External Grants and Publication: Sources, Outlets, and Implications

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Introduction

External funding is a common indicator of research productivity in political science. Comparing departments, university administrators often use external funding as an indication of the quality of research. While this can simply reflect administrators' desire for departments to obtain grants that provide overhead for the institution, this metric also rests on an assumption that external funding is a measure of quality research.[2] Departments themselves often use external funding as a proxy for research productivity in evaluating faculty performance. Again, the justification is generally that quality research depends on funding and that those who secure competitive funding will publish quality research.

However, not all quality research in political science depends on external funding. Blind reliance on external funding as the guide for rewarding and promoting political science research may be an incomplete strategy for developing a department's research productivity. A better strategy would reflect the actual relevance of external funding to political science research. Here we examine the relationship between external funding and high-quality research. Specifically, we investigate how important external funding is to research productivity in political science. We also examine whether research funding varies across disciplinary subfields and research methodologies in its relationship to research productivity.

Somewhat to our surprise, we have not found any studies concerning the relationship between external funding and publication. Consequently, our findings can have important implications for how departments, deans, and chancellors incorporate external funding into their appraisals of political science faculty.

We use articles in highly rated political science journals as an indication of quality research. Specifically, we examine all articles published in the five-year period 1991 through 1995[3] in eight of the profession's leading research outlets—*American Political Science Review (APSR), American Journal of Political Science (AJPS), Journal of Politics (JoP), Political Research Quarterly (PRQ), American Politics Quarterly (APQ), World Politics (WP), Comparative Politics (CP)*, and *International Organization (IO)*.[4] We are interested in the prevalence and character of funding acknowledged in articles in these journals. Our research design is summarized in Appendix 1.

We divide this paper into three parts. First, we examine the distribution of articles based upon external funding across the eight journals, research subfields, and methodological or epistemological approaches. Second, we focus on the source of funding (NSF vs. other) across the same categories. Last, we discuss the implications of our findings for the current controversy in our discipline about the biases of funding agencies and journals' willingness to publish certain types of research.

Distribution of Articles Relying on External Funding

During the 1991–95 period, 1,394 articles appeared in the eight journals, with 407 (29.2%) based on external funding and 987 (70.8%) published without such support. Table 1 ranks the journals by their respective proportions of externally funded articles. The two international relations outlets, *IO* and *WP*, rank first and second, and *CP* is fourth. The *APSR* ranks third, though it is widely thought of as the discipline's most prestigious journal. Clearly, the more specialized IR and comparative journals publish a higher percentage of articles relying on external funds than do the discipline's general outlets that cover all subfields. Note, however, that the journal specializing in American politics (*APQ*) has a very low proportion (barely 5%) of its articles externally funded.

The *Review* leads the general journals with slightly more than two-fifths (40.7%) of its research reports based upon external funding. *AJPS, JoP*, and *PRQ* follow in that order, with the latter having about one article in eight that is externally supported. It is noteworthy that the general journals publish many more articles than do the specialized ones—indeed, total articles published by each of the four fall in a narrow range of 238 to 250 over the five-year period. By contrast, articles in the specialized outlets range from 73 to 134. Consequently, the greatest *number* of externally supported research reports appears in the *APSR, AJPS*, and the *JoP* respectively. Together they publish 61.8% of all externally funded articles while *IO, WP*, and *CP* publish 30.0%.

Table 2 examines the level of external support by subfield. Just short of half (49.3%) of the 219 international relations articles were based upon outside funding. This is not surprising given that articles in that subfield's two specialized journals were externally funded so frequently.[5] Of 57 international relations articles published in the general journals, 21 (36.8%) got outside funding. Formal theory articles at 38.0% were proportionally the second most frequent recipients of outside funding, followed very closely by those in comparative politics at 37.9%. Methodology at 31.2% came next. At 22.9%, research reports concerning American politics were externally supported at a much smaller proportion than research about the international system or other countries. Not unexpectedly, only 11.0% of normative theory articles rested on outside support.

However, Table 2 shows that 764 of the 1,394 articles, or 54.8%, were in American politics—even though three of the journals published nothing in that area. So, at 175, American politics had the greatest *number* of externally funded articles; this subfield accounted for 43.0% of funded articles.

