Evaluating Doctoral Programs in Communication

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Abstract

The present study was designed to assess perceptions of (1) the quality of American graduate programs in communication, (2) the qualities that communication scholars deem important in a communication Ph.D. program, and (3) the adequacy of the number of Ph.D. programs stressing specific specialties in communication. An online survey of 221 U.S. communication faculty members and 49 communication department chairs identified several themes. Evaluative rankings confirmed previous findings of a midwestern, public institution prominence. There was a high degree of correspondence between faculty and chairs in the evaluation of the importance of curricular factors; there were lower levels of agreement on evaluation criteria for doctoral program quality. Among 17 doctoral program specialization choices, the only specialty for which a majority of respondents reported that there are "not enough" doctoral programs was Media Information Technologies. Over a quarter of respondents reported they felt that there are "too many" programs for each of the following specialties: Interpersonal Communication, Mass Communication, Rhetoric, Promotional Communication, and Relational Communication.

Introduction

The study of institutional quality represents an active area of inquiry in the communication field (e.g., Burroughs, Christophel, Ady, & McGreal, 1989; Schweitzer, 1988; U.S. News & World Report, 1996). The present study is designed to assess perceptions of (1) quality of American graduate programs in communication, and (2) the qualities that communication scholars deem important in a communication Ph.D. program, and (3) the adequacy of the number of Ph.D. programs stressing specific specialties and applications in communication.

Despite the fact that communication stands among the fastest growing fields in the U.S. (Craig & Carlone, 1998), ranking among the eight largest nationally in BA graduate production each year, information on enrollment trends remains sketchy (Chronicle, 1996). This ambiguity may stem from the discipline's relative youth, as it was not even recognized as a field of study by the Department of Education until 1966. The quarter-century to follow witnessed a 1,500% growth rate in the number of communication degrees awarded, the fastest growth rate of any discipline (Becker & Graf, 1995). Even so, scholars (e.g., Craig & Sanders, 1998; Atkin & Jeffres, 1998; Nelson, 1995) argue that communication programs were vulnerable to budget cuts through the 1990s. The academy's hesitancy to recognize communication as a discipline (Book, 1993) may stem from program identification challenges; that is, few academic units in communication use the same name (e.g., journalism vs. [mass] communication; communication vs. speech).

As these and other writers suggest, communication scholars need to document their centrality to the academy in terms of pedagogy and academic quality. This is especially true during times of budgetary shortfall (Book, 1993), but as Craig and Carlone (1998, p. 67) note, "this turns out to be difficult because we find that rapid intellectual, institutional, and societal changes have rendered old familiar explanations

obsolete and we no longer understand the field well ourselves."[1] The authors (1998, p. 68) outline how speech, journalism and other subfields have converged towards "communication," having been massively transformed as the field has grown to its present "amorphous contours," including the following subareas: Communications, general; advertising; journalism; broadcast journalism, public relations and organizational communication; radio and television broadcasting; radio/television, general; communication media; and communications, other. These categories have been joined by such designations as "speech/rhetorical studies" and, in some contexts, "communication disorders sciences and services" as well as drama. Communication is thus viewed as a hybrid area of study that encompasses social science and liberal arts perspectives as well as job-related applications.

Commentators (Atkin & Jeffres, 1998; McCloskey, 1994) maintain that communication is emerging as a central discipline in the academy owing to its ascendant role in the emerging information economy. For instance, four of the top 20 "high growth" job categories are staples of communication programs and have been transformed by new technology; they include advertising, printing/publishing, broadcasting and motion pictures (Department of Labor, cited in Berko, Brooks, & Spielvogel, 1994). Applications in interpersonal and organizational communication are also central to this "communications revolution."

Within the field, studies of institutional quality employ two major research approaches: (1) "subjective" evaluations of programs based on surveys completed by peers (e.g., Edwards & Barker, 1984; Edwards, Watson, & Barker, 1988), and (2) "objective" measures, typically indicators of scholarly productivity in major communication journals (e.g., Stacks & Hickson, 1981; Vincent, 1984; Watson, Barker, Ray & Hall, 1988). When comparing these approaches, Edwards et al. (1988) concluded that peer records correlate positively with publication records, with faculty of doctoral institutions salaries, and with

other objective measures of quality.

A report by Burroughs, Christophel, Ady and McGreal (1989) reinforces the need for scholarly productivity, as those institutions which spawn productive faculty "make a disproportionately high contribution to the advancement of this field and those who attract such people to their faculty ranks have a better chance of offering their students a high quality graduate education" (p. 40). Peer review journal productivity is the most commonly accepted yardstick by which faculty quality is measured in the social sciences, and productive faculties are considered an important foundation upon which to build a Ph.D. program.

