notes" could be determined in relation to the differences in "Articles & Notes". A correlation between "Articles & Notes" and "Pages" was expected. That is, an increase (decrease) in the number of "Articles & Notes" was expected to be followed by an increase (decrease) in the number of "Pages". This was not always the case. When a change in "Pages" was negative (positive) and not accompanied by a significant change in "Articles & Notes", it was concluded that the "Articles & Notes" may have been shorter (longer).

Conclusions

University promotion committee emphasis on scholarly publications as a criterion for professional advancement implies that the welfare of many young faculty depends on their ability to publish in national journals from their disciplines. The importance of national journals in salary and promotion decisions assumes that the editorial policies of these journals maintain a high degree of editorial neutrality. That is, manuscripts should be judged on quality, relevance, and contribution to the discipline and not on the structural or situational characteristics of the editorial review process.

This study found that over the past 45 years, the regional distribution of

authorship has been affected by editorship changes in the *AJAE*. The study also found that the share of journal contributions from some regions appeared to be more volatile than others. Journal contributions from the Southern region and Mountain, Plains, and Southwest region experienced significant differences, more often than from the other regions. The volatility among these regions were attributed to 1) the historical tendency for these regions to be more provincial, 2) the low number of strong Ph.D. programs in these regions, and 3) the absence of strong professional networks among faculty in these regions. An interesting note is that during the study period, only one editorship was from the Southern region and none were from the Mountains, Plains, and Southwest. Furthermore, 9 of the 15 editorships in the study were from the North Central region. The possibility that the North Central region may have contributed a disproportionate share of "Articles & Notes" suggests that a dominance of this region may exist in spite of editorship changes. Although 9 of the 15 editorships were from the North Central region, the percentage contributions of "Articles & Notes" was often proportionately greater during editorships from other regions.

This study concluded that the observed volatility of journal contributions might have resulted from the self-adjusting mechanisms in the editorship selection and editorial review process. That is, the Journal appears to have maintained regional accessibility and/or representation among its contributors.

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