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The Journal of Risk and Insurance: A 75-Year Historical Perspective

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Abstract

This research provides a comprehensive historical analysis of articles published in *The Journal of Risk and Insurance* over the 75-year period from 1932 to 2006. Historical statistics are provided including the number of articles, number of authors per article, geographic location of contributors, leading contributors, author affiliation (industry or academic), the proportion of articles that are theoretical and empirical, and topics covered. Statistics relating to the entire 75-year period are provided as well as breakdowns by decade. The results indicate that the contributors to *The Journal of Risk and Insurance* have become more international over time, average article length and average number of authors per article have increased over time, and empirical articles appear more frequently than theoretical articles.

Introduction

The first issue of *The Journal of Risk and Insurance* (hereafter *JRI*) was published in 1932 by the American Association of University Teachers of Insurance (AAUTI), the forerunner to the present American Risk and Insurance Association (ARIA) (Corbett, 2000). Now the *JRI* is recognized as the premier journal in risk and insurance by standard quality measures such as citation counts (e.g., Colquitt, 1997, 2003). Because of its importance, studies of the journal itself have been undertaken to determine features such as leading authors and leading contributing institutions (e.g., Cox and Gustavson, 1990; Colquitt, Dumm, and Gustavson, 1998; Browne, 2003). But these studies have been sporadic at best and leave much to learn about the development of

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the journal and the field of risk and insurance in general over time. Since the *JRI* has now been published for 75 years, it is fitting to undertake a study of the *JRI* itself.

The purpose of this article is to provide a comprehensive historical perspective of the *JRI* from its inception to 2006 (i.e., 75 years). This research is beneficial for several reasons. First, this research is important because it provides insight into how issues have helped to shape the field of risk and insurance over time. For example, tax issues related to employee benefit plans and the effect of an aging baby-boomer population had not appeared on the radar when the journal was first published. Instead, early issues of the journal were more concerned with the effect of the Depression on insurance. Many other issues have arisen over time to expand the field such as developments in healthcare financing, new types of life insurance contracts, evolving legal systems (e.g., no-fault insurance), and catastrophe financing such as for earthquakes and hurricanes. These are all issues of national and international importance, and the effect of these issues on the field can be traced through articles published in the journal.

Risk and insurance is a field that draws upon several disciplines simultaneously, such as law, finance (pricing, financial risk management), microeconomics (insurance demand, adverse selection), macroeconomics (Social Security and Medicare), and human resources (employee benefits, workers compensation). The relative contributions of these fields over time can be determined by looking at the historical content of articles published in the *JRI*.

Risk and insurance is well established in developed countries, and risk and insurance courses or programs exist at many universities. However, elsewhere in the world risk and insurance is still in the development stages. By looking at the origin of risk and insurance research geographically, one can gauge the development and importance of this field internationally.

An historical perspective of the *JRI* also can provide insight into the relative role industry and academics play in research and the relative importance of empirical versus theoretical work. Finally, this research is important for the intrinsic value of documenting the historical evolution of this journal over the past 75 years.

This research proceeds as follows. In the next section, a broad overview of the journal's history is provided, including information on the number of issues and articles published and the number of contributing authors. In the succeeding section, more detailed information about the authors is provided such as the leading authors, classification of authors by affiliation, and classification of authors by geographic area (i.e., Asia, Europe, etc.). Following this, information is provided about the content of articles by topic and by whether the research is empirical or theoretical. The last section summarizes the most important basic results of this study.

HISTORICAL OVERVIEW

The *JRI* began in 1932 as an annual publication. The first issue, whose cover is presented in Figure 1, was a publication of a roundtable discussion that occurred at the 1932 American Economic Association (AEA) meetings. It was published in the *American Economic Review* (*AER)* and separately by the AAUTI (Corbett, 2000, p. 64). During the war years of the 1940s, the journal was no longer published as a *Proceedings* (since the annual meeting was suspended for several years during the war). Instead, during

FIGURE 1
Cover Page of First Issue of *the Journal of Risk and Insurance*

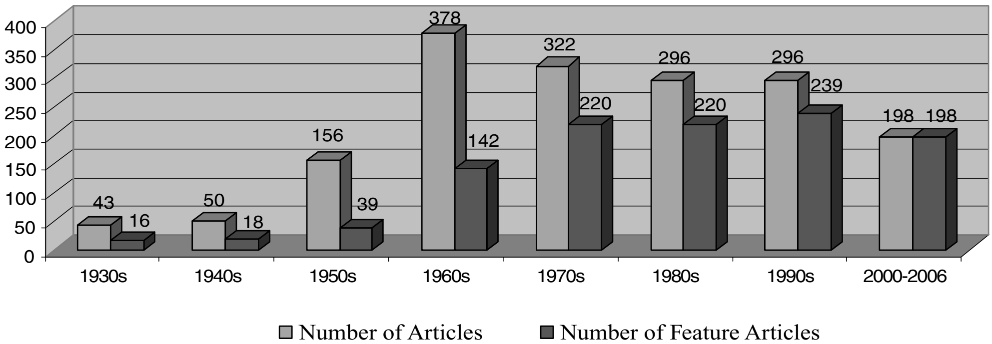
THE RECORD OF INSURANCE DURING THE DEPRESSION

Round Table on Insurance
A Joint Session of the American Economic Association and American Statistical Association Held at Cincinnati, Ohio, December 28, 1932

Published by the American Association of University Teachers of Insurance
411 Commerce Building
Urbana, Illinois

Price 50 Cents

FIGURE 2
Number of Total Articles and Feature Articles Published in the *JRI* by Decade



this time, the publication was called, *Property and Casualty Insurance During War Time* (Corbett, 2000). It continued to be published annually until 1955. The *JRI* became its current quarterly publication in 1958, fulfilling a goal of the organization since the post-1940 war years.[1]

Over the 75-year period 1932 to 2006, the *JRI* has published 1,739 articles covering 25,871 pages.[2] The total number of articles published varies by decade as indicated in Figure 2. In the 1930s, a total of 43 articles were published. The total number of articles published peaked during the 1960s at 378, and the total number of articles published during the most recent complete decade (the 1990s) was 296. Until 1997, the *JRI* published "Feature Articles" and "Shorter Articles."[3] Figure 2 also indicates the number of Feature Articles over time. Beginning with the 1970s, the number of Feature Articles has exceeded the number of Shorter Articles.

