

Some Notes on the Relationship between Sociology and Economics  
(and Political Science):  
Cross-Disciplinary Citation Patterns over the 20<sup>th</sup> Century

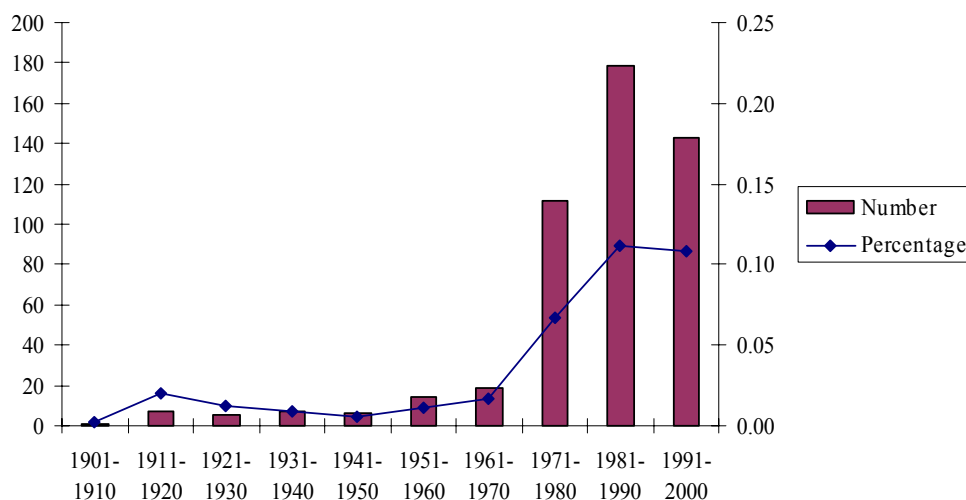
Ezra W. Zuckerman  
MIT Sloan School of Management  
October 14, 2003

At the turn of the twenty-first century, sociologists are routinely conducting studies of phenomena that have been traditionally considered the domain of economics. And the reverse is clearly true as well. With each discipline studying the other's topics, it is useful to get a sense of how much *intellectual* interchange there is and how much this has changed over time. In this note, I present some citation patterns between flagship sociology and economics journals (and between these journals and flagship political science journals) to shed light on this question.

*Citation by Sociology Journals to Economics Journals*

I begin by examining how often articles in two flagship sociology journals-- *American Journal of Sociology* and *American Sociological Review*-- cite articles that were published in two flagship economics journals: *American Economic Review* and *Journal of Political Economy*. Both of the economics journals (or their predecessor publications) have been in publication since the 19<sup>th</sup> century. The *AJS* began publication in 1895; the *ASR*, in 1936.<sup>1</sup>

**Figure 1**  
**Articles in Flagship Sociology Journals with Citations to Articles**  
**in Flagship Economics Journals: By Decade of 20th Century**

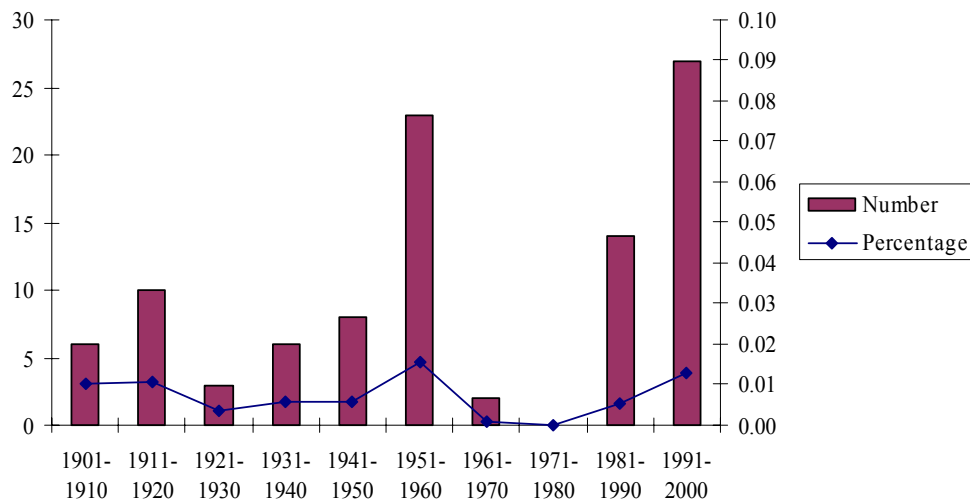


<sup>1</sup> In earlier analyses, I also included *Social Forces* (which began publication in 1925) and the *Quarterly Journal of Economics*. However, given the method for identifying a citation (see below), *Social Forces* is problematic because it is not clear whether a citation to the words “social forces” indeed refer to an article published in the journal of that name or to the expression.

