

# **A Data-Driven Approach to Improving Doctoral Completion**

Maureen Grasso  
Dean of The Graduate School

Melissa Barry  
Doctoral Completion Project Coordinator

Thomas Valentine  
Professor of Adult Education

The University of Georgia  
Athens, Georgia



**COUNCIL OF GRADUATE SCHOOLS**

THE CGS OCCASIONAL PAPER SERIES ON INCLUSIVENESS, VOLUME  
TWO

# **A Data-Driven Approach to Improving Doctoral Completion**

By Maureen Grasso, Melissa Barry, and Thomas Valentine

Copyright © 2007 University of Georgia and Council of Graduate Schools, Washington, DC. This publication is copyrighted, but may be quoted without permission providing that the source is identified as: Maureen Grasso, Melissa Barry, and Thomas Valentine (2009). *A Data-Driven Approach to Improving Doctoral Completion*. Washington, DC: Council of Graduate Schools.

# TABLE OF CONTENTS

---

---

<b>1. The Crucial Issue of Doctoral Non-completion .....</b>	<b>6</b>
<b>2. Description of Projects .....</b>	<b>8</b>
<b>3. What University Administrators Can Do to Improve Completion Rates .....</b>	<b>13</b>
<b>4. Attracting the <i>Right</i> Applicants .....</b>	<b>23</b>
<b>5. Admitting the <i>Right</i> Students .....</b>	<b>26</b>
<b>6. Facilitating Positive Student-Faculty Relationships .....</b>	<b>29</b>
<b>7. Encouraging Student Cohesiveness .....</b>	<b>33</b>
<b>8. Summary of Recommendations for Improving Doctoral Completion .....</b>	<b>35</b>
<b>REFERENCES .....</b>	<b>40</b>
<b>APPENDIX .....</b>	<b>42</b>

# **TABLES**

---

---

<b>1. Four Conditions for Optimal Doctoral Completion .....</b>	<b>10</b>
<b>2. Completion Rankings of 11 Programs at The UGA .....</b>	<b>17</b>
<b>3. Time-to-Degree Rankings of 11 Programs at The UGA.....</b>	<b>17</b>
<b>4. Completion Rate Benchmarks at The UGA .....</b>	<b>18</b>
<b>5. Time-to-Degree Benchmarks at The UGA.....</b>	<b>19</b>
<b>6. Withdrawal Rate Benchmarks at The UGA.....</b>	<b>19</b>
<b>7. Time-to-Withdrawal Benchmarks at The UGA.....</b>	<b>19</b>

# RESOURCES

---

---

<b>1. Program Practices Survey (Example) .....</b>	<b>43</b>
<b>2. Program Statistical Report .....</b>	<b>45</b>
<b>3. Faculty Discussion Guide.....</b>	<b>48</b>
<b>4. Program Self-Assessment (Example) .....</b>	<b>52</b>
<b>5. Program Self-Study .....</b>	<b>54</b>

# CHAPTER 1: THE CRUCIAL ISSUE OF DOCTORAL NON-COMPLETION

---

The completion rate for Ph.D. degrees has become a topic of pressing, national attention in recent decades for graduate school deans, public and private funding agencies, faculty members, and graduate students. Despite recent national attention focusing on doctoral completion, the *Analysis of Baseline Program Data* from the *Ph.D. Completion Project*, which examined both private and public institutions nationally, reports that the completion rate ten years after students begin their doctoral program remains low at 56.6% (Sowell, Zhang, Redd, & King, 2008). Additionally, the analysis indicates that completion rates continue to vary considerably by field of study: 49.3% in humanities, 54.7% in mathematics and physical sciences, 55.9% in social sciences, 62.9% in life sciences, and 63.6% in engineering. Such low completion rates result in concerns ranging from the waste of limited resources and our "domestic talent pool," to the detrimental effects on students' lives (Smallwood, 2004; *Workshop on Graduate School Attrition*, 1997).

Doctoral non-completion is an expensive proposition not only for society and institutions, but also for individuals. Doctoral education exists, in part, to meet highly educated individuals' needs for advanced learning opportunities. Doctoral coursework is expensive because, by design, it tends to have a much higher teacher-student ratio than undergraduate work and because each doctoral student requires many hours of one-on-one research supervision by a member of the research faculty. Whether or not a student graduates, each and every doctoral student represents a substantial investment in terms of time, intellectual resources and public and private dollars. When students graduate, they move out into various professional domains as representatives of their university, with their accomplishments reflecting on the university, and with their professional work serving as recompense to the taxpayers and other individuals and organizations that fund doctoral education. When Ph.D. students fail to graduate, there is little or no return on these investments. For example, society misses out on scientific or social advancement the students would have created later in their careers (Lovitts, 2001). In addition, "low Ph.D. production rates ... put the existence of doctoral programs (and the faculty who teach them) at risk" (Lovitts, 2001, p. 3).

Would-be graduates also make substantial investments in doctoral education. Doctoral students move families, incur financial obligations, and surrender substantial opportunity costs in order to pursue their degrees. Furthermore, they make a substantial psychological investment, since doctoral study presents an incisive challenge to the ego integrity of academically-oriented individuals. If they complete their degrees, Ph.D. graduates can move into professional positions that justify the costs incurred by students and their families. Failure to complete can leave individuals with psychological and family turbulence, massive debt and limited career potential (Golde & Dore, 2001; Lovitts, 2001).

While it is clear that this widespread problem of non-completion impacts students, faculty, administration, and society, the sober reality is that doctoral completion rates remain low. Due

to heightened awareness of this issue, many institutions and departments have implemented programs ranging from improving targeted recruitment to establishing mentoring groups (Barry, 2005; Guadelope-Williams, 2005). Although well-intentioned and worthwhile, many of the approaches for improving completion rates are piecemeal in nature. Specifically, the majority of the practices currently being implemented target solely one aspect of doctoral education.

