Ranking Departments: A Comparison of Alternative Approaches*

Natalie Masuoka
Bernard Grofman

Department of Political Science and
Center for the Study of Democracy
University of California, Irvine
3151 Social Science Plaza
Irvine, CA 92697-5100

Scott L. Feld

Department of Sociology
Purdue University
700 W. State Street
West Lafayette, Indiana 47907-2059

Forthcoming July 2007
PS: Political Science and Politics

*The authors would like to acknowledge Robert Axelrod, Nathaniel Beck, Russell Dalton, James Fowler, Ronald Inglehart, Margaret Levi, Michael Lewis-Beck, Jean Oi, Dorothy Solinger, Don Wittman and the anonymous reviewers for their helpful feedback and corrections. We are also indebted to the bibliographic assistance of Clover Behrend-Gethard, and to the inspiration of Hans-Dieter Klingemann's pioneering work. Any errors presented in this paper are the sole responsibility of the authors. Please address all correspondence to NMasuoka@uci.edu

ABSTRACT

Using citation count data from 1960-2005 we update the work of Hans-Dieter Klingemann and his co-authors (Klingemann, 1986; Klingemann, Grofman and Campagna, 1989) to rank Ph.D. granting departments (ca. 2002) vis-à-vis the citations to their faculty and by the number and proportion of their graduates who are among the discipline's citation leaders. We find that the departments which produce the highest number of most highly cited scholars have changed very little, although some new departments have entered the ranks of the elite, especially when we control for departmental size or number of Ph.D.s produced. We also show that that citation counts and number of Ph.D.s graduated are excellent predictors of reputational measures of departmental prestige.

"In Animal Farm all animals are equal, but some are more equal than others."
--George Orwell (1946)

There are many different ways to develop rankings of Ph.D. granting academic departments. Perhaps the most common method is reputational: we simply ask knowledgeable scholars in the discipline to provide their rankings and aggregate these in some fashion. Other ways involve more "objective indicators." But, of course, departments have multiple attributes, e.g., we might be interested in how good a department is as a place to get a Ph.D., or we might me interested simply in the research record of its faculty, etc.[1] Thus, we might want to use different indicators to measure different aspects of the department.

In this essay we will be looking at U.S. Ph.D. producing departments: focusing, on the one hand, on departmental research excellence among as judged by the total and mean per capita citation counts of present faculty, and, on the other hand, on departmental success in Ph.D. production as judged by the number and proportion of its Ph.D.s who end up among the most highly cited U.S. political scientists. Citation counts of present departmental faculty are a measure of present departmental visibility, and we may also think of them as measuring department input useful in turning out first-rate scholars; while citation counts (or citation-based ranking measures) for the Ph.D.s produced by a department are a measure of past departmental output success. Both types of measures can be informative.

We will look at the correlation between these and other indicators and the ranking of political science departments offered by *U.S. News and World Report*. We have examined multivariate regression models that can be used to predict departmental prestige rankings ca. 2005. While we considered many different models, our best fitting model is a remarkably simple one with only three independent variables: the number of faculty in a department who are among

the 400 most highly cited U.S.-based scholars in the discipline, the department's success in placing its own Ph.D. students at other graduate departments and its success in producing students who become highly cited scholars in the profession..

This essay is the third in a series. In the first essay we focused on using citation data to rank individual scholars, creating a list that we (following Klingemann, Grofman and Campagna, 1989) refer to as the "Political Science 400." In the second essay, we focused on exchange patterns within departments, e.g., as to the number and proportion of its Ph.D.s a given department places with/receives from each of a set of other departments. In this essay, we incorporate the individual level citation data presented in the Political Science 400 paper and the departmental Ph.D. production and placement data from the second paper in order to rank departments using a number of different indicators.

Ranking Departments in Political Science: Reputation, Productivity, and Citations

Departmental rankings have been of sustained interest to political scientists. To be sure, there are various methods to rank departments, all of which provide a different perspective on the elite departments in the profession. These methods can be generally classified into two types: subjective and objective. Subjective measures rely on perceptions of reputation while objective measures have largely focused on departments' cumulative scholarly production.

Reputational rankings have the longest standing tradition in political science. Early studies such as Kenniston (1957), Cartter (1966) and Somit and Tanenhaus (1967) all relied on surveys of either department chairs or APSA members to measure the reputations of departments. Somit and Tanenhaus posit "there is no infallible method of objectively quantifying the actual quality of schools. But where one deals with qualitative assessments, the relationship of fact to

reality is often less important than the existence of the belief and the behavior that results from its acceptance" (1964: 28). Contemporary studies conducted by both the National Research Council (1995) and the U.S News and World Report (2006) also in whole or part base their rankings on reputation.

