The Profession

The Political Science 400: Citations by Ph.D. Cohort and by Ph.D.-Granting Institution*

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There are four obvious ways to ascertain an individual or department's standing in a discipline: reputation, publication record, citations, and responsibility for the graduation of first-rate students. Each has advantages and disadvantages.

Reputation, as judged by survey data, comes closest to tapping our commonsense understanding of "who's who' in the discipline. Reputational surveys of departments conducted by the American Council of Education and similar groups are well established (e.g., COBARC, 1982).

But, just as there may be Fortune 400 companies whose names are little known to the public, a more objective indicator of standing, publication record, might seem more useful than reputation, even though expert ratings seem to reflect information about the external world and not just about the predisposition of the informants. For example, some departments with well-known names may be getting high rating based on past status, and some newly strong departments may not yet have a reputation consistent with their merit. Here the problem is what to count and how to weight it. Are all publications alike? Aren't some journals more prestigious than others? What do we do about books? Etc. Welch and Hibbing (1983) solve this problem by counting only those

articles that appear in a small set of prestigious journals. Crewe (forthcoming) weights some journals more heavily than others and gives special weight to books.' While imperfect, these seem to us to be reasonable approaches to a difficult problem.

In our own earlier work (Klingemann, 1986) we made exclusive use of the third. mode of evaluation. We provided citations ratings. We listed the total citations received by 1985 (non-emeritus) faculty for each U.S. and Canadian Ph.D.-granting institution and ranked departments by these totals. We also identified the 20 most cited political scientists in each of five fields of interest (positive theory and political behavior; comparative politics; international relations; and public policy; public administration, and public law). We believe this approach has considerable merit.

A fourth approach is to evaluate departments in terms of the Ph.D.s they turn out, rather than in terms of the citations (or productivity) of the faculty presently on their staff. Clearly it is of interest to know where the most highly cited (or the most highly productive) faculty got their Ph.D.s.

In this essay we extend our previous work in two ways. First, we identify the 25 most highly cited individuals in each 5-year cohort,² thus permitting us to identify younger (measured in terms of year of Ph.D.) scholars omitted from our previous listing and to study the age structure of the discipline's most cited individuals. Second, we use data on where the 400 most cited scholars got their Ph.D.s to rank departments in terms of the success (in quantitative citation terms) of the students whom they graduated in each of the past several decades. This allows us to rank departments in terms of the Ph.D.s they produce rather than their faculty, per se. As far as we are aware, this is the first time this type of analysis has been done.

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Table I lists the names of the Ph.D. institutions and field(s) of interest of the 400 most cited political scientists³ teaching at Ph.D.-granting institutions 1980-1985, grouped by five-year Ph.D. cohorts.⁴ For each cohort we list the top 25 members of that cohort among the 400 most-cited individuals.⁵

In Table 2 we summarize this data according to Ph.D.-granting university.

To help see the pattern in Table 2 more clearly, in Table 3 we identify the top 20 universities overall and trace their ranking by decade.

There are a number of interesting features of this table. First, Harvard reigned as the premier Ph.D.-producing university until 1960 (indeed, it had clear dominance from 1949–1954). Moreover, Harvard continues to be one of the top three departments, as judged in terms of the citation ranking of the Ph.D.s it produces.⁶

Second, by our measure, Yale became the premier Ph.D.-producing university beginning in 1964. Prior to that, though quite strong, it lagged behind Harvard, Princeton, Columbia, and the University of Chicago.

Third, some institutions which were quite strong in terms of graduate programs in the 1940s and 1950s fell dramatically in ranking in the early or late 1970s. Princeton, for example, which had vied with Harvard and Yale for the number one position in 1955–59, was not in the top ten in either the 1960s or the 1970s. Columbia, which had been in second place in the 1940s and tied for third in the 1950s, was in 9th place in the 1960s, and was no longer in the top ten by the 1970s. Conversely, some universities have risen to recent prominence. Northwestern, since 1960, is a clear case in point, as is Stanford.

Fourth, like Harvard and Yale, the University of Chicago has consistently been among the top half-dozen institutions in terms of highly cited Ph.D. students produced.