In a review of current scholarly literature about this trend, several questions arise. Why do we not approach the study of this salient issue in the same comprehensive and integrative manner through which we conceptualize research topics in our individual field, whether that be physical sciences, social sciences, or humanities? Moreover, when most of us frequently rely on data analysis in our own subject areas, why is it that we are less likely to utilize research and data pertaining to this national concern which impacts our own professions?

The Graduate School at the University of Georgia sought to develop a comprehensive strategy for improving doctoral education and, in turn, completion rates, by approaching the problem in much the same way we approach our own research—in a data-based and systematic manner. In this monograph, we will describe the comprehensive and data-driven methods prompting action by both administration and doctoral programs. Before explaining these methods in detail, Chapter 2 briefly describes the premise of our work examining doctoral completion.

Each of the remaining chapters focuses on our findings regarding university-wide and program-level policies that facilitate doctoral completion. Chapter 3 explains the role of a university's administration, both as a proactive leader in the examination of doctoral completion, and as a support to doctoral programs at a university. Chapters 4 through 7 delineate the doctoral completion literature and findings from our studies as they relate to the theoretical framework we developed. Lastly, Chapter 8 provides strategies that graduate school administration and doctoral program faculty members can utilize in order to improve doctoral completion.

The information in this monograph describes the doctoral education improvement process at the University of Georgia (UGA) and is designed to be a resource for graduate school deans, university administrators, and doctoral faculty. While we hope it will be a valuable resource for your university and doctoral programs, it is important to note that not all of the recommendations and ideas from this monograph will be appropriate for every organization. Additionally, please refer to our website at [www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs) to learn more about our research project.

## CHAPTER 2: DESCRIPTION OF PROJECTS

---

The Graduate School at the University of Georgia (UGA) has a deep commitment to improving doctoral completion at our institution. In recent years, our major efforts have involved two projects that were funded by the Council of Graduate Schools, the Ford Foundation, and Pfizer, Inc. Although many of our activities were conducted in collaboration with the University of Florida and North Carolina State University, in this monograph we will focus on the practices at the UGA specifically. Chapter 2 delineates the projects involving doctoral completion as well as the background, literature, and methods utilized.

### *Strategic Intervention for Doctoral Completion Project*

The Graduate School began its explicit commitment to improving doctoral completion in 2004. From 2004-2007, the Graduate School and its partner institutions, the University of Florida and North Carolina State University, were appointed “Research Partners” and awarded a grant through the Council of Graduate School’s *Ph.D. Completion Project*. During this time, the three institutions worked collaboratively on the *Strategic Intervention for Doctoral Completion* project addressing this topic. During this project, the Graduate School and its two partner institutions evaluated thirty-seven doctoral programs primarily in science, technology, engineering, and mathematics (STEM) as well as in humanities and social sciences. Twelve programs from the University of Georgia participated.

The Graduate School and its two partner institutions conducted numerous research activities during the project which are discussed in detail in the subsequent chapters. We developed a literature-based theoretical framework, which includes four conditions for optimal doctoral completion, in order to approach the subject in a comprehensive manner. This framework guided all activities of the strategic intervention project, including research studies, administrative actions, conferences, and supportive efforts that occurred.

One study conducted during the project involved interviews with faculty and doctoral students regarding barriers to doctoral completion. *Program Practices* and *Program Self-Assessment* surveys were designed and conducted to determine whether or not the current policies of our doctoral programs possessed the conditions we felt were necessary for completion. Moreover, an accompanying review of statistical data allowed the thirty-seven programs and the participating institutions to determine their historical completion rates.

Findings from these project studies, and other findings in the literature, were communicated to program leaders through several avenues during the *Strategic Intervention for Doctoral Completion* project. One avenue of communication was through research briefs and strategy sheets developed from faculty and student interviews, and best practices culled from the literature, and wherein the four conditions of the theoretical framework were utilized. Additionally, findings were communicated through presentations at national and regional conferences, meetings with administration and program leaders, and by hosting invitational conferences specifically on the topic of improving doctoral completion. Moreover, the research team created a project website ([www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs)) that is available to all doctoral



faculty and students. On the website, links to [Project Publications](#), [Presentations](#), and [Conference Information](#) are available. Additionally, the website provides other resources, such as a [Problem-Solving Forum](#) and links to findings related to doctoral completion, that are designed to promote the awareness of the issue and facilitate the improvement of doctoral completion rates.

#### *Initiative for Optimal Doctoral Completion*

In 2007, the Council of Graduate Schools awarded the University of Georgia Graduate School a continuation of its research with the *Ph.D. Completion Project*. Because one of the goals of the Graduate School is to improve completion rates in all fields, it was decided to expand our efforts to include all doctoral programs at our institution. In January of 2008, a university-wide *Initiative for Optimal Doctoral Completion* was launched by the Graduate School. This *Initiative* seeks to improve completion rates in all doctoral programs at the University of Georgia through our research findings and development activities and the subsequent data-based and systematic methods that were developed during the three-school *Strategic Intervention for Doctoral Completion* project.

Several activities under this university-wide *Initiative* have occurred or are already underway. First, a website specifically for this project was created in order to better communicate with our doctoral faculty ([www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs) on the *Initiative for Optimal Doctoral Completion* page). Second, information sessions for department heads, graduate coordinators, and faculty from all doctoral programs were hosted by the Graduate School. These sessions were designed both to promote awareness of the importance of doctoral completion and strategies that are effective at facilitating completion. Handouts from the information sessions as well as live video streams of the presenters can be found on our website (the [Information Sessions](#) page).

In addition, the *Initiative* research team also collaborated with the university's own Institutional Research department and created a drillable database for all doctoral programs at the University of Georgia, which will be discussed in more detail in Chapter 3. During the *Initiative*, the research team also created additional tools, such as the *Program Self-Study*, for doctoral programs to utilize in their discussions and assessments of doctoral completion.