Increasingly, scholars have increasingly turned to using more objective measures of quality, particularly in terms of publication output or citation data. Most objective studies such as Robey (1979), Morgan and Fitzgerald (1977), McCormick and Bernick (1982), Ballard and Mitchell (1996), McCormick and Rice (2001) focus on cumulative article publications of faculty. These studies try to control for quality by limiting those publications in top journals such as the APSR and regional journals. Rice, McCormick and Bergmann (2002) also ranked departments by cumulative book production and find that the type of publication makes a difference in the rankings. Finally, studies such as Klingemann (1986), Klingemann, Grofman and Campagna (1989), and Miller, Tien and Peebler (1996) have used cumulative citation counts as another method to objectively rank departments.

A number of studies also examine the relationship between subjective and objective indicators of prestige. Studies such as Lowry and Silver (1996) and Katz and Eagles (1996) examine how structural features such as departmental size and funding influence reputation rankings. These studies suggest that there are other possible factors that can influence reputations of departments. However, studies conducted by Jackman and Silver (1996), and Garand and Grady (1999), which compare the relationship between cumulative publications and reputation, find that the two do not highly correlate.

Using Citation Counts to Rank Departments

We show in Table 1 (similar to Table 3 in Klingemann, Grofman and Campagna, 1989) the ranking of the top departments in each of seven periods (before 1950, 1950-59, 1960-69, 1970-79, 1980-89, 1990-99, 2000-2004) based on how many members of the current Political Science 400 they produced during that time period. We have included a department in the table if it was among the top 20 departments in any of these time periods.

<< Table 1 about here >>

When we compare Table 1 with Table 3 in Klingemann, Grofman and Campagna (1989) which covers the four decades of the 1940s, 1950s, 1960s and 1970s based on the 1980-85 Political Science 400 list, we see that Harvard, Yale, Chicago, Michigan, Berkeley, Princeton and Columbia, continue to be among the top producers overall of the most highly cited political scientists, and that Stanford and the University of North Carolina, Chapel Hill have moved up in ranking. Comparing across the seven decades, there is more evidence of change. Generally the top ten schools maintain their high status over the seven periods, but we do see a dip for Columbia. Cal Tech, MIT, Rochester, Washington University-St Louis, UC San Diego and Duke phenomenon is also worth noting since, especially in the last several decades, each has produced a number of scholars who make it to the top of the profession, and thus each would rise drastically in rankings based on production of recent Ph.D.s who have gone on to distinction.

Because production of highly cited Ph.D.s might be thought to be made more likely if a department produces a large number of Ph.D.s, for the cumulative citation counts we have generated information identical to that shown in Table 1 except that we have normalized by dividing through by the total number of Ph.D.s produced by that department over the period 1966-2001.[2] In Table 2 (paralleling Table 4 in Klingemann, Grofman and Campagna, 1989) we

show these normalized values. For simplicity, and to avoid problems with ratios based on small numbers, we limit ourselves to overall rankings. There are a number of significant changes when we consider success in turning out stars of the profession relative to a department's total Ph.D. production. With the exception of Yale and Stanford, all schools at the very top move downward when we normalize the ranking, and some schools move significantly downward in ranking. For example, Columbia, which ranked 7 in Table 1 moves down to 25 in the normalized ranking. It is apparent from Table 2 that some smaller programs, such as those at Cal Tech, Rochester, and Washington University-St Louis, are better at producing high quality Ph.D.s. relative to their total production of Ph.D.s than are some schools with larger Ph.D. production and highly regarded Ph.D. programs.

<< Table 2 about here >>

While Table 2 provides departmental rankings based on a measure of the quality of their Ph.D. output, Table 3 provides a ranking of departments based on the total cumulative citations over the period 1960-2005 to their present (ca. 2002) faculty (paralleling Table 2 in Klingemann, 1986: 656), while in Table 4 we rank departments by the number of their faculty who (ca. 2002) are among the Political Science 400. For these tables we have not bothered to disaggregate by cohort or decade. But it appears to us that the set of emeriti who are still listed on mastheads, especially at more prestigious institutions, are those who are among the more famous in the discipline. Thus, which emeriti count can affect department ratings.[3]