Fifth, throughout the entire post-WWI

period, private schools have produced a disproportionate number of individuals who went on to be numbered among the most highly cited Ph.D.s (we shall later compare Ph.D.s in the top 400 to Ph.D.s. produced to control for the fact that private universities turn out a disproportionate share of all Ph.D.s). However, in recent years a higher proportion of highly cited Ph.D.s have had Ph.D.s from state institutions, and three institutions-the University of Michigan, the University of Wisconsin, and UC Berkeley—would seem clearly established as presently among the top dozen Ph.D. programs in terms of the caliber of the top students they produce (with other state schools, e.g., Indiana, clearly among the top 20). Indeed, in the 1970s, the University of Michigan was (along with Yale, and Harvard) one of the three top producers of subsequently highly cited Ph.D.s. Also, if we look at the University of California system as a whole, that system was number five overall.

Sixth, some universities, not otherwise among the top ten over all, have had remarkable 5-year periods. This was true of both Stanford and the University of Rochester in the period 1970–1974. Both these institutions were among the top ten producers of highly cited Ph.D.s for the 1970s. It is too early to tell whether they will maintain that status in the 1980s.⁷

Seventh, strikingly (but not surprisingly)⁸ there is a considerable correspondence between the overall rankings of universities based on their Ph.D.s and those based on either reputation or citations of their faculty—but there are a few key exceptions. MIT, for example, has a highly regarded faculty which has not produced many highly cited Ph.D.s.

This last observation brings us to an important methodological point. Should we not control for the raw number of Ph.D.'s produced (by cohort, by department)? A critique of our earlier work on departmental citations (Klingemann, 1986) was that we failed to control for departmental size. Normalizing departmental citations to obtain a per capita figure (Way, 1987; see also Greenberg, 1987) left most of the top 20 universities relatively unchanged, although UCLA and Rutgers dropped in ranking, but a few schools with small de-

Name	University	UniPHD		Index	FÍNT*
1980 + J. Mearsheimer Paul Bracken Barnett Rubin N=3	U. of Chicago Yale Yale	Cornell Yale U. of Chicago	1980 1982 1982	34 34 3	5/6 5 2/3
1975-79 Theda Skocpol Stanley Rosen James Gibson Donald Kinder Robert Rich James Alt E. Carmines Charles Ostrom John Aldrich Kenneth Meier Milton Heumann James Fishkin Frank Fischer Samuel Kernell Gregory Markus David Cameron Bruce Cain Terry M. Moe Albert Cover James Kuklinski Philip Dubois Valerie Bunce W. M. Leogrande John Nelson Joseph Stewart Larry Sabato N=26	U. of Chicago USC U. of Houston U. of Michigan Carnegie-Mellon Washington U. Indiana U. Michigan State U. U. of Minnesota U. of Oklahoma Rutgers Yale Rutgers UC San Diego U. of Michigan Yale Caltech Stanford SUNY Stony Brook U. of Illinois-Urbana UC Davis Northwestern American U. U. of Iowa U. of New Orleans U. of Virginia	Harvard UCLA U. of Iowa UCLA U. of Chicago Essex SUNY Buffalo Indiana U. U. of Rochester Syracuse Yale NYU UC Berkeley U. of Michigan Harvard Minnesota Yale Iowa U. of Wisconsin U. of Michigan Syracuse U. U. of N. Carolina U. of Houston Oxford	1975 1978 1975 1975 1975 1975 1975 1975 1975 1975	472 268 254 233 190 190 176 162 155 148 141 141 141 141 127 127 127 120 120 120 120 120 120 120 120 120 120	7/9 7 3/12 3/16 NA 3/8 3/16 5/3 2/3 4/8 12 1/2 3/4 9/14 16/17 4/7 2/3 8/9 9/13 9/14 16/17 4/7 2/3 8/9 9/13 9/12 14/8 5/7 1/8 4/8 10/11
1970-74 Norman Nie Morris Fiorina Douglas Hibbs Benjamin Page Hugh Heclo Otto A. Davis Jon Elster John Ferejohn Arthur Miller Walter Laqueur Wayne Cornelius G. O'Donnell Stephen Krasner R. McKelvey Gary Jacobson Robert Jackman Michael Cohen Kenneth Shepsle Wesley Skogan	U. of Chicago Harvard Harvard U. of Texas-Austin Harvard Carnegie-Mellon U. of Chicago Stanford U. of Michigan Georgetown UC San Diego U. of Notre Dame Stanford Caltech UC San Diego Michigan State U. of Michigan Washington U. Northwestern	Stanford U. of Rochester U. of Wisconsin Stanford Yale Claremont Paris U. Stanford U. of Michigan Princeton Stanford Yale Harvard U. of Rochester Yale U. of Wisconsin UC Irvine U. of Rochester Northwestern	1970 1972 1973 1970 1970 1972 1972 1972 1971 1973 1974 1973 1974 1971 1972 1970 1972 1970 1972 1970 1971	832 698 564 536 444 423 367 360 353 353 353 353 331 324 303 289 282 282 282 275 261	16/9 9 3 9/16 7 NA 1 2/3 3/15 5 7/8 7/1 5 9/16 9/13 7/8 4 2/9 12/11