#### *Theoretical Framework*

When we first began intensively studying doctoral completion in 2004, a critical review of the literature suggested that, despite the widespread impacts of doctoral non-completion, the research base for understanding this phenomenon was uneven, conceptually scattered, and of questionable external validity. We immediately noticed the piecemeal approach many researchers took in examining and suggesting methods for improving doctoral completion. For instance, most of the research focused on one aspect of graduate education- for example, the positive influence of student cohesiveness to increasing the number of research assistantships available to students. Additionally, much of the literature consisted of non-empirical prescriptions for practical action, and theoretical studies. Having all been through doctoral education ourselves, we can affirm that doctoral study is multi-faceted and complex, and deserving of empirical analysis.

Based on our initial summary of available literature, we sought to develop a theoretical framework that would aid in understanding doctoral completion. Due to the importance of a comprehensive framework when examining a research topic and the absence of one in the literature, we constructed a model that accounted for the multiple influences impacting completion of doctoral degrees. Additionally, we required that the model be grounded in the findings of past scholarship while remaining practical for implementation. Through the combination of these goals and collaboration with university administration, faculty, and doctoral students, our research team created *The Four Conditions for Optimal Doctoral Completion*.

*The Four Conditions for Optimal Doctoral Completion* (Table 1) were developed to cogently classify the aspects of graduate education which facilitate completion of doctoral degrees, and as a method for conceptualizing our future research. *Condition One* focuses on recruiting the right people for doctoral study and ensuring they possess an accurate understanding of the rigors of doctoral education. The next step, *Condition Two*, involves admitting only those applicants who are the right candidates for doctoral study. *Condition Three* emphasizes forming productive professional relationships between faculty and doctoral students so that the latter group receives the support necessary for advancement in their respective fields. *Condition Four* consists of promoting an environment in which students support each other's endeavors in a manner that prepares them for professional relationships that are collegial in nature. Each of these conditions and their related practices are discussed in more detail below.

**Table 1**

<i>Four Conditions for Optimal Doctoral Completion</i>	
Condition	Description
#1: The right people apply for doctoral study.	Applicants must be realistic about the demands and expectations of doctoral study.
#2: The right applicants are admitted as doctoral students.	Admissions committees must properly screen applicants and, upon enrollment, orient them to the program.
#3: Students and faculty form productive working relationships.	Faculty members and students must interact in a mutually respectful and task-oriented manner.
#4: Students experience social support from fellow students.	Students must recognize themselves as members of a community of learners facing common challenges and opportunities.

Once *The Four Conditions for Optimal Doctoral Completion* were developed, they served as a guide for our understanding of doctoral study and the subsequent research we conducted. Additionally, it is important to note the choice of the adjective *optimal* utilized in our theoretical framework's title. Originally the word *maximum* was used; however, faculty input resulted in this change. Because all admissions criteria are imperfect predictors, a common opinion of faculty members at the three participating institutions was that a 100% completion rate should not be the goal. We repeatedly heard from programs that everyone who is accepted

in a doctoral program should not complete as that would lead to a decline in the value of the doctoral degree, amongst other problems. While we recognize the potential problematic consequences of a 100% completion rate, we chose to focus instead on the efficacy of the application and selection procedures, as a means to properly screen applicants.

### *Data Collection*

Next, the Graduate School proactively designed and implemented several research projects. Our goal was to understand doctoral education at the University of Georgia and at the graduate programs of our two research partners at the University of Florida and North Carolina State University, more intimately. More specifically, we sought to chronicle doctoral completion statistics at each university and in each field. Additionally, we sought the perceptions of doctoral education by those who knew it best- faculty and doctoral students. Although we would often hear anecdotally about the policies and activities of some doctoral programs, we wanted to examine each program and its practices in greater detail, in order to best communicate innovative and effective ideas. The actual data can be viewed on our website ([www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs), under the *Program Data* page), and is described below.

#### *1. Completion Statistics.*

The first set of data collected by the Graduate School was statistical data for each participating doctoral program at the University of Georgia. Specifically, we contributed to the Council of Graduate School's (CGS) national database by submitting attrition and completion templates that accounted for each subpopulation (e.g., by gender and race), as well as by field and broad discipline. Second, using the data submitted to CGS, we created our own completion statistics in order to meet the goals and requests of our doctoral faculty. These data involved university-wide and program-level completion rates, attrition rates, Time-to-Degree (TTD), and Time-to-Withdrawal (TTW) statistics. Third, we created benchmarks for each of the statistics so that doctoral programs could gauge their own standing with regard to these indicators. Examples of these statistics and the process of data dissemination are described in detail in Chapter 3.

While completion and attrition statistics are one indicator of the quality of doctoral education, we also wanted to learn more about doctoral education from the programs themselves. The Graduate School conducted two studies in order to more fully understand what practices are most effective in doctoral education. First, the *Program Practices Study* examined what practices related to each of the *Four Conditions* were currently in use in doctoral programs. Second, interviews with doctoral students and faculty were conducted to understand their perceptions of the efficacy of those practices.

#### *2. Program Practices Study.*

The *Program Practices Study* was designed to examine what policies and processes each of the original thirty-seven doctoral programs were currently utilizing with respect to doctoral education. As stated earlier, the overall purpose was to determine if programs had practices in place that concerned each of *The Four Conditions for Optimal Doctoral Completion*. Additionally, the Graduate School wanted to communicate and disseminate innovative practices to other universities once they were identified.

Each program was asked to complete a *Program Practices Survey* (Resource 1, p. 43). The survey contained ten open-ended questions concerning the practices implemented by their program with regard to each of the four conditions. Specifically, the coordinators responded about their program's policies and activities with regard to: potential doctoral students; admissions decisions; orientation and advisement; and social interactions. The entire survey took approximately twenty-five minutes to complete and the response rate was 100%. Findings from the *Program Practices Study* as they relate to each of the four conditions are discussed in Chapters 4-7.