<< Table 3, Table 4 about here>>

Comparing the listing of top-ranked departments in these tables to each other and to the departmental rankings based on <u>production</u> of highly cited Ph.D.s shown in Table 1 we see that, whether we consider the production of present faculty in the Political Science 400, or total

faculty citations, or production of Ph.D.s who go on to become members of the Political Science 400, the expected departments: e.g., Harvard, Yale, Princeton, etc., consistently rank in the top ten. However, perhaps the most striking feature of Table 3, when we look at total cumulative citations, is not the high ranking of the usual suspects as found by Klingemann, Grofman and Campagna (1989), but the prominence of UC Berkeley, UCLA and UC San Diego, as well as the high rankings of schools such as Duke, Cornell and Indiana. While again most of the usual suspects are highly ranked in Table 4, we also see in this table the same remarkable prominence of University of California institutions, now in terms of total faculty who are in the Political Science 400.[4] For this table, we would also call attention to the place of Ohio State, MIT, the University of Washington, and Duke among the top ranked institutions.

But, of course, *ceteris paribus*, we might expect to see schools with large departments ranking higher in total citation counts and in numbers of highly cited faculty than schools with fewer political science faculty. To correct for this, we have also provided in Tables 3 and 4 rankings normalized by departmental size, in a way similar to what we have done in Table 2 to control for size of Ph.D. production. When we normalize the citation numbers to account for size of department the rankings in Table 3 and Table 4 can shift considerably. For example, once we account for the size of the faculty by looking at per capita citation rates, we see in Table 3 that schools such as Cornell, UC San Diego and UC Irvine all have higher mean citation rates to their faculty than schools such as UC Berkeley and Princeton. In Table 2, we found that schools with smaller Ph.D. programs such as Cal Tech and Rochester are proportionally more effective at producing top scholars. In Table 4 we see that, if we control for faculty size, Cal Tech, may have the greatest proportion of highly cited faculty in political science, and that other smaller departments, like MIT, UC San Diego, SUNY Stony Brook, and the New School, also

have a very high proportion of highly cited faculty in their departments – higher in per capita terms than that of a number of more "famous" departments.

Another way to look at departments is according to the subfield where they might have concentrations of highly cited scholars. According to Klingemann (1986), in looking at the top 20 scholars in each field in the period 1980-85, Yale was the premier department in Political Theory, Michigan in American Politics, Harvard and Columbia in International Relations, while in the combined areas of public policy, public administration and public law, Harvard and Wisconsin were at the top. In Comparative Politics, no department emerged as the clear leader. We have replicated the Klingemann analysis. As of 2002, we find Stanford to be the top department in American Government, with 4 of the top 20 most cited scholars. Michigan, Northwestern, and Rochester are the next; each having 2 of the top 20 most cited scholars in their departments. For Comparative Politics, Harvard is now overwhelmingly the leader with 6 of the top 20 scholars on its faculty. Columbia, Cornell and Yale are the next top ranked departments in this subfield. For International Relations, Stanford is the top department; while in Methodology, four departments, Harvard, Michigan, Minnesota and Ohio State, tie as the top departments. Yale continues to be the premier department in Political Theory, with Columbia and UC Irvine tied as the next top departments judged in terms of members of the Political Science 200. Finally, for Public Policy, Public Administration and Public Law, Harvard, Indiana and Michigan each have 2 of the top 20 most cited scholars in this subfield.[5]

Predicting Departmental Prestige, 1980-2000

Somit and Tanenhaus (1963; 1964; 1967) look at four different departmental prestige rankings taken in 1925, 1957, 1963 and 1964. They find that Ph.D. production is a key determinant of prestige in the early period of the discipline.[6] When correlating Somit and

Tanenhaus' 1963 rankings with total Ph.D.s produced between 1948-1958, we find a bivariate correlation of -0.634 (an adjusted r^2 of 0.38). If we correlate a contemporary measures of reputation, the 2005 *U.S. News and World Report* graduate program rankings with total Ph.D.s produced between 1966-2001, we find a bivariate correlation of -0.572 (an adjusted r^2 of 0.33). When we use the logged value of the *U.S. News and World Report* rankings as our dependent variable,[7] we get an r value of -0.611 (with an adjusted r^2 of 0.37).

Besides Ph.D. production, there are other indicators which might predict prestige. Somit and Tanenhaus (1964: 36) note that "a necessary if not a sufficient condition of success is that the aspiring department be a component of a university which is itself prestigious." Klingemann (1986) looked at the relationship between departmental prestige in 1980 departmental citation counts. Reanalyzing his data we find a bivariate correlation of -0.712 (an adjusted r^2 of 0.494) between the ratings in a 1981 survey of reputational prestige (Rudder, 1983) and total citation counts of faculty.[8] If we correlate this contemporary measures of reputation, the 2005 *U.S. News and World Report* graduate program rankings, with citations to current departmental faculty ca. 2002 , we find a bivariate correlation of -0.719 (an adjusted r^2 of 0.51). When we use the logged value of the *U.S. News and World Report* rankings as our dependent variable we get an r value of -0.846 (with an adjusted r^2 of 0.713).