Table 3 shows that articles using a rational choice approach show a higher percentage of external support than do those reflecting any other method. At

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Table 1
Externally Funded Articles in Eight Major Journals, 1991–95

	Funded		Not Funded		Total
Journal	N	%	N	%	N
International Organization	52	48.1	56	51.9	108
World Politics	35	47.9	38	52.1	73
APSR	101	40.7	147	59.3	248
Comparative Politics	35	34.3	67	65.7	102
AJPS	81	33.6	160	66.4	241
JoP	67	26.8	183	73.2	250
PRQ	29	12.2	209	87.8	238
APQ	7	5.2	127	94.8	134
TOTAL	407	29.2	987	70.8	1394

Table 2
Externally Funded Articles by Research Field, 1991–95

	Funded		Not Funded		Total
Field	N	%	N	%	N
International Relations	108	49.3	111	50.7	219
Formal Theory	19	38.0	31	62.0	50
Comparative Politics	106	37.9	174	62.1	280
Methodology	5	31.2	11	68.8	16
American Politics	175	22.9	589	77.1	764
Normative Theory	11	11.0	89	89.0	100
TOTAL	407 (424)	29.2	987 (1005)	70.8	1394 (1429)*

*Thirty-five articles were classified in more than one subfield. However, percentages in this and subsequent tables are based upon the total number of articles printed, i.e., the total number of opportunities all researchers had to publish an article in these journals.

Table 3
Externally Funded Articles by Methodological Approach, 1991–95

	Funded		Not Funded		Total
Method	N	%	N	%	N
Rational Choice	57	47.1	64	52.9	121
Formal Analysis	45	41.7	63	58.3	108
Quantitative Analysis	279	31.1	622	68.9	901
Interpretive/Conceptual	78	24.8	237	75.2	315
Small N	9	11.4	70	88.6	79
TOTAL	407 (469)		987 (1055)		1394 (1524)*

*One hundred twenty-four articles used two methodological approaches and three articles used three.

47.1%, almost half the rational choice articles are funded by some external source. Research reports using formal analysis received outside support over two-fifths of the time (41.7%). However, as anyone who reads these journals, especially the general ones, knows, the great majority of journal articles (901 = 64.6%) rely on quantitative analysis to make their case. Not quite one-third of these (31.1%) received outside funding. Interpretive and/or conceptual articles were based upon outside funding about a quarter of the time (24.8%), and articles relying on a small N seldom received such support (11.4%).[6]

Of course, far and away the greatest *number* of articles with outside support used quantitative analysis, 280 of the 407 (68.8%). Interpretive or conceptual articles ranked second, with 78 articles (19.2%) acknowledging external funding. Fourteen percent of all externally funded articles (N = 57) employed a rational choice approach, and 11.1% (N = 45) used formal analysis techniques. With just nine small N approach articles reporting such support, only 2.2% of externally funded articles used this method.

Differences Between NSF and Other Grants

In this section, we compare funding from NSF, which supported 186 (45.7%) of the 407 externally funded articles, with funding from other outside sources, which accounted for 280 (68.8%) of the 407.[7] It is interesting to note that 59 articles received funding from both NSF and another source—some researchers were doing work sufficiently important to impress different types of granting organizations. Articles with NSF funding constituted 13.3% of the 1,394 articles published during the 1991–95 period, while those with other external sources of funding amounted to 20.1% of the articles. Together, the funded articles comprised 29.2% of all articles (see Table 1).

Table 4 breaks down the externally funded articles by source (NSF/Other) across the eight journals. It reveals that journals deviate considerably from the 45.7%–68.8% overall distribution. Notable, though perhaps not surprising, almost all articles in the three journals specializing in comparative politics or international relations were funded by non-NSF sources—100% for *IO* and 94.3% for both *WP* and *CP*. Only a handful of their articles received NSF money, and about half of these were also funded by another outside source. By contrast, only 28.6% of *APQ*'s externally funded articles obtained non-NSF funding (the lowest percentage of any journal), although with only seven of its articles funded altogether, this disparity may not be meaningful.