### 3. *Student and Faculty Interviews.*

Sixty participants (thirty faculty members and thirty doctoral students) from the thirty-seven participating programs represented in the *Strategic Intervention for Doctoral Completion* project participated in this study. Two researchers from the University of Georgia conducted the interviews. The researchers used a semi-structured interview guide containing six to seven questions (depending on the whether the participant was a student or faculty member) which focused on *The Four Conditions for Optimal Doctoral Completion* that we identified as our theoretical framework. The interviews took an average of thirty to thirty-five minutes each and were recorded and later transcribed. Participants answered the following questions during the interviews:

- Why do some students complete doctoral studies and others do not?
- What program information is provided to potential students so that they may select the most appropriate program? Is this information useful?
- What is your program's graduate admissions protocol? Is this process effective?
- Describe the relationship between doctoral students and their advisors.
- What are the different ways students support each other or don't support each other?

After the interviews, the data were then examined through qualitative content analysis by our research team. The primary findings are described in Chapters 4-7 as they relate to each of the *Four Conditions*.

## Chapter 3: What University Administrators Can Do to Improve Completion

---

Although many of the recommendations for improving doctoral completion focus on the actions of the doctoral programs themselves, a university's administration can also serve a valuable role in several ways.

### *Administration Must Be Proactive*

First, administrators should be proactive in addressing both the cross-disciplinary aspects of doctoral study and the unique needs of doctoral education on their campus. For example, it was necessary for the Graduate School to develop our own theoretical framework, based on an analysis of the literature, prior to implementing other research activities. The framework, *The Four Conditions for Optimal Doctoral Completion*, is described on our website (the [Theoretical Framework](#) page). Once it was formulated, it served as the framework for all activities of the project and as a basis for a self-study of our doctoral programs. The Graduate School led this internal examination, which involved compiling completion statistics, conducting student and faculty interviews, and examining current program-level practices and policies with respect to doctoral education.

Another way for administrators to be proactive is by educating doctoral programs about the importance of doctoral completion. Additionally, administration must provide programs with information regarding the best program-level practices for facilitating doctoral completion. In particular, the focus of these targeted efforts must be on faculty, as they have real power and authority to effect program-level change. At the Graduate School, this involved raising awareness, communicating research findings, and providing individualized support through conferences, meetings, publications, and a program website.

At the University of Georgia, the Graduate School implemented several activities in order to promote awareness. First, we developed a website for both the *Strategic Intervention for Doctoral Completion* project and the *Initiative for Optimal Doctoral Completion*, which are both housed at [www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs). Through this website, we have communicated our research with faculty and students through research briefs and strategy sheets on the Project Publications page. The website also provides links to other research on the topic of doctoral completion on the Resources page. It also includes a *Problem-Solving Forum*, which allows doctoral students and faculty to provide suggestions to typical problems of doctoral study in an interactive manner.

Second, the Graduate School hosted two regional conferences and one university-wide conference in the past four years to further educate faculty leaders in doctoral programs about completion trends. At these conferences, faculty leaders were provided with completion statistics on how their programs were doing compared to university and national norms. Additionally, we also promoted interactive discussion groups at the conferences, as a method for program leaders to communicate and exchange innovative ideas and facilitate discussion.

Research findings, with links to practical implications for improving completion rates, also were disseminated to program leaders at the conferences. More conference information can be found on our website ([www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs) on the *Conferences* page).

Third, the research team at the Graduate School presented this study's findings through various forms of scholarship. Research briefs, based on the student and faculty interviews, contain results relating to each of the conditions in the theoretical framework. Strategy sheets, based on a culmination of our own studies as well as that of others, suggest program practices and policies that promote doctoral completion. Several members of our research team went on to present our findings at national and regional conferences. Copies of publications and presentations were also provided to our faculty at a university-wide conference, and are on our website ([www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs) on the *Project Publications* page).

Fourth, in January of 2008, we launched a public awareness campaign. This campaign involved press releases and articles in campus newspapers. We chose this method of dissemination in order to communicate our *Initiative* to a wider audience.

Once all faculty are educated about the importance of doctoral completion, the Graduate School must collaborate with doctoral programs in order to best serve doctoral students. One of the most effective methods that we have implemented is to ensure administration and/or the research team at the Graduate School is available for assisting individual doctoral programs at our own university. When needed, Dean Maureen Grasso met with program leaders from the original twelve participating programs in order to establish where each program was in terms of completion rates. Additionally, Dean Grasso worked collaboratively with program leaders to develop program goals that target at least one of *The Four Conditions for Optimal Doctoral Completion*. Last, the Graduate School must offer resources and recommendations for specific and universal problems that doctoral programs may encounter, which will be discussed in detail in the subsequent chapters.

Finally, data also served a powerful role. In working closely with faculty on this issue at the three partner institutions over the past four years, it was our experience that faculty were often resistant to administrative mandates for program-level change. Gradually, based on comments gathered at conferences, meetings, during the research interviews and through correspondence, faculty rightfully felt a sense of ownership for their own program and its policies. Many faculty members were hesitant to change when the suggestions came directly from the administration. Additionally, many faculty members stressed the uniqueness of their particular doctoral program, wherein they felt some of the suggested policies would not work for their own program.

Rather than declaring administrative mandates for change, we found that data motivated faculty members to consider the need for program improvements. Data on doctoral completion was especially powerful when completion rates offered comparisons to similar programs. Faculty members typically wanted their programs to be as good as or better than comparable programs at other universities.

We decided that the best method both for promoting awareness and facilitating faculty “buy-in” and support was to utilize data as an important driver for fostering change. The following five-step plan for using data to innervate program-level change was developed:

1. Collect appropriate data.
2. Distill data to allow for meaningful program comparisons.
3. Provide data to allow for public comparisons.
4. Review data with program leaders.
5. Encourage program leaders to develop their own plans for program-level change using

*The Four Conditions for Optimal Doctoral Completion.*

*1. Collect the appropriate data.*

Step 1 involves collecting appropriate doctoral completion data in order to promote more awareness on this issue. The Graduate School collaborated with our university’s Institutional Research department in order to collect the necessary data. The CGS templates were used to examine attrition and completion statistics. In addition to the CGS templates, we also provided faculty with data that highlighted the doctoral completion rates of their programs in order to alert them of their respective ranking and promote program-level change.