Focusing on studies of scholarly productivity, which may provide a basis for perceptual ratings, Hickson, Stacks, and Bodon (1999) found that Midwestern programs dominate the top 15 departments in the nation for scholarly productivity in communication association journals (from 1915 to the 1990s). This confirms a raft of earlier findings in speech communication (e.g., Edwards & Barker, 1984; Edwards, Watson, & Barker, 1988). Even so, the communication discipline is not included in multidisciplinary studies of scholarly quality, because it does not meet the disciplinary threshold of inclusion; the National Research Council evaluates only those disciplines that produce at least 500 Ph.D. graduates per year (Chronicle, 1997).

Studies of scholarly productivity in such subareas as telecommunication suggest that Midwest-based programs accounted for the plurality of scholarly entries during the past decade and a half (Atkin, 1996; Vincent, 1991). Most of the programs hosting the largest number of prolific scholars were housed in public educational institutions. This confirms other work suggesting that scholars who rank highest in article productivity tend to reside at departments located within large, state supported schools with a tradition of research (King & Baran, 1981; Schweitzer, 1988). These schools are also among those that

rank highly in other studies of scholarly productivity in such subfields as journalism (Cole & Bowers, 1973), advertising (Soley & Reid, 1988), mass communication (e.g., Schweitzer, 1988) and telecommunication (Vincent, 1991).

Focusing on perceptual surveys, Graham and Diamond (1996) observe that the information yielded is often too "soft" to provide a reliable basis of academic quality. Their own analysis of fellowship awards and journal productivity data, collected over the course of a decade, found that those measures did not correlate well with reputational surveys. After Alma College received a lackluster evaluation in a U.S. News & World Report survey, the school president conducted a survey of 158 college presidents serving as respondents. He found that 84% of respondents were unfamiliar with some programs being evaluated (Chronicle, 1997).[2]

Controversy notwithstanding, the popularity of U.S. News's "Rating the Colleges" attests to the pervasiveness and importance of peer surveys in determining school ratings. Atkin and Jeffres (1998) note that some peer surveys have been criticized for (1) overly inclusive or unqualified panels of evaluators, (2) low response rates and (3) poorly specified evaluation criteria. As Glasser and Goldstein (1996) suggest, such shortcomings can lead to biased ratings based on large faculty/alumni voting blocks or vague denotations of overall school prestige, as when U.S. News ranked Stanford's "radio-television" program among the top 5 nationally, even though they offered no such program. Other commentators (e.g., Francese, 1996) maintain that surveys of this sort seem rather vulgar, and that high ratings guarantee neither sound programs nor good professors.

The stakes in these evaluative enterprises can be high, however, with Schweitzer (1988) noting that they're widely used for internal and external purposes. This is especially true of institutions that find themselves highly ranked (Greenberg & Schweitzer, 1989), as positive evaluations can help boost student

recruitment and external fundraising. Burroughs et al. (1989) nevertheless caution that no single indicator of quality is sufficient for making an important judgment about any given program.

Across these various perceptual surveys, researchers have yet to examine fully the specific factors perceived to relate to doctoral program quality. The most comprehensive effort to date, by the National Communication Association (1996), rated departments based on several communication doctoral specialties--communication theory and research, rhetoric, organizational communication, applied communication, intercultural communication, and critical-cultural/media studies. The present study expands on this effort by focusing on specific attributes of doctoral programs as valued by communication faculty and department chairs. In particular, we pose the following research questions:

RQ1: What qualities of a communication Ph.D. program are valued by academics in the current educational environment?

RQ2: What is the perceived adequacy of the number of communication Ph.D. programs offering an emphasis in various subareas (e.g., health communication, promotional communication)?

RQ3: What are the rankings of terminal M.A. and Ph.D. communication programs in the U.S.?

Methods

Study data were collected through the use of two surveys posted on the World Wide Web in late 1999. The survey instruments were created on word processing software and then converted to HTML with Raosoft EZSurvey, a web survey creation program. Additional editing of the surveys (e.g., aesthetic changes) was done using Microsoft Front Page. After the survey forms were completed, they were loaded onto a Microsoft Front Page Extensions web server, which allowed data to be easily collected and saved.

The surveys then went through an extensive testing and refinement process to eliminate "bugs" and other technical problems.

Two populations were surveyed in this study. The first population was faculty members from U.S. universities who belong to at least one of three major communication organizations (Association for Education in Journalism & Mass Communication [AEJMC], International Communication Association [ICA] and National Communication Association [NCA]). The sampling frame for this group was the set of organization membership directories. Using a systematic random sampling method, equal proportions of names and e-mail addresses were selected from each of the three directories. Names that did not have an e-mail address were ruled ineligible and substitutes were randomly chosen. And, names of individuals who reside outside the U.S., who are not affiliated with a college or university-- or whose primary position is that of an administrator--were ruled ineligible and substitutes were randomly chosen.

The second population for this study was chairs of communication departments in the U.S. To begin the chair selection process, a list of communication departments was first created by again consulting the AEJMC, ICA and NCA directories; this process yielded a total of 672 departments. These departments were searched for on the web; when found, the department chair name and e-mail address were added to the sample.

