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Social Science PhDs- Five+ Years Out **COMMUNICATION**

Communicating the PhD Experience:

Communication PhDs Five+ Years after Graduation

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EXECUTIVE SUMMARY

The outlook for communication PhDs is good. Most want and find ladder faculty positions. In fact, communication PhDs find faculty positions more readily than doctorate holders in other social science fields. Whether in faculty positions or working in business, government, or non-profit sectors, the majority are satisfied with their jobs and career paths. When assessing careers from the perspective of balancing work and family, both men and women report problems combining work and family, but women delay parenting because of their career more often than men do.

According to graduates' assessments, communication PhD programs prepared them well for their careers. Demonstrating the applicability of a communication PhD in a variety of careers, graduates in all job sectors report that critical thinking and data analysis and synthesis are very important in their current jobs. Nevertheless, jobs outside of academia are more likely than faculty positions to require skills in data analysis and synthesis, team collaboration, working in interdisciplinary contexts, and managing people and budgets. Compared to others, faculty more often report that research design and writing and publishing are very important in their work.

Most respondents rated their PhD programs as “excellent” in terms of academic rigor and training in critical thinking. Most were “very satisfied” with the mentoring they received from their dissertation chair in developing a thesis topic and completing the dissertation. However, they also indicated areas to be targeted for improvement. Major criticisms included a lack of training in skills important to obtaining and administering grants, less than adequate formal teaching training, and little guidance from mentors in publishing and in finding a job.

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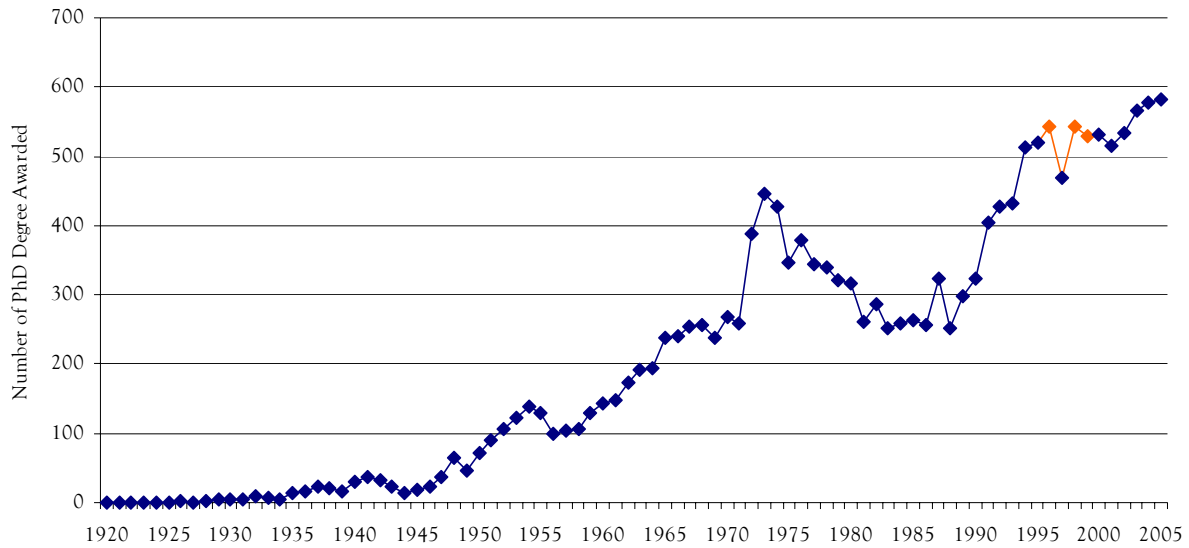
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Communication PhDs Awarded by U.S. Institutions 1920 - 2005



Source: National Science Foundation (2006) *A Century of U.S. Doctorates*

Fig. 1

INTRODUCTION

Communication PhDs are a growth industry. Since the institutionalization of the field during the last century, the number of communication PhDs has risen steadily; today more than 500 PhDs in communication are awarded nationally each year (Thurgood, Golladay, & Hill, 2006). Representing a wide range of research interests, from rhetoric to media studies and interpersonal communication, communication PhDs pursue a variety of career paths. But what distinguishes these career paths? Who ends up in tenure-track posts? Who banks the largest salaries? Are different career paths associated with specific graduate school experiences or mentorship? Have communication PhDs pursued high-prestige jobs at the expense of quality personal lives?

Using data from a national survey of social science PhDs, *Social Science PhDs—Five+ Years Out*, this report attempts to answer these questions and more about the career trajectories of communication PhDs. It covers experiences in graduate school, productivity, and personal trade-offs during the early career. The survey results

should be of interest to college administrators, graduate programs, graduate students, and students contemplating pursuing graduate education. This study adopts a “student centered” approach to evaluating the PhD experience. As opposed to “faculty centered” measures, such as publication productivity and scholarly reputation of graduate faculty, “student centered” indicators include measures of program quality such as experiences with mentoring, advising, and job placement (Denecke, 2006, xi-xiii; Nerad, Aanerud, & Cerny, 2004; Ostriker & Kuh, 2003). In short, this survey empowers communication PhDs to evaluate their own experience by doing something they presumably do best: communicate.