Table 1. Top Twenty-Five Individuals as Measured by Index	x I by Five-Year Cohorts

Table I (continued)

Table I (continued)					
Name	University	UniPHD	Year	Index	FINT*
Roger Hansen Alan Gilbert Lee Sigelman Herbert Asher Susan Welch Bernard Grofman n=25	Johns Hopkins U. of Denver U. of Kentucky Ohio State U. U. of Nebraska-Lincoln UC Irvine	Johns Hopkins Harvard Vanderbilt U. U. of Michigan U. of Illinois-Urbana U. of Chicago	1970 1974 1973 1970 1970 1972	226 226 226 219 219 219 219	6/5 1/2 4/7 13/16 11/10 2/8
1965-69 Graham Allison Stephen Brams Ron Inglehart Ted Gurr J. D. Singer P. C. Schmitter Robert Axelrod Robert Keohane Edward Tufte Robert Jervis Adam Przeworski Michael Lipsky James C. Scott J. Kirkpatrick Paul Abramson Gerald Kramer Walter Connor Allen Schick Douglas Rae Seweryn Bialer Alan F. Westin Suzanne Berger Malcolm Feeley Robert Erikson Sheldon Goldman N=26	Harvard NYU U. of Michigan Northwestern U. of Michigan U. of Chicago U. of Michigan Brandeis Yale Columbia U. of Chicago MIT Yale Georgetown Michigan Caltech Boston U. U. of Maryland Yale Columbia Columbia Columbia MIT U. of Wisconsin U. of Houston U. of Massachusetts	Harvard Northwestern U. of Chicago NYU NYU UC Berkeley Yale Harvard Yale UC Berkeley Northwestern Princeton Yale Columbia UC Berkeley MIT Princeton Yale U. of Wisconsin Columbia Harvard Harvard U. of Minnesota U. of Minnesota	1968 1966 1965 1965 1968 1968 1968 1968 1968 1967 1967 1967 1965 1967 1965 1965 1965 1965 1965 1965 1965 1965	620 599 515 494 479 465 409 402 395 360 338 331 303 289 282 254 247 247 247 247 240 233 233	7 2 7/2 3/8 7/5 8 5 3/9 5 8/2 8/9 7 7/1 7/17 2/3 7/5 13/9 1/2 9 7 7 12/8 2/3 12
1960-64 Theodore Lowi Michael Crozier Frances Piven Everett Ladd Ole R. Holsti Thomas Dye Arend Lijphart Bruce Russett Rudolph Rummel Jerry Hough Nelson Polsby Walter Burnham David Sears Mayer Zald Fred Greenstein Jack Walker Ira Sharkansky Chalmers Johnson	Cornell UC Irvine City U. of NY U. of Connecticut Duke Florida State U. UC San Diego Yale U.~of Hawaii Duke UC Berkeley MIT UCLA U. of Michigan Princeton U. of Michigan U. of Wisconsin UC Berkeley	Yale Paris U. U. of Chicago Cornell Stanford U. of Pennsylvania Yale Yale Northwestern Harvard Yale Harvard Yale U. of Michigan Yale U. of Iowa U. of Iowa U. of Iowa U. of Wisconsin UC Berkeley	1961 1963 1962 1964 1963 1961 1963 1961 1963 1961 1961 1960 1963 1964 1961	790 698 627 620 592 536 508 486 458 416 409 409 381 360 353 345 331	8/9 4/8 11/15 15/16 8/9 8/9 5/7 5/8 5 7/2 9/16 9 16/17 8/4 14/9 9/15 4/9 7/3

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Table I (continued)