Other citation and placement variables also correlate with the (logged) *U.S. News and World Report* rankings in the expected way in a statistically significant fashion, as shown in Table 5.

<<Table 5 about here>>

For predictions of departmental prestige rankings ca. 2005 as provided by *U.S. News and World Report* we have generated various multivariate regressions with both input variables such

as the total citation counts of departmental faculty, per capita citation counts, the number of faculty in a department who are among the 400 most highly cited scholars in the discipline, and the number and proportion of faculty whose Ph.D.s are from top departments (here Berkeley, Chicago, Columbia, Harvard, Michigan, Princeton, Stanford, Yale),[9] and output variables such as Ph.D. production, and success in placing one's Ph.D. students at other graduate departments, and at the most elite graduate departments**.** The most sensible model we arrived, shown in Table 6 includes three variables: proportion of Ph.D.s placed at Ph.D. granting institutions, number of current faculty in the Political Science 400, and the number of Ph.D.s produced that are in the Political Science 400. Since we are looking at rankings, negative values indicate a positive relationship between the independent variable and departmental reputational prestige.

<< Table 6 about here>>

The equation in Table 6 has an adjusted r^2 of 0.85, and all variables have the correct sign, with one (number of faculty in the Political Science 400) statistically significant at the .001 level , one at the .01 level (total number of Ph.D.s produced in the Political Science 400), and one (proportion of Ph.D.s placed at other Ph.D. granting departments) significant at the .02 level.

Discussion

First, when we look at departments in terms of rankings based on citations to the students to whom they gave Ph.D.s or in terms of citations to their present faculty, we see that the long established, and mostly east coast, institutions continue to be very highly ranked in measures derived from our updated citation data -- as they were in the 1980-85 citation data studied by Klingemann, Grofman and Campagna (1989). However, we also find a remarkable rise to prominence of California institutions such as UCSD, and a further rise in the prominence of Berkeley, UCLA and Stanford. Moreover, by some important criteria, two other California

departments, Cal Tech and UC Irvine, also enter the elite ranks in political science when the data on which rankings are based is normalized with respect to faculty size.

Second, when we look at departmental ranking, the public/private factor also seems to play a role. Most of the East Coast schools among the elite institutions are private, while the West Coast schools (with the exception of Cal Tech) are public.

There have been some changes in which departments are most prominent in given subfields. Although schools like Stanford continue to be of high prominence in multiple areas, in some subfields schools besides the "usual suspects" of long-established elite institutions have risen to prominence. For example, Ohio State has come to be one of the major departments in American Politics.

Finally, we can explain most of the variance in departmental reputational rankings with only three variables: number of present faculty in the Political Science 400, proportion of past Ph.D. placements at other U.S. graduate departments, and professional success of past Ph.D.s as judged by membership in the Political Science 400. Moreover, models combining types of citation and placement data also do well in predicting *U.S. News and World Report* rankings.

References

Bayard, Michael and Neil Mitchell. 1998. "The Good, the Better and the Best in Political Science." *PS: Political Science and Politics*. 31(4): 826-828.

Cartter, Allan. 1966. *An Assessment of Quality in Graduate Education*. Washington DC: American Council on Education.

Garand, James and Kristy Grady. 1999. "Ranking Political Science Departments: Do Publications Matter?" *PS: Political Science and Politics*. 32(1): 113-116.

Gaus, John M. 1934. "The Teaching Personnel in American Political Science Departments: A Report of the Sub-Committee on Personnel of the Committee on Policy to the American Political Science Association, 1934." *American Political Science Review*. 28(4): 726-765.

Jackman, Robert and Randolph Silver. 1996. "Rating the Ranking: An Analysis of the National Research Council's Appraisal of Political Science Ph.D. Programs." *PS: Political Science and Politics*. 29(2): 155-160.

Katz, Richard and Munroe Eagles. 1996. "Ranking Political Science Programs: A View from the Lower Half." *PS: Political Science and Politics*. 29(2): 149-154.

Kenniston, Hayward. 1959. *Graduate Study and Research in the Arts and Sciences at the University of Pennsylvania*. Philadelphia: University of Philadelphia Press.

Klingemann, Hans-Dieter. 1986. "Ranking Graduate Departments in the 1980's: Toward Objective Qualitative Indicators." *PS*. 19 (3): 651-661.