A total of 1264 faculty and 248 chairs were selected for inclusion in the sample. The e-mail addresses of sample members were used to invite participation in the survey. Each address was imported into an Eudora address book. E-mail messages were written with the header "Help evaluate doctoral programs." The text of the messages included information about the survey and how it could be accessed. The contents of the faculty and chair e-mails were nearly identical; however, the chairs, were directed to a different web site than the faculty so that it would be easy to distinguish between the two sample groups.

The e-mail invitations were sent using the BCC (blind carbon copy) function in Eudora, which hides the names of other recipients in the sample. A total of 1512 requests to do the survey were sent. Due to changes of address and/or human error, 385 e-mails came back as undeliverable. Thus, 1127 of the e-mail requests successfully reached the faculty and chairs in the sample.

Included in the survey were a variety of social locator measures tailored to the academic sample: Age, gender, highest degree attained, academic rank, and teaching specialties/areas of interest, plus name of department/university and degrees offered by that unit (i.e., B.A., M.A., etc.).

The survey instrument contained sections asking respondents to rate how important certain qualities are in (a) advising students interested in obtaining a doctorate in communication and (b) evaluating the strength of a job candidate's application. These sections used an 11-point (0=not at all important; 10=very important) scale to tap the perceived importance of each item. The rated qualities were as follows:

National research reputation of communication faculty
International research reputation of communication faculty
Reputation of the university
Commitment of professors to teaching
Opportunities for student internships
Opportunities for students to apply research to non-academic issues
Opportunities for students to teach undergraduate courses
Student involvement in faculty research
Student co-authorship with faculty on papers/publications
Student sole authorship on papers/publications
Up-to-date computer facilities
A survey research lab
A video/audio production facility
A film production facility
Experimental labs
Multimedia teaching facilities
The quality of the university library
The university's proximity to a major metropolitan area
A communication faculty that regularly engages in non-academic consulting
A communication faculty that regularly obtains research grants

A communication faculty with professional (i.e., non-academic) experience
The breadth of the communication faculty's theoretic and/or methodological orientations
Faculty encouragement of students to explore diverse perspectives on communication research
Student attendance at academic conferences
Qualitative methods coursework
Critical/cultural studies coursework
Quantitative methods coursework
Rhetoric coursework
Coursework on media industries
Coursework in a broad range of theoretical perspectives
Methods courses taught within the Ph.D.-granting department or school
The quality of course offerings outside the Ph.D.-granting department or school
The breadth of course offerings outside the Ph.D.-granting department or school
Required preliminary or qualifying exams
Required comprehensive exams or project

Also included in the instrument was a section asking respondents to indicate whether there are not enough, just the right amount, or too many doctoral programs that emphasize the following types of communication: (1) applied research, (2) law and policy, (3) international/development, (4) dispute resolution, (5) general communication, (6) health, (7) instructional, (8) interpersonal, (9) mass, (10) media information technologies, (11) organizational, (12) organizational technology, (13) applied organizational, (14) political, (15) promotional, (16) relational, and (17) rhetoric.

Respondents were also allowed to indicate other, unlisted specialties that should be represented by more doctoral programs. In another section, the questionnaire asked respondents to list their choices for the top three U.S. communication programs with a doctoral degree and the top three programs without a doctoral degree. Both the "other specialties" and "program ranking" sections were open ended.

Results

Table 1 summarizes descriptive data for the faculty and chair samples. A total of 221 faculty members and 49 chairs responded to the survey (a 24% response rate).[3] As shown in Table 1, the sample

of faculty was 39.7% female, with a mean age of 45.48 years. A majority of faculty members held a Ph.D. degree (89%) and were either assistant (26.2%), associate (40.2%), or full professors (29%). The chair sample was 29.8% female with an average age of 50.7 years; 89.6% had a Ph.D. degree, 4.2% were assistant professors, 35.4% were associate professors, and 60.4% were full professors.

With regard to RQ1, Table 2 presents the results of respondent ratings for a wide array of criteria applied to doctoral programs in the field of communication, when considering a) advising a student interested in doctoral studies, and b) considering a job candidate's application. In the questionnaire and in this table, the criteria were split into general factors and factors specific to the curriculum. As assessed by the faculty sample, when advising a student on doctoral programs, the top general criteria were the quality of the university library, up-to-date computer facilities, student attendance at academic conferences, the national research reputation of the communication faculty, and faculty encouragement of students to explore diverse perspectives on communication research. The top criteria were somewhat different when considering a job candidate's educational background. The faculty sample rated as highest: Student attendance at academic conferences, opportunities for students to teach undergraduate courses, student sole authorship of papers/publications, the reputation of the university, and the national research reputation of the communication faculty.