As an aside, it was important for us to develop a retinue of operational definitions for each variable involved, for several reasons. Since research teams at both the Graduate School and the department of Institutional Research were working with the data, miscommunication in how to calculate a statistic could drastically change the outcome. For example, we noted a discrepancy regarding when a student was considered a Ph.D. student, if he or she earned a Master’s *en route*. Using the the original enrollment date, or the date after which the Master’s degree was earned instead, would significantly change the median Time-to-Degree or Time-to-Withdrawal statistics.

*2. Distill data to allow for meaningful program comparisons.*

Step 2 involved providing data that easily allowed faculty to make meaningful comparisons to similar programs and across universities. In our experience, the most useful data were statistics that were comparable across disciplines, and able to be compared to other universities. The Percent Completion statistic is the percentage of students in the program that earned a Ph.D. The final Percent Completion statistic for a program includes all cohorts in the program ten years after initial enrollment, which should have allowed ample time to complete a degree.

The Time-to-Degree statistic is the number of years Ph.D. completers took to earn their degree after initial enrollment. The Time-to-Withdrawal statistic was also included to determine when most non-completers dropped out of their programs. These statistics are available to faculty at [www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs) under the *Program Data* page. The programs also received a statistical report of their own program's findings (Resource 2, p. 45)

It is also important to note that we believed faculty needed direct access to data findings from our research. In particular, findings from the *Program Practices Study* were made available to faculty at the three institutions. These data promoted awareness so that programs could consider other innovation ideas than those already in place at their institution. Additionally, findings and conclusions from the interviews allowed faculty to examine more broadly the perceptions of doctoral students and other faculty members. More importantly, both data sets led to the development of research briefs and strategy sheets that recommend effective practices for improving doctoral completion. These resources can be found at [www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs) under the *Project Publications* page.

### 3. *Provide data to allow for public comparisons.*

Step 3 involved encouraging program leaders to compare their data with benchmarks from similar programs. Faculty were particularly open to data which helped them determine their standing relative to the same program at other universities, in similar disciplines, and in all disciplines at their own and other universities. Three methods for examining their data were offered.

First, faculty could examine their benchmark statistics, in order to compare their own data to all programs at the three universities, and within each university. A ranking of each program allowed faculty to compare their program's completion rates (Table 2) and Time-to-Degree (Table 3) statistic to others. The tables below are examples of the data at the University of Georgia, but the program names have been concealed. These completion and Time-to-Withdrawal Statistics were available to faculty online ([www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs) under the *Program Data* page).



Table 2

*Completion Rankings of 11 Programs at the UGA*

<b>Program (n)</b>	<b>% Complete</b>	<b>Rank</b>
Program 1 (34)	72.7	1
Program 2 (115)	67.6	2
Program 3 (12)	66.7	3
Program 4 (58)	65.3	4
Program 5 (27)	62.5	5
Program 6 (70)	59.4	6
Program 7 (27)	55.6	7
Program 8 (18)	47.1	8
Program 9 (16)	43.8	9
Program 10 (18)	37.5	10
Program 11(36)	33.3	11

Table 3

*Time-to-Degree Rankings of 11 Programs at the UGA*

<b>Program (n)</b>	<b>TTD</b>	<b>Rank</b>
Program 1 (16)	3.33	1
Program 2 (70)	4.33	2
Program 3 (12)	4.67	3
Program 4 (115)	4.67	4
Program 5 (18)	4.67	5
Program 6 (18)	5.33	6
Program 7 (34)	5.33	7
Program 8 (27)	5.33	8
Program 9 (58)	6.00	9
Program 10 (36)	6.00	10
Program 11 (27)	6.00	11

Second, the Graduate School worked collaboratively with Institutional Research to develop a drillable database for all of the University of Georgia's doctoral programs. This database allows faculty to examine graduation, enrollment, and withdrawal trends for each cohort. As can be seen below, the faculty have the option to examine university-wide data or explore the

data by college, department, or program. Faculty can access these data with their “MyID” and password (<https://facts.oir.uga.edu/facts/Retention.cfm>).

*Example of Drillable Database*

Export to Excel		
School: ALL SCHOOLS	Department: ALL DEPARTMENTS	Major: ALL MAJORS

Doctoral Retention By Degree Programs (BETA)									
SCHOOL: ALL									
Cohort	# Students in Cohort	# Graduated	% Graduated	Median Time to Degree	# Currently Enrolled	% Currently Enrolled	# Withdrawn	% Withdrawn	Median Time to Withdrawal
1998-1999	474	312	65.8	4.7	18	3.8	144	30.4	1.7
1999-2000	503	303	60.2	4.8	34	6.8	166	33.0	1.8
2000-2001	553	320	57.9	4.3	53	9.6	178	32.2	1.7
2001-2002	531	292	55.0	4.3	89	16.8	150	28.2	2.2
2002-2003	571	236	41.3	4.0	188	32.9	145	25.4	2.0
2003-2004	559	118	21.1	3.7	300	53.7	141	25.2	1.7
2004-2005	560	21	3.8	3.0	419	74.8	119	21.3	1.3
2005-2006	530	1	0.2	1.3	438	82.6	91	17.2	0.7
2006-2007	540		0.0	0.0	493	91.3	46	8.5	0.5

Third, in the *Initiative* for Optimal Doctoral Completion, the faculty were given access to benchmarks comparing the Completion Rate, Withdrawal Rate, Time-to-Degree, and Time-to-Withdrawal Statistics of all doctoral programs at the University of Georgia. Benchmarks enabled faculty members to compare their program’s data with other programs in the university. It is important to note that the Graduate School did not categorize the statistics (e.g., Average, Above Average, Below Average, etc.) so that each program could determine their standing as it relates the overall distribution of these statistics and their program’s goals in each area. Tables 4, 5, 6, and 7 contain examples of benchmark information for the Completion Rate, Time-to-Degree, Withdrawal Rate, and Time-to-Withdrawal Rate, respectively. It is important to note that university-wide normative benchmarks are still in development at the University of Georgia.

