Publishing in January and Impact on Citations: Does the Data Support the Strategy?

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There are many conventional wisdoms surrounding maximizing citations. With rare exceptions, these largely hold true under scrutiny; however, one oft-mentioned strategy is the assertion that articles published in January contribute more citations to the Journal Impact Factor (JIF) due to their longer exposure time—sometimes referred to as "issue frontloading." In its simplest form, the JIF is the average number of times articles published in the last 2 years are cited in a given year. The argument follows that because January-published articles are available to be cited for the largest percentage of this 2-year window, then publishing more content in January leads to a higher JIF.

However, we have doubts.

Firstly, we have never actually seen evidence of this presented at the journal level to prove the theory correct, and secondly, when we have done the occasional analysis illustrating citation distribution over the calendar year, it has never shown that the January issue is the highest contributor to JIF. Figure 1 is an actual example—taken from a recent JIF analysis of a title published by Lippincott, the journal imprint of Wolters Kluwer—of how a journal's individual issues compare with each other in terms of contribution to JIF. Noticeably, there is no identifiable trend over the course of the calendar year, and January was certainly not the biggest contributor to this journal's JIF.

The source of this supposed strategy is the assertion that citations are primarily driven by an article's exposure as measured by time. It is true that citations do roughly follow a predictable pattern, wherein articles remain largely uncited

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for 6–9 months after publication, with the bulk of citations occurring at 18–36 months, followed by a dramatic decline. Issue frontloading presumes that JIFs can be maximized if a greater portion of the 18–36 peak time can be included in the JIF calculation. However, if this exposure were the only determinant, we would expect to see a consistent (~8%) decline of citation contributions to JIF by month over the course of a single calendar year. If, on the other hand, exposure had no effect on citation contribution, we would expect to see equal citation contributions to JIF across the calendar year (Figure 2). In this analysis, we set out to examine the degree to which exposure drives JIF, and whether issue frontloading is indeed an effective strategy for improving JIF.

Data Analysis

We examined the citation contributions of all articles published by Lippincott over a 5-year period (2017–2021; n = 175,830) broken down by month of publication. This was determined by calculating the citations generated by articles published in a specific month of the year in the 2 years after an article publication and dividing the resulting total by the number of articles published in that specific month.

Average Citation Contribution of Month (M) = Citations to articles published in M in Y1 and Y2 / Number of articles published in M.

For example, in January 2017, 3218 articles were published that were cited 9879 times in 2018 and 12,433 times in 2019. The Average Citation Contribution of the January 2017 articles was (9879 + 12,433) / 3218 = 6.9.

Data was exported from Clarivate's Web of Science and limited to articles and reviews (as defined by Web of Science). We used publication date rather than indexed date or early access date to assign a month of publication. Table 1 shows the data collected and subsequent calculations, and indicates that over this 5-year period, articles published in February and March had the first and second highest contributions, respectively. Charted over time (Figure 2), we can see that there is some level of predictability at the publisher level. For example,

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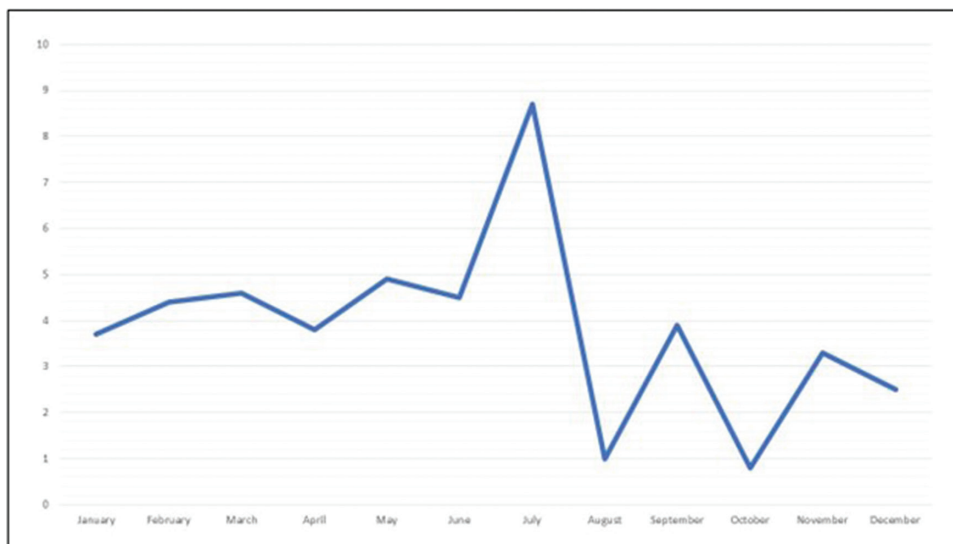
**Figure 1.** Example journal with a calculated Journal Impact Factor for each 2021 issue.

Average Citation Contribution in October, November, and December were consistently the lowest, suggesting that less exposure time has a detrimental impact on Average Citation Contribution. However, articles published in the first 8 months of the year did not correlate directly to exposure time compared to each other, with unexpected upticks in June and August, and, perhaps most surprisingly, January achieving only the fifth highest Average Citation Contribution (tied with May). Of note is the impact of COVID in the 2020 publication year, which produced the highest mid-year citation contribution (Figure 2), due in large part to the publication of a number of highly cited review papers examining the early impact of COVID.

One important caveat is that the trend indicated in Figure 2 is from a very large sample size, which negates, to a large degree, the volatility of individual journals due to varying publication output and the impact of outlier articles in terms of citations (as illustrated in Figure 1).

Discussion and Conclusions

Even then, how to explain January's underperformance? Initially we suspected that January articles may have a higher exposure to same-year citations, i.e., a significant number of citations are falling within the same calendar year, and therefore not contributing to the JIF. However, this wasn't borne out by an examination of same-year citations. January did not have a greater number of same-year citations than subsequent months either by total or percentage of citations. February and March both had higher overall same-year citations and a higher percentage of citations occurring in the publication year.
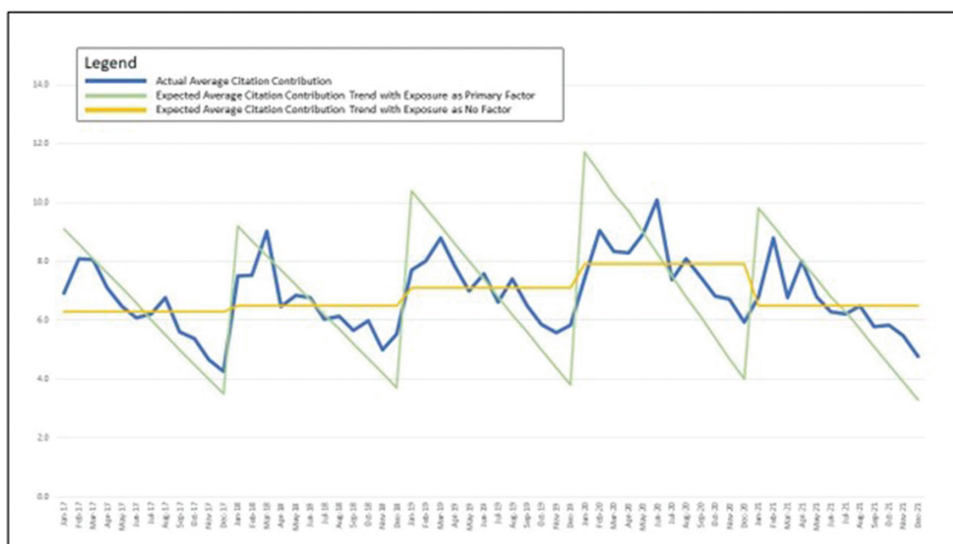
Figure 2. Monthly Average Citation Contribution for Lippincott journal articles, 2017–2021.

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Table 1. The Average Citation Contribution of Lippincott articles and reviews as indexed by Web of Science

Publication Month (2017–2021)	Article Count	Y1 Citations	Y2 Citations	Average Citation Contribution
January	17,033	57,447	66,039	7.2
February	11,688	45,294	52,077	8.3
March	15,810	59,297	69,645	8.2
April	13,574	46,363	56,462	7.6
May	14,893	48,771	58,817	7.2
June	13,407	44,720	53,820	7.3
July	16,712	48,106	60,868	6.5
August	12,485	37,489	49,873	7.0
September	16,165	42,103	58,743	6.2
October	14,332	34,035	52,036	6.0
November	15,363	32,821	51,793	5.5
December	14,368	28,430	46,770	5.2

Interestingly, January and July consistently had the highest number of articles published during the year as well as the first issue of volumes for many journals that publish 2 volumes per year. This timeline may explain July's unexpected dip in Average Citation Contribution. The Average Citation Contribution should accommodate for fluctuations in journal output, but perhaps January's large output is a by-product of editorial strategy. This phenomenon could be a case of the tail wagging the dog, in other words, the customary order of influence has reversed. And to what end?

Could it be that more articles are being published in January because editors think that a January publication date will bolster the citations of weaker content, leading to bloated January issues filled with castoffs from the previous calendar year?

Like other conventional wisdoms (e.g., publishing fewer articles leads to a higher JIF), there are nuances that need to be considered. Publishing fewer articles does lead to higher JIF if you publish less of the content that underperforms and prioritize the content that traditionally receives more citations. It is a matter of prioritization over volume. Issue frontloading likely works if that content was of equal quality to the rest of the journal's output. However, content that is less citable, due to lack of novelty or lower levels of evidence, does not generate citations simply by being around longer. The data support the idea that exposure time does impact how many citations an article may contribute to the JIF, but it does not create citations for lower quality content.