Name	University	UniPHD	Year	Index	FINT*
M. K. Jennings Morton Halperin David Mayhew Stuart Nagel Herbert Jacob Robert Gilpin Charles O. Jones N=25	UC Santa Barbara Yale U. of Illinois-Urbana Northwestern Princeton U. of Virginia	U. of North Carolina Yale Harvard Northwestern Yale UC Berkeley U. of Wisconsin	1961 1961 1964 1961 1960 1960	324 310 310 268 261 261 261	3/17 5 9/13 8/3 9/12 5/4 9
1955-59 James Q. Wilson Brian Barry Philip Converse Brian Berry Daisy Flory R. Golembiewski Daniel Elazar Alexander George Richard Fenno Lester Milbrath Juan Linz Richard Falk James Rosenau Malcolm Jewell Gerald Pomper Robert Tucker Leonard Freedman Robert Salisbury Roger Noll Myron Weiner Glenn Snyder Walter Murphy S. C. Patterson J. A. Schlesinger James N. Rosenau N=26	Harvard Caltech U. of Michigan Carnegie-Mellon Florida State U. U. of Georgia Temple Stanford U. of Rochester SUNY Buffalo Yale Princeton USC U. of Kentucky Rutgers Princeton UCLA Washington U. Caltech MIT SUNY Buffalo Princeton U. of Iowa Michigan State U. USC	U. of Chicago NA U. of Michigan NA Princeton Yale U. of Chicago U. of Chicago Harvard U. of North Carolina Columbia Yale Princeton Penn State U Princeton Harvard UCLA U. of Illinois-Urbana Harvard Princeton Columbia U. of Chicago U. of Chicago U. of Wisconsin Yale Yale	1959 1958 1958 1958 1959 1958 1959 1958 1956 1955 1955 1955 1955 1955 1955 1955	1121 770 768 760 564 444 437 423 402 317 317 303 296 282 275 268 254 233 219 219 190 190 190 176 176	4/9 * 10 4/17 10/11 5/14 9/13 8/3 7 5/6 7 10/13 9/16 7/1 15 9/13 2/8 11/15 5/6 12/7 8/9 15/10 15/16
1950-54 James March Sam Huntington Karl Deutsch Edward Banfield Robert Lane Z. Brzezinski Peter Bachrach Lucien Pye Warren Miller Kenneth Waltz Stanley Hoffman Richard Neustadt Ernst Haas Harry Eckstein Duncan MacRae James Davies	Stanford Harvard Harvard Yale Columbia Temple MIT U. of Michigan UC Berkeley Harvard Harvard UC Berkeley UC Irvine U. of North Carolina U. of Oregon	Yale Harvard Harvard U. of Chicago Harvard Harvard Yale Syracuse Columbia U. of Paris Harvard Columbia Harvard Harvard Harvard UC Berkeley	1953 1951 1952 1950 1953 1951 1954 1954 1954 1953 1951 1953 1953 1950 1952	1361 1072 698 501 437 395 374 331 331 324 303 289 289 289 289 289 289 261	4 4/7 2/5 2/11 17 5 17/11 7/17 9/15 5/6 5/6 8/14 2/7 2/7 8 16/7

Table I (continued)

Name	University	UniPHD	Year	Index	FINT*
David Apter Ithiel de S. Pool Vincent Ostrom A. F. K. Organski Donald Mathews Henry A. Turner Morton A. Kaplan Alvin Rubenstein N=24	Yale MIT Indiana U. U. of Michigan U. of Washington UC Santa Barbara U. of Chicago U. of Pennsylvania	Princeton U. of Chicago UCLA NYU Princeton U. of Chicago Columbia U. of Pennsylvania	1954 1951 1950 1951 1953 1950 1951 1950	261 247 233 190 190 190 183 176	2/7 7/16 1/2 5 9/13 15/9 1/2 5/7
1945-49 Seymour M. Lipset David Easton Charles Lindblom Reinhard Bendix William Riker Murray Edelman Glendon Schubert Giovani Sartori Sheldon Wolin Fred W. Riggs Robert Tucker Doris Graber Adam Ulam Herb McCloskey Victor Thompson Irving Bernstein Robert Scalapino Albert Somit William Kaufman Sam Eldersveld Inis L. Claude Arthur Maass Harold Guetzkow	Stanford UC Irvine Yale UC Berkeley U. of Rochester U. of Wisconsin U. of Hawaii Columbia Princeton U. of Hawaii Johns Hopkins U. of Illinois-Chicago Harvard UC Berkeley U. of Florida UCLA UC Berkeley S. Illinois U. MIT U. of Michigan U. of Virginia Harvard Northwestern	Columbia Harvard U. of Chicago Harvard U. of Chicago Harvard U. of Illinois-Urbana Syracuse U. of Florence Harvard Columbia UC Berkeley Columbia Harvard U. of Minnesota Columbia Harvard U. of Minnesota Columbia Harvard U. of Chicago Yale U. of Michigan Harvard U. of Michigan	1949 1947 1945 1947 1949 1948 1949 1948 1949 1948 1949 1947 1946 1948 1949 1948 1949 1948 1949 1948 1949 1948	1706 1184 1156 726 663 508 416 402 282 254 204 204 190 176 155 155 148 141 113 113 99 92	7/15 2/7 2/7 1/7 2/9 17/8 8/12 1 4/7 6/5 16/17 5/7 16/17 4 12 7 1/4 8 7/15 1/5 15/16 2/5
1940-44 Robert Dahl Raymond Vernon Louis Henkin Samuel Beer Heinz Eulau Milton Esman Harold Seidman Lynton Caldwell Felix Oppenheim N=9	Yale Harvard Columbia Harvard Stanford Cornell U. of Connecticut Indiana U. of Massachusetts	Yale Columbia Harvard Harvard UC Berkeley Princeton Yale U. of Chicago Princeton	1940 1941 1940 1943 1941 1942 1940 1943 1942	1375 818 564 458 338 176 169 127 92	1/2 5/6 10 2/3 4/5 4/14 8 1/2
1935-39 (no observations) 1930-34 Peter Drucker N=1	Claremont	Frankfurt	1931	324	8