The general journals showed far higher proportions of funded articles based upon NSF grants. Almost two-thirds of the articles in the *APSR* and *AJPS* had NSF support compared to slightly over half their articles receiving funding from elsewhere. While articles supported by other granting organizations exceeded those with NSF funding in the *JoP* and *PRQ,* the ratio was smaller than the ratio for all journals.

We can draw several tentative, non-mutually-exclusive inferences from these data. One is that political scientists in the international relations and comparative

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Table 4
Number and Proportion of Externally Funded Articles by Funding Source

	NSF Grants		Other Grants		Total
Journal	N	%	N	%	N
APSR	65	64.4	56	55.4	101
AJPS	52	64.2	41	50.6	81
JoP	37	55.2	44	65.7	67
International Organization	2	3.8	52	100.0	52
World Politics	6	17.1	33	94.3	35
Comparative Politics	5	14.3	33	94.3	35
PRQ	14	45.2	19	61.3	29
APQ	5	71.4	2	28.6	7
TOTAL	186	45.7	280	68.8	407*

*Fifty-nine articles acknowledged support from both NSF and another external source.

politics subfields less often obtain (and perhaps less often seek) funding from NSF. They may pursue funding more successfully at other agencies or foundations that are (or at least are perceived as) more inclined to support "overseas" research. A second inference is that international relations or comparative politics scholars who do receive NSF funding are more inclined to publish their findings in the general journals, especially the "top three" (*JOP, AJPS*, and *APSR*), than in the specialized outlets. Third, one might infer that NSF far more often supported research in American politics than in "overseas" politics. We will explore the last two inferences shortly.

The vast majority of NSF funded articles appeared in the "top" general journals. Over five-eighths of the 186 articles funded by NSF (62.9%; N = 117) appeared in either the *APSR* or the *AJPS*; add the *JoP* and the total exceeds four-fifths (82.8%; N = 154). The same three journals published only 50.4% (N = 141) of the articles supported by other external sources.

By contrast, the specialized non-American-politics outlets published only 7.0% of the NSF-funded articles (N = 13) compared to 42.2% (N = 128) of those receiving other funding. NSF supported publication in these journals is remarkably low considering that 57 of the 186 NSF-funded articles (30.6%) were in international relations or comparative politics (see Table 5). As we suspected, recipients of NSF research grants in these subfields see the *APSR, AJPS*, and *JoP* as the most prestigious and/or widely read journals for disseminating their findings.[8]

Table 5 breaks down NSF and other external funding by subfield. There were considerably more funded articles in American politics than in other fields (N = 175; 43.0%). International relations and comparative politics articles each constituted slightly more than a quarter of all funded studies (N = 108, 26.5% and N = 106, 26.3% respectively). Only 35 articles (8.6%) outside these three subfields were funded. The table makes clear that externally funded articles in American politics were much more likely to be based upon NSF funding than on other support, although a respectable portion (46.3%) did receive funding from other organizations. Table 5 also shows that articles in the "overseas" subfields were considerably more likely to emerge from non-NSF funding. Indeed, almost 92% of those in international relations relied on other sources of funding, as did 84% of the articles in comparative politics. Note, though, that 37.7% of all funded articles in comparative politics received NSF money while only 15.7% of international relations articles acknowledged NSF grants. Not surprisingly, most externally supported articles in formal theory and methodology relied on NSF funding, while most of those in normative theory did not.

We could explain the results in Table 5 in at least three ways. One is that the NSF seems more willing to fund applicants for work in American politics than in international relations or comparative politics. Another possibility is that proportionately fewer scholars in these subfields apply to NSF than do American politics researchers. A third alternative is that, to the extent NSF funding is more evenly distributed between American politics and "overseas" scholars, fewer NSF grant recipients in the latter subfields publish their findings in the eight journals we examine here (favoring perhaps doing so in books or other journals), while those in American politics are more likely to report their findings in the journals we focus on. We cannot discriminate among these explanations with the available data.