The number of pages published also varies by decade, as indicated in Figure 3. In the 1930s, a total of 457 pages were published in the journal. The total number of published pages increased dramatically in the 1960s (after the *JRI* became a quarterly publication) and has been growing steadily since. The total number of pages published in the most recent completed decade (the 1990s) was 5,572. Beginning with the 1960s, the number of pages accounted by Feature Articles exceeded the number of pages accounted for by Shorter Articles.

The average numbers of pages per *JRI* article and Feature Article have been increasing since the 1960s as well. In the 1960s the average numbers of pages per *JRI* article and Feature Article were approximately 11 and 16, but increased to approximately 19 and 21, respectively, in the most recent completed decade reported, according to Figure 4.

[1] In 1956 and 1957, two and three issues were published, respectively. Also, the journal was not published in 1936 nor in 1949.

[2] Only research articles are included in the analyses (i.e., feature articles and shorter articles). Comments, replies to comments, and book reviews are excluded from all figures and statistics.

[3] Shorter articles are defined as articles of 8 to 12 journal pages each.

FIGURE 3
Number of Pages for All *JRI* Articles and Feature Articles by Decade

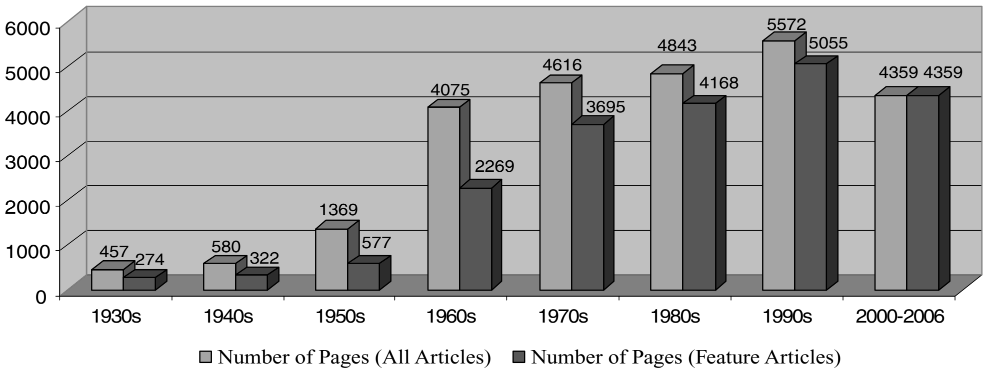
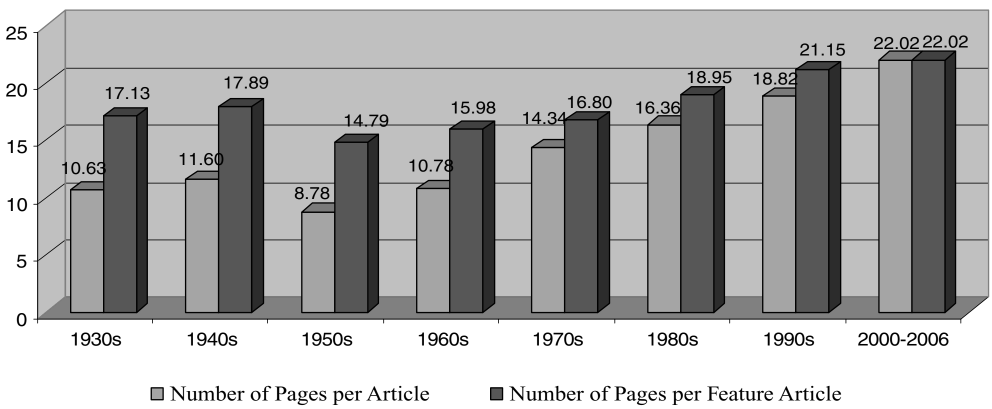


FIGURE 4
Number of Pages per *JRI* Article and Feature Article by Decade



Over its 75-year history, the *JRI* lists 2,583 individuals as authors, where the number of authors is calculated by counting the authors of multiple articles multiple times.[4] Figure 5 indicates the number of articles relative to the number of authors by decade, where the authors of multiple articles are counted multiple times. The number of contributors has been increasing steadily from 426 in the 1960s to 577 in the 1990s, according to Figure 5. Figure 5 also presents the number of authors over the period where the number of authors is calculated by counting each author once, regardless of the number of articles authored during the period.[5] The results are similar regardless

[4] For co-authored articles, each author is added to the number of authors. For example, an article authored by three individuals would add three to the overall author count.

[5] That is, an author contributing 10 articles would be counted once. A person is counted as an author each time he/she was the sole author or co-author of an article.

FIGURE 5
Number of Articles and Authors Published in *JRI* by Decade

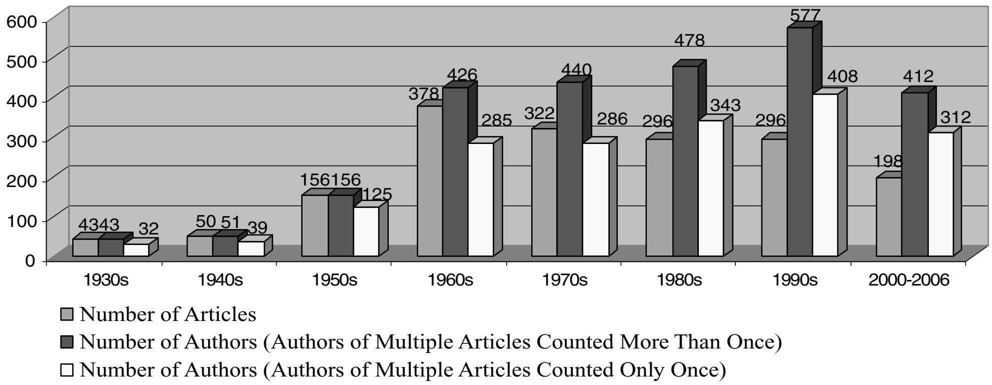
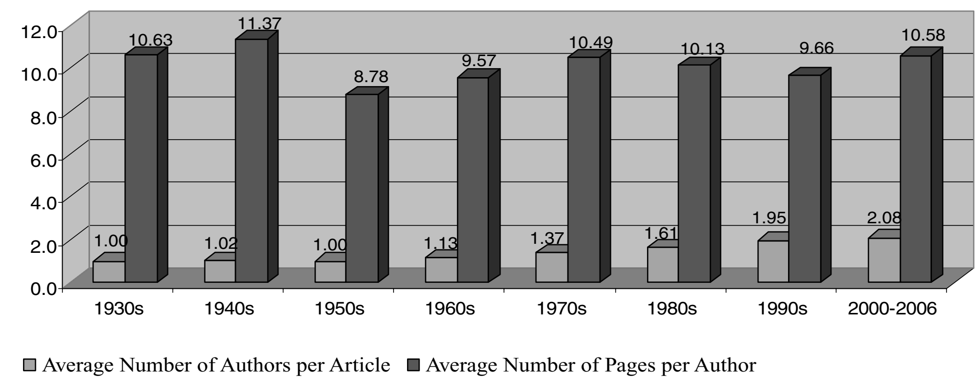