The evaluation of the various criteria by chairs resulted in slightly different "top" criteria. When recommending programs to students, the top factors were the quality of the university library, faculty encouragement of students to explore diverse perspectives on communication research, up-to-date computer facilities, the breadth of the communication faculty's theoretic and/or methodological orientations, and a commitment of the professors to teaching. When assessing a job candidate's record, the top factors for chairs were the opportunities for students to teach undergraduate courses, faculty

encouragement of students to explore diverse perspectives on communication research, the commitment of the professors to teaching, the breadth of the communication faculty's theoretic and/or methodological orientations, and the national research reputation of the communication faculty.

In terms of curricular factors, the faculty ratings resulted in the following top criteria for programs they recommend to students: Coursework in a broad range of theoretical perspectives, quantitative methods coursework, methods courses that are taught within the Ph.D.-granting department or school, the quality of course offerings outside the Ph.D.-granting department or school, and qualitative methods coursework. When assessing a job candidate's record, the faculty found the following criteria most important: Coursework in a broad range of theoretical perspectives, quantitative methods coursework, qualitative methods coursework, methods courses taught within the Ph.D.-granting department or school, and required comprehensive exams or project.

The chair's ratings were quite similar with regard to curricular factors. When recommending a doctoral program to students, the top criteria were coursework in a broad range of theoretical perspectives, qualitative methods coursework, quantitative methods coursework, methods courses taught within the Ph.D.-granting department or school, and required comprehensive exams or project. When assessing a job candidate's record, chairs found the following criteria most important: Coursework in a broad range of theoretical perspectives, qualitative methods coursework, quantitative methods coursework, required comprehensive exams or project, and methods courses taught within the Ph.D.-granting department or school.

It should be noted that many of the criteria presented in the questionnaire achieved relatively high rating scores, so that the ranking may not be the critical analytic tool to examine. Most of the criteria received mean scores above the rating scale's midpoint (i.e., above a 5 on the 0-10 scale), indicating that

most of the criteria are deemed at least somewhat important to a doctoral program.

The results for the items in the questionnaire that probed perceptions of various disciplinary divisions and specialties (RQ2) in doctoral programs are presented in Table 3. The only specialty for which a majority of faculty respondents--and a majority of chair respondents--reported that there are "not enough" programs is Media Information Technologies. Other specialties for which a sizeable number of respondents felt that there are "not enough" programs include Applied Communication Research (35% of faculty, and 43% of chairs), Organizational Communication Technology (32% of faculty, and 31% of chairs), Dispute Resolution (28% of faculty, and 29% of chairs), Health Communication (27% of faculty, and 38% of chairs), and International/Development Communication (23% of faculty, and 25% of chairs).

Another way to examine the data in the table is to look at specialties that garnered a substantial number of votes indicating that there are "too many" such programs at present. Such emphases included Interpersonal Communication (34% of faculty, and 45% of chairs), Mass Communication (31% or faculty, and 16% of chairs), Rhetoric (30% of faculty, and 38% of chairs), Promotional Communication (27% of faculty, and 20% of chairs), and Relational Communication (23% of faculty, and 29% of chairs). A substantial number of chairs also indicated that there are "too many" programs in Instructional Communication (29%), and Organizational Communication (27%). Most telling, the greatest proportion of endorsements by faculty for the "too many" category was found for the "General" Ph.D. in Communication (37% for faculty, and 32% for chairs).

Turning to RQ3, Table 4 shows respondent selections for the top U.S. doctoral programs in the field of communication, on a weighted point system (see Table legend for more information). The school ranked number one by faculty was the University of Wisconsin-Madison, which received 126 points (the only score over 100 points). Other top faculty selections were the University of Texas at Austin (93

points), the University of Pennsylvania (77 points), Michigan State University (70 points), the University of Iowa (69 points), Stanford University (65 points), Northwestern University (60 points), the University of North Carolina (56 points), the University of Illinois (56 points), and Purdue University (53 points). Among chairs, the University of Texas at Austin ranked number one (25 points), followed by the University of Pennsylvania (16 points), the University of North Carolina (14 points), Michigan State University (13 points) and the University of Iowa (12 points).

In Table 5, respondent selections for the top U.S. communication programs without a doctoral degree are shown. The program ranked number one by faculty was Cleveland State University, which received 40 points, followed by San Diego State University (35 points), Northern Illinois University (26 points), Columbia University (23 points) and Northwestern University. Chairs ranked Columbia University first (8 points) and Northwestern University second (6 points).

Discussion

This study set out to describe the current status and valued characteristics of Ph.D. programs in Communication and gauge the relative demand for specific subareas within the discipline. On the whole, study results document a high degree of correspondence between faculty and administrator evaluations on curricular factors, and lower levels of agreement on program rankings and evaluation criteria for doctoral program quality.

Our finding of increased demand for communication technology studies (as evinced by high enthusiasm for doctoral programs in Media Information Technologies and Organizational Communication Technology) suggests that faculty envisage a central role for communication studies in the emerging information economy. American universities have conferred over 50,000 communication degrees per year

since the mid-1990s, which makes it among the fastest growing fields since 1965 (e.g., Chronicle, 1996). As Craig and Carlone (1998, p. 74) suggest, "...the growth in communication graduate degrees results...from the growth and proliferation of communication-related professional fields."