Tables 6 through 8 explore the distribution of articles reporting funded research by subfield and journal. Not surprisingly, as Table 6 shows, the *AJPS, APSR*, and *JoP* published the overwhelming majority of the 175 externally supported articles in American politics. The ratio of NSF-funded articles to those funded by other organizations is remarkably similar in these three outlets, roughly seven to four and a half. *PRQ* has a rather even ratio, while *APQ* has an even higher ratio (7-3), but with a very small N. Note that the *AJPS* instead of the *APSR* carried the greatest number of articles reporting externally funded research in American politics.

The contrast between American politics and international relations could hardly be greater. In international relations (Table 7), *WP* and *IO*, the two speciality journals in that subfield, are clearly the dominant outlets for externally funded

Table 5
Comparison of Externally Funded Articles by Field and by Source of Funding

	NSF Grants		Other Grants		Total*
Field	N	%	N	%	N
American Politics	121	69.1	81	46.3	175
International Relations	17	15.7	99	91.7	108
Comparative Politics	40	37.7	89	84.0	106
Formal Theory	16	84.2	7	36.8	19
Normative Theory	1	9.1	10	90.9	11
Methodology	5	100.0	0	0	5
TOTAL N = 407	200		286		427**

*A number of articles received funding from both NSF and another external source.
**Twenty articles were classified in two fields.

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Table 6
Source of Funding for Articles in American Politics by Journal

Journal	NSF Grants N	NSF Grants %	Other Grants N	Other Grants %	Total N
AJPS	39	69.6	23	41.1	56
APSR	35	74.5	22	46.8	47
JoP	31	70.5	22	50.0	44
PRQ	11	52.4	12	57.1	21
APQ	5	71.4	2	29.6	7
TOTAL	121	69.1	81	46.3	175

Table 7
Source of Funding for Articles in International Relations by Journal

Journal	NSF Grants N	NSF Grants %	Other Grants N	Other Grants %	Total N
International Organization	2	1.9	52	100.0	52
World Politics	6	17.1	33	94.3	35
APSR	7	63.6	6	55.5	11
AJPS	2	40.0	3	60.0	5
JoP	0	0	3	100.0	3
PRQ	0	0	2	100.0	2
TOTAL	17	15.7	99	91.7	108

Table 8
Source of Funding for Articles in Comparative Politics by Journal

Journal	NSF Grants N	NSF Grants %	Other Grants N	Other Grants %	Total N
Comparative Politics	5	14.3	33	94.3	35
APSR	16	53.3	22	73.3	30
JoP	7	38.9	16	88.9	18
AJPS	9	52.9	13	76.5	17
PRQ	3	50.0	5	83.3	6
TOTAL	40	37.7	89	84.0	106

research. They account for over 80% of the 108 publications—indeed, almost 50% appear in *IO* alone. It is noteworthy, however, that the *APSR* is the plurality choice for publishing NSF-funded research in international relations, printing 41.2% of all NSF-funded articles. The *APSR* is the only journal that published more NSF-funded international relations research than articles funded elsewhere.

As Table 8 reveals, *CP* and the *APSR* are the major outlets for comparative politics research; they contain 61.3% of the funded articles. Notably, 84.0% of externally supported research reports in this subfield are supported by non-NSF funding. This percentage does not vary much across the journals. But in the "top three" general journals, about half the comparative politics articles received NSF support, while almost no articles in *CP* received NSF support. Once again, *APSR* carried the highest proportion of NSF-funded articles and the lowest percentage funded by other sources. Unlike the situation in international relations, however, more *APSR* articles were funded by other sources than by NSF.

Thirty-five of the 407 externally funded articles were published in the other three subfields. All appeared in the "top three" general journals. There were 19 articles in formal theory, 16 with NSF support and seven with aid from other sources. Fifteen of the 19 appeared in the *APSR* and the other four in the *AJPS*. Eleven articles in normative theory received outside money, all but one supported by non-NSF funding. Seven of them appeared in the *APSR*, three in *JoP*, and one in *AJPS*. Five articles focused on methodological techniques. All were funded by NSF, with three appearing in *APSR* and two in *AJPS*.