FIGURE 6
Average Number of Authors per *JRI* Article and Average Number of Pages per *JRI* Author by Decade



of how the number of authors is calculated. That is, there is an increase in the number of authors, especially in the 1980s (343 authors) and 1990s (408 authors).[6]

According to Figure 5, the 1990s is associated with the largest number of authors, while the 1960s is associated with the largest number of articles. Figure 6 contains the average number of authors per article by decade. Significant increases in the average number of authors per article occurred in the 1980s (1.61 average number of authors per article) and the 1990s (1.95 average number of authors per article), and this average is even higher for the period 2000–2006 (2.08 average number of authors per article).

[6] In the breakdown in Figure 5, each author or co-author is counted once per decade for the statistics in which the authors of multiple articles are counted only once. Note that some authors published across more than one decade. In this case, they are counted once per decade.

The reason for the growth in the average number of authors per article over time is unknown, but it is probably related to several developments. Over the period since the *JRI* has been published there have been substantial innovations and advancements in many fields that are related to risk and insurance or that are useful in risk and insurance research: advances in econometrics; advances in psychology; development of computers and efficient, cost-effective computational devices; development of game theory; etc. All of these developments have led to increasingly sophisticated business research, including risk and insurance research. Therefore, it is not surprising that more authors on average contribute to a published article given the increased complexity of analysis over time. Finally, improvements in communications over time (especially via the Internet) have probably facilitated more collaboration among authors.

According to Figure 6, the average length of a *JRI* article per author has declined very slightly from the 1970s to the 1990s (from 10.5 to 9.7 pages, respectively). But this average appears to have bounced back in the period 2000 to 2006 (to 10.6 pages).[7] Hence, although the number of co-authors per article has increased over time, article length appears to have kept up with this trend in terms of number of pages per author. This result would also be consistent with an increasing level of sophistication and complexity in research published in the *JRI*.

OVERVIEW OF *JRI* AUTHORS

The individuals comprising *JRI* authors come from all developed areas of the world. Some of these authors are from industry, with the remaining from academics. In this section, an historical perspective is provided on the geographic location of authors and their affiliation.

Figure 7 provides a breakdown of *JRI* authors by geographic location (i.e., North American versus non-North American) over the period 1932 to 2006 by decade. In this figure, authors of multiple articles are counted multiple times. Not surprisingly, 2,307 authors, or approximately 89 percent of the authors, are from North America, where the association that publishes this journal originates. However, the number of authors from locations outside North America has been increasing steadily, especially from the 1970s (15 authors, or approximately 3.4 percent) to the period 2000 to 2006 (159 authors, or approximately 39 percent). (When authors of multiple articles are counted once for the analysis, the results are similar for this figure as well as for the figures that follow.)[8]

Figure 8 provides a breakdown for non-North American authors, where an author of multiple articles is counted multiple times. It indicates that Western Europe is the second largest area associated with *JRI* contributors, accounting for 170, or approximately

[7] The elimination of Shorter Articles may have contributed to this result as well.

[8] Over the period 1932 to 2006 there have been 1,522 separate and distinct contributors to the *JRI*, and 86 percent of these have been North American. The number of authors from locations outside North America has been increasing steadily, especially from the 1970s (12 authors, or approximately 4.2 percent) to the period 2000 to 2006 (129 authors, or approximately 41.3 percent).

FIGURE 7

North American Versus Non-North American *JRI* Authors by Decade (Authors of Multiple Articles Counted More Than Once)

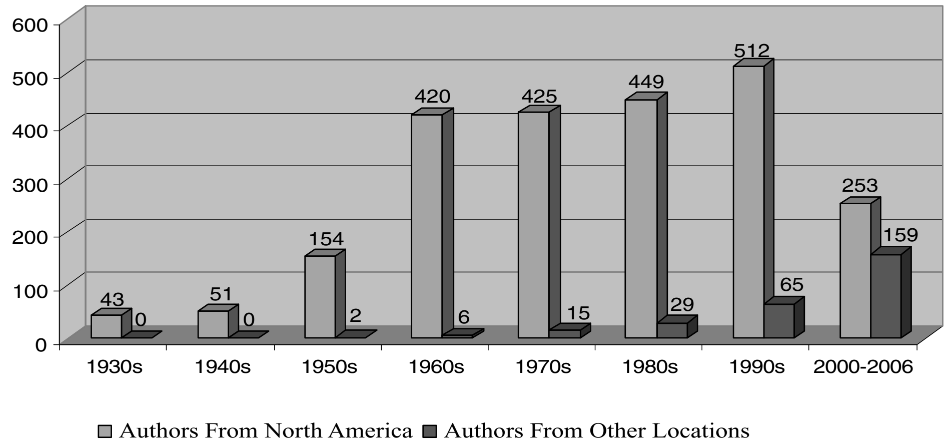
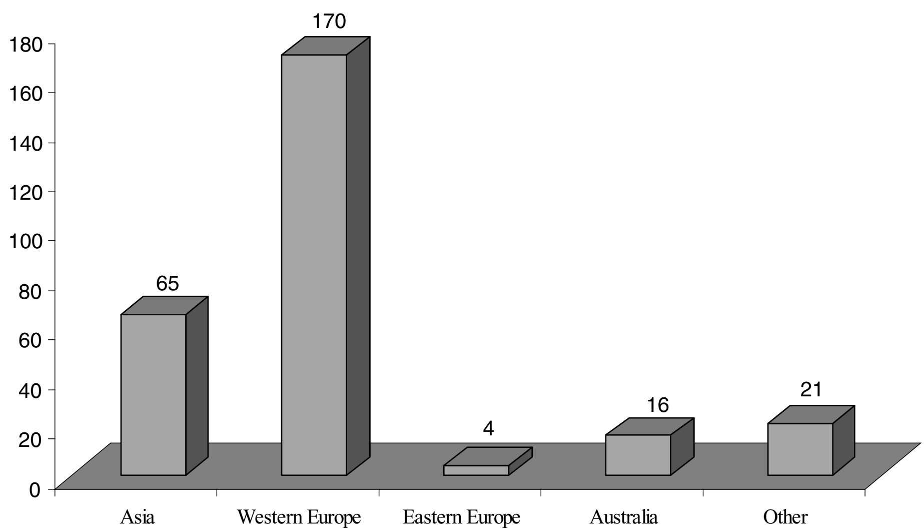