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Table I (continued)

Name	University	UniPHD	Year	Index	FINT*
Pre-1930 Jacob Van Ek	U. of Col. Boulder	lowa State U.	1924	430	9.
N=I					

*Field of Interest Codes

01 Political Thought and Philosophy

02 Formal or Positive Theory

03 Methodology.

04 Public Administration and Organization Behavior

05 International Relations and World Politics

06 International Organizations and Law

07 Comparative Politics

08 Public Policy

American Government and Politics 09

10 Federalism, State Politics and Intergovernmental Relations

11 Urban and Ethnic Politics

Public Law and Judicial Politics 12

13 Legislative Politics14 Presidential or Executive Politics

15 Political Parties and Interest Groups

16 Electoral Behavior and Public Opinion

17 Political Psychology and Socialization

NA No data available

partments moved up dramatically (e.g., Caltech from 46 to 5, Johns Hopkins from 12 to 4, UC Irvine from 15 to 7, Rochester from 16 to 8).

We believe that both raw and normalized ratings are useful. Each conveys somewhat different information.

Some universities (e.g., UC Berkeley, UCLA, Columbia, University of Chicago, Yale, Harvard, Indiana, Johns Hopkins, Princeton, University of Maryland, University of Michigan, University of Minnesota, NYU) have relatively large Ph.D. classes. Thus it may be less surprising that a high proportion of highly cited Ph.D.s come from these universities, since a high proportion of all Ph.D.s come from these universities.⁸

For each of the 20 universities with at least five Ph.D.s in the "top 400" we produce in Table 4 an "index of overrepresentation," their share of Ph.D.s in the top 400 divided by their share of all 1980 Ph.D.s. 9.10

Here we are able to see that Harvard, Yale, etc., not only produce lots of Ph.D.s, but a higher proportion of the ones they do turn out are highly cited than would be expected by chance. (Of course, the entering students might well have been superior in talent to start with. Whether a graduate education is a value-adding or merely a value-signaling enterprise remains an open question.) Note that, when we control for numbers, Yale now overtakes Harvard, and that schools like Syracuse, University of Rochester, and University of lowa, with relatively small Ph.D. cohorts, move up dramatically.

Another relevant question is about the number of scholars of each cohort who are in the "top 400" relative to the number that would be expected by chance alone given that the number of Ph.D.s in each cohort is guite different. We show in Table 5 the raw number of political science Ph.D.s by cohort and the number in the "top 400" citation category. In parentheses we show percentages, and in the last column an "index of representation," the ratio of the two percentages.

A startling feature of Table 5 (at least to the present authors) is the fact that more than 50% of all Ph.D.s in political science this century were produced in the 1970s. It is not easy to interpret the "index of

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Frequency

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Table 2. University Granting Ph.D. Frequency by Five-Year Cohort (Ťop 400)