Klingemann, Hans-Dieter, Bernard Grofman and Janet Campagna. 1989. "The Political Science 400: Citations by Ph.D. Cohort and by Ph.D.-Granting Institution." *PS: Political Science and Politics*. 22(2): 258-270.

Lowry, Robert and Brian Silver. 1996. "A Rising Tide Lifts All Boats: Political Science Department Reputation and the Reputation of the University." *PS: Political Science and Politics*. 29(2): 161-167.

McCormick, James and E. Lee Bernick. 1982. "Graduate Training and Productivity: A Look at Who Publishes." *Journal of Politics*. 44(1): 212-227.

McCormick, James and Tom Rice. 2001. "Graduate Training and Research Productivity in the 1990's: A Look at Who Publishes." *PS: Political Science and Politics*. 34(3): 675-680.

Miller, Arthur, Charles Tien and Andrew Peebler. 1996. "Department Rankings: An Alternative Approach." *PS: Political Science and Politics*. 29(4): 704-717.

Morgan, David and Michael Fitzgerald. 1977. "Recognition and Productivity Among American

Political Science Departments." *Western Political Quarterly*. 30(3): 342-350.

Munro, William. 1930. "Appendix VII: Instruction in Political Science in Colleges and Universities." *American Political Science Review*. 24(1): 127-145.

National Research Council. 1995. *Research Doctorate Programs in the United States: Continuity and Change*. Washington DC: National Academy Press.

Orwell, George. 1946. *Animal Farm*. New York: Harcourt, Brace and Company

Rice, Tom, James McCormick and Benjamin Bergmann. 2002. "Graduate Training, Current Affiliation and Publishing Books in Political Science." *PS: Political Science and Politics*. 35(4): 751-755.

Robey, John. 1979. "Political Science Departments: Reputations versus Productivity." *PS.* 12(2): 202-209.

Rudder, Catherine. 1983. "The Quality of Graduate Education in Political Science: A Report on the New Rankings." *PS*. 16(1): 48-53.

Somit, Albert and Joseph Tanenhaus. 1963. "Trends in American Political Science: Some Analytical Notes**."** *American Political Science Review*, 57: 933-938

Somit, Albert and Joseph Tanenhaus. 1964. *American Political Science: A Profile of the Discipline*. New York: Atherton Press.

Somit, Albert and Joseph Tanenhaus. 1967. *The Development of American Political Science: From Burgess to Behavioralism*. New York: Boston, Allyn and Bacon.

U.S. Department of Education. 2005. *Institutional Postsecondary Education Data System Completions Survey*. Washington, D.C.: U.S. Department of Education.

U.S. National Academy of Sciences. 1978. *A Century of Doctorates: Data Analyses of Growth and Change.* Washington D.C: National Academy of Sciences.

U.S. National Academy of Sciences. 1958. *Doctorate Production in United States Universities 1936-1956*. Washington D.C.: National Academy of Sciences.

U.S. National Science Foundation. 2005. *Survey of Earned Doctorates Records File*. Washington D.C: National Science Foundation.

U.S. News and World Report. 2005. *America's Best Graduate Schools 2005* Online Edition. http://www.usnews.com/usnews/edu/grad/rankings/phdhum/brief/polrank_brief.php

.

Table 1
Departments Which Produce the Highest Number of Members of the Political Science 400: Overall and by Decade