Social Science PhDs - Five+ Years Out (SS5) collected data from a national sample of PhDs in six disciplines (anthropology, communication, geography, history, political science, and sociology), who completed their degrees in the United States between July 1, 1995 and June 30, 1999. The survey was conducted by the Center

for Innovation and Research in Graduate Education (CIRGE) at the University of Washington in Seattle, and funded by the Ford Foundation.

The general outlook for communications PhDs is good. Most communication PhDs want ladder faculty positions and most find them. In fact, communication PhDs find faculty positions more readily than doctorate holders in other social science fields. In general respondents felt well prepared for their careers, although they indicated the need for improvements in PhD education, particularly in teaching training, grant writing and mentoring. Differences in academic productivity and assessments of graduate school experiences emerged between those currently working in business, government or non-profit jobs and ladder faculty. Men and women expressed different attitudes about balancing work and family life after graduation; with women more concerned about the effects of their job on family. Nevertheless, despite these intriguing differences, the majority of communication graduates surveyed were satisfied with their jobs and the path they traveled to get them.

Survey Methods and Limitations

More than 6000 individuals who earned their PhD between July 1, 1995 and June 30, 1999 were asked to complete the SS5 online survey in 2005 - 2006 on their post-PhD career paths and graduate school experiences. Respondents were recruited from 65 U.S. institutions sampled to represent geographic diversity and public and private institutions. For each discipline except communication, equal numbers of departments from each quartile of the 1995 National Research Council (NRC) rankings of each graduate program were represented (Goldberger, Maher, & Flattau, 1995).

Since the NRC does not rank communication programs, communication programs were chosen based on their size, diversity of student populations, recommendations by the National Communication Association (NCA) and whether or not the institutions had other disciplines included in the SS5 sample. Ultimately over 3000 respondents, 346 in communication,

completed the survey. The overall response rate for the study was 45%, for communication it was 46%.

1: SS5 Respondents by Field	
Anthropology	432
Communication	343
Geography	164
History	839
Political Science	701
Sociology	546
Total	N=3,025
<i>CIRGE, Social Science PhDs—Five+ Years Out</i>	

Sample Limitations

The National Opinion Research Center (NORC) compared SS5 respondents to non-respondents using the information reported by graduates to the Survey of Earned Doctorates (SED), a survey completed at the time of the PhD award by nearly all recipients of U.S. doctoral degrees. The non-response analysis found that women, whites, U.S. citizens (including permanent residents) and unmarried individuals responded at higher rates than men, non-whites, citizens of other countries, and married people. The differences between respondents and non-respondents were small. A difference that readers should keep in mind when interpreting findings appeared in post-graduation plans. Respondents were more likely to report to the SED definite post-graduation plans to work in the academic sector. This over-representation probably results from it being easier to locate people working in the academic sector than in other sectors. Implications of this for the study include under-estimating the size of the non-academic labor market for communication PhDs. (See Picciano, Rudd, Morrison, & Nerad, 2007 for details on SS5 survey methods.)

Study Design

SS5 used a retrospective design to get assessments of doctoral education informed by several years of working. With the advantage of respondents' longer-term view of the value of their graduate training comes the danger of forgetting and revising. However, research shows that subjects recall information about rela-

tionship and family events (including spouse characteristics such as spouse’s educational level) and about occupational and employment histories with reasonable reliability (Dex 1995; Klein & Fischer-Kerli 2000; Solga, 2001).

The SS5 survey included quantitative questions concerning employment history, relationship events and parenting, graduate school achievements, the quality of the PhD program, mentoring by the dissertation advisor, and the usefulness of their doctoral education. Open-ended questions asked about trade-offs between work and family life, experiences with mentoring, advice to beginning graduate students, advice to graduate programs, experiences with diversity, and experiences related to gender, racial/ethnic, class or other personal identities. Quotations used in the main text of this report and sidebars come verbatim from these open-ended responses. In “Profile” sidebars, the names of respondents are pseudonyms, created to preserve respondent confidentiality.

Communication PhD Sample Demographics

Within communication women represented 56% of the sample, and men 44%. Additionally, 86% of the sample self-reported as white, 4.3% as Asian, 3.6% as black; 3.2% as Hispanic; and 2.9% as “other.” With regards to job type, at the time of the survey 71.2% of the sample was ladder faculty (i.e., tenured or tenure-track); 9.7% non-ladder faculty (e.g., non-tenure track faculty, visiting professors); 7.4% “academic other,” (e.g., campus researchers, administrators); and 11.7% worked in business, government or non-profits (“BGN”).

Communication PhDs in the United States: A Convoluted Past, A Bright Future

Communication suffers from a disciplinary identity crisis of sorts. While some communication scholars trace their lineage to the ancient practices of rhetoric and public speaking, others see communication as a 20th century discipline, forged from psychology and sociology, yet distinguished by a focus on mass media messages

and technologies (Delia, 1987). Communication straddles a humanities - social science nexus, and the organizational structure of communication programs varies widely between academic institutions. Some communication programs differentiate between speech and mass communication, some do not, and many include journalism programs under a single “Communication” administrative/organizational structure (Gronbeck, 2005).