	(100 +00)			
Cohort	University	Frequency		UCLA UC Santa Barbara U. of Colo. Boulder
1980+	Cornell U. of Chicago			U. of Kentucky U. of Oregon
N=3	Yale	I	NH 07	U. of Pittsburgh Vanderbilt
1975-79	Yale U. of Michigan Harvard Syracuse U. of Chicago U. of Iowa UCLA Florida State U. Indiana NYU Northwestern SUNY Buffalo UC Berkeley UC Santa Barbara U. of Houston U. of Minnesota U. of North Carolina U. of North Carolina U. of Pennsylvania	4 3 2 2 2 2 1 1 1 1 1 1 1 1 1 1	N=87 1965-69	Harvard Yale U. of Chicago Columbia Northwestern U. of Michigan U. of Wisconsin MIT UC Berkeley Princeton Stanford U. of Iowa NYU UCLA U. of Minnesota U. of Minnesota U. of North Carolina Cornell
N=30 1970-74	U. of Rochester U. of Wisconsin Yale U. of Michigan Harvard Stanford	 9 8 7 6		George Washington Indiana Syracuse Johns Hopkins U. of Florida U. of Illinois-Urbana U. of Missouri-Col.
	U. of Rochester UC Berkeley U. of Chicago Northwestern Princeton U. of Illinois-Urbana	5 4 4 3 3	N=89	U. of Oklahoma U. of Pennsylvania U. of Pittsburgh U. of Washington Vanderbilt
•	U. of Wisconsin Columbia Cornell Indiana MIT Syracuse Johns Hopkins U. of Iowa U. of Minnesota U. of Morth Carolina U. of North Carolina U. of Washington Brandeis Claremont Colorado State U. Michigan UC Irvine	5 4 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1960-64	Yale Harvard U. of Chicago Northwestern Stanford UC Berkeley Columbia Indiana U. of Michigan U. of Michigan U. of Misc. Madison Cornell Duke U. of Iowa U. of Iowa U. of North Carolina Radcliffe UCLA

Table 2 (continued)

University

Cohort

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Table 2 (continued)

	· · · · ·	
Cohort	University	Frequency
	U. of Illinois-Urbana U. of Minnesota U. of Oregon U. of Pennsylvania U. of Texas Austin U. of Wisc. Milwaukee Vanderbilt	
N=76		
1955-59	Harvard Princeton Yale U. of Chicago Columbia Duke U. of Michigan Cornell Ohio State U. Penn State U. Radcliffe Johns Hopkins UC Berkeley UCLA U. of Illinois-Urbana U. of Virginia U. of Virginia	10 8 7 4 2 2 2 1 1 1 1 1
N=46		
1950-54	Harvard Columbia U. of Chicago Princeton Yale Syracuse UCLA U. of Minnesota NYU SUNY UC Berkeley U. of Pennsylvania U. of Wisconsin	4 6 3 2 2 2 1 1 1 1
N = 43		•
1945-49 N=24	Harvard Columbia U. of Chicago U. of Michigan Syracuse UC Berkeley U. of Florida U. of Florida U. of Illinois-Urbana U. of Minnesota Yale	9 4 3 2 1 1 1 1
····		

Table 2 (continued)

Cohort	University	Frequency
1940-44 N=9	Harvard Princeton Yale Columbia UC Berkeley U. of Chicago	2 2 1 1 1
1935-39	(no observations)	
1930-34 N = 1	Frankfurt	I
Pre-1930 N = 1	Iowa State U.	Ι

representation." In terms of the contributions of different cohorts it is the 1950s and the 1960s cohorts which are most overrepresented relative to size, but, even though we have controlled for the effect of cohort size, there is still a generation effect of unknown shape. Clearly, older scholars have more time to become known and to write articles which continue to be cited; but also, at some point, with rare exceptions (e.g., Marx), citations to a scholar begin to flag if he or she has done little new work. Thus, we can't be sure whether the overrepresentation of the 1950s and 1960s cohort is a function of something special about them or merely a reflection of the fact that theirs is the generation which, as of 1985, was at the peak of disciplinary visibility. By tracking cohort citations over time we hope in future work to be able to investigate the rise and fall in visibility within political science of Ph.D. "generations."