FIGURE 8

Number of Non-North American *JRI* Authors by Region (1932–2006) (Authors of Multiple Articles Counted More Than Once)

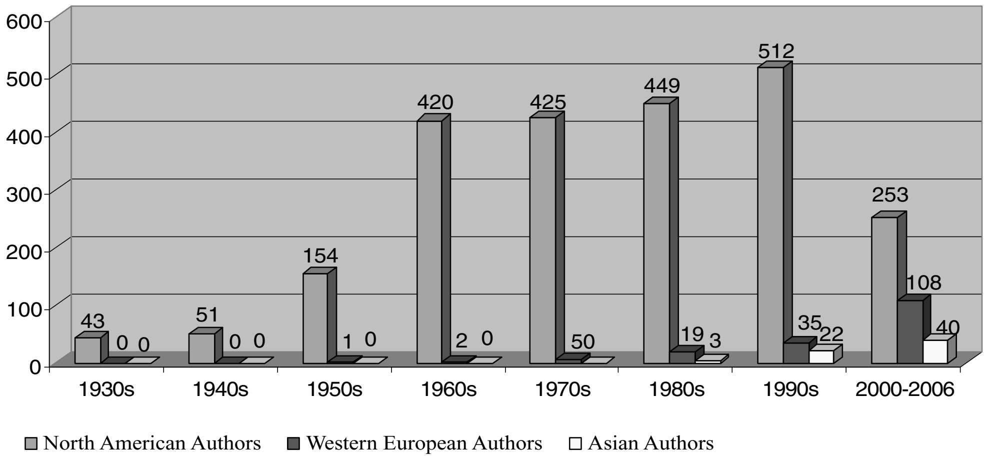


62 percent of all non-North American authors. Asian authors account for about 65 authors, or approximately 24 percent of all non-North American authors.[9]

Figure 9 indicates that the number of non-North American authors has been increasing over time. From the 1930s to the 1960s, almost all *JRI* authors were North American.

9 The results are similar when the authors of multiple articles are counted only once. That is, 126 authors, or approximately 58.3 percent of all non-North American authors, are from Western Europe, while 51 authors, or 23.6 percent, are from Asia.

FIGURE 9
Numbers of North American, Western European, and Asian *JRI* Authors by Decade (Authors of Multiple Articles Counted More Than Once)



A relatively large percentage increase in Western European authors occurred in the 1980s, while the percentage of Asian authors dramatically increased in the 1990s. The relative increases in Western European and Asian authors are even more dramatic in the most recent period (2000–2006).

The dramatic increase in the number of non-North American authors is probably related to a number of factors. Patrick Brockett and Richard MacMinn (*JRI* co-editors from 1998 to 2006) had a long-term goal of making the journal more international.[10] In addition, the latter editors first made the journal available online in 1998. Now, the *JRI* is available online through *JSTOR* and Wiley-Blackwell Publishers. This online access also no doubt contributed to wider dissemination and recognition of the journal to potential international authors and hence led to more international submissions. Finally, incentives at foreign universities to increase authorship in scholarly journals probably led to increased international submissions to the *JRI*.

While international authorship has increased recently, the content of these articles is not necessarily international. Table 1 indicates the number and percentage of all articles that contain international content and the number and percentage of articles with at least one international co-author that has international content.[11] In the most recent period, approximately 7.6 percent of all articles have international content, where international content is defined as content based on non-North American institutional or regulatory considerations or non-North American data. Among articles with at least one international author, only approximately 15.3 percent have international content. Thus, the content of most articles published in the *JRI* cannot be traced to

[10] For example, see Richard D. MacMinn and Patrick L. Brockett, Editors, *JRI Editors' Report*, prepared for the Midyear Board Meeting of ARIA, January 2006, p. 3.

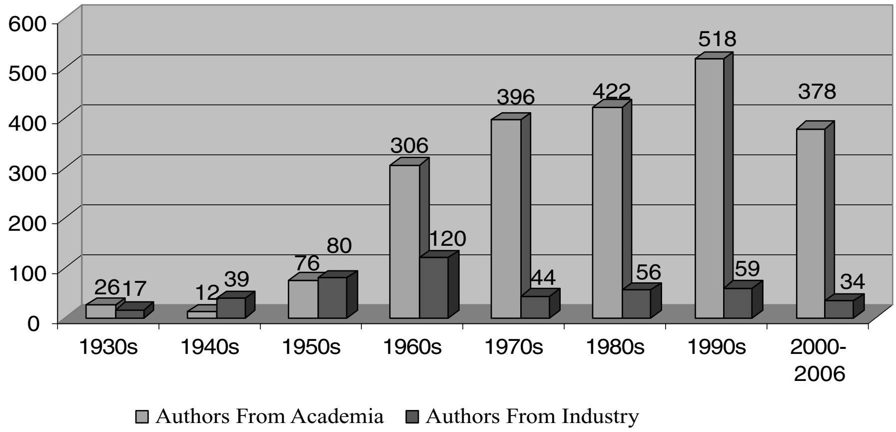
[11] The inclusion of international content was determined on the basis of the title and abstract of the articles.

TABLE 1
International Content Published in the *JRI* by Decade (1932–2006)

	Number of Articles	Number of Articles Containing International Content	Number of Articles Having at Least One International Author	Number of Articles Having at Least One International Author and Containing International Content	Percentage of Articles Containing International Content (All Articles)	Percentage of Articles Containing International Content (Articles Having at Least One International Author)
1930s	43	0	0	0	0%	n/a
1940s	50	0	0	0	0%	n/a
1950s	156	9	2	2	5.77%	100%
1960s	378	12	6	2	3.17%	33.33%
1970s	322	13	12	5	4.04%	41.67%
1980s	296	10	22	5	3.38%	22.73%
1990s	296	8	49	5	2.70%	10.20%
2000–2006	198	15	85	13	7.58%	15.29%
Total	1739	67	176	32	3.85%	18.18%

Note: International content is defined as content relating to institutional or regulatory considerations or data from outside of North America.

FIGURE 10
Number of *JRI* Authors by Affiliation by Decade (Authors of Multiple Articles Counted More Than Once)



any particular non-North American geographic location (e.g., theoretical articles) or are focused on North America.

Figure 10 provides a breakdown of *JRI* authors by affiliation (industry or academics) from 1932 to 2006 by decade.[12] Approximately 83 percent, or 2,134 authors, are from academics, with the balance made up of individuals from industry. Since the 1960s, *JRI* authors have primarily been academicians, and there was a large fall-off in relative industry authorship beginning with this decade (28 percent of authors in the 1960s from 51 percent in the 1950s). The relative importance of industry contributors fell off sharply once more after the 1960s, and industry contributors accounted for 59 authors or 10 percent in the most recent completed decade (the 1990s).

The reasons for the substantial decline in industry membership are not clear, but several factors may have played a role. Joseph Belth, in his Presidential Address at the 1973 ARIA Annual Meeting indicates that academic freedom of expression concerning industry activities may sometimes place the association and the journal at odds with the industry.[13] And circumstances external to ARIA probably account for some of the drop-off in industry interest. During the 1940s through the 1960s, many new insurance journals aimed at particular industry segments arose. Some of these were more industry oriented than academic journals such as the *JRI*, and industry interest in the *JRI* may have been siphoned off as a result.[14] Certainly in recent times, there appears to be a feeling among industry that current articles in the *JRI* are not

[12] An author is considered an academic author if he/she lists a university or college as the affiliation. If an institute or company is listed as an author's affiliation, the author is classified as being from industry.

[13] Also, until recently, nonacademic members of ARIA were not permitted to run for office or hold other prominent positions in ARIA, perhaps making them feel like "second-class citizens."

[14] Examples of these journals are *Employee Benefit Plan Review* (started in 1947), *Benefits and Compensation Digest* (started in 1964), *Compensation and Benefits Review* (started in 1969), *CPCU Journal* (started in 1948), *Insurance Brokers Monthly and Insurance Adviser* (started in 1951),

TABLE 2
Leading Contributors to the *JRI* (1932–2006)

Ranking by Number of Articles	Author	Number of Articles	Number of Pages	Ranking by Number of Pages
1	J. David Cummins (2)	26	729	1
2	Neil A. Doherty	19	331	4
3	Robert C. Witt	18	410	2
4	Alfred E. Hofflander	17	174	n/a
4	C. Arthur Williams, Jr. (1)	17	262	6
4	Mark R. Greene	17	267	5
7	Joseph M. Belth	16	246	7
8	Scott E. Harrington	15	386	3
9	James S. Trieschmann	14	177	n/a
10	Robert I. Mehr (5)	13	200	n/a
10	George E. Rejda	13	185	n/a
n/a	Richard A. Derrig	9	267	5
n/a	Mary A. Weiss	8	229	8
n/a	Stephen P. D'Arcy	9	222	9
n/a	Patrick L. Brockett (6)	9	215	10

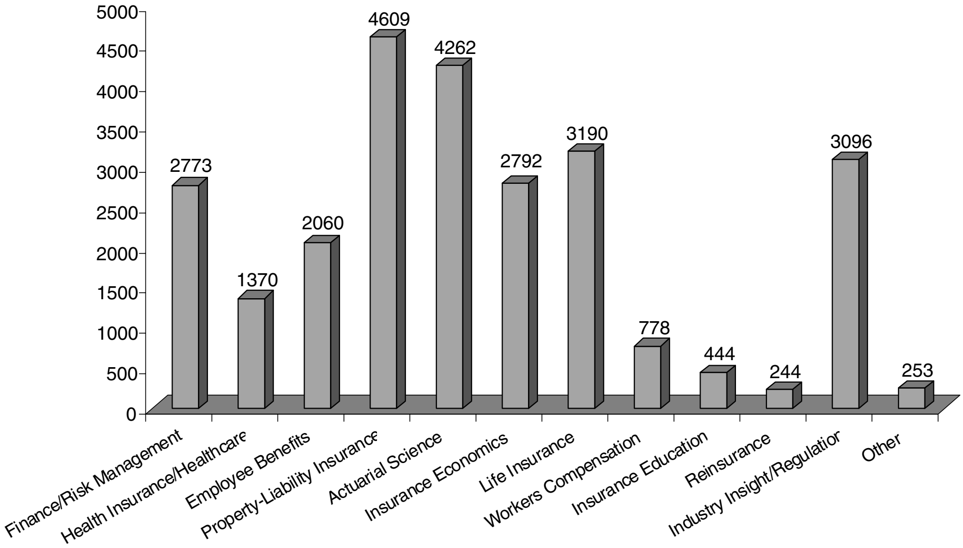
Note: The number in parentheses indicates the total number of articles published while editor.

of immediate applicability in the daily work of industry members. As an academic journal, the latter is not necessarily a shortfall since it may take years before the benefits of scientific or academic breakthroughs percolate down to the marketplace, and this phenomenon is certainly not restricted to insurance and risk management. Finally, the role of publications in the academic tenure process has been increasing in importance over time, providing academics a relatively greater incentive to publish in a high-ranking academic journal such as the *JRI*.

Several studies have considered the leading contributors to the *JRI* over recent times (e.g., Colquitt, Dumm, and Gustavson, 1998; Cox and Gustavson, 1990). In this research, however, the leading contributors to the *JRI* over its entire history are examined. Leading contributors, identified both by the number of authored articles and by the total number of article pages, are presented in Table 2. In this table, no adjustments or weights are used for articles with multiple authors; however, the number of articles published while the author was editor of the *JRI* is indicated where applicable. The leading contributor to the journal both in number of articles and number of pages is J. David Cummins. And several other authors also appear in both lists in Table 2: Neil A. Doherty, Robert C. Witt, C. Arthur Williams, Jr., Mark R. Greene, Joseph M. Belth, and Scott E. Harrington. The Appendix provides a list of leading contributors by number of articles and number of pages during different time periods to trace the leading contributors to the field over time. (Note that since the *JRI* did not publish

Insurance Review (started in 1940), *International Insurance Monitor* (started in 1948), and *Risk Management* (published by the Risk & Insurance Management Society beginning in 1954).

FIGURE 11
Number of *JRI* Article Pages by Topical Content (1932–2006)



quarterly issues in the earlier years, the numbers of articles by editors during those times would be expected to be lower than during recent times.)