Our last goal is to analyze the different methodological approaches used in externally funded research. Table 9 offers summary data. It will hardly come as a shock to anyone who reads these journals, especially the general ones, to find that over two-thirds of these articles (68.6%) involve the analysis of quantitative data. The collection of sizeable datasets requires serious money, so researchers who do this are the ones most likely to seek external funding. A greater proportion of published research supported by NSF involves quantitative research (79.6%) than does that supported by other sources (64.6%).

It may surprise some to see that the second most frequently supported approach is interpretive or conceptual articles. Presumably such work does not require large grants, although external fellowships can make it easier. Thus it is not surprising that this approach is funded by sources other than NSF at over an 8-1 ratio.

Almost 14% of the articles relying on external grants used a rational choice approach. However, the ratio of NSF funding to that from other sources almost exactly mirrors the 7 to 4.5 ratio of overall funding support between the two sources. The same is true for small N research, although there were few such articles. External support for articles with formal analysis constituted almost one-eighth (11.3%) of such funding. In contrast to other approaches, however, NSF supported formal analysis articles more often than did other organizations.

Table 10 shows where externally supported quantitative research articles were published. Slightly over two-thirds (68.1%) appeared in the "top three" general journals. There were more NSF-funded articles in the *AJPS* and *APSR* than there were articles funded by other sources; externally funded articles in the *JoP* split pretty evenly between the two categories. The specialized journals publish fewer articles, but those with an "overseas" focus were overwhelmingly supported by other sources. In all, there were 136 NSF-funded quantitative articles in the general journals (including *PRQ*) which exceeded their 125 articles funded by other sources. The numbers were 12 and 56 respectively in the specialty journals.

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Table 9
External Funding by Methodological Approach

Approach	NSF Grants N	NSF Grants %	Other Grants N	Other Grants %	Total N
Quantitative Analysis	148	53.0	181	64.9	279
Interpretive/Conceptual	9	11.4	74	93.7	79
Rational Choice	24	42.6	39	69.6	56
Formal Analysis	29	63.0	22	47.8	46
Small N	4	44.4	6	66.7	9
Number of Classifications	214		322		469
Total Articles	186	45.7	280	68.8	407

Table 10
Source of Funding for Articles Using a Quantitative Approach by Journal

Journal	NSF Grants N	NSF Grants %	Other Grants N	Other Grants %	Total N
AJPS	45	65.2	35	50.7	69
APSR	45	69.2	37	56.9	65
JoP	34	60.7	36	64.3	56
PRQ	12	48.0	17	68.0	25
International Organization	1	4.3	23	100.0	23
Comparative Politics	3	15.0	17	85.0	20
World Politics	3	20.0	14	93.3	15
APQ	5	83.3	2	33.3	6
TOTAL	148	52.9	181	64.6	279

As noted above, externally funded interpretive or conceptual articles were supported by non-NSF funding at an 8 to 1 ratio. As Table 11 reveals, almost 78% of them appeared in the three comparative politics and international relations outlets. Very few were found in the general journals (the *APSR* leading the way with eight) and none at all in *APQ*.

The 56 externally supported articles using a rational choice perspective were less often funded by NSF (N = 24; 42.9%) than by other organizations (N = 39; 69.6%). The *APSR* was the outlet of choice with 42.9% of such articles (N = 24 with 13 funded by NSF and 15 by another source). Three other journals, *AJPS* and *IO* with nine and *WP* with eight, published a visible number of funded rational choice articles. Those in *AJPS* were closely split between NSF and non-NSF funding, while those in the other two journals largely depended upon non-NSF funding. There were no funded rational choice articles in *APQ* and only six divided among the three remaining outlets, *JoP, CP*, and *PRQ*.

The picture of support for articles using formal analysis techniques is slightly different. Here 29 of 46 (63.0%) articles received NSF support, while 22 (47.8%) obtained support from another source. Almost four-fifths (78.2%) appeared in either the *APSR* or the *AJPS*, with the former publishing more than half (25; 54.3%). Three funded formal analysis articles were published by *IO* and *WP* each, all supported by non-NSF money. Four were in the *JoP*, split evenly between the two categories.

Only nine funded small N approach articles were published during the five-year period. Four of them appeared in the *APSR*, three in the *JoP*, and one each in *AJPS* and *WP*.

Implications About Biases of Funding Agencies and Journals

The data presented here may help us better understand the current dispute in our discipline about the allocation of its most important resources (NSF grants and space in prestigious journals) across both epistemological approaches and research subfields. Our findings come from the early 1990s and thus illuminate the period when critics claim that the NSF started becoming almost exclusively focused on quantitative, formal theory, and rational choice approaches. Also in this period, many began criticizing the "top three" general journals for concentrating unduly on these approaches, and on research about American politics. (e.g., Allen et al. 2000, Jervis 2000, Kasza 2000, Perestroika online discussion list).

Table 9 shows that virtually all NSF-funded research articles fall into the three approaches named above. The actual figures (not calculable from the table) are 179 of 186 or 96.2%. To be fair, Table 3 shows that 81.1% of all articles (1,130 of 1,394) also use these approaches. Even so, NSF seems completely devoted to funding research using the three approaches as compared to funding research following other approaches. Of course, inferences about NSF bias can be no more than suggestive because the agency does not release data on unfunded proposals, so we do not know the ratio of submissions across approaches. And no data exist

Table 11
Source of Funding for Articles Using an Interpretive/Conceptual Approach by Journal

Journal	NSF Grants N	NSF Grants %	Other Grants N	Other Grants %	Total N
International Organization	1	3.7	27	100.0	27
World Politics	2	11.8	16	94.1	17
Comparative Politics	2	11.8	16	94.1	17
APSR	1	12.5	7	87.5	8
PRQ	2	50.0	2	50.0	4
JoP	0	0	4	100.0	4
AJPS	1	50.0	2	100.0	2
TOTAL	9	11.4	74	93.7	79

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about scholars using other approaches who decline to submit requests because of a perceived NSF bias.

A similar disparity occurs in NSF funding of American politics research. Table 5 reveals that the agency supported 121 articles in this subfield, 65.1% of all articles it funded. It funded 57 (30.6%) of the articles in IR and comparative politics combined. The distribution of all articles (from Table 2) is 54.8% and 35.8% respectively.

Table 12 presents data on the distribution of articles across subfields in the four general journals. The *Review* is clearly the most general of the journals. Only 98 or 39.5% of its articles cover American politics, and 83 or 33.5% focus on the "overseas" subfields. Over 20% are in normative theory. Only the *JoP* at 11.6% is anywhere near as receptive to normative theory.

By contrast, the other general journals devote a much higher percentage of their research reports devoted to American politics, ranging from a low of 68.0% up to 80.3%. A far smaller proportion of these journals' coverage concerns the "overseas" subfields, falling from 22.0% to 14.3%. Almost all articles using formal theory appear in the *APSR* or the *AJPS*; the latter publishes about two-thirds of the methodology articles.

The variance of epistemological approaches across these journals is shown in Table 13. Here, too, the *APSR* is clearly distinguishable. Barely half of its articles (53.2%) use quantification compared to 75 to 80% found in the other three. Over a fifth (20.2%) of its articles use formal analysis, and slightly more (23.8%) adopt an interpretive/conceptual mode. The *Review*, at 17.7%, also publishes rational choice pieces disproportionately more than other general journals. The *AJPS* is different from the *JoP* and *PRQ*. Neither of the latter publishes formal analyses very often, while the *AJPS* approaches the *APSR* in space allocated to that genre (15.4%). The *AJPS* also publishes rational choice work visibly more often that either the *JoP* or *PRQ,* although only half as much as the *APSR.*

Table 12
Distribution of Articles by Subfield in Four General Journals

	APSR		*AJPS*		*JoP*		*PRQ*	
Subfield	N	%	N	%	N	%	N	%
American Politics	98	39.5	164	68.0	177	70.8	191	80.3
Comparative Politics	60	24.2	38	15.8	37	14.8	24	10.1
International Relations	23	9.3	15	6.2	6	2.4	10	4.2
Normative Theory	50	20.2	9	3.7	29	11.6	12	5.0
Formal Theory	31	12.5	14	5.8	1	0.4	4	1.7
Methodology	5	2.1	11	4.6	0	0.0	0	0.0
N* =	248		241		250		238	

*N is total articles published and percentages are based on that number. Some articles are classified in more than one subfield.

Table 13
Distribution of Articles by Epistemological Approach in Four General Journals

Epistemological	*APSR*		*AJPS*		*JoP*		*PRQ*	
Approach	N	%	N	%	N	%	N	%
Quantitative Analysis	132	53.2	196	81.3	194	77.6	178	74.8
Formal Analysis	50	20.2	37	15.4	10	4.0	3	1.3
Rational Choice	44	17.7	22	9.1	14	5.6	13	5.5
Interpretive/Conceptual	59	23.8	18	7.5	39	15.6	40	16.8
Small N	9	3.6	3	1.2	7	2.8	13	5.5
N* =	248		241		250		238	

*N is total articles published and percentages are based on that number. Some articles are classified by more than one approach.

Conclusion

Our data show that most research reported in the major political science journals is *not* supported by external funding. Over 70% was conducted without any support or with only internal funding. Less than 30% of the articles relied on outside support, and only around 13% were based upon NSF funding. Unlike the natural sciences, political science does not require significant funding—or even any funding—to conduct valuable research and publish it in the highest-quality journals. This finding should be communicated to deans and other administrators who see external grants as the *sine qua non* of major research, or as the *only* means of putting a department on the academic map.

It is also noteworthy that the subfields differ widely in the proportion of quality journal publication due to external funding. International relations researchers have support about 50% of the time, comparativists about 38%, Americanists less than a quarter, and those in normative theory only about 10%. Chairs, deans, and promotion committees may find these data useful in calculating the likelihood of a faculty member obtaining research grants in considering equitable criteria for promotion and salary increments.

Political scientists who do secure external funding for their research do so 50% more often from other organizations as from NSF. This is not unexpected news. NSF budgets (especially for the social sciences) always seem tight, and grants tend to be fairly sizeable, yielding a relatively small number of awards. Indeed, in some ways, it is remarkable that even 13% of the articles were based upon NSF funding.[9]

There is a great difference between the type of articles that win NSF support and those that attract support from other sources. Although research publications in comparative politics and international relations are externally funded more often proportionally, their support comes overwhelmingly from non-NSF organizations. Articles in American politics, by contrast, are half again as likely to be NSF-funded as supported by other sources.

NSF-funded articles appear disproportionately often in the "top three" general journals. To some extent, this finding confirms the common impression that *APSR, AJPS*, and *JoP* are the most prestigious general journals. Two competitors fare far more poorly. *PRQ* publishes comparatively few articles supported by NSF-and indeed, comparatively few with any external support. *APQ*, while not a

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general journal, covers the subfield NSF appears to fund most frequently, yet less than 4% of its articles are supported by NSF money and almost none by other funding. The "overseas" journals do better than the general journals when it comes to publishing externally supported articles, but almost all of them are funded by non-NSF sources.

Finally, we cast light on the charges that the NSF and the *APSR* are biased toward particular methodological/epistemological approaches or toward research in American politics. Our data suggest an NSF bias in the early 1990s favoring quantitative, rational choice, or formal theory approaches and support for American politics research. The *Review* does not seem particularly "guilty." While it did publish many articles using rational choice or formal theory, it also carried a disproportionate amount of normative theory articles and seemed light (compared to the other general journals) on quantitative articles and on articles reporting research on American politics.

Notes

1. Our thanks to David Prince of the University of Kentucky for his assistance in coding the articles. This article is a revised version of a paper we presented at the 2001 Western Political Science Association Meeting in Las Vegas, Nevada.

2. For example, Indiana University's web site posted a discussion with President Myles Brand on October 23, 2000, in which he stresses "the ability to win competitive grants" as a measure of department and university quality. Also, e.g., while she focuses on an earlier period, see Lewin's (1997) discussion of Stanford, especially its Political Science Department at pp. 213–23.

3. Data from 1991–-95 alone do not capture the latest trends in external support for research published in the major journals. We used J-STOR to retrieve and code the articles. When we began the project in 2000, J-STOR, which then had a five-year lag time, was available only through 1995.

4. Ideally, we would include every journal where political science research acknowledging external support was published, but the labor intensive nature of coding precluded this. We selected seven journals that an informal sampling indicated had the most frequent acknowledgement of such support. We added *APQ* because the next two journals, *Comparative Political Studies* and *International Studies Quarterly*, had the same broad area focus as did *IO, WP*, and *CP*, and we sought balance across subfields.

5. Actually 64.8% of the international relations articles in *WP* were externally funded, while none of the comparative politics articles in that journal recorded outside support.

6. Small N articles involved empirical case studies or analyses of a small but defined number of cases. Interpretative/conceptual articles were less systematic in aggregating data and often were not at all empirical.

7. There were a large number of other agencies and foundations. Appendix 2 lists those most often acknowledged.

8. The number of articles published by the specialized journals is significantly smaller than the number published by general journals. In sum, they amount to 283 of the 1394 (20.3%). Thus there are fewer opportunities to publish in them. However, even if these journals' NSF rates were adjusted upward to account for this, the difference between their rates and those of the "top three" general journals would remain great.

9. Of course, the relatively small number of NSF grantees could publish a multitude of articles based on their grants. An eye-ball review of the grant data indicates that this does not occur often.

10. It is possible that some articles failed to acknowledge external support, e.g., Fulbright support for overseas travel. But most granting agencies ask for an acknowledgment and it would be foolish for a scholar who hoped to obtain future grants to omit one.

11. All NSF grants were recorded, not just those from the Political Science Section.

12. We coded articles acknowledging only internal funding from the authors's universities as not funded. A handful of faculty with endowed chairs may fund their own research internally, but we believe that internal funding is usually not large enough to generate research strategies that differ much from research that is totally unfunded. Less than 8% of the articles relied on internal funding alone.

13. Both the subfield and methodological categories are consistent with those used in the *APSR* editor's annual report published in *PS*.

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Appendix 1

We recorded funding acknowledgments from each article[10] and coded them in one of two sources (1) the National Science Foundation,[11] or (2) other agency or foundation. Articles with no acknowledgment of external funding were coded as "no funding".[12] Some articles listed more than one source of funding and were so coded. We obtained data on the size of NSF grants, which almost always ran to five or six figures. No systematic data exist on the amounts of funding from other sources; some grants may be quite small.

We coded articles by subfield. We used the universally acknowledged ones of American politics, comparative politics, international relations, and normative theory. We also used methodology and formal theory as subfields if one of the author's basic goals was to present new (or new uses of) techniques or formal models. Articles were sometimes coded in more than one field, although we did this sparingly (only if there was no clear primary emphasis).

We also coded articles by methodological approach. The approaches are: quantitative analysis, rational choice, formal analysis, small N, and interpretive/conceptual. Again, we used multiple coding where warranted.[13]

The analysis is divided into two parts: a comparison of funded and unfunded articles and a comparison of articles supported by NSF grants with those supported by other sources. In these comparison, we ask three questions: (1) whether some journals attract more funded research reports or more NSF sponsored research than do others; (2) whether published research in some subfields is more likely to be externally supported or supported by NSF than research in other subfields; (3) whether research using some methodological approaches is more often supported or more often supported by NSF than research using other approaches.

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Appendix 2

Below we list the most common sources of external funding other than NSF for the journal articles we examined. We list only those sources that were cited at least five times, giving the number of citations in parenthesis.

1. Ford Foundation (28)
2. John D. and Catherine T. MacArthur Foundation (21)
3. Social Science Research Council (15)
4. Social Science and Humanities Research Council of Canada (14)
5. Hoover Institution (12)
6. Everett Dirksen Center (11)
6. Fulbright Foundation (11)
8. John M. Olin Foundation (10)
9. Brookings Institution (8)
9. German Marshall Fund of the U.S. (8)
9. National Endowment for the Humanities (8)
12. Hewlett Fund (7)
12. United States Institute for Peace (7)
14. Dresser Foundation (6)
14. Earhart Foundation (6)
14. Howard Heinz Endowment (6)
14. Pew Charitable Trusts (6)
14. Spencer Foundation (6)
14. USSR Academy of Sciences (6)
20. Lilly Endowment (5)

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