About the Authors

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	Overall		By D	ecade	
University	Rank	1970s	1960s	1950s	1940s
Harvard Yale U. of Chicago U. of Michigan U. of California (all campuses) Columbia Princeton UC Berkeley* Northwestern U. of Wisconsin Stanford U. of Minnesota UCLA* U. of North Carolina Syracuse U. of Iowa U. of Iowa U. of North Carolina Syracuse U. of Iowa U. of Norther MIT Indiana	I (64) 2 (48) 3 (36) 4 (29) 5 (27) 6 (24) 7 (19) 8 (17) 9 (15) 10 (13) 10 (13) 10 (13) 11 (9) 11 (9) 12 (8) 13 (7) 13 (7) 13 (7) 14 (6) 14 (6) 15 (5)	3 (9) 1 (13) 5 (6) 2 (11) 4 (9) 9 (2) 8 (3) 6 (5) 7 (4) 5 (6) 8 (3) 8 (3) 8 (3) 8 (3) 9 (2) 8 (6) 9 (2) 10 (1)	2 (20) 1 (22) 3 (16) 6 (8) 4 (11) 5 (9) 10 (3) 6 (8) 4 (11) 7 (7) 7 (7) 10 (3) 10 (3) 9 (4) 12 (1) 8 (5) 11 (2) na (0) 9 (4) 9 (4) 9 (4)	I (24) 3 (10) 3 (10) 4 (8) 5 (5) 4 (8) 2 (11) 7 (2) na (0) 7 (2) na (0) 7 (2) 6 (3) 7 (1) na (0) na (0) na (0) na (0)	() 4 (3) 3 (4) 5 (2) 5 (2) 2 (5) 5 (2) 5 (2) 5 (2) 5 (2) 5 (2) na (0) na (0) () () () () () () () () () (
TOTAL	(343)	(91)	(37)	(83)	(32)

Table 3. Top Twenty Universities by Decade

*Included in the U. of California (all campuses) totals.

Normalized Rank	Number of "Top 400"	Number of 1980 Ph.D.s	University
1	48	15	Yale
2	64	22	Harvard
3	15	6	Northwestern
4	8	4	Syracuse
4	6	3 ,	Ú. of Rochester
5	37	20	U. of Chicago
6	7	4	U. of Iowa
7	29	17	U. of Michigan
- 8	19	14	Princeton
9	9	8	U. of Minnesota
9	9	8	UCLA
9	8	7	U. of North Carolina
10	13	13	Stanford
10	17	17	UC Berkeley
11	24	27	Columbia
11	13	15	U. of Wisconsin
12	7	. 9	U. of Illinois-Urbana
13	27	41	U. of California (all campuses)
14	6	12	MIT
15	Š	16	Indiana

Table 4. Top Twenty UniversitiesRatings Normalized by Number of Ph.D.s Granted in 1980

Cohort	Frequency/(%)	Frequency in Top 400/(%)	Index of Representation
Pre-1935 1935-39 1940-44 1945-49 1950-54 1955-59 1960-64 1965-69 1970-74 1975-79 1980+ Totals =	442 (.03) 304 (.02) 407 (.03) 564 (.04) 364 (.03) 474 (.04) 578 (.05) 1056 (.08) 3574 (.28) 3171 (.25) 1700 (.13) 12,634	2 (.004) 0 (.000) 9 (.020) 24 (.060) 46 (.110) 49 (.120) 79 (.190) 92 (.220) 88 (.210) 32 (.080) 3 (.007)	.13 .00 .66 1.50 3.70 3.00 3.80 2.75 .75 .32 .05

Table 5. Number of Political Science Ph.D.s by Five-Year Cohorts
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Source: U.S. Department of Education, Center for Education Statistics, ''Degrees and Other Formal Awards Conferred'' surveys.

^aPre-1950 figures obtained by taking a constant percentage (2%) of total Ph.D.s granted. This percentage was chosen based on the average percentage that Political Science Doctorates constituted of the total in the post-1950 period.

^bExcludes degrees given in public administration and international relations.

Notes

*This is the second in a proposed series in "Political Science: Snapshots of a Discipline" drawing on data in the Social Science Citation Index and the APSA Biographical Directory. Planned future papers include "Endogamy and Exogamy in Political Science Hiring Practices,' "Is Anybody Out There Reading? A Gini Index of Citation Inequality in Political Science," and "Citation is the Sincerest Form of Flattery: Citation Clique Structure in Political Science. We are indebted to the Word Processing Center, School of Social Science, UCI, for manuscript typing. For one of us, the inspiration for this research came from Albert Somit and Joseph Tanenhaus, American Political Science: A Profile of a Discipline, New York: Atherton Press, 1964, and from a course in the sociology of science at the University of Chicago taught by Duncan MacRae.

1. "Nonetheless, we believe that citation frequency is a more accurate indicator of the scholarly quality of faculty than is simply the number of articles published" (Klingemann, 1986: 654). However, we make no claim that citations tell the whole story. Like Minogue (1986), we believe in convergent indicators, "recognizing that quantity is a multidimensional concept." For example, a department whose members are highly productive (highly cited) may or may not turn out students of the same sort. 2. There are several technical problems in using citation data.

First, while the data base is available for online analysis, extensive use of it gets to be expensive.