UnivPhD	Overall Rank	Before 1950	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999
Harvard	1 (56)	1 (3)	1 (10)	1 (20)	2 (16)	2 (6)	2 (1)
Yale	2 (46)	4 (1)	4 (4)	2 (16)	1 (20)	3 (5)	
UC Berkeley	3 (30)		8 (1)	3 (10)	4 (10)	1 (8)	2 (1)
Michigan	4 (27)	4 (1)		5 (7)	3 (14)	5 (4)	2 (1)
Chicago	5 (25)	2 (2)	4 (4)	4 (9)	5 (8)	7 (3)	
Princeton	6 (19)	4 (1)	2 (7)	8 (4)	10 (5)	10 (2)	
Columbia	7 (17)	2 (2)	3 (5)	5 (7)	16 (2)	16 (1)	
Stanford	8 (16)			8 (4)	7 (7)	3 (5)	
UNC Chapel Hill	9 (12)			8 (4)	5 (8)		
Wisconsin	10 (11)		6 (2)	11 (3)	10 (5)	16 (1)	
MIT	10 (11)			13 (2)	9 (6)	7 (3)	
Northwestern	12 (9)			5 (7)	16 (2)		
Rochester	12 (9)				7 (7)	10 (2)	
Minnesota	14 (8)		8 (1)		10 (5)	10 (2)	
Cornell	15 (6)		6 (2)	18 (1)	24 (1)	10 (2)	
UCLA	15 (6)		8 (1)	11 (3)	24 (1)	16 (1)	
Duke	15 (6)		8 (1)	13 (2)	24 (1)		1 (2)
U of Iowa	15 (6)			20 (1)	13 (4)	16 (1)	
Washington Univ	15 (6)			21 (1)	16 (2)	7 (3)	
Cal Tech	15 (6)				24 (1)	5 (4)	2 (1)
U of Illinois Urbana-Champaign	21 (5)		8 (1)	19 (1)	15 (3)		
Oxford	21 (5)			13 (2)	16 (2)	16 (1)	
Ohio State	23 (4)		8 (1)		24 (1)	10 (2)	
Syracuse	23 (4)				13 (4)		
Michigan State	23 (4)				16 (2)	10 (2)	
NYU	27 (3)		8 (1)	13 (2)			
U of Penn	27 (3)		8 (1)	13 (2)			
U of Paris	29 (2)		8 (1)		24 (1)		
Johns Hopkins	34 (1)		8 (1)				
Penn State	34 (1)		8 (1)				
Radcliffe	34 (1)		8 (1)				
U of Oregon	34 (1)		8 (1)				
UC San Diego	34 (1)						2 (1)

*Numbers outside the parentheses reflect the ranking. Numbers inside the parentheses reflect the number of faculty in each cohort.

Table 2
U.S. Departments Which Produce the Highest Proportion of Members of the Political Science 400 Relative to their Total Production of Ph.D.s

Normalized Rank	Department	# in PS400	Share of PS 400	Total Production 1966-2002	Share of Production	Index
1	Cal Tech	6	1.5%	21	0.1%	18.32
2	Yale	46	11.5%	440	1.7%	6.70
3	Harvard	56	14.0%	874	3.4%	4.11
4	Rochester	9	2.3%	153	0.6%	3.77
5	Washington Univ	6	1.5%	120	0.5%	3.21
6	Stanford	16	4.0%	330	1.3%	3.11
7	Michigan	27	6.8%	580	2.3%	2.98
8	UC Berkeley	30	7.5%	694	2.7%	2.77
9	Princeton	19	4.8%	459	1.8%	2.65
10	Chicago	25	6.3%	642	2.5%	2.50
11	U of Iowa	6	1.5%	168	0.7%	2.29
12	UNC Chapel Hill	12	3.0%	368	1.4%	2.09
13	Northwestern	9	2.3%	285	1.1%	2.02
14	U of Delaware	1	0.3%	34	0.1%	1.89
15	Wisconsin	11	2.8%	411	1.6%	1.72
16	Minnesota	8	2.0%	307	1.2%	1.67
16	Duke	6	1.5%	231	0.9%	1.67
18	MIT	11	2.8%	432	1.7%	1.63
19	U of Illinois Urbana-Champaign	5	1.3%	230	0.9%	1.39
19	Wisconsin-Milwaukee	1	0.3%	46	0.2%	1.39

Table 3

Ranking Departments Based on the Total Cumulative Citations over the Period 1960-2005 to their Present (ca. 2002) Faculty and by Citations Per Capita

University	Rank	Total Citations	Normalized Rank	Total Faculty	Cites per Faculty
Harvard	**1**	41,584	**2**	54	770.07
Stanford	**2**	33,648	**1**	43	782.51
Yale	**3**	30,363	**3**	52	583.90
Michigan	**4**	28,131	**4**	51	551.59
Columbia	**5**	25,486	**12**	67	380.39
UCLA	**6**	24,744	**11**	65	380.68
UC Berkeley	**7**	21,465	**15**	60	357.75
UC San Diego	**8**	16,401	**6**	37	443.27
Princeton	**9**	15,758	**14**	44	358.14
Duke	**10**	15,704	**9**	40	392.60
Cornell	**11**	14,778	**5**	31	476.71
Indiana	**12**	14,193	**20**	50	283.86
Ohio State	**13**	12,928	**21**	48	269.33
Univ of Maryland	**14**	11,673	**28**	52	224.48
NYU	**15**	11,362	**16**	33	344.30
UNC Chapel Hill	**16**	10,821	**33**	56	193.23
UC Irvine	**17**	10,512	**13**	29	362.48
Northwestern	**18**	10,038	**23**	40	250.95
Univ of Washington	**19**	9,605	**27**	42	228.69
Wisconsin	**20**	9,534	**32**	48	198.63
Michigan State	**21**	8,948	**37**	51	175.45
MIT	**22**	8,787	**19**	28	313.82
UT Austin	**23**	8,292	**29**	39	212.62
Chicago	**24**	8,140	**22**	32	254.38
Johns Hopkins	**25**	7,327	**18**	23	318.57
Univ of Iowa	**33**	6,342	**25**	27	234.89
CUNY	**36**	5,977	**8**	15	398.47
SUNY Stony Brook	**39**	5,675	**24**	24	236.46
Rochester	**42**	5,480	**17**	17	322.35
New School for Social Research	**53**	4,307	**10**	11	391.55
Cal Tech	**72**	2,453	**7**	6	408.83