Table 4

*Completion Rate Benchmarks at the UGA*

Benchmark	Completion (%)
Highest 1/5	>92.02
4/5	70.67-92.02
3/5	57.20-70.66
2/5	43.10-57.10
Lowest 1/5	<43.20

Table 5

*Time-to-Degree Benchmarks at the UGA*

<b>Benchmark</b>	<b>TTD (Years)</b>
Highest 1/5	<3.67
4/5	3.67-4.32
3/5	4.33-4.99
2/5	5-5.99
Lowest 1/5	>5.99

Table 6

*Withdrawal Rate Benchmarks at the UGA*

<b>Benchmark</b>	<b>Withdrawal (%)</b>
Highest 1/5	<7.98
4/5	7.99-25.00
3/5	25.1-36.3
2/5	36.4-50
Lowest 1/5	>50

Table 7

*Time-to-Withdrawal Benchmarks at the UGA*

<b>Benchmark</b>	<b>TTW (Years)</b>
Highest 1/5	<0.67
4/5	0.67-1.32
3/5	1.33-1.99
2/5	2-3.52
Lowest 1/5	>3.53

#### 4. *Review data with program leaders.*

After program leaders become aware of their data and review the findings with faculty members in their program, graduate school administrators must continue to be proactive in order to encourage program-level change. At the University of Georgia, the Graduate School Dean met individually or in small groups with each program leader from the participating programs in the *Strategic Intervention for Doctoral Completion* project. Faculty responses ranged from ignorance of their program's statistical data, to prior full awareness of completion rates. However, we believe that the review meetings motivated program leaders beyond the point of mere awareness of their completion status, and prompted actions addressing program improvements.

#### 5. *Encourage program leaders to develop their own plans for program-level change.*

The program leaders were asked the following three questions by the Dean of the Graduate School during their review:

- Is this where you want to be with respect to percent completion and time to degree? How so?
- What are you currently doing to improve doctoral completion?
- What are your future plans to improve doctoral completion?

In Step 5, the program leaders were asked to develop their own plans for program-level improvements with the aim of increasing the Completion Rate as well as decreasing the Time-to-Degree, Time-to-Withdrawal, and Withdrawal Rate statistics for the current cohorts. Although program leaders began developing their plans while meeting with the Dean of the Graduate School, they also were asked to collaborate with other faculty members in their program in order to foster further faculty “buy-in” when developing specific plans. After working with other faculty members, program leaders were asked to submit in writing their plans for improvement in each of the four rated areas. One year later, programs submitted a written update regarding their progress in each area.

Specifically, the first question prompted faculty not to “settle” with their current Completion and Time-to-Degree statistics, what ever they were at the time. Question two allowed the Dean of The Graduate School to document what program policies, practices, and programs were already in place. The final question resulted in an action plan for their program for improving doctoral completion by each program leader, categorized according to *The Four Conditions for Optimal Doctoral Completion*.

#### *Administration Must Serve in a Supportive Role*

In addition to providing proactive leadership concerning the university's unique needs and more universal needs related to doctoral completion, administrators must also serve in a

supportive role to facilitate program-level change. The Graduate School had two primary objectives in delineating their supportive role. First, it was essential to communicate findings from the research literature as well as our own research studies to program leaders. In many cases, programs were more open to learning more about their own program's completion statistics and information from their peers than from the literature. The rationale was, What does this mean for my program? Additionally, programs welcomed information about empirically-supported program practices. Second, a primary goal of this study was to encourage doctoral faculty to systematically monitor their program's policies and practices related to doctoral completion. Our research team understood that doctoral faculty knew their own programs best and knew which of the empirically-based practices were realistic for their program. We found that encouraging program-level interventions promoted awareness and faculty buy-in for increasing completion rates.

In addition to promoting awareness regarding the issues of doctoral completion as well as research-based program practices, the graduate school administrators should encourage faculty members continuously to improve program-level practices through systematic experimentation. Our research team developed several resources for programs to use for the assessment and improvement of their practices. Each of these resources was given to the participating programs during this study.

It is important to note that financial support for both students and departments can be an important issue in doctoral education; however, it was not evaluated in *The Four Conditions for Optimal Doctoral Completion* theoretical framework. The idea instead was to focus faculty attention on the four conditions and encourage program-level self-study and change. While understanding that money is important, we wanted to facilitate true change and, thus, encourage faculty to work within their existing resources.

#### *Faculty Discussion Guide*

The Faculty Discussion Guide (Resource 3, p. 48) was given to each of the thirty-seven participating programs at the beginning of our research grant in 2004. The faculty were asked to use the *Discussion Guide* to gauge current practices of each of our participating programs. Additionally, the document promoted awareness about doctoral completion and provided a script by which faculty could discuss the topic. The *Guide* was derived from *The Four Conditions for Optimal Doctoral Completion* framework.

#### *Program Self-Assessment*

The *Program Self-Assessment* document (Resource 4, p. 52) was designed as a tool to enable programs to plan their interventions aligned with each of *The Four Conditions for Optimal Doctoral Completion*. Faculty in each participating program list their goals for each of the four conditions and specific planned interventions corresponding to each goal. Additionally, the faculty also denote a timeline for each of the interventions. Annual Self-Assessments as stipulated in the document allow for a systematic approach for measuring progress.

#### *Program Self-Study Guide*

The *Program Self-Study Guide* (Resource 5, p. 54) offers programs to systematically monitor their progress and interventions. This checklist format included in the *Guide* is derived from

the literature on doctoral completion as well as our findings from the *Program Practices Study*, *Program Self-Assessments*, and interviews with doctoral students and faculty. The *Self-Study* enables programs to identify their strengths and opportunities for improvement. Drawn from *The Four Conditions for Optimal Doctoral Completion*, the *Guide* contains empirically-supported recommendations categorized by each condition. Doctoral programs are encouraged to utilize this resource periodically so that faculty can assess their program and construct an intervention plan for improving completion rates.