The robust demand for communication technology specialists evidenced here confirms larger economic projections that over half of American employees today are part of a "knowledge class" in an "information age" (e.g., Bell, 1976). As this emerging economy displaces industrial enterprise, communication will continue to occupy a central role as the major means of connecting people. In this regard, respondent sentiment would seem to reinforce that of commentators (e.g, Vincent, 1991; Atkin & Jeffres, 1998), who suggest that communication educators can better prepare their students for the workplace by incorporating these changes in technology into their pedagogy and research.

This demand for doctoral programs emphasizing technology components is at odds with the finding that highly valued qualities of current doctoral programs tend not to be technology-based. With the exception of "up-to-date computer facilities" (which ranked #2 among faculty recommending a doctoral program to a student), technology-related characteristics fell far down on the ranked list: Multimedia teaching facilities (#14 of 25 factors), opportunities for students to learn organizational communication technologies (#18), a communication faculty with professional experience (#20), and a video/audio production facility (#21).

There is little perceived demand for communication generalists. In fact, the more general the area designation, the more likely were respondents to indicate that there were "too many" programs serving it. Aside from the technology specialization dynamics mentioned above, this apparent reverence for specialization stands testament to the aphorism that enterprises become more complex as they age. Of course, our sample represents the communication field in the broadest sense, and some of the attributions

of Ph.D. overpopulation for mass and interpersonal communication may reflect historic splits in the field (with each camp perhaps seeing too much attention devoted to the other). Although only a handful of courses and programs are still offered under the venerable rubric of "rhetoric" (Rogers, 1994), the fact that a third of respondents place it in the "too many" category does not bode well for growth in that area. Yet, as Craig and Carlone (1998) note, statistical data can mislead when numbers are reported without careful attention to the shifting classification schemes that underlie them.

Rather than view a trend toward technology specialization as a form of balkanization, it is useful to point out that merging definitions of technology can help unify subdisciplines in communication that study them (e.g., mass, interpersonal and telecommunication). As observers (e.g., Lin & Atkin, 2000) note, the ongoing convergence of media marks a "communications" revolution that is based on collecting, storing, processing and communicating information.[4] Thus, in an era when several communication programs have come under attack from more established disciplines in the academy (e. g., Atkin, 1996; Atwater, 1993), the present findings suggest that faculty see the destiny of the field tied to the ongoing revolution in new communication technology. And, to the extent that emerging digital applications assume a central role in our economy, study results can help faculty and administrators understand the high level of perceived utility for new technology applications. Intellectual copyright, for instance, now represents America's chief export sector (Lin & Atkin, 2000), as expenditures for computing and communications surpass those for industrial, mining, farming and construction sectors.

Investigations like ours can thus help administrators assess whether communications programs are meeting the needs of students in an increasingly communication-based job market where, for instance, digital technology is transforming the study of journalism and promotional communication. The academic ferment in this area bears testament to the fact that communication professionals may all be part of the

"integrated communication grid" (Dizard, 1994) or network through which anyone can send or receive messages in any mode to virtually anyone anywhere. The decade ending 2003, for instance, is projected to encompass a two-fold increase the proportion of GDP attributable to telecommunications.

With regard to perceived program quality, study findings generally confirm those of Hickson et al. (1999), as all but one of the Big 10 schools (Michigan) appear on our list of 30 top doctoral degree granting institutions. Northwestern University appears on both lists, ostensibly because it offers a single doctorate in the field of communication--a Ph.D. in the Communication Studies program; the School of Journalism does not offer a Ph.D. Otherwise, the preeminence of large, state-supported schools atop our list of highly regarded schools is consistent with past work on program ratings (e.g., Hickson, Stacks, & Bodon, 1999).

Just as Hickson (1991) found that teaching in doctoral programs is less important for highly productive scholars in mass communication, the prominence of Carnegie II universities on our own list of non-Ph.D.-granting departments (e.g., Cleveland State) suggests that overall institutional status is not a precondition for excellence in Communication. When investigating the basis of these ratings, studies of scholarly productivity suggest that many of those schools have housed productive scholars (e.g., Hickson, Stacks, & Amsbary, 1993; Hickson, Stacks, & Bodon, 1999).

But, as the earlier-cited criticism of the U.S. News survey suggests, overall school status can help boost a program's reputation. This is particularly true among Ph.D. granting programs, where several elite schools rank highly in our survey even though they no longer command a high level of departmental productivity or a large stable of individually productive scholars (e.g., Vincent, 1991). The fact that San Diego State, Santa Barbara and other schools are rated highly here--despite not having been recorded in past institutional evaluations--suggests that faculty reputational standings can be volatile. Moreover, the

fact that many perennial research leaders (Vincent, 1991) fail to rank among our "Top 20" may be attributable to a dynamic observed by Burroughs et al. (1989); namely, that it's very difficult for schools to retain large numbers of productive scholars over time. It remains to be seen whether this dynamic is related to higher levels of mobility in communication, relative to other disciplines.