The diversity of communication programs and the lack of an agreement over a common history complicate quantitatively operationalizing “communication” programs. This study used the list of communication subfields defined in the National Science Foundation’s (NSF) Survey of Earned Doctorates (SED):

- “Communications Research”
- “Mass Communications”
- “Communication Theory”
- “Communication, General”
- “Speech & Rhetorical Studies”
- “Communication, Other.”

These categories were collapsed for analytical purposes, and the number of respondents in each collapsed subfield is listed in Table 2.

2: Communication Subfields	n
Interpersonal/Organizational/ Cultural Communication Studies	118
Mass Communication and Media Studies	133
Speech and Rhetorical Studies	48
Telecommunication Studies	8
No Answer/Skipped	36
Total	343
<i>CIRGE, Social Science PhDs—Five+ Years Out</i>	

Finally, the discipline has steadily attracted more graduate students since 1920 when the NSF began tracking communication PhDs. Figure 1 shows that the number of communication PhDs earned annually in recent years was almost six times higher than in the mid-1950s.

Respondent Profile: A Communication PhD in Business

After earning her PhD at a public Research I university* on the east coast, Margaret Busfield entered the business world. Today Margaret makes \$95,000 in business and also sometimes teaches as adjunct faculty at a private university. Margaret believes that having a PhD has elevated her status in the workplace: "In the office place, my bosses use me as an in-house professor of sorts, offering continuing education to sharpen their skills." Nevertheless, Margaret sees the overall value of her PhD in her business career as somewhat negligible. She writes, "My age and connections (both academic and professional) have positioned me as an 'authority' in my field. This allows me to polish my reputation in my profession. My doctoral degree looks good on some university advisory boards, but in the workplace it matters little."

**-FROM RESPONSES TO OPEN-ENDED SURVEY QUESTIONS.
(NAMES AND DETAILS CHANGED FOR CONFIDENTIALITY.)**

**"Research I" is the Carnegie classification for the prestigious, research-intensive universities.*

holding "other" (non-faculty) jobs in academia or working in business, government or non-profit ("BGN") jobs remained at about 19% over time. Sample job titles in the academic other or BGN category include "management, executive level," "administrator - non-faculty," "management - mid-level," and "editor-writer-publisher."

3: Communication PhDs by First and Last Job

Job Type	First Job	Job at Survey
Ladder Faculty	58.6	71.2
NTT Faculty	22.3	9.4
Acad. Other	6.1	7.4
BGN	12.9	11.7
Total	100%	100%

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Individuals with degrees in the subfield of mass communication and media studies were more likely to take jobs in a BGN sector than individuals in "interpersonal/ organizational/ cultural communication studies" and "speech and rhetorical studies" (15% v. 11% and 0%, respectively). Furthermore, 79% of individuals with degrees in speech and rhetorical studies were in ladder faculty positions compared to 68% in interpersonal / organizational / cultural communication, 71% in mass communication and media studies, and 63% in telecommunication studies.

Key Finding #1
Most communication PhDs opt for jobs in academia and the majority held tenured or tenure-track positions when surveyed 6 to 10 years after graduation.

Different Paths to Different Jobs: Ladder Faculty vs. BGN

The SS5 survey revealed few statistically significant differences between the experiences of ladder faculty and non-tenure-track faculty, but clear differences emerged between those who took faculty jobs in academia and those who opted for non-faculty academic work or to work in BGN sectors. These include differences in the

PART I: COMMUNICATION CAREERS

A Trend to Tenure Track

The majority of communication PhDs were successful at finding tenure-track jobs right after graduation. More than half (59%) of communication graduates secured ladder faculty (i.e., tenure-track or tenured) positions within 6 months of graduation. Almost 13% of communication graduates reported being tenured within 6 months of earning their PhD. Upon finishing the PhD, over 75% of communication PhDs reported their career goal was to become a professor, and 69% of these did secure a ladder faculty position within 6 months of graduation.

Over time, communication graduates reported career advancement. At the time of the survey 71% of respondents were in tenured or tenure-track faculty positions; 32% had tenure. Only 9.4% remained in non-tenure-track posts.

With regards to communication graduates in non-faculty jobs, the percentage of people

average time to degree completion, and the number of conference presentations and academic publications.

The average time to degree for all communication graduates was 5.5 years. Among those whose first jobs were tenured or tenure-track, the average time to degree was 5.3 years; those in non-tenure-track first jobs took 5.6 years, those with first jobs in non-faculty academic employment took 6.6 years, and those in BGN sectors averaged 6.1 years.