OVERVIEW OF *JRI* ARTICLE CONTENT

Over the period 1932 to 2006, the risk and insurance field has been evolving and expanding, and the issues facing insurers have changed dramatically. The importance of some of these topics varies by region of the world because the development of risk management varies and because different issues/hazards are relatively more important in different regions. Research exploring risk and insurance topics generally takes one of two forms, empirical or theoretical. In this section, the content of the *JRI* over time both by broad topic area and by the form of the research are documented.

JRI Article Content

Figure 11 indicates the number of *JRI* pages by topical content from 1932 to 2006.[15] According to Figure 11, the top three classifications of articles are Property–Liability Insurance (4,609 pages, or 17.8 percent), Actuarial Science (4,262 pages, or 16.5 percent), Life Insurance (3,190 pages, or 12.3 percent), and Industry Insight/Regulation (3,096 pages, or 12.0 percent).[16]

[15] Each article is assigned to one topic. If an article appeared to overlap several topics, it was assigned to the topic to which the research question was primarily addressed. The latter was determined from an examination of the article abstract, introduction, and conclusion.

[16] The ordering of the topics by the number of pages published on the topic is the same as for the number of articles, except that Industry Insight/Regulation accounts for slightly more articles than Life Insurance.

TABLE 3
Number of Articles by Topic Published in the *JRI* by Decade

Article Content	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000–2006
Finance/Risk Management	6	6	15	28	33	37	36	22
Health Insurance/Healthcare	0	6	12	24	7	13	15	14
Employee Benefits	0	3	8	32	21	29	13	24
Property–Liability Insurance	3	7	20	35	58	49	63	46
Actuarial Science	0	1	16	54	49	50	64	29
Insurance Economics	0	0	0	37	28	48	39	35
Life Insurance	5	2	20	67	54	33	27	16
Workers Compensation	0	2	1	6	4	11	20	5
Insurance Education	12	3	12	10	1	1	2	0
Reinsurance	0	0	0	4	4	2	1	4
Industry Insight/Regulation	17	20	51	74	61	21	10	2
Other	0	0	1	7	2	2	6	1
Total	43	50	156	378	322	296	296	198

Table 3 documents the relative importance of each *JRI* topic over time. According to Table 3, Health Insurance/Healthcare, Life Insurance, Employee Benefits, and Industry Insight/Regulation reached their peak levels in the 1960s, with 24, 67, 32, and 74 articles, respectively. In the 1980s, on the other hand, Table 3 indicates that the topics of Finance/Risk Management and Insurance Economics reached their peak, with 37 and 48 articles, respectively. In the 1990s, according to Table 3, Property–Liability Insurance (63 articles), Actuarial Science (64 articles), and Workers Compensation (20 articles) topics were relatively more prevalent than at any other point during the 1932 to 2006 period. No topics reached their peak for the period in the 1970s.

Table 4 documents the relative importance of each *JRI* topic by geographic location of the author. Column 2 in Table 4 indicates that the most important topics in terms of number of articles for North American authors are relatively evenly split among Property–Liability Insurance, Industry Insight/Regulation, and Actuarial Science (although Life Insurance is a close fourth topic). In contrast, column 3 of Table 4 indicates that Insurance Economics is the most significant topic among Western European authors, accounting for approximately 30 percent of all articles by Western European authors. While Industry Insight/Regulation is a dominant topic among North American authors, it accounts for an extremely small component of articles for Western European authors (approximately 2 percent). Among Asian authors, Property–Liability Insurance is the dominant topic, accounting for approximately 29 percent of all articles, according to column 4 of Table 4. Insurance Economics and Life Insurance each accounts for 22 percent and 12 percent of all articles, respectively, for Asian authors in Table 4.

Some of the reason for the variations observed by region may be attributable to the fact that *JRI* authors were dominated by North American authors throughout the early part of its history, and insurance issues vary by time period. Therefore, Tables 5

TABLE 4
Number of Articles by Topic Published in the *JRI* by Authors' Region (1932–2006)

Article Content	North American Authors	Western European Authors	Asian Authors
Finance/Risk Management	175	7	2
Health Insurance/Healthcare	83	5	5
Employee Benefits	121	6	4
Property–Liability Insurance	264	16	15
Actuarial Science	239	21	5
Insurance Economics	153	29	11
Life Insurance	213	7	6
Workers Compensation	49	2	1
Insurance Education	41	0	1
Reinsurance	11	2	1
Industry Insight/Regulation	252	2	0
Other	19	0	0
Total	1620	97	51

TABLE 5
Percentage of Articles by Topic Published in the *JRI* From 1980 to 2006 (North American Authors)

Article Content	1980s	1990s	2000–2006
Finance/Risk Management	13.26%	12.82%	12.69%
Health Insurance/Healthcare	4.66%	4.03%	7.46%
Employee Benefits	10.04%	4.76%	12.69%
Property–Liability Insurance	16.85%	21.98%	27.61%
Actuarial Science	17.56%	21.25%	11.94%
Insurance Economics	13.98%	12.09%	14.18%
Life Insurance	11.47%	9.52%	5.97%
Workers Compensation	3.94%	7.33%	3.73%
Insurance Education	0.36%	0.00%	0.00%
Reinsurance	0.00%	0.37%	1.49%
Industry Insight/Regulation	7.17%	3.66%	1.49%
Other	0.72%	2.20%	0.75%

and 6 indicate the relative importance of each topic for North American and Western European authors, respectively, by decade beginning with the 1980s.[17]

[17] The number of articles by Asian authors was considered to be too small to be reliable in this analysis. During the 1980s, only three articles were authored by Asians, and two of these articles were concerned with Insurance Economics while the other was concerned with Reinsurance. During the 1990s, Property–Liability Insurance and Actuarial Science dominated article content, accounting for 31.6 and 21 percent of the topics, respectively. In the most recent period, Property–Liability Insurance and Insurance Economics are the most prevalent topics among Asian authors.