In figure 1, I display both the number and proportion of articles in *AJS* or *ASR* that included citations to *AER* or *JPE*. To be included in the analysis, the article had to be classified as an “article” by JSTOR (as opposed to a “review,” “opinion piece,” or “other item”) and include within it the words “american economic review” or “journal of political economy” anywhere in the text. I am assuming that such inclusion is a citation, though in rare instances there may be a mention of the journal *per se* (though such a mention would reflect attention paid by one discipline to another, which is really what I am after).

Several patterns emerge from inspection of this figure. First, there seems to have been a marked increase in sociologists’ interest in economics over the second half, and particularly the final three decades, of the twentieth century. Only one in every one hundred *AJS* and *ASR* articles published from 1901 through 1970 included as many as one citation to an article in either *AER* or *JPE*. The lowest point occurred during the 1940s (0.05%). Thereafter, the percentage of citations increased by 109% in the 1950s; by 52% in the 1960s; by 302% in the 1970s; and by 68% in the 1980s. The attention to economics seems to have crested in recent years, however. During the 1990s, the proportion of citations to articles in *AER* or *JPE* declined slightly, from 11.4% to 10.9%.<sup>2</sup>

**Figure 2**  
**Articles in Flagship Economics Journals with Citations to Articles**  
**in Flagship Sociology Journals: By Decade of 20th Century**



<sup>2</sup> Two caveats: a) When *Social Forces* is included as a flagship sociology journal, and *Quarterly Journal of Economics* is included as a flagship economics journal, the percentage increases from 15% in the 1980s, to 20.1% in the 1990s. The general pattern is similar, however. For example, the highest rate of decade-to-decade increase in the citation percentage to the three economics journals is the 1970s (a 433% increase from 1.5% of sociology articles citing economics to 8%) and the second greatest increase occurred from the 1970s to the 1980s (91% increase). b) At the time of this writing, JSTOR does not include *ASR* issues from after 1997.

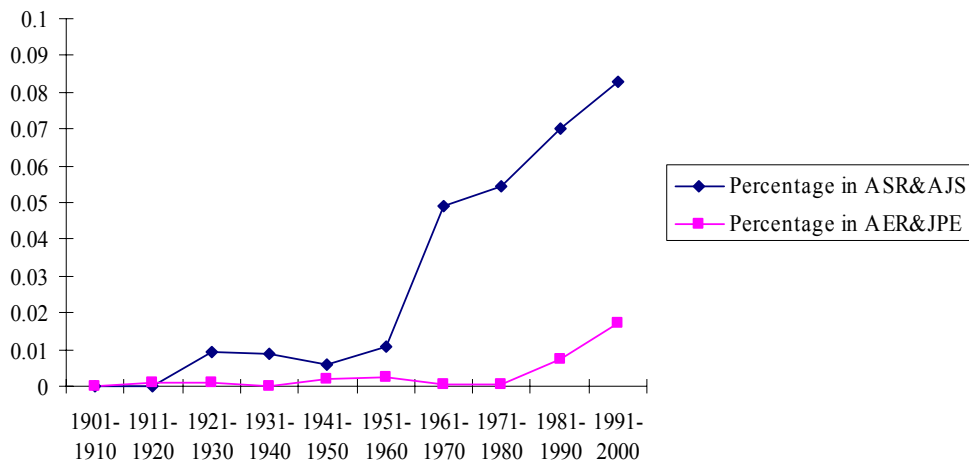
*Citation by Economics Journals to Sociology Journals*

Figure 2 is the corresponding figure showing citations from articles in *AER* and *JPE* to *ASR* or *AJS*. The main difference between the two figures is scale: regardless of the decade, a citation to either of the sociology journals is a very rare event. Over the course of the twentieth century, 15,985 articles were published in *AER* and *JPE*. Only 99 articles included any citations to work in *AJS* or *ASR*, or six per every thousand. By contrast, 493 of the 10,112 articles (forty-nine per thousand) published over the course of the twentieth century in the *ASR* or *AJS* included citations to work in the *AER* or *JPE*. In recent years, attention to sociology appears to have grown somewhat. Indeed, while there was not even one citation to the sociology journals during the 1970s (the same decade where we noted a great expansion in sociologists' attention to economics), the percentage for the 1980s was 0.005, and it was 0.013 during the 1990s. Thus, while sociology's attention to economics may be cresting (though at a level that is roughly twenty times economics' attention to sociology), economics' attention to sociology may be on the upswing. At the same time, this level of attention is roughly what it was in the 1950s, so the recent trend could just be part of a cyclical pattern.

*Holding Constant Cross-Disciplinary Citation Tendencies: Political Science*

It is instructive to compare the above patterns regarding the economics-sociology boundary to those involving these disciplines and political science. Two reasons: a) the observed differences in the tendencies to cite neighboring disciplinary journals may reflect differences between sociology and economics in their tendency to cite *any* social science discipline. b) Economics is widely considered to have successfully "colonized" much of political science. It is therefore interesting to see how that influence is reflected in cross-disciplinary citation patterns and how it compares to what we observed in the relationship between sociology and economics.

**Figure 3**  
**Proportion of Articles in Flagship Sociology and Economics**  
**Journals with Citations to Articles in Flagship Political Science**  
**Journals: By Decade of 20th Century**



*a. Citations to Political Science by Sociology and Economics Articles*

In figure 3, we display percentages of citation by the flagship sociology and economics journals to the two flagship political science journals—the *American Political Science Review* (1906-) and the *Midwest Journal of Political Science/American Journal of Political Science* (1957-). When we compare the patterns in this figure with those in figures 1 and 2, we discover that the first set of patterns seem to be less about the relationship between sociology and economics than they are about these disciplines' relationship with other social science disciplines generally.<sup>3</sup>

Thus, citations to political science journals by articles in *AER* and *JPE* were even more rare (four per thousand over the course of the twentieth century) than citations to sociology journals. Since the second of the flagship political science journals did not commence publication until 1957, it is not clear which neighboring discipline economists have ignored to a greater degree. In addition, there has been an increase in economists' attention to political science in the last two decades after the absence of any such attention during the 1970s (as with sociology, as noted above). During the 1990s, the percentage of attention to the political science journals was slightly higher than to the sociology journals (1.7% vs. 1.3%).<sup>4</sup>

We also see that sociologists increased their attention to political science roughly in parallel with the rise in their attention to economics. Both trend lines have a trough in the 1940s and thereafter show increases. Some differences are notable though. First, while we have seen that the biggest increase in attention by sociologists to economics occurred from the 1960s to the 1970s, the biggest increase in the attention to political science occurred in the transition between the prior decades (from 1.1% in the 1950s to 4.9% in the 1960s). In addition, the rate of increase in attention to economics was faster, such that the percentage was somewhat higher by the 1980s (11.1% vs. 7%), and this difference largely persisted into the 1990s (10.9% vs. 8.3%). We cannot comment here on the *nature* of the attention paid by sociologists to economics and to political science. It is reasonable to conjecture that such attention has been much more critical in the former case.

*b. Citations to Sociology and Economics by Political Science Articles*

In figure 4, I present citations by articles in *APSR* and *AJPS* to the flagship economics and sociology journals. Several features of this graph are noteworthy. Political science seems similar to sociology in that it featured very few citations to other disciplines through the 1950s, whereupon interest in other disciplines began to climb. Note that changing conventions (seemingly shared by political science and sociology, but not by economics) may be behind this: both articles and reference lists have undoubtedly gotten longer over the course of the twentieth century and it may have also become customary to

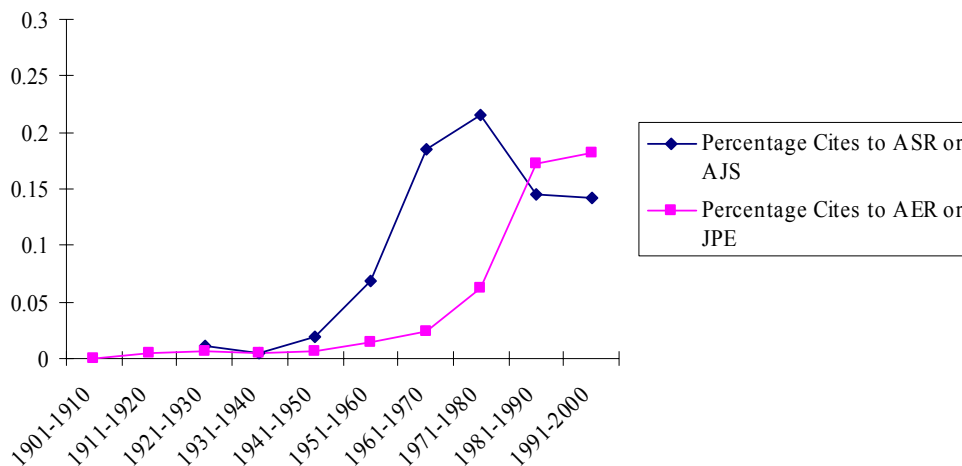
---

<sup>3</sup> It would have been instructive to include psychology in these analyses. This is hindered by the fact that psychology is really several disciplines and subdisciplines.

<sup>4</sup> It would of course be interesting to identify the articles in *APSR* or *AJPS* that are essentially exercises in economics.

cite other disciplines than it once was.<sup>5</sup>

**Figure 4**  
**Proportion of Articles in Flagship Political Science Journals with Citations to Articles in Flagship Sociology and Economics Journals: By Decade of 20th Century**



Yet an increasing openness to other disciplines cannot be the entire story, because there are clear differences in its timing and pattern. First, note that the peak citation percentages by political science to either of its disciplinary neighbors are considerably higher than the corresponding percentages by either of those neighbors, either to each other or to political science. The highest percentage observed in any of the four graphs is the citation percentage by *APSR* and *AJPS* to the sociology journals during the 1970s: 21.6%. This high percentage of attention to sociology was the culmination of a rapid increase from the 1930s (when it was 0.5%), during which the average decade-to-decade increase was 235% through the 1960s. There was a smaller increase in the subsequent decade 16%, and thereafter a marked reversal, which has subsided a bit. Overall, ten percent of all flagship political science articles published during the twentieth century cited at least one flagship sociology article. By contrast, only 4% of flagship sociology articles cited flagship political science articles. The ratio between these percentages has dropped somewhat in the last two decades ((14.2% vs. 8.3% during the 1990s) due to political science's declining attention to sociology.

Finally, note the striking parallel in the trend lines displayed in figure 4: just as political scientists started paying increasing attention to sociology during the 1940s-1970s, a similar increase in their attention to economics occurred but with a twenty-year lag. The average decade-to-decade increase was 174% over the 1960s-1990s. Note finally that, despite much hand-wringing within the discipline of political science regarding the influence of economics: a) the rate of increase in such influence (as measured by citations

<sup>5</sup> The latter possibility would be surprising, in a way. Sociology and Political Science were in their infancy in the first part of the twentieth century. One might have supposed that they would have *had* to cite other disciplines (particularly economics) until enough work in the new disciplines had been conducted.

in *APSR* and *AJPS* to *AER* or *JPE*) leveled off dramatically during the 1990s (only a 12.2% increase vs. a 181% increase from the 1970s to the 1980s); and b) it has yet to reach the peak percentage achieved by sociology during the 1970s.

Overall, 6.8% of all flagship political science articles published during the twentieth century has cited at least one flagship economics article. By contrast, only 0.4% of flagship economics articles cited flagship political science articles. The ratio between these percentages has also dropped a bit in the last two decades (18.7% vs. 1.6% during the 1990s) due to the increase in economists' interest in political science.

#### *Final Note*

The patterns of cross-disciplinary attention reviewed above may be interpreted in multiple ways. Greater insight into the appropriate interpretation would require more detailed analysis. For the moment, consider two alternatives: deference and openness. The most straightforward (sociological) interpretation of the above is the former: Economists ignore the other two disciplines because they regard them as lower in status, and they are able to get away with such attributions because the other disciplines implicitly accept their lower status (otherwise they would reciprocate by ignoring economics as well). This pattern has changed a bit in recent years but not nearly enough to change the basic asymmetry in deference conferred. In addition, sociology would seem to be higher status than political science during the course of the twentieth century, though this has changed a bit more in recent years, which is reflected in: a) the decrease in political science's attention to sociology; the fact that political science now pays more direct attention to economics than it does to sociology; and (c) the slight tendency for economists to pay attention to political science articles rather than sociology articles.

Another interpretation takes these data as evidence of the openness of a given discipline to intellectual exchange with other disciplines. Using this interpretation, both sociology and political science became much more open to other disciplines around mid-century, with the latter particularly notable for its openness to other influences. By contrast, economics has essentially been closed both to sociology and political science. A slight change over the past twenty years may augur a (healthy) shift in this stance.<sup>6</sup>

---

<sup>6</sup> The growing influence of "Behavioral Economics" (essentially, cognitive psychology applied to economics) would seem to reinforce this possibility.