Individuals who presented more conference papers and published more during graduate school were more likely to land first jobs in ladder faculty positions. More than 80% of individuals who garnered faculty positions (including non-tenure-track jobs) for their first job had three or more conference presentations during graduate school. Comparatively, only 40% of individuals in BGN jobs had presented as often. Looking at last jobs reveals a variation on this pattern: 80% of those in ladder faculty positions had presented 3 or more times during graduate school but only 61% of those in non-tenure-track positions when surveyed had done so. Among those with last jobs in the BGN sector, only 44% had presented at national conferences three or more times during graduate school.

Advice to Students: Publish More in Graduate School

In response to the open-ended question about what advice PhDs would offer students, “publish” was a popular response. Several respondents suggested one way to get more publications was to collaborate with other students or faculty. One respondent, a man teaching in a tenure-track position at a liberal arts college advised, “Work collaboratively with colleagues in learning to teach and in undertaking research. Time is highly prized as a graduate student; help manage the demand by learning with other students. Allow your focus (as one narrows their work) to develop from experiences with readings, courses, friends, faculty.”

*FROM THE OPEN-ENDED QUESTION,
“WHAT ADVICE WOULD YOU OFFER TO GRADUATE
STUDENTS JUST BEGINNING STUDIES IN YOUR FIELD?”*

Similarly, respondents with at least one peer-reviewed publication (authored or co-authored) at the time of the PhD award were more likely to be in faculty positions (including non-tenure-track) than in non-faculty academic jobs or in a BGN sector within 6 months of earning the PhD and also when surveyed six to ten years post-PhD award. Almost half (47.3%) of total respondents had no refereed publications prior to graduation, 22% had 1, 14% had 2 and 17% had 3 or more.

4: Communication PhDs—Refereed Articles at PhD by First Job

	% Respondents			
	# of publications at PhD			
	0	1	2	3+
Ladder Faculty (121)	39.7	25.6	15.7	19.0
NTT Faculty (48)	45.8	20.8	12.5	20.8
BGN (30)	73.3	6.7	6.7	13.3
Acad. Other (8)	57.1	28.6	7.1	7.1

CIRGE, Social Science PhDs—Five+ Years Out

Key Finding #2

Compared to graduates in non-faculty academic jobs and in BGN sectors, communication PhDs in faculty jobs completed graduate school faster, presented work at national conferences more often and published more refereed journal articles during graduate school.

Communication PhDs compared to PhDs in Other Fields

Compared to their counterparts in other social science fields included in the SS5 study, communication PhDs had more success finding tenure-track posts right after graduation. Whereas 58.6% of communication PhDs had ladder (i.e., tenured or tenure-track) faculty jobs after graduation, the second most successful disciplines in securing ladder faculty positions were geography, political science, and sociology where 43% of graduates began such jobs within 6 months of earning the PhD.

Communication graduates also tended to pass through graduate school more quickly than those in other fields. The average time to degree for communication graduates was 5.5 years, compared to 8.5 years for anthropology, and over 7 years for history, political science and sociology.

	Median	Mean	N
Anthropology	7.7	8.5	427
Communication	5.2	5.5	342
Geography	5.7	6.3	163
History	7.2	7.6	833
Political Science	6.7	7.1	693
Sociology	6.7	7.3	542
Total	6.7	7.3	3,000

CIRGE, Social Science PhDs—Five+ Years Out

With regards to publications during graduate school, communication graduates ranked fourth out of the six fields included in the SS5 survey. PhDs in sociology were the most likely to publish at least one refereed article during graduate school (66%), followed by graduates in geography (65%), anthropology (54%), communication (53%), political science (46%), and history (39%). However, the slightly higher publication productivity of sociologists, geographers, and anthropologists compared to communication PhDs was also associated with significantly longer average time to degree.

Key Finding #3

Compared to other social science PhD students, communication students earned their PhD more quickly and found tenure-track jobs more easily.

The “Average” Communication PhD

The majority of communication PhDs presented multiple conference papers during graduate school. The average PhD candidate presented a mean of 5.7 conference papers at national or international meetings and authored 1.3 refereed journal articles. Six or more years post-PhD, respondents had presented a mean of

8.9 conference papers and authored an average of 4.3 refereed journal articles.

Advice to Students: The Opportunity Cost of a Graduate Education

Despite the great expense of graduate school, one respondent, a tenured professor at a public university on the West Coast, advised students: “Don’t rush through it (school). Ensure you have enough funding sources (or be willing to take loans) so that you don’t feel pressured to hurry up and finish and miss out on getting the most out of your time during the PhD program. This intellectual stimulation does NOT come cheap.”

RESPONSE TO THE OPEN-ENDED QUESTION, “WHAT ADVICE WOULD YOU OFFER TO GRADUATE STUDENTS JUST BEGINNING STUDIES IN YOUR FIELD?”

Debt, Funding, & Income

Communication graduates were fairly resourceful in locating funding during graduate school, but over 50% reported having debt related to their PhD education at graduation. The top sources for funding after advancing to candidacy included: Teaching assistantships, reported by 50% of respondents; personal/family funds (34%); loans (20%); research assistantships (13%); and employment related to degree (27%). Table 6 shows the proportion of students with different amounts of debt related to the PhD at the time of the PhD award.