TABLE 6
Percentage of Articles by Topic Published in the *JRI* From 1980 to 2006 (Western European Authors)

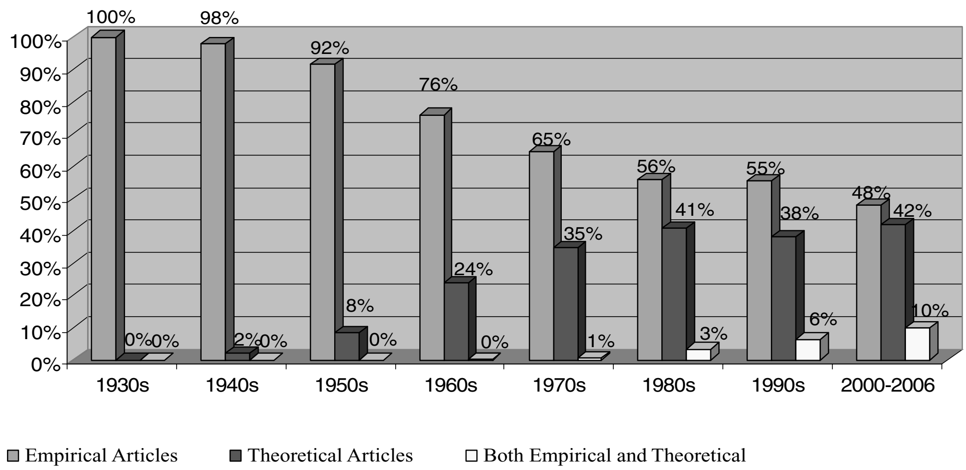
Article Content	1980s	1990s	2000–2006
Finance/Risk Management	0.00%	4.17%	9.43%
Health Insurance/Healthcare	0.00%	8.33%	5.66%
Employee Benefits	0.00%	0.00%	11.32%
Property–Liability Insurance	15.38%	8.33%	18.87%
Actuarial Science	15.38%	33.33%	18.87%
Insurance Economics	53.85%	33.33%	22.64%
Life Insurance	0.00%	0.00%	11.32%
Workers Compensation	0.00%	8.33%	0.00%
Insurance Education	0.00%	0.00%	0.00%
Reinsurance	7.69%	0.00%	1.89%
Industry Insight/Regulation	7.69%	4.17%	0.00%
Other	0.00%	0.00%	0.00%

In the 1980s, according to Table 5, article topics were fairly evenly split among Finance/Risk Management (13.3 percent), Employee Benefits (10 percent), Property–Liability Insurance (16.8 percent), Actuarial Science (17.6 percent), Insurance Economics (14.0 percent), and Life Insurance (11.5 percent) for North American authors. The results for North American authors for the 1990s are similar to those for the 1980s, except that Workers Compensation becomes a relatively more important topic in the 1990s, increasing from 3.9 percent in the 1980s to 7.3 percent in the 1990s. And Industry Insight/Regulation declines in importance as a topic from 7.2 percent in the 1980s to 3.7 percent in the 1990s. In the period 2000–2006, primary article content still remains split among the same major areas, except that Property–Liability Insurance increases in importance (27.6 percent) and the percentages for Finance/Risk Management (12.7 percent) and Actuarial Science (12 percent) decline in importance from the earlier periods.

Among articles authored by Western Europeans during the 1980s, Table 6 indicates that article content was dominated by Insurance Economics (53.9 percent) and, to a much lesser extent, Property–Liability Insurance (15.4 percent) and Actuarial Science (15.4 percent). During the 1990s, however, Actuarial Science becomes relatively more important and is on par with Insurance Economics (accounting for approximately 33.3 percent each), and Workers Compensation and Health Insurance/Healthcare become relatively more important, according to Table 6. In the period 2000–2006, Property–Liability, Actuarial Science, and Insurance Economics continue to dominate the topics for Western European authors, with Employee Benefits and Life Insurance becoming relatively more important.

The results in Tables 5 and 6 indicate that during the 1980s through 2006, Property–Liability Insurance has been a dominant topic for articles in the *JRI*, except among Western European authors in the 1990s. Actuarial Science topics are also prevalent across these regions of the world during the same time period. Over the same period, Insurance Economics has always dominated articles written by Western European

FIGURE 12
Percentage of *JRI* Articles by Type by Decade



authors. Thus, when looking across comparable time periods, more similarities exist among article content by major region of the world than Table 4 suggests. An exception to the latter is the focus on Insurance Economics by Western European authors.

The reason for the dominance of Insurance Economics among Western European authors is not known for certain. However, over the years, there have been many famous Western European insurance economists and Western European and British mathematicians and general economists. Famous insurance economists include economists from the Norwegian School such as Karl Borch and Jan Mossin. Other famous economists include A. A. Cournot, H. Cramer, and J. F. Nash. Perhaps this rich history of economic research led to a focus on insurance economics by Western European researchers. Another factor affecting the type of research conducted among Asians and Western Europeans is probably related to data availability. In the United States, insurance company financial data have been readily available from such sources as the A. M. Best Co. and the National Association of Insurance Commissioners, leading to a rich history of empirical research. A similar situation does not exist in other areas of the world. Another complication exists in conducting empirical research across foreign countries because accounting and distribution systems and product types may vary. Only recently have affordable financial data on European insurers that controls for accounting differences become available from such sources as S&P's Eurothesis.

JRI Article Type

Both theoretical and empirical research have been important throughout the *JRI*'s history. Empirical research accounted for 66 percent of all articles over this time period, approximately 31 percent were theoretical, and the balance was made of articles that were equally theoretical and empirical.[18] Figure 12 indicates the relative

[18] An article is classified as theoretical or empirical by the structure and methodology of the article.

TABLE 7
Percentage of Empirical Articles Published in the *JRI* by Authors' Region by Decade

Year	North America	Western Europe	Asia
1930s	100%	–	–
1940s	98%	–	–
1950s	92%	100%	–
1960s	76%	0%	–
1970s	65%	75%	–
1980s	57%	31%	0%
1990s	58%	25%	47%
2000–2006	58%	26%	59%
Total	69%	29%	51%

importance of articles that are empirical, theoretical or a combination of both over the period 1932 to 2006 by decade. Figure 12 indicates that empirical research has always accounted for relatively more articles than theoretical research; however, in the more recent time periods, the relative number of theoretical research articles has increased. In the latest time period 2000–2006, there were 95 empirical articles (48 percent) and 83 theoretical articles (42 percent). It is difficult to speculate whether the trend toward theoretical research will continue in the future for the *JRI*. The latter part of the 1990s through 2006 occurred during the term of one set of editors. It is possible that the growth in importance of theoretical articles was related to the editors' preferences during this time; however, there is no supporting documentation that these editors intended to move the *JRI* in the direction of more theoretical research.