Table 4

Ranking Departments by the Number and Proportion of their Faculty Who (ca. 2002) are Among the Political Science 400

University	Rank	# in PS400	Normalized Rank	Total Faculty	% in PS400
Stanford	**1**	18	**2**	43	42%
Harvard	**1**	18	**4**	54	33%
UC Berkeley	**3**	17	**9**	60	28%
Yale	**4**	16	**6**	52	31%
Columbia	**4**	16	**15**	67	24%
Michigan	**6**	14	**10**	51	27%
Princeton	**7**	13	**7**	44	30%
UCLA	**7**	13	**22**	65	20%
UC San Diego	**9**	12	**5**	37	32%
Ohio State	**9**	12	**13**	48	25%
MIT	**11**	10	**3**	28	36%
Duke	**11**	10	**13**	40	25%
Univ of Washington	**13**	9	**20**	42	21%
Wisconsin	**13**	9	**24**	48	19%
Indiana	**13**	9	**26**	50	18%
UNC Chapel Hill	**13**	9	**29**	56	16%
SUNY Stony Brook	**17**	7	**8**	24	29%
UC Irvine	**17**	7	**15**	29	24%
Cornell	**17**	7	**17**	31	23%
Washington Univ	**17**	7	**17**	31	23%
Chicago	**17**	7	**19**	32	22%
NYU	**17**	7	**20**	33	21%
Northwestern	**17**	7	**26**	40	18%
Michigan State	**17**	7	**32**	51	14%
Johns Hopkins	**25**	6	**12**	23	26%
UT Austin	**25**	6	**30**	39	15%
Univ of Maryland	**25**	6	**37**	52	12%
Cal Tech	**35**	3	**1**	6	50%
New School	**35**	3	**10**	11	27%
CUNY	**35**	3	**22**	15	20%
Vanderbilt	**35**	3	**24**	16	19%

Table 5
Bivariate Correlations with *U.S. News and World Report*
and Departmental Rankings
(N =132)

	logUSNEWS	*USNEWS*
Dept Size (# of Faculty)	-.594	-.607
Number of Faculty in PS 400	-.913	-.801
Total Dept Cites of Current Faculty	-.846	-.719
Total PhDs Produced 1966-2001	-.611	-.572
Total PhD Placements at PhD Granting Dept 1960-2005	-.845	-.675
PhDs Produced in PS 400	-.776	-.553
No. of Faculty from Big 8	-.803	-.745
No. of PhDs Placed in Big 8	-.716	-.473
Proportion of Placements in PhD Granting Dept	-.631	-.588
Per Capita Citations to Current Faculty	-.792	-.693
Proportion of Faculty from Big 8	-.614	-.591
Proportion of PhDs hired by Big 8	-.674	-.495
Proportion of Current Faculty in PS 400	-.745	-.679
Proportion of PhDs Produced in PS 400	-.438	-.361

*****_all correlations significant at the .001 level_

Table 6

Predicting *U.S. News and World Report* rankings

Independent Variables	**log of *U.S. News* 2005 Reputational Ranking (standard errors in parentheses)**
Proportion of Ph.D. Placements in U.S. Ph.D. granting departments	-0.329* (.141)
Total Faculty in Political Science 400	-0.068*** (0.005)
Total number of Ph.D.s produced between 1960-2000 that are in the Political Science 400	-0.010** (0.003)
Constant	1.971*** (0.019)
N	132
Adjusted R^2	0.853

Standard errors in parentheses. *p<0.05 **p<0.01, ***p<.001

END NOTES

[1] Other measures include counts of articles or books produced, perhaps weighted in some fashion by the prominence of the journal or publisher. Klingemann (Table 3, 1986: 53), for example, provides a ranking of departments by total number of published articles in journals in the SSCI citation base over the period 1978-80. We prefer to look at citations, since many articles tend to vanish from the collective disciplinary consciousness without a trace. However, we recognize that publications can provide an important measure of research activity, and an indicator that will lead citations, especially for departments with relatively junior faculty.