6: Communication PhDs (%) by Debt Related to PhD Education (N = 232)

Debt Amount	%
Over \$50,001	4.7
\$40,001 to \$50,000	6.0
\$30,001 to \$40,000	7.3
\$20,001 to \$30,000	8.6
\$10,001 to \$20,000	10.3
Less than \$10,000	15.5
None	47.4

CIRGE, Social Science PhDs—Five+ Years Out

Key Finding #4

Half of communication PhDs reported having educational debt related to their doctoral education.

Current Income: Higher wages in BGN

Table 7 presents the main income and total income of communication graduates at the time of the survey. Here, too, differences appear between faculty and individuals in BGN sectors. The ladder faculty and non-tenure-track faculty make roughly the same amount, around \$54,000 on average, while the median for individuals in BGN positions is \$95,000.

Key Finding #5

Communication PhDs in BGN jobs make more money—more than 1.7 times as much annually—as those in academia.

7: Communication PhDs—Median Annual Income at Survey by Last Job*

	Respondent's Income		N
	Main	Total	
Ladder Faculty	54,000	60,000	154
NTT Faculty	53,520	60,000	21
Acad.			
Other	57,087	65,000	18
BGN	95,000	106,000	22

*Includes only employed respondents.
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But are they happy with their work?

To assess job satisfaction, SS5's job satisfaction inventory consisted of 18 items and respondents indicated their level of satisfaction on a four-point scale (very satisfied, somewhat satisfied, somewhat dissatisfied, very dissatisfied). Most respondents indicated being very or at least somewhat satisfied for most of the job satisfaction items. Factor analysis revealed four separate dimensions of job satisfaction (see Appendix for details). One factor reflects satisfaction with the work itself, e.g., intellectual challenge, use of doctoral education, autonomy, and recognition. Satisfaction with income, resources available at the workplace, and job security contribute to the second factor, "income & resources." "Work-life integration," consists of work-life balance, flexibility of work, and

tolerance for all types of people in the workplace. A fourth factor, labeled "work-family," applied only to respondents with a spouse or partner (at time of survey) because it included the item "opportunities for spouse/partner in the area" as well as geographic location, and proximity to extended family.

There were no statistically significant differences in job satisfaction between job types, but several trends emerged. Ladder faculty more often reported being "very satisfied" with the work itself than did individuals in BGN. Non-tenure-track faculty were slightly less satisfied with the status of their jobs than were ladder faculty and BGN employees. Finally, with regards to quality of life, those working in non-faculty academic jobs were most likely to report being "very satisfied."

Key Finding #6

There are no statistically significant differences in career satisfaction by job type: Communication PhDs in ladder faculty, non-tenure-track faculty, non-faculty academic positions, and working in BGN sectors are equally satisfied with their careers.

Gender and Work-Family Tension

In open-ended items, respondents were asked about trade-offs they made or any discrimination they faced in pursuing a PhD career. Some felt that gender played a role in their treatment by peers, but there were few statistically significant quantitative differences in responses between men and women. Differences did appear in marital status, the personal importance of particular job aspects and necessary work-family trade-offs.

Table 8 summarizes gender differences in marital status. Men were more likely to be married before entering school, after graduation and at the survey (83% of men v. 72% of women at survey). Women were more likely to be partnered with someone with a PhD (26% v. 15% of men). Women were also more often

separated, divorced or widowed when surveyed – 10% of women vs. 1% of men.

8: Communication PhDs (%) – Marital Status at Survey by Gender		
	% Men	% Women
Married (or Partner)	68.0	46.2
Partner has PhD	14.8	25.6
<i>Total Married or Partnered</i>	<i>82.8</i>	<i>71.8</i>
Single	16.4	18.6
Separated, Divorced, Widowed	1	9.6

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When asked to rate the importance of various aspects of their job on a four-point scale ('very,' 'fairly,' 'not too,' and 'not' important, with 'not applicable' also an option), more than 70% of both men and women rated the "ability to balance/enjoy work and other aspects of life" as "very important." Men and women also rated similarly the importance of "proximity to extended family," "geographic location," and the "flexibility of work (schedule or location)." However, there were significant differences:

- Women placed more emphasis on finding a job that offered "support or tolerance for all types of people." Sixty five percent of women said this was "very important," compared to 43% of men ($p < 0.01$).
- Women more often sought jobs with "opportunities for spouse/partner in the area." Nearly half of women said this was "very important," compared to 1/3 men ($p < 0.01$).

Additionally, the average survey respondent had fewer than 2 children, and women were significantly more likely than men ($p < 0.01$) to have postponed children because of their career (29% vs. 12% of men). Similarly, women were significantly more likely ($p < 0.01$) to report choosing not to have kids because of their career (19% of women vs. 5% of men).

With regards to spouses, 19% of women reported being unable to accept a job offer because of a spouse or partner's career, versus only 6% of men ($p < 0.1$). Nevertheless, men and

women were equally likely to report that productivity suffered because of children (24%) or a spouse's career (11% total).

Respondent Profile: Faculty Balancing Real and Perceived Career Expectations

Many respondents reported waiting to have children or engage in a life partnership, but those who did not wait did not necessarily view a busy personal life as a trade-off for their career. Simply, their lives were different. For example, Sandra McKenzie and her husband both graduated from Research 1 universities in the early 1990s and pursued academic careers. In graduate school, McKenzie published one peer-reviewed article, and has published four more articles since. She and her husband are generally very satisfied with their jobs at a Research 2 university,* where McKenzie earns \$70,000 a year. However, she wrote, "I think both of our PhD advisors are somewhat disappointed in us, but there is only so much time in the day and we were not willing to give up having a family for our jobs."

-FROM ANSWERS TO OPEN-ENDED QUESTIONS.

(NAMES CHANGED TO PRESERVE CONFIDENTIALITY.)

**Research 2 universities are smaller, less comprehensive, and less prestigious than Research 1 universities in the Carnegie classification.*

Key Finding #7

Men and women valued many of the same job characteristics, but women more often reported postponing children because of their job and not taking a job because of a spouse or partner's career.

PART II: EDUCATION FOR COMMUNICATION CAREERS

Skill Acquisition: Preparation for Teaching and Research

Graduate school requires students to acquire, refine and juggle a complex and diverse set of skills from research and teaching to grant writing and job-searching. Most respondents evaluated their PhD training favorably, but they also signaled areas for improvement, such as in

teaching and grant writing. Furthermore, like with income and productivity during graduate school, differences emerged in assessments of job

training between faculty and those in BGN sectors.

9: Communication PhDs—Percent Rating Program Element “Excellent” by Job Sector at Survey

	Academic	BGN
Support in Learning		
Clear program requirements	60	56*
Feedback on student progress	38	23
Socializing students into an academic community	36	15^
Preparation for qualifying exam	42	41
Support and guidance during dissertation writing	53	47
Overall Program Quality		
Financial support	26	28
Having a diverse student population	31	18
Academic rigor	67	52
Overall program quality	54	41
Career Preparation		
Academic	38	25
Non-academic	8	7

^ p < 0.1 * p < 0.05 (Chi-square significance levels for 3 x 2 cross tab of academic sector by % respondents rating program element “excellent,” “adequate,” or “poor.”)

CIRGE, *Social Science PhDs—Five+ Years Out*

Assessment of Graduate Programs

Seventy five percent of communication respondents reported their goal was to become a professor, respondents nonetheless suggested their education lacked serious consideration of and preparation for careers outside academia. Half of respondents rated their PhD program’s overall quality as “excellent” on a three-point scale (“excellent,” “adequate,” “poor”), but only 8% said they received “excellent” training for non-academic careers. Similarly, 65% of respondents said the faculty in their department mainly encouraged students to pursue academic careers.

Those in academic careers gave more positive evaluations of their graduate programs than did people in BGN sectors. Table 9 shows that individuals who ended up in BGN sectors were less likely to rate the clarity of their graduate programs’ requirements as “excellent,” and only 15% of those in BGN said their socialization into academia was “excellent” (vs. 36% of academic sector employees).

As for teaching, 88% of communication graduates acquired some teaching experience in graduate school, but only 33% had to teach as part of a program requirement. Teaching is a major component of a faculty career, and narrative comments suggest graduate students wish they had had better training and more preparation for teaching. One respondent offered, “Teach (students) to be good teachers. They need to know the skills and approaches to good lecturing, when to use groups, and how to evaluate their own impact in the classroom.”

Key Finding #8

Communication graduates were generally pleased with their graduate training, but they criticized a bias toward academic careers in their programs and expressed a desire for better preparation for teaching.

Use and Importance of Skills in Current Jobs

Unlike in other key aspects of this study, there was no statistically significant difference in the evaluation of mentorship when analyzed by type

of first and last job (ladder faculty, non-tenure track, other academic, BGN). In other words, individuals in non-tenure-track or BGN posts did not report a less satisfactory mentoring experience than did ladder faculty.

10: Communication PhDs—Percent Rating Quality of Training “Excellent” and Importance of Skill in Current Job by Job Sector

	Training Excellent	Importance of Skill in Job at Survey			
		% Faculty		% BGN + Ac. Other	
		Very	Somewhat	Very	Somewhat
Core PhD Skills					
Critical thinking	78	85	15	88	10
Data analysis/synthesis	62	67	29	82	16
Write, publish reports, articles***	28	67	21	35	41
Research design	41	44	33	29	38
Communication, Team Work & Management					
Presenting***	42	91	9	67	33
Working with diverse groups*	35	53	33	70	25
Interdisciplinary contexts	38	51	38	65	22
Collaborating in a team**	22	49	39	75	23
Grant writing	4	33	44	41	29
Managing people and budgets**	4	34	41	56	30

^ p < 0.1 * p < 0.05 ** p < 0.01 ***p < 0.001. Chi-square significance levels for 3 x 2 cross tab of employment sector by % respondents rating the skill in their job at survey “very important,” “somewhat important,” or “not important.” Category “not important” not shown in table.