Second, and more importantly, it is difficult to obtain an accurate computer count of the number of citations to a given individual. A certain amount of human judgment is required (e.g., on the one hand, Robert Dahl may be listed as R. A. Dahl or R. Dahl (or even, wrongly, as P. Dahl or R. F. Dahl); and on the other hand there may be multiple persons with the same last name in the SSCI index (sometimes even more than one political scientist). The rule we used was "when in doubt, count it," but if the publication appeared in the *Journal of Dermatol*ogy, for example, or the *Review of Slavic Linguistics*, it was omitted (Klingemann, 1986: 653).

Third, there is a problem with multiple authorship, since SSCI only lists the first author. We checked citations by letter of the alphabet and found, at the aggregate level, no significant bias (Klingemann, 1986: 655). Nonetheless, this does not mean that particular individuals who are part of a long-standing collaboration with someone earlier in the alphabet than they and who always publish articles in alphabetical order may not be slighted by our giving no weight except to first-listed authors. See Cnudde (1986), Klingemann (1987) and Cnudde (1987).

Fourth, as Minogue (1986: 403) reminds us,

certain works may be cited negatively, because they represent error to be refuted. Of course, even errors are important only if they appear in articles which people take seriously enough to bother refuting, so we do not regard this as a major problem. (Cf. "A Person is known by the enemies he makes").

Fifth, as Minogue (1986: 404) warns, "People cite their friends, pay off debts, show off the breadth of their reading, and hedge their bets," and, we might add, people also cite themselves. All this is true and gives some reasons for caution, but does not really change much at the gross level of analysis because the gap in number of citations received by the most highly cited individuals and even those in the next decile is so very large. (One specific issue, clique-based mutual inflation of citations, we hope to explore in future work.)

Sixth, citations vary by subdiscipline and field of interest. The world's leading expert on Africa is apt to receive fewer citations than a not so distinguished student of American politics. In this paper we have attempted to compensate for this problem, in part, by identifying subfields of interest. In previous work Klingemann, 1986), we separately grouped faculty into five subfield categories and ranked people only within-category.

3. Actually there are 424 names in the list because of ties. Data were obtained by counting lines of citations. (See Footnote 2).

4. Only faculty teaching at Ph.D. granting institutions in the U.S. and Canada in 1984-85 are listed. The affiliation listed is as of 1984-85. Thus, some highly cited individuals (e.g., Daniel Elazar) not teaching at a Ph.D. granting institution are omitted, as are a few highly cited individuals whom particular quirks of fate omitted (e.g., Aaron Wildavsky, who was head of Russell Sage at the time we looked at university departmental mastheads).

5. For the cohorts before 1945 and after 1980 there are not as many as 25 individuals among the top 400. The citation data is too recent for the former, and omits many of the latter because emeritus faculty were not counted.

6. It would have been nice to have been able to tabulate citations by Ph.D.-granting institutions for all 15,000 or so APSA members. Because citation data require human intervention to deal with potential sources of coding error, that was a coding task well beyond our limited resources.

7. We should be careful to warn that it may be premature to use citation data for Ph.D.s granted in 1975 and after, since it takes time to develop a program of research and establish a visible place in the discipline. Nonetheless, our own subjective judgment is that most of the names in the 1970-74 cohort and earlier became visible (and cited) early in their career. The time-path of citations is another topic we hope to investigate in future work.

8. Cf. the old Chicago proverb, "In the great bowling alley of life, the more balls you throw the more likely you are to knock down ten pins."

9. This is unfair to "new" institutions; since 1980 Ph.D. production overstates their rate of Ph.D. production over the entire post-WWII period. Unfortunately, the only data we had on Ph.D. production by department did not go back before the 1970s and the three-year totals (produced yearly) that were reported made us suspicious about aggregating.

10. Table 4 reports data only for universities that list five graduates in the "top 400." Otherwise a number of universities with one or two highly cited graduates which produce very few Ph.D.s would be at the top. For example, the University of California, Irvine has one Ph.D. in the "top 400," but it produced no Ph.D.s in 1980 and only six Ph.D.s in its 20 or so years of existence. With those percentages, UC Irvine would be the most highly rated Ph.D. producer in the country, if we included schools with fewer than five Ph.D.s.

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Paula D. McClain, book review editor, and Lucius J. Barker, editor, presents commemorative copy of the NPSR to Dianne Pinderhughes, president of the National Conference of Black Political Scientists at its annual meeting held in Baton Rouge, LA, March 15-18, 1989.

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