

### CITATION COUNTS FOR NOBEL PRIZE WINNERS IN ECONOMICS\*

Stigler (1982a, 1982b) and Quandt (1976) have analyzed the citation practices of economists. Among their findings was the conclusion, confirmed also for other disciplines (see, e.g., Cole and Cole), that citations are positively related to other measures of quality. Indeed the few studies where citations have been included in earnings functions have found that citations are a significant determinant of income even when quality of publications and other relevant determinants are included (for sources see: Diamond, 1986).

The citation counts for Nobel prize winners were originally collected in connection with an analysis of the citations to the work of Gerard Debreu. The aim of the work (Diamond, 1988), is to use citations to the work of Debreu as evidence on whether the general equilibrium research program has proven to be empirically applicable.

Displayed in Table 1 are citation counts for the 24 economists who have been awarded the Nobel prize in economics from its inception in 1969 through the year 1986. The Table includes total counts for the years 1966 through 1980 as well as counts for the subperiods 1966-1970, 1971-1975 and 1976-1980. Additional information is also provided on year of receipt of the prize, year of birth, and country of residence during the period of active research. The citations were obtained from the *Social Science Citation Index* which has been published annually since 1966.

As a measure of a scientist's importance, the citation counts have various potential defects. One is that citations are listed only under the first author of any jointly authored publication. Thus the 92 citations from 1966 through 1980 to the important Arrow-Debreu paper on general equilibrium are all credited to Arrow (and none to Debreu). More sophisticated counts can, of course, be constructed, but only at a substantial cost in time (see Diamond, 1986 for more on this issue). Other potential defects of the counts have been enumerated (and dismissed, not in bibliography) by econometrician Edward Leamer in his compilation entitled "The Hit Parade of Economics Articles":

Those of you who find your articles on this list will be convinced of the usefulness of a citation index as a measure of the value of academic scribbling. Many of you will be surprised not to find your names here, and will conjure up reasons why the number of citations should be ignored. There are fads; there are self-citations; there are citation conspiracies; there are derogatory citations; there are bribes to editors and referees; there are sycophantic students; and there are subjects capable of direct understanding only by the few. But why didn't your papers start fads; why don't you publish more and cite yourself; why did your conspiracies fail; why don't you become an editor; why don't your students care about your welfare; and why do you insist on writing about obscure issues? (p.3)

Another reason the citation counts are only a rough measure of an economist's

\* Dae-hyun Baek, Ching-wei Lien, and Kathryn L. Williams spent long hours carefully collecting and analyzing the data. Other useful research assistance was provided by Jack Julian, James Thomas and Ann Wertz.

impact on the profession is that they include citations from non-economists. Herbert Simon's count, for example would be much smaller if only citations from economists were included. Some evidence on this claim is presented in Table 2.

Lindbeck (1985, p. 54) has noted that the preponderance of U.S. residents among the Nobel prize winners reflects the general dominance of the profession by the U.S. since World War II. Lindbeck also notes (p. 55) that the Nobel committee has attempted to be 'pluralistic' in its choice of winners. One way to achieve pluralism would be to award the prize to more foreign economists than would be indicated solely on the basis of citation counts. The Nobel economists in our list can be separated into the 14 who were located in the U.S. when they did most of their research and the 8 who were located outside the U.S. when they did most of their research (Hayek and Lewis were eliminated from this analysis because they spent a significant part of their research lives in the U.S. and a significant part abroad). The mean citation count for the U.S. Nobel prize economists was 3019 while that for the foreign economists was 1364. When the null hypothesis is that U.S. and foreign Nobel winners have equal citations and the alternative hypothesis is that U.S. Nobel winners have higher citation levels, then the null hypothesis can be rejected at the usual .05 level of significance, but cannot be rejected at the more stringent .01 level of significance.

**TABLE 1**  
**Citations Over Time to Nobel Prize Winners**

Name	Total Citations from 1966-80	Year of Nobel Prize	Year of Birth	Country During Research	Citations from 1966-70	Citations from 1971-75	Citations from 1976-80
1. Samuelson, Paul A.	6654	1970	1915	U.S.	1334	2412	2908
2. Arrow, Kenneth	6024	1972	1921	U.S.	1125	2075	2824
3. Friedman, Milton	5929	1976	1912	U.S.	1058	2274	2597
4. Simon, Herbert	3620	1978	1916	U.S.	861	1198	1561
5. Stigler, George J.	3504	1982	1911	U.S.	596	1215	1693
6. Myrdal, Gunnar	3149	1974	1898	Sweden	832	1197	1120
7. Buchanan, James M.	2743	1986	1919	U.S.	467	965	1311
8. Hicks, Sir John R.	2676	1972	1904	Britain	552	1049	1448
9. Tobin, James	2639	1981	1918	U.S.	498	904	1237
10. Modigliani, Franco	2156	1985	1918	U.S.	407	708	1041
11. Kuznets, Simon	2031	1971	1901	U.S.	552	648	831
12. Schultz, Theodore W.	1623	1979	1902	U.S.	509	500	614
13. Leontief, Wassily	1538	1973	1906	U.S.	414	508	616
14. Debreu, Gerard	1407	1983	1921	U.S.	228	486	693
15. Tinbergen, Jan	1400	1969	1903	Holland	471	474	455
16. Meade, James E.	1374	1977	1907	Britain	384	398	592
17. Klein, Lawrence	1229	1980	1920	U.S.	142	524	563
18. Lewis, Sir William A.	1209	1979	1915	Britain/U.S.	392	381	436

*continued*

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19. Koopmans, Tjalling	1164	1975	1910	U.S.	426	340	398
20. Hayek, Friedrich von	1159	1974	1899	Austria/Britain/U.S.	153	372	634
21. Stone, J. Richard N.	880	1984	1913	Britain	236	300	344
22. Frisch, Ragnar	613	1969	1895	Norway	203	236	174
23. Ohlin, Bertil	498	1977	1899	Sweden	91	91	316
24. Kantorovich, Leonid	322	1975	1912	U.S.S.R.	58	85	179

**TABLE 2**  
**The 10 Journals that Cited Herbert Simon Most Frequently Between 1966-1980**

Journal	Number of Citations to Simon
1. Administrative Science Quarterly	88
2. Public Administration Review	86
3. Zeitschrift fur Betriebswirtschaft	80
4. Management Science (includes series A and B)	71
5. Behavioral Science	63
6. Academy of Management Journal	53
7. American Economic Review	52
8. American Political Science Review	43
9. Bell Journal of Economics	41
10. Psychological Review	41

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