[2] For overall Ph.D. production we have yearly data at the aggregate level from 1910 through 2001 (Department of Education 2005, Gaus 1964, National Academy of Sciences 1978, National Science Foundation 2005). For Ph.D. production at the departmental level, we have data reported by Somit and Tanenhaus (1964; 1967), and that in two early articles in the APSR (Gaus 1964, Munro 1930), for the period 1902-1933, with data for the periods 1948-1958 and 1966 - 2001 taken from statistics provided by the National Science Foundation, National Academy of Sciences and the Department of Education's National Center for Education Statistics.

[3] To ascertain whether including emeriti faculty in the calculation of a department's citation count would have a major impact on departmental rankings, we ran additional analyses in which we excluded the citation counts for emeriti faculty. Of course the total faculty citation counts for many top departments did decrease, but we found that there were no substantial differences in the rankings of the top departments, even though there was some movement within limited parameters. This stability is most likely due to three reasons. First, since the top ranked departments' citation counts are much higher than their lower ranked counterparts, removing emeriti citation counts (even of highly cited faculty) would not involve displacement of top departments from their positions at the top. Second, because a large number of departments list emeriti on their faculty rosters, most departments had their citation counts lowered as a result of eliminating emeriti. Third, in no department are emeriti are substantial proportion of all listed faculty.

[4] Klingemann (1986: 659) called attention to the under-ranking in prestige terms of southwestern universities with high citation faculty, especially those in California, which he attributed to

prestige lagging "behind the massive shift in population, resources and talent that was moving to the Southwest during the 1970s and 1980s." As is apparent from Tables 3 and 4 the number of highly cited political scientists located in the West has continued to grow over the last two decades.

[5] When we examine subfield distribution for the entire Political Science 400, we get only slightly different results. We find that, for American Politics, Stanford is still the top department in political science, with 8 of its American politics faculty in the top 400. But now Ohio State is second with 6 faculty in the top 400. In Comparative politics, Harvard is again the at the top with 10 of its faculty in the Political Science 400, but now UC Berkeley is next with 8, and Yale drops to third with 7. For International Relations, Columbia and Stanford tie as the top departments. In Methodology, the University of North Carolina-Chapel Hill joins the previously noted Harvard, Michigan, Minnesota, and Ohio in the tie for first. In Political Theory, five departments all have 3 faculty in the Political Science 400: Columbia, Harvard, University of Texas-Austin, UCLA and Yale. It is in Public Policy/Public Administration/Public Law, that we see the greatest change; now Johns Hopkins is the premier department with 4 of its faculty in the top 400.

[6] "Historically, the largest producers were also the most highly regarded departments. The lion's share of Ph.D.s traditionally came… from departments which were prestigious as well as sizable" (Somit and Tanenhaus, 1964: 31).

[7] Using data in the form of rankings implicitly posits an equal spacing in perceived reputational differences between departments at adjacent ranks so that the difference between, say the 5th ranked and the 6th ranked department would be the same as the difference between the 120th and the 121sth ranked departments. Because we anticipate that identification of reputational differences among departments will be easier among the better known departments, with a kind of reputational lumping effect for the less well known departments, when we take the log of the ranks as our dependent variable this gives a nonlinear function of an appropriate shape. In this calculation, we have treated all unranked departments as being at rank 95. Clearly, lumping all unranked departments limits the best predictive fit we could hope to achieve, but if unranked

departments are really low ranked departments, as is almost certainly the case, this seems a more sensible way to treat the data then to eliminate a large number of departments from our regressions due to missing values. When we use rankings without logging them, we get essentially the same results, but the explained variance is lower; the same is true when we delete cases with missing ranks rather than treating these departments as at the bottom of the rankings.

[8] If we use the 2006 *U.S. News and World Report* rankings of undergraduate institutions as our measure of university prestige, we find a correlation of only -0.436 (an adjusted r^2 of 0. 175) between that measure and current (ca. 2002) departmental total citation counts.

[9] In a the second paper of this series (IDENTIFYING REFERENCE REMOVED), in which we analyze the production and placement rates of Ph.D. granting institutions, we identified a core of eight departments (referred to as the Big 8) that we found to exert powerful influence on the profession by directly or indirectly shaping the faculty who train the discipline as a whole. These eight schools were found to hire primarily from each other and train the majority of the faculty members at 32 other top placing departments. Together, these 40 departments train the majority (78%) of the faculty in Ph.D. granting departments.