Yet, while no single indicator of program quality can be considered definitive, such research may provide a reality check for scholars, administrators and students in the field. Concurrently, it seems that student or public consumers of academic research are demanding "more perfect information" on program quality. This is especially true of institutional analyses, as witnessed by the recent commercial success of US News and World Report's annual collegiate ratings. That analysis easily provides the most visible and popular, if controversial, yardstick for all universities. The fact that it included mass communication for the first time in its 1996 issue is encouraging for a discipline that, despite a producing 5% of BA graduates, is not even included among the 36 disciplines evaluated by the National Research Council (Becker & Graf, 1995).[5] Of course, the subsequent complaints over how the field is represented, and the publication's hesitancy to include it in later years points to the difficulties in evaluating a nascent, far-flung field. For that reason, it will be important to repeat this work over time. Further work might also analyze perceived institutional quality across various subfields as well as faculty productivity in terms of journals, books and faculty citation frequencies.

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Table 1. Sample descriptors.

	Faculty Sample (n=221)	Chair Sample (n=49)
From department offering B.A.	84.6%	87.5%
From department offering B.S.	37.8%	35.7%
From department offering M.A.	62.4%	61.4%
From department offering M.S.	19.5%	12.2%
From department offering M.F.A.	4.3%	7.9%
From department offering Ph.D.	35.5%	30.0%
From department offering other degree	11.5%	20.0%
Academic rank:		
Instructor	2.3%	0.0%
Assistant Professor	26.2%	4.2%
Associate Professor	40.2%	35.4%
Professor	29.0%	60.4%
Visiting Professor	0.5%	0.0%
Other	1.9%	0.0%
Highest degree obtained:		
B.A./B.S.	0.0%	0.0%
M.A./M.S.	8.7%	4.2%
M.F.A.	0.0%	0.0%
Ph.D.	89.0%	89.6%
Other doctorate	2.3%	6.3%
Mean age	45.48 years	50.70 years
Percent female	39.7%	29.8%

Table 2. Evaluations of qualities of Ph.D. programs.

How important is each of the following for a Ph.D. program in comm.? (0=not at all important; 10=very important)	–Faculty Sample--		--Chair Sample--	
	Student Recom	Job Cand.	Student Recom.	Job Cand.
1-The quality of the university library	9.00 (1)	6.63 (12)	8.98 (1)	6.98 (15)
2-Up-to-date computer facilities	8.52 (2)	6.83 (11)	8.71 (3)	7.96 (7)
3-Student attendance at academic conferences	8.51 (3)	8.61 (1)	8.12 (8)	7.98 (6)
4-National research reputation of communication faculty	8.34 (4)	8.08 (5)	8.14 (7)	8.14 (5)
5-Faculty encouragement of students to explore diverse perspectives on communication research	8.33 (5)	8.07 (6)	8.90 (2)	8.73 (2)
6-Student involvement in faculty research	8.28 (6)	8.04 (7)	8.04 (9)	7.69 (10)
7-The breadth of the communication faculty's theoretic and/or methodological orientations	8.24 (7)	8.02 (8)	8.65 (4)	8.63 (4)
8-Commitment of professors to teaching	8.17 (8)	7.76 (10)	8.55 (5)	8.67 (3)
9-Student sole authorship on papers/publications	8.10 (9)	8.50 (3)	7.69 (10)	7.96 (8)
10-Opportunities for students to teach undergraduate courses	7.93 (10)	8.59 (2)	8.20 (6)	8.82 (1)
11-Student co-authorship with faculty on papers/publications	7.86 (11)	7.80 (9)	7.65 (11)	7.44 (11)
12-Reputation of the university	7.84 (12)	8.20 (4)	7.59 (12)	7.94 (9)
13-A communication faculty that regularly obtains research grants	7.00 (13)	6.10 (14)	7.45 (13)	7.22 (13)
14-Multimedia teaching facilities	6.55 (14)	5.75 (15)	7.41 (14)	7.06 (14)
15-International research reputation of communication faculty	6.30 (15)	6.33 (13)	6.10 (19)	6.23 (18)
16-A survey research lab	6.23 (16)	4.64 (20)	6.60 (17)	5.88 (20)
17-Opportunities for students to apply research to non-academic issues	5.99 (17)	5.53 (16)	7.24 (15)	7.24 (12)
18-Opportunities for students to learn organizational communication technologies (e.g., tele-, video-, computer-conferencing, virtual teams and decision making)	5.79 (18)	5.23 (18)	6.55 (18)	6.43 (17)
19-Experimental research labs	5.74 (19)	4.69 (19)	5.88 (20)	5.17 (22)