## CHAPTER 4: ATTRACTING THE *RIGHT* APPLICANTS

---

The first of the *Four Conditions* stipulates that prospective students should fully understand the demands of graduate programs. Coleman (1970) describes an asymmetry in the amount of information about a prospective student which is available to the university, compared to the amount of university information available to the student. Due to this incongruence, many graduate students enter with false expectations concerning the realities of graduate school. Lovitts (2001) argues that the discrepancy between students' expectations and the reality of graduate school contributes to doctoral non-completion. She found students who chose a program based on an accurate representation of graduate school (i.e., "a well-structured cognitive map") were more likely to complete their degree. Students with well-structured cognitive maps had lower rates of attrition and felt more informed about the amount of work and other expectations when they received a mentor, guidebook, and information on the web. Lovitts suggests that it is the university's responsibility for prospective students which facilitate the development of well-structured cognitive maps.

We examined the admissions process of doctoral programs in order to understand more fully whether potential students comprehend the realities of graduate school. First, we studied who handled inquiries from prospective students in doctoral programs. Second, we examined the methods by which prospective students obtained information from doctoral programs. Third, we examined the content of that information. Lastly, we determined whether or not this information was helpful in forming realistic expectations for the doctoral experience. Most doctoral programs have similar procedures for handling inquiries from prospective students. Nearly all respondents (92%) stated that the director of graduate programs or graduate coordinators respond to the majority of questions from potential students. Additionally, in one-third of the doctoral programs surveyed, the administrative staff or graduate program assistants also communicate with potential students. Lastly, only 11% of faculty members were in charge of this step in the selection admissions process. It is important to note that most of the doctoral programs reported that more than one person was responsible for answering these inquiries. This finding is at odds with the consensus in the literature, which suggests that faculty members and current graduate students should play a primary role in communicating information about doctoral study (Lawson, 1985; Lovitts, 2001).

A variety of information sources are offered to prospective doctoral students. For instance, 72% of the doctoral programs distribute links to the program's website and 36% of programs provide an electronic brochure. A personal e-mail answering specific student question(s) occurs in 47% of the programs reviewed. Other forms of communication were used less frequently, including a letter from the graduate director, contact information for faculty members, and a compact disc (CD) about the program. These practices depart from recommendations to provide sufficient information so students can form accurate expectations concerning the demands of graduate education (Lovitts, 2001). Specifically, the literature advocates providing degree completion rates and employment placements for recent graduates

in a program (Golde & Dore, 2001). Additionally, campus visits, guidebooks, and other forms of information are recommended to close the gap between the expectations and realities of doctoral study.

Electronic recruitment efforts also were found to be essential, as all students in our interview study utilized program and university websites when researching doctoral programs. Likewise, all thirty-seven participating programs used electronic media in some manner to recruit students. We found that the websites must provide adequate information about all aspects of the program for potential students. One participating program saw an increase in the number of applicants from 100 to 130 when their website was improved. Changes to their website included marketing their program's strengths, providing detailed information about faculty research, and including information about current doctoral students' research and accomplishments. Additionally, program websites should include faculty and student e-mail addresses and phone numbers such that potential students can access further information. Moreover, one of the participating programs included information about former graduate students and encouraged potential applicants to contact them.

Another way for programs to recruit the *right* students and ensure that they have realistic information about doctoral study is through professional partnerships. In particular, forming research partnerships with undergraduate programs at the same university or elsewhere allowed potential doctoral students to gain experience and knowledge. One participating program reported partnerships with undergraduate programs that resulted in "higher quality students," and enabled the university to "help them proceed through the program more quickly, give them greater research opportunities, and better prepare them for the job market." Examples of such practices include providing a summer research program for undergraduate students, thereby allowing undergraduate students to gain experience in research laboratories for either course credit or as an employee. Other doctoral programs organized mentoring partnerships between undergraduate students and either faculty or doctoral students, in order for potential students to learn more about doctoral study and gain guidance in selecting a program.

Although it was clear that a variety of methods are being used by applicants when selecting a doctoral program, participants reported a few crucial characteristics. First, the programs should provide enough advance information so that applicants can make an informed decision as to whether or not they "fit" with a program (Barry, 2008). Additionally, this information should effectively communicate the demands of graduate school. Although this is typically the intended purpose of the information, faculty members acknowledged it is difficult to "communicate what graduate school life is really about." Accordingly, most students believe this process is simply a bureaucratic step to get into graduate school. In fact, most of the participating students never fully assessed their readiness for a doctoral program because they did not think to do so, trusted the admissions committee to make that decision, or were not given adequate information to make that decision. However, 21% of the participating students believed the admissions process did help them assess their readiness for doctoral study. Students who successfully assessed their own readiness reported that their advisors and/or graduate students communicated the demands of the program through personal contact and recruitment weekends.



Providing information about attractive funding to potential students was also found to be an effective method for recruiting qualified students. For instance, our participating programs and universities were offering more research assistantships because this method of funding is more conducive to degree completion (Lovitts, 2001). As reported by one participating program, one method for increasing the number of research assistantships is to “encourage and facilitate faculty attempts to obtain funding that includes research assistantship for graduate students, by directing faculty to grant-writing programs that require applicants include funds for graduate students research assistantships, and informing them [the students] of grant opportunities.” Additionally, some of the participating programs hired additional faculty and lecturers in order to reduce the workload for students who are offered teaching assistantships.

Another important topic the Graduate School wanted to address was doctoral pursuit by underrepresented students. Specifically, only 8%, 5%, and 5% of graduate students are from Asian, African American, and Hispanic backgrounds, respectively (Sowell et al., 2008). Additionally, underrepresented doctoral students have higher attrition rates (50%) than majority students (Lovitts, 2001). Several programs participating in our study had already developed program-level practices to recruit underrepresented students and facilitate their doctoral completion. For example, those practices include forming partnerships with undergraduate programs containing a large proportion of underrepresented students, proactive recruitment, and offering funding specifically designated for these students were perceived as effective by programs.

## CHAPTER 5: ADMITTING THE *RIGHT* STUDENTS

---

The second of the *Four Conditions*, admitting the right doctoral students, can have a major impact on degree completion. Past efforts in reducing doctoral attrition focused on changes in student selection (Lovitts, 2001). Given that, in certain research studies, no significant differences in standardized test scores and grades between non-completers and completers exist, selecting students based purely on such criteria is of limited utility (Smallwood, 2004). Instead of choosing the brightest students, Lovitts suggests selecting students with the best "fit" to a program. Lovitts (2001) found it essential for departments to require prospective students to tailor their applications in order to ensure a better fit. For instance, the authors suggested that personal statements address parallels between faculty research interests and the applicant's ambitions. Once applicants are selected based on best "fit," Lovitts (2001) found that new student orientations offer a well-structured cognitive map by providing an outline of the graduate school environment. A good "fit" based on common research goals facilitates future relationships that are essential to graduate students' successes.

Based on findings from the literature, our study sought to more fully understand how institutions and programs can select the *right* students. First, we examine what characteristics would define the *right* doctoral student. Second, we studied who currently makes admissions decisions, and the criteria utilized to make that decision. Third, we looked at whether or not faculty and current doctoral students believed their current admissions process is effective. Finally, we examined whether or not the student's cognitive map regarding the institution and doctoral program were subsequently further developed through orientations and with initial advisement.

Faculty and doctoral students classified the *right* student as having: a) a good "fit" with the research of their advisor and program atmosphere; b) clear expectations regarding the demands of doctoral study; c) financial resources to last throughout doctoral studies; d) abilities to perform independent research; and e) motivation, commitment and other personal attributes. Additionally, the doctoral students who participated also thought the *right* students are able to adjust to doctoral study, are valued within the program, have positive relationships with their dissertation committee, are able to deal with the pressures of graduate school, and are goal-oriented. Furthermore, faculty believed that the *right* students have excitement for their research, are able to put forth the effort necessary for doctoral study, and have the ability to complete qualifying examinations as well as their dissertation efficiently.

On the other hand, students and faculty believed students who did not complete their doctorate also possessed defining characteristics. First, these students were more likely to accept full-time employment during their doctoral study. Additionally, students who did not have social support were more likely to depart before completing their degree. Lastly, students who had difficulty balancing the pressures of a family and doctoral study were believed to have trouble completing a degree.

With regard to the decision-makers for admissions at the three participating institutions, the majority of our programs (73%) admit doctoral students via an admissions committee. The committees consist of faculty members, graduate coordinators, and the director of graduate admissions. However, we noted a wide variance in terms of committee makeup and who the ultimate decision-maker was. The admissions committee includes the graduate coordinator and faculty members for 73% of the programs. The director of graduate programs makes the final decision for 11% of the programs after the prospective student is recommended by an admissions committee. Only 5% of the programs include a current graduate student on the admissions committee.

Regarding information collected about the students by the doctoral programs, more of a consensus exists than on any other doctoral education issue we examined. Every program considers undergraduate grade point average, GRE scores, letters of reference, and a personal statement from prospective students when making admissions decisions. Additionally, while some programs utilize each of these materials in a systematic manner when making admissions decisions, other programs allow individual faculty members to unilaterally accept students into the program based on research interests. This is consistent with the literature, which suggests that most universities still base their admissions decisions on scores that may have little impact on degree completion (i.e., GRE scores and GPA). However, many of the programs in our sample do select students based on “fit,” which was recommended in the literature (Lovitts, 2001). In addition to GPA, standardized test scores, letters of reference, and personal statements, research experience and “fit” with faculty and program research are also considered by our doctoral program when making admissions decisions. Other characteristics taken into account are the quality of a prospective student’s writing samples, the degree of difficulty in undergraduate course selection, work experience, phone and personal interviews, the reputation of the undergraduate institution, and diversity.

It is also important to note that faculty opinion varies in the degree to which they think the admissions process should be changed. For instance, several of the participating programs systematically reviewed their admissions process with the goal of more accurately selecting the best candidates for a doctoral program. However, other faculty members believed their program’s admissions methods are “as good as it gets,” and the process is “something of an art as much as it is a science.”

Once it was determined which admissions methods are currently being utilized in the participating doctoral programs, we examined whether or not they are perceived as effective by faculty and doctoral students. Overall, faculty and students agree on the importance of collecting standard information (i.e., grades, GRE scores, etc.) in order to ensure prospective students meet minimum requirements. However, both faculty and students concur that the information currently obtained from prospective students is academically-based and bureaucratic information. Most students (N=28, 79%) believe this information does not help assess their readiness for a doctoral program. Additionally, some faculty acknowledge they currently do not know how to predict doctoral completion during the admissions process. As one faculty member stated, “if you go through the process of admitting people for several years and then watch how they perform when they get here, the level of predictability is very low.”

Rather than relying solely on academic-based information, most of the participants (80% of students, 82% of faculty) believed intangible characteristics, such as motivation, commitment, and fortitude are what distinguishes those who completed their doctorates. More specifically, students and faculty differentiate those who completed a doctorate and those who did not by an attitude of perseverance. In addition to an applicant's personal attributes, job and research experience appear to be most helpful from the faculty perspective. Moreover the faculty and students sampled believe those who complete a degree possessed an independent aptitude for research and were realistic about their readiness for the doctoral program. Additionally, students believed those who completed their degree had the unique characteristic of resiliency during the initial phase of study, during which some adjustment is necessary.

Orientations are one method for facilitating realistic expectations of doctoral study, as they offer the first glance into the doctoral education environment (Golde, 1996; Tinto, 1993). Although all programs sampled offer new student orientation, the actual orientations varied widely. Most of the programs (64%) acclimate students through a university-wide orientation and a departmental orientation. The majority of departmental orientation sessions varied in length from two hours to an entire semester. Topics covered during orientation include: advising and course selection; university policies; campus policies; research ethics; academic integrity; safety; library resources; teaching effectiveness; learning styles; