Research Career Paths Among Political Scientists in Research Institutions

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ABSTRACT Considerable research assesses research success in political science. Yet this work has not considered widespread findings that scholars can follow various career research paths that complicate how we envision scholarly success. Further, we have no systematic information on these career paths in any scientific discipline. I present an empirically validated research career-path typology for political scientists who began their career in a research institution. The typology demonstrates that many scholars follow paths different from the most conventional expectations, and research success by measures of publications and citations is associated with only some of these paths. Thus, existing research on aggregate publications and citations likely addresses only a subset of the career paths revealed in this article. Understanding research activities in our profession requires consideration of the various career paths, their motivation, and their place in our research community.

The conventional expectation for research careers is that most scholars do their best or most abundant work when they are young. Yet, the detailed review of research on age and productivity by Jones, Reedy, and Weinberg (2014) demonstrated considerable variation. Some scholars do their best work when they are young, some do notable work during their entire career, and some do their best work at an advanced age. Yet, previous research has not explicated systematically these alternative career paths for any discipline. Cole's (1979, 966–69) typology accounted for only aggregate publications and citations, and Hill's (2020b) only conceptualizes alternative paths without empirical validation.

Drawing on these preceding observations, I present an empirically validated research-career typology for political scientists in research institutions. Scholars in these institutions, even when their own department does not have a PhD program, will face notable expectations for research (Blackburn and Lawrence 1995, 115). Further, the combined expectations for teaching, research, and service in these institutions create distinctive circumstances that require distinctive assessment.

Typological measurement is especially appropriate for this purpose, and this typology meets well-established criteria for such measurement (Collier, LaPorte, and Seawright 2012, 223–26), especially that the types should be distinguishable on meaningful distinctions about the character of careers. Patterns of research vary across careers and time for some individuals. Other career choices, such as whether to take an administrative position, also may shape distinctive career paths. Thus, the career paths identified here differ notably in the character and timing of research as well as in other respects. Further assessment of these paths could explicate the variety of research ambitions and achievements in our discipline as well as how we might educate young scholars about their career opportunities.

DISTINCTIONS THAT DEFINE RESEARCH PATHS

The studies cited previously on research careers, along with diffuse observations of scholarly careers, identified the following conceptual distinctions that especially shape career paths. Qualitative and quantitative information on these distinctions defines the different career paths:

1. *The type and temporal character of the career.* These two traits jointly shape discrete career paths in light of the following questions: Were individuals (1) tenured in their first academic position, (2) have a brief or enduring career in that type of institution, or (3) transition to a career in a teaching institution?
2. *The character of the works a scholar published, both early and late in the career.* Publication records are assessed by (1) the frequency of original research, (2) the "stature" of publication outlets in the discipline and their primary audiences, and (3) how the two preceding traits vary over time.

INFORMATION FOR THE TYPOLOGY

Two successive annual cohorts of individuals entering tenure-track assistant professor positions in research institutions—the

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four Carnegie categories for Doctorate-Granting Institutions (Carnegie Council on Policy Studies in Higher Education 1976, xv–xvi)—in 1988 and 1989 were chosen to assess scholarly careers into maturity. Eighty-one individuals, admittedly a small sample, were identified from announcements of appointments in the "People in Political Science" section in quarterly issues of *PS*. Perhaps not all appointments were so announced, but the diver-

These data produce a measure for the impact of every journal and indicate the audiences that they attract. Garand and Giles (2003, 295) distinguished the top three journals that I labeled "tier one" as the leading general journals in political science: *American Political Science Review*, *American Journal of Political Science*, and *Journal of Politics*. Only these three journals earned very high evaluation and familiarity ratings. These journals seek to publish

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sity of the hiring institutions represented suggests that the listings are highly representative if not fully inclusive. (This is elaborated with additional evidence for how common these announcements were among research and teaching institution departments in the online methods appendix.) Yet, the generalizability of this two-cohort sample can be best assessed by future studies of other samples. A "mature" sample like this, further, is necessary to assess career-long research productivity.

Many of these individuals are still employed in a political science department and have professional information pages on their department's website. Some who left the academy have personal web pages. Many scholars present full curriculum vitae on these sites, although some present only abbreviated or current information about their publications. Operational information for coding the typological distinctions identified previously on type of career and publications was first taken from these sources. When these sources were incomplete, they were supplemented with lists of publications in the Web of Science Core Collection (2020) (described in the online methods appendix); JSTOR; book offerings on Amazon (which proved to be highly comprehensive); professional webpages like those in Researchgate.net; and more general web searches. All of the data for constructing the typologies are from public sources. When exact information was unavailable for some coding, I indicated the degree of certainty of the coding (King, Keohane, and Verba 1994, 32).

The preceding observations suggest that categorization for this typology is at modest risk of judgmental error. Only the distinctions about the outlets and audiences for a scholar's publications and the publication trajectory over time require weighing of facts judgmentally, although not in all cases.

CODING PUBLICATION RECORDS

Identifying the character of publications over a career requires information on the stature of publications in the discipline—for which no optimal method exists. Yet, to rate the stature of publications and the audiences to which they are principally directed, for peer-reviewed journal articles with original research I use the subjective evaluations of journal outlets by political scientists in Garand and Giles (2003). They calculated for 115 journals a measure of "journal impact" by multiplying a measure of how highly their respondents rate each journal as a desired publication outlet (i.e., "evaluation") by their assessments of how commonly they read each journal for research in their field (i.e., "familiarity"). The online methods appendix lists more of these journals, new ones that I added, and validation evidence for the rankings.

the most prominent work in all subfields to attract readers from all fields.

I distinguished the next 19 journals as "tier two." These journals had high evaluation scores but (with the exception of *PS*) much lower familiarity scores than the tier one outlets. Therefore, they attract more specialized sets of readers. Included are five general political science journals, such as the *British Journal of Political Science*; three general journals for other disciplines, such as *the American Economic Review*; and 11 others that are highly regarded subfield journals, such as *International Studies Quarterly*.

The distinction between tiers one and two, however, is irrelevant for some purposes. These are all prestigious publication outlets. Some subfield journals even have higher impact scores than some general journals, although perhaps because of subfield citation practices (Garand and Giles 2007, 746–47). Further, no scholar in my sample published only in tier one or tier two outlets. Therefore, my categories generally distinguish those who publish regularly in one or both of these two tiers, occasionally in one or both, or rarely in either one.

"Tier three" of the remaining journals includes 96 that are read predominantly by specialized groups of scholars, as indicated by their generally low familiarity scores. Many scholars in my data publish almost exclusively in tier three journals.

Many of the scholars in the sample also publish in journals not included in the Garand and Giles (2003) survey. These journals, which I labeled "tier four," generally have low impact scores. They also have highly specialized orientations that attract specialized audiences. Publications in all four tiers are assessed from the time of initial faculty appointments to the present.

To evaluate peer-reviewed books and book chapters of original research, I used rankings of 92 book publishers from a survey of American political scientists who were asked where they prefer to publish book manuscripts and which presses' books they read for research in their field (Garand and Giles 2011). There also were four tiers of publishers.

Tier one includes the university presses for Cambridge, Princeton, Oxford, and Chicago (whose scores for impact are notably above the next tier). Tier two of university presses—Harvard, Cornell, Michigan, Yale, and Kansas—follows, with notably higher scores than those below them. Tier three of 83 presses includes university and commercial presses with notably lower preference scores for survey respondents' own manuscripts and reading in their field. Thus, tier three presses attract more specialized audiences than the first two subsets. As with journal outlets, many

scholars in the sample published with presses not in the Garand and Giles (2011) list that I labeled tier four outlets.

ADDITIONAL DATA FOR CHARACTERIZING CAREER PATHS

Previous research suggests possible causes for adopting different career paths and some of their consequences. The typology anticipates that research productivity and recognition vary by career path. Past research on these achievements focuses on numbers of publications and citations (e.g., Masuoka, Grofman, and Feld 2007). Thus, I demonstrate how these achievements vary by career path with lifetime data on publications, citations, and H indices from the Web of Science Core Collection (2020).

Some research considers how the stature of where scholars earned their PhD affects their productivity. Thus, I report the number of scholars in each category who earned their doctorates in "top 25" departments based on the peer ratings in Jones, Lindzey, and Coggeshall (1982).

Further, it has been widely demonstrated that women's numbers of publications and citations are lower than men's (e.g., Dion, Sumner, and Mitchell 2018). Thus, I indicate gender representation in each career path and assess its implications for women's and men's research generally and with Web of Science data. These comparisons adopt Kim and Grofman's (2019, 689) rarely followed recommendation to make gender comparisons with temporally matched cohorts.

Finally, Wildavsky (1993, 135–36) argued that administrative posts encourage weak scholarly candidates and limit the scholarship of those who assume such positions. I demonstrate how holding such positions varies across career types with two measures. The first measure is for assuming "high" administration posts for departmental headships, any deanship, and university-wide positions including the presidency. The second measure ("all") includes the preceding positions and adds directorships for educational and research programs (e.g., director of graduate studies) and journal editorships. Hill (2020a) cites replication data for this article.

CAREER PATHS IN RESEARCH INSTITUTIONS

Table 1 identifies career paths derived from the two measures explained previously and provides additional data on causes and consequences. The distribution of cases across all of the categories exhibits "fat tails." Category A includes 20% of the sample of scholars who fail to earn tenure at any institution. Most disappear from possible discovery, although a few can be traced into new careers.

At the other tail, cases with scholars who have crafted remarkable research records, even if those in category G publish less later in their career than earlier. Consistent publication in tier one or tier

Individuals in category E merit special notice. Some publish original scholarship every year and some publish multiple times a year in these specialized outlets. Yet, they presumably are rational actors who know that articles in these journals are rarely cited. Are their publication efforts motivated by pure academic ambition, recognition in their department, or reaching audiences with which they communicate in other ways than through citations?

Category B, although small, also is notable. It indicates that only two individuals in the sample moved from a research to a teaching institution to remain in the academy.

Category C for individuals who earned tenure with no or few publications also is notable. Some of their home universities today are self-described as research institutions. Perhaps it is no longer possible to earn tenure at them with modest publications.

Finally, category F represents a type frequently cited in the arts as well as in science: the "one-hit wonder" scholars who publish a major work early in their career but then effectively nothing else.

CORRELATES OF THE RESEARCH CAREER TYPES

First, consider the importance of a degree from a highly ranked doctoral program, as shown in table 1. Compatible with related data in Masuoka, Grofman, and Feld (2007), scholars with such degrees are especially numerous in every category with substantial publications: H, G, E, and D. Yet, they also constitute 44% of those in categories A and B for those who did not sustain a career in a research institution. The later careers of some individuals in category A suggest that they sought a doctorate for a career in public service. Alternatively, it might have been their major career option after not earning tenure or deciding that they did not want an academic career.

Second, all three indicators of publication output and citation success generate identical conclusions. There is heterogeneity in every category, but the more numerous the publications in each category and the more commonly they are in high-reputation outlets, the higher are the Web of Science indices. However, the average number of citations and the H indices indicate another circumstance. High output in lower-tier outlets (e.g., category E) generally does not yield notable citations or H index scores. Thus, scholars who publish especially in tiers three and four outlets are communicating with readers who do not often respond in dialogue captured by Web of Science indicators.

Third, table 1 shows that administrative positions have implications different from Wildavsky's (1993) view. Notable publication records are highly associated with assuming these positions. It is likely that research-institution faculty desire administrators with good scholarly credentials. Whether their scholarly careers

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two outlets over an extended part or all of a career is a laudable accomplishment—and this may be a surprising percentage of cases for some observers.

There are other notable career paths, some of which have many cases and some have few. Categories D and E together include 30% of all of the cases as well as scholars whose research output is heavily centered in tiers three and four outlets. Thus, individuals in these categories have notable, if distinctive, publication records.

suffer from taking such positions could be assessed with more intensive research.

Fourth, 30% of women in table 1 are in the highest publication category compared to only 11% of men. Moreover, 48% of women are in the high-publication categories G and H combined compared to 33% of men. Further, only 11% of women failed to earn tenure as opposed to 24% of men. By these measures, women are more successful and productive than men in their cohort. Table 2,

Table 1

A Typology of Career Research Paths[a]

Categorical Type	Total Number and by Gender and Percentage of All Cases	Number and Row Percentage from Top 26 PhD Departments[b]	Average No. of Web of Science Publications (min., max.)	Average No. of Web of Science Citations (min., max.)	Average Web of Science H Index (min., max.)	University Admin. Experience: Any/High
(A) Untenured with no publications or only a few, mostly in third tier or lower outlets	16: 3 women and 13 men (20% of total)	At least 6 (38%)	3 (0,23)	46[c] (0, 384)	1 (0, 4)	NA
(B) Tenured at a teaching institution with few or no peer-reviewed publications	2: 1 woman and 1 man (2% of total)	2 (100%)	0	0	0	50%/50%
(C) Tenured at a research institution with few or no publications	4: 1 woman and 3 men (5% of total)	0	2 (0, 4)	8 (0, 27)	0.25 (0, 1)	25%/0%
(D) Tenured with a modest number of career-long publications, mostly in tier 3 or 4 outlets and sometimes with fewer publications over time	9: 4 women and 5 men (11% of total)	At least 5 (56%)	5 (0, 14)	75 (0, 395)	3 (0, 13)	56%/11%
(E) Tenured with numerous career-long publications, mostly in tiers 3 and 4 outlets	15: 4 women and 11 men (19% of total)	11 (73%)	13 (0, 32)	126 (0, 505)	5 (0, 13)	60%/40%
(F) Tenured with tier 1 or tier 2 publications but with no later publications	3: 1 woman and 2 men (4% of total)	1 (33%)	9 (0, 16)	2 (0, 5)	1 (0, 4)	0%/0%
(G) Tenured with tier 1 or tier 2 publications and career-long active in research but with fewer publications in mostly lower-tier outlets later in the career	18: 5 women and 13 men (22% of total)	12 (67%)	16 (6, 40)	490 (4, 3,419)	7 (0, 26)	50%/28%
(H) Tenured with many career-long publications in tier 1 and tier 2 outlets	14: 8 women and 6 men (17% of total)	10 (71%)	27 (12, 59)	995 (128, 4,317)	11 (5, 18)	64%/36%

Notes: [a]With N= 81 including 27 women and 54 men. [b]Accounting for ties in the approximate top 25. [c]Inflated by the citations for an independent scholar and an individual in an untenured, applied-research position.

Table 2

Publications and Citations for Female and Male Scholars

Category and Comparison Group	Average Number of Web of Science Publications (min., max.)	Average Number of Citations (min., max.)	Average H Index (min., max.)
Category E for Career-Long Tiers 3 and 4 Publications			
Men (N=11)	12 (0, 32)	65 (0, 284)	4 (0,8)
Women (N=4)	17 (7, 26)	294 (20, 505)	7 (3, 13)
Category G for Tiers 1 and 2 Publications Early, Then Fewer Later in Career			
Men (N=13)	18 (6, 40)	499 (0, 3,419)	8 (0, 26)
Women (N=5)	12 (3, 24)	464 (17, 2,107)	5 (2, 11)
Category H for Career-Long Tiers 1 and 2 Publications			
Men (N=6)	31 (15, 59)	1,264 (128, 2,960)	14 (7, 18)
Women (N=8)	23 (4, 43)	797 (11, 4,317)	9 (3, 16)

Overall, these results suggest that women are more productive and successful than past research implies.

however, presents additional data on publication and citation records of these scholars in career paths with notable publications.

Although the numbers of men and women are small in every category in table 2, they offer interesting if diverse results. First, women in category E surpass men on every Web of Science measure, whereas in categories G and H, men have more publications and citations and higher H indices on average. Second, publications by women in categories E and G are individually better cited: 17 citations per publication for women in category E versus six citations for men and 30 cites per publication for women in category G versus 28 citations for men. Third, women in category H, however, are less well cited in this respect than men: 34 citations per publication versus 41 for men. These mixed results invite further exploration of comparably wide-ranging criteria with larger samples.

CONCLUSIONS

Whereas the conventional wisdom is that research productivity is highest early in the career, only the three individuals in category F of table 1 (of 63 who earned tenure in these institutions) closely fit that claim. Only the additional individuals in category D (14% of those tenured) and those in category G (29% of those tenured) even roughly conform to that claim. Thus, more than half of those scholars who earned tenure crafted a research path that does not conform to conventional wisdom.

Career research paths, therefore, are diverse and invite research on their individual and institutional correlates. Further, there must be distinctive scholarly ambitions across those paths with regard to what constitutes research success and which audiences scholars address with their research. We know little about these matters, yet they seem essential for understanding the political science community at large.

There also are notable findings about gender-specific scholarly success. On some measures, women are more successful than men, whereas on others they are less well published and cited. Overall, these results suggest that women are more productive and successful than past research implies. Yet, these unusual results arise from a research design that makes gender comparisons within temporally matched cohorts. Future research should investigate similarly diverse career comparisons with this design.

DATA AVAILABILITY STATEMENT

Replication materials are available on Harvard Dataverse at https://doi.org/10.7910/DVN/G7KPHT.

SUPPLEMENTARY MATERIALS

To view supplementary material for this article, please visit http://dx.doi.org/10.1017/S1049096520001730. ■

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