20-A communication faculty with professional (i.e., non-academic) experience	5.72 (20)	5.49 (17)	6.63 (16)	6.84 (16)
21-A video/audio production facility	5.10 (21)	2.74 (23)	5.77 (22)	4.85 (23)
22-Opportunities for student internships	4.98 (22)	4.31 (21)	5.73 (23)	5.73 (21)
23-The university's proximity to a major metropolitan area	4.97 (23)	3.32 (24)	4.73 (24)	3.69 (24)
24-A communication faculty that regularly engages in non-academic consulting	4.36 (24)	4.13 (22)	5.86 (21)	5.80 (19)
25-A film production facility	3.47 (25)	2.63 (25)	3.44 (25)	2.70 (25)

How important is each of the following to the curriculum of a doctoral program? (0=not at all impt.; 10=very impt.)	–Faculty Sample--		--Chair Sample--	
	Student Recom	Job Cand.	Student Recom.	Job Cand.
1-Coursework in a broad range of theoretical perspectives	8.63 (1)	8.44 (1)	8.76 (1)	8.68 (1)
2-Quantitative methods coursework	8.46 (2)	7.93 (2)	8.61 (3)	8.31 (3)
3-Methods courses taught within the Ph.D.-granting department or school	8.10 (3)	6.93 (4)	8.21 (4)	6.94 (5)
4-The quality of course offerings outside the Ph.D.-granting department or school	8.04 (4)	6.74 (6)	7.86 (6)	6.85 (7/8)
5-Qualitative methods coursework	7.93 (5)	7.59 (3)	8.71 (2)	8.50 (2)
6-Required comprehensive exams or project	7.72 (6)	6.93 (5)	8.12 (5)	7.81 (4)
7-The breadth of course offerings outside the Ph.D.-granting department or school	7.67 (7)	6.39 (7)	7.49 (7)	6.85 (7/8)
8-Required preliminary or qualifying exams	6.59 (8)	5.81 (9)	6.69 (9)	6.27 (9)
9-Critical/cultural studies coursework	6.45 (9)	5.99 (8)	7.24 (8)	6.88 (6)
10-Coursework on the economics and law of communication industries	5.73 (10)	4.70 (11)	6.55 (10)	5.92 (10)
11-Rhetoric coursework	5.45 (11)	5.05 (10)	6.29 (11)	5.54 (11)

Note: Rows in Table 2 are arranged in decreasing order of mean rated importance of Ph.D. program features, according to the faculty sample rating the importance of the factors for recommending a program to a student considering graduate study. Mean figures are followed by the ranking (in parentheses) for that factor by the given sample (faculty, chairs) in the given context (i.e., recommending a program to a student, vs. considering hiring a graduate of that doctoral program as a new faculty member).

Table 3. Perceptions of adequacy of number of doctoral programs. (All figures are percentages.)

Opinion on number of doctoral programs that emphasize:	----Faculty sample--- Not enough	Just right	Too many	DK	----Chair sample----- Not enough	Just right	Too many	DK
Media Information Technologies (e.g., study of emerging communication technologies)	53	19	7	21	60	13	4	23
Applied Communication Research (e.g., using communication principles for problem-solving)	35	23	9	34	43	20	6	31
Organizational Communication Technology (inc. tele-, video-, computer conferencing, virtual teams & decision making)	32	14	10	44	31	21	10	38
Dispute Resolution (including mediation and conflict)	28	19	4	49	29	14	12	45
Health Communication (including communication about health issues and within a health context)	27	30	9	34	38	17	8	38
International/Development Communication (e.g., communication for national development)	23	23	12	41	25	29	8	39
Political Communication (e.g., study of the role of political messages)	23	33	17	27	17	38	19	27
Instructional Communication (including communication about education and within educational contexts)	21	24	15	41	27	15	29	29
Promotional Communication (e.g., study of advocacy communication, including public relations and advertising)	20	20	27	33	22	29	20	29
Communication Law and Policy (e.g., study of the operation of mass media industries)	20	34	10	37	25	38	6	31
Organizational Communication	17	39	19	26	8	45	27	20
Applied Organizational Communication (e.g., focus on consulting applications of organizational communication principles)	17	21	11	51	22	31	12	35
"General" Ph.D. in Communication (without a required specialization)	13	26	37	24	11	30	32	28
Rhetoric (including argumentation, study of freedom of speech issues, analysis of messages)	13	30	30	30	6	36	38	19
Mass Communication	11	44	31	15	10	57	16	16
Relational Communication (e.g., study of interaction in human relationships)	10	31	23	36	12	27	29	33
Interpersonal Communication	6	37	34	23	2	37	45	16

Note: Rows in Table 3 are arranged in decreasing order of perceived need for more doctoral programs of that type, according to the faculty sample. All figures are percentages.

Table 4. Rankings of communication programs that offer a doctoral degree.