CIRGE, *Social Science PhDs—Five+ Years Out*

11: Percent Communication PhDs “Very Satisfied” With Different Types of Mentoring

Mentoring by the Dissertation Advisor	% “very satisfied”
Quality of advice from chair developing topic	62.6
Quality of guidance from chair in completing dissertation	61.5
Chair’s support of career decisions	54.5
Overall quality of mentoring from chair	53.4
Chair’s support of job search	44.1
Quality of help from chair in publishing	29.0

CIRGE, *Social Science PhDs—Five+ Years Out*

Table 10 summarizes assessment of training (formal or informal) in key skills during graduate school and the importance of these skills in current jobs. Differences emerge by job type. Overall students felt most trained in critical

thinking and analyzing and synthesizing data, key components of both academic and non-academic careers. Individuals who ended up in BGN jobs and other (non-faculty) academic posts were more likely to indicate that writing and publishing

reports and presenting were *not* “very important” for them than were those in faculty positions. Recalling that people in BGN sectors published less and attended fewer conferences during graduate school, this comparative lack of academic productivity seems to have marginal significance in their current jobs. Conversely, individuals in BGN and academic non-faculty posts were more likely to report that working with diverse groups and collaborating with a team were “very important” in their current work.

Finally, Table 10 shows the overall lack of preparation reported in grant writing and managing people and budgets. These skills are likely to be at least somewhat important in academic jobs and to be “very important” in BGN sector jobs, but fewer than 5% of all respondents felt well trained in writing proposals for funding and managing people and budgets. These areas appear to be significant shortfalls in communication PhD programs because at the time of the survey communication graduates on average reported already having served as a principal investigator on a grant or contract twice. Furthermore, graduates reported winning an average of 2.5 grants from their employer or institutions since graduate school, and 1.8 from extramural funding sources.

Key Finding #9

Skills in grant writing and management are often important in faculty positions and even more likely to be important in non-faculty jobs, however, fewer than 5% of respondents felt their PhD programs trained them well in writing proposals for funding and managing people and budgets.

Mentoring: How To Get It and What To Do If You Don’t

A key relationship for graduate students is that between themselves and their dissertation chair or mentor. A mentor offers guidance on research and the job search. SS5 sought to detail this relationship through qualitative and

quantitative questions. Significantly, over 50% of communication respondents reported they were very satisfied with the overall quality of mentoring received from their dissertation chair, but they were less often very satisfied with the quality of help they received in publishing and the job search. Communication graduates noted their top resource for finding a job was not their dissertation advisor, but advertisements.

The finding presented in Table 11 that respondents were not entirely thrilled with their chair’s support in finding a job begs the question, then how did they find jobs? Table 11 shows that 44% of respondents were satisfied with their mentors’ role in their job search, but Table 12 suggests that other sources were sometimes more helpful in finding a job. The job resource used the most often by respondents was announcements in professional journals, followed by professional contacts and PhD advisors.

**12: Top Resources In Job Search—
Percent Communication PhDs Citing
Resource as 1 of 2 “Most Helpful”**

Resource	%
Job Announcement in Professional Journal	42%
Professional Contacts	23%
PhD Advisor	20%
Faculty Other than PhD Advisor	16%
Previous Job	11%
Internet Posting/Web Search	13%

CIRGE, Social Science PhDs—Five+ Years Out

In response to open-ended questions about mentoring and advice to current students, respondents portrayed the graduate student - dissertation chair relationship as a delicate dance of mutual motivation and expectation. The most rewarding mentorship experiences are earned. One respondent wrote, “I didn’t have much mentoring, though I didn’t ask for much either.” Similarly, another wrote, “I got out of the mentoring process what I put into it. That is, I had a good advisor but not one who was going to track me down. I had to pull him along.”

Key Finding #10

Communication graduates would have liked more guidance from their chairs in the job search and in publishing.

Mentoring 101

Jasper Stein, a man in a non-tenure-track faculty position earning \$42,000 annually at a state university offered: "What I would like to have had:

1. Mentoring in how to apply for grants and diverse educational opportunities; 2. Mentoring that included discussion of motivations for and repercussions of chosen area(s) of study; 3. More mentoring."

After working for several years and then earning her PhD, Mona Floyd found her ideal job at a liberal arts college. She suggests students should be proactive when looking for good mentors. She passes along this helpful advice: "A woman I met swimming one day said that I should go to the library and see who was on the committees of the recent doctoral graduates from my discipline. *'Those are the people who get students through the program. Get them on your committee!'* she said. *Great advice, which I took.*"

**-FROM RESPONSES TO OPEN-ENDED QUESTIONS.
(NAMES CHANGED TO PRESERVE CONFIDENTIALITY.)**

CONCLUSION

This study detailed the range of experiences and career paths open to communication PhDs using a "student centered" research methodology which privileged students' evaluations and recollections of the graduate experience. While most communication graduates seemed to follow a neatly linear path from graduate school to desired ladder faculty positions with general career satisfaction, significant and interesting cleavages were revealed in the data when analyzed by gender and job type, with particularly salient differences between those working in BGN sectors and academic faculty.