The importance of empirical versus theoretical research varies by region of the world, according to Table 7. This table indicates that over each decade from 1932 to 2006, empirical research has been dominant among North American authors. On the other hand, Table 7 indicates that theoretical research has been dominant for Western European authors in every decade except the 1950s and 1970s. The results for Asian authors are mixed, according to Table 7. These variations by region of the world might reflect the relative emphasis given to theoretical and empirical research in graduate programs in these regions and data availability considerations.

CONCLUSION

The *JRI* began its existence as an annual *Proceedings* of the forerunner organization to the ARIA. The primary contributors to the journal through the 1950s were from industry. Since that time, it has grown to be the prominent academic journal in the field of risk and insurance. Many other changes occurred in the journal since its inception in terms of degree of collaboration, type of research (theoretical versus empirical), and the geographic location of its contributors. This research documents and summarizes these major changes.

From its inception in 1932 to 2006, the *JRI* has published 1,739 articles authored by 1,522 separate and distinct authors. However, many authors are responsible for at least several articles. Similar trends are observed with respect to many aspects of the journal (such as number of authors per decade and geographic location of authors), regardless of whether authors of multiple articles are counted more than once or just once. The latter suggests that this field is not dominated by a small core of researchers but has benefited from the contributions of many different authors over time.

Over time the average number of authors per article has increased, but the average number of published pages per author has remained relatively constant. These results suggest increasing collaboration among authors. They are also consistent with an increasing level of sophistication and analysis in risk and insurance research perhaps requiring more collaboration. Over the past 45 years, academic contributors have far outnumbered industry contributors.

Most *JRI* authors are affiliated with North American educational establishments or institutions; however, a growing number of authors have affiliations with educational establishments or institutions from other areas of the world. The trend toward greater internationalization began in the 1970s and relatively speaking has grown quickly in recent years. Authors from educational establishments or institutions outside of North America now account for approximately 39 percent of all contributors. Western Europeans make up the largest contingent of non-North American authors, followed by Asians.

The dominant topic of most *JRI* articles is Property–Liability Insurance followed closely by Actuarial Science and Industry Insight/Regulation. However, in more recent decades, the relative number of articles concerning Industry Insight/Regulation has declined. The latter may be attributable to a wave of deregulation that occurred in property–liability insurance in the 1970s. Since the 1970s, North American contributors tended to author empirical articles primarily on the topics of Finance/Risk Management, Employee Benefits, Property–Liability Insurance, Actuarial Science, and Life Insurance. Contributors from other areas of the world, especially Western Europe, have focused relatively more research on Insurance Economics as well as Property–Liability Insurance. Empirical research has been relatively more important than theoretical research over the journal's history although for Western Europeans theoretical research has dominated to date.

It is clear from this historical perspective that the *JRI* has evolved as the field of risk and insurance has evolved. No doubt, the journal will continue to evolve. Also, some recent trends are likely to continue, such as increases in the number of international contributors. As the field continues to expand, it is likely that the journal will see a significant number of future contributors from international locations in addition to Western Europe and Asia.

APPENDIX: LEADING CONTRIBUTORS TO THE *JRI*

Leading Contributors to the *JRI* (2000–2006)

Ranking by Number of Articles	Author	Number of Publications	Number of Pages	Ranking by Number of Pages
1	J. David Cummins	6	200	1
1	Moshe A Milevsky	6	138	2
3	David Blake	5	122	5
3	Patrick L. Brockett (6)	5	129	3
3	Kevin Dowd	5	125	4

Note: Number in parentheses denotes number of articles authored while editor of the *JRI*.

Leading Contributors to the *JRI* (1990–1999)

Ranking by Number of Articles	Author	Number of Publications	Number of Pages	Ranking by Number of Pages
1	Mark J. Browne	9	157	3
2	J. David Cummins (2)	6	227	1
2	David W. Sommer	6	105	n/a
2	Helen I. Doerpinghaus	6	94	n/a
2	Robert E. Hoyt	6	93	n/a
2	Scott E. Harrington	6	155	4
2	Richard A. Derrig	6	170	2
8	Greg Niehaus	5	118	5
n/a	Stephen P. D'Arcy	4	118	5

Note: Number in parentheses denotes number of articles authored while editor of the *JRI*.

Leading Contributors to the *JRI* (1980–1989)

Ranking by Number of Articles	Author	Number of Publications	Number of Pages	Ranking by Number of Pages
1	Emilio C. Venezian	10	139	3
2	Neil A. Doherty	8	128	4
2	Scott E. Harrington	8	212	1
4	J. David Cummins	7	155	2
5	Mark L. Cross	5	69	n/a
5	Michael L. Smith	5	98	n/a
7	Robert C. Witt	4	107	5

Leading Contributors to the *JRI* (1970–1979)

Ranking by Number of Articles	Author	Number of Publications	Number of Pages	Ranking by Number of Pages
1	Robert C. Witt	8	169	2
1	William C. Scheel	8	170	1
3	James S. Trieschmann	7	93	n/a
3	Yehuda Kahane	7	92	n/a
3	S. Travis Pritchett	7	86	n/a
3	J. David Cummins	7	147	3
7	Dan R. Anderson	6	117	4
7	George E. Rejda	6	95	5
n/a	Robert I. Mehr (5)	5	95	5

Note: Number in parentheses denotes number of articles authored while editor of the *JRI*.

Leading Contributors to the *JRI* (1960–1969)

Ranking by Number of Articles	Author	Number of Publications	Number of Pages	Ranking by Number of Pages
1	C. Arthur Williams, Jr.	12	161	2
1	Joseph M. Belth	12	178	1
3	W Rulon Williamson	11	106	4
4	Alfred E. Hofflander	9	91	5
4	Mark R. Greene	9	141	3
6	Robert J. Myers	7	58	15
6	Theodore Bakerman	7	65	11
6	Victor Gerdes	7	59	14
6	Robert I. Mehr	7	88	6
7	Frank G. Dickinson	6	73	9
7	James C. O'Connor	6	47	n/a
7	David B. Houston	6	73	9
7	James L. Athearn	6	57	17
14	Herbert S. Denenberg	5	81	7
14	O.D. Dickerson	5	57	17
14	John S. Bickley (2)	5	54	19
14	Irving Pfeffer	5	45	n/a
14	Walter Williams	5	58	15
14	Raymond G. Schultz	5	45	n/a
n/a	George W. Goble	76	3	8
n/a	Allen L. Mayerson	65	3	11
n/a	Robert D. Eilers	60	3	13
n/a	Alfred N. Guertin	52	3	20

Note: Number in parentheses denotes number of articles authored while editor of the *JRI*.

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