Communication program	Faculty Score (rank)	Chair Score (rank)
1- University of Wisconsin, Madison	126 (1)	9 (8, tie)
2- University of Texas at Austin	93 (2)	25 (1)
3- University of Pennsylvania	77 (3)	16 (2)
4- Michigan State University	70 (4)	13 (4)
5- University of Iowa	69 (5)	12 (5)
6- Stanford University	65 (6)	9 (8, tie)
7- Northwestern University	60 (7)	10 (7)
8- University of North Carolina, Chapel Hill	56 (8, tie)	14 (3)
8- University of Illinois, Urbana-Champaign	56 (8, tie)	11 (6)
10- Purdue University	53 (10)	NS (-)
11- University of Southern California	48 (11)	1 (20, tie)
12- Penn State University	32 (12)	1 (20, tie)
13- University of California, Santa Barbara	26 (13)	3 (16)
14- University of Arizona	20 (14, tie)	NS (-)
14- University of Minnesota	20 (14, tie)	5 (13, tie)
16- University of Missouri	17 (16. tie)	6 (12)
16- Ohio University	17 (16, tie)	2 (17, tie)
18- University of Florida	16 (18)	9 (8, tie)
19- University of Utah	14 (19)	1 (20, tie)
20- University of Kansas	11 (20, tie)	2 (17, tie)
20- Texas A & M University	11 (20, tie)	5 (13, tie)
22- Arizona State University	10 (22, tie)	8 (11)
22- Indiana University	10 (22, tie)	NS (-)
22- University of Maryland	10 (22, tie)	NS (-)
25- University of Massachusetts	8 (25)	NS (-)
26- Regent University	7 (26)	NS (-)
27- University of Georgia	6 (27, tie)	4 (15)
27- Ohio State University	6 (27, tie)	2 (17, tie)

Table 5. Rankings of communication programs that do not offer a doctoral degree.

Communication program	Faculty Score (rank)	Chair Score (rank)
1- Cleveland State University	40 (1)	3 (3, tie)
2- San Diego State University	35 (2)	NS (-)
3- Northern Illinois University	26 (3)	NS (-)
4- Columbia University	23 (4)	8 (1)
5- Northwestern University	22 (5)	6 (2)
6- Illinois State University	21 (6)	2 (4, tie)
7- University of Wisconsin, Milwaukee	20 (7)	2 (4, tie)
8- Colorado State University	15 (8, tie)	NS (-)
8- Washington State University	15 (8, tie)	NS (-)
10- University of California, Davis	7 (10)	NS (-)
11- Iowa State University	6 (11)	3 (3, tie)

Notes for Table 4 and Table 5: Rankings were determined by using a weighted points system. Each time a program was ranked as number one, it received three points. Second place rankings translated into two points each, while each third place ranking counted for one point. The total scores for each program at each level (first, second and third) were summed; the final figures are represented by the points shown in the tables. For example, the University of Wisconsin-Madison was called the top doctoral program in communication by 20 faculty respondents, the second best program by 25 faculty respondents, and the third best by 16 faculty respondents. Thus, Wisconsin-Madison received 60 first place points (20 x 3), 50 second place points (25 x 2), and 16 third place points. Wisconsin's total score for the faculty sample, therefore, was 126 points (60+50+16), the figure shown in the table.

The numbers in parentheses represent rankings of the programs among members of the faculty and chair samples, respectively.

"NS" indicates that the program received zero points and thus no score.

Programs that received fewer than six total points are not shown.

ENDNOTES

[1] Craig and Carlone note that the fastest growth in the field since 1972 has occurred in the category of "general communication," borrowing the following definition from the National Center for Education Statistics (1991, p. 68):

> An instructional program that generally describes the creation, transmission and evaluation of messages at all levels, for commercial or non-commercial purposes, and that may prepare individuals to apply principles of communications to work in specific media. Includes instruction in modes and behavioral aspects of human communications, and the formal means by which society organizes communications.

[2] For instance, results among public schools indicate that U.C. Santa Barbara is the second ranked school (behind Berkeley), despite receiving lower reputational rankings.

[3] Initially, there were 225 completions of the faculty survey identified on the website. Upon examination of the email IDs and remote name identifications, it was found that four respondents completed the survey twice. The redundant completions were deleted, for a final n of 221. On the site for chairperson respondents, there were 52 completions recorded. The examination of identifying data revealed that one respondent completed the survey four times; three of these entries were deleted, for a final n of 49.

[4] According to some estimates, over half of American employees today are part of the "knowledge class" in an "information age." Thus we see the emergence of a post-industrial society, where communication is increasingly replacing transportation as the major means of connecting people. The energy core of this new social framework involves new technologies of communication (Bell, 1976).

[5] Communication thus remains one of the more robust fields in the academy--growing 1500% in enrollment since 1966--the fastest growth rate of any discipline (Becker & Graf, 1995). Although enrollment growth slowed to 19% from 1988-1993, American universities conferred 53,874 communication degrees in 1993, placing it among the top eight fields in national enrollment (Chronicle, 1995).