To recap, there were few differences between

ladder faculty and non-tenure-track faculty in terms of productivity, skill acquisition and mentoring experiences in graduate school, but there were some notable differences between those in academia and those in BGN sectors. Individuals in BGN were generally less productive in terms of papers and presentations, despite a longer sojourn in graduate school. While we cannot say if people went into BGN because they were less productive, had different socialization experiences, or because they intended to do so all along, individuals in BGN were less likely than faculty to report that publishing skills were important in their jobs.

Second, career paths of men and women in terms of job type and income were the same, but gender differences emerged in assessments of personal opportunity costs. Women were more likely to delay marriage and postpone or not have children because of their career. However, respondents who did have active family lives did not necessarily see having a family as detrimental to their career. Instead, they viewed their lives as just "different."

Overall, the major criticisms of graduate school included a lack of training in skills important to obtaining and administering grants, less than adequate formal teaching training and little guidance from mentors in publishing and finding a job. On the positive side, respondents were generally "very satisfied" with the mentoring they received and many respondents offered advice to graduate students about how to have a better mentoring experience.

The respondents to this survey demonstrated great care and honesty in offering their nuanced opinions about their experiences and training. We hope that graduate programs, graduate students, administrators and others all benefit from their insights. We hope these results are reflected on by individuals and programs alike so that both can improve and make informed decisions about their future.

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APPENDIX: CAREER SATISFACTION INDEXES

Principle components analysis of response patterns on 18 job satisfaction items revealed four underlying factors. SPSS varimax rotation method was used; resulting factors met a minimum eigen value criteria of 1.0. Varimax is an orthogonal rotation method that minimizes the number of variables that have high loadings on each factor, which simplifies the interpretation of factors. The items contributing to each of the four factors are as shown below.

Factor 1 – The Work Itself

Use of doctoral education
Intellectual challenge of work
Contribution to society
Level of responsibility
Career growth
Autonomy of work
Prestige of organization
Recognition for my work
Job is a good fit with my abilities and interests

Factor 2 – Income & Resources

Salary
Resources
Job security/stability

Factor 3 – Work-Life Integration

Work-life balance and enjoyment
Flexibility of work
Support/tolerance for all types of people

Factor 4 – Work-Family Balance (only for partnered respondents)

Geographic location
Proximity to extended family
Opportunities for spouse or partner in the area

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Participating Universities

Arizona State University	Massachusetts Institute of Technology	UC - Los Angeles	University of Nebraska at Lincoln
Boston College	Michigan State University	UC - Riverside	University of North Carolina
Brandeis University	New York University	UC - San Diego	University of Oregon
Catholic University of America	Northwestern University	UC - Santa Barbara	University of Pennsylvania
City University of New York	Ohio State University	UC - Santa Cruz	University of Pittsburgh
Clark University	Pennsylvania State University	University of Chicago	University of Rochester
Columbia University	Princeton University	University of Colorado at Boulder	University of Tennessee
Cornell University	Purdue University	University of Connecticut	University of Texas at Austin
Duke University	Rutgers University	University of Georgia	University of Virginia
Emory University	Southern Illinois University	University of Illinois	University of Washington
Florida State University	Stanford University	University of Iowa	University of Wisconsin
Harvard University	State University of New York at Buffalo	University of Kansas	Washington State University
Howard University	Syracuse University	University of Maryland	Washington University in St. Louis
Indiana University	UC - Berkeley	University of Massachusetts	Wayne State University
Johns Hopkins University	UC - Davis	University of Michigan	Yale University
Kent State University	UC - Irvine	University of Minnesota	
Louisiana State University		University of Missouri	

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The Center for Innovation and Research in Graduate Education (CIRGE) at the University of Washington, Seattle is the first U.S. research center devoted to the study of doctoral education. CIRGE's work enables graduate programs to respond effectively to the most challenging issues in graduate education today: accountability, internationalization, interdisciplinary work, and the increase in dual-career couples in the workforce. CIRGE is internationally recognized among program leaders, funders and policy makers as a trusted source of insightful analyses and practical information for improving graduate education.

Established by Dr. Maresi Nerad in 2001, CIRGE received funding from the Ford Foundation to build infrastructure, hire staff, and conduct a new national survey of PhD recipients in the social sciences; *Social Science PhDs–Five+ Years Out*. CIRGE is also supported by the Graduate School and the College of Education at the University of Washington, Seattle.

Social Science PhDs–Five+ Years Out is the third national survey of doctorate recipients directed by CIRGE Principal Investigator Maresi Nerad. *PhDs–Ten Years Later*, fielded in academic year 1996 - 1997 and funded by the Andrew W. Mellon Foundation and the National Science Foundation, surveyed biochemists, computer scientists, electrical engineers, English PhDs, mathematicians and political scientists. *PhDs in Art History–Over a Decade Later*, fielded in 2001 and funded by a grant from the Getty Grant Program, surveyed art historians. Results of these studies are available through the CIRGE website at www.cirge.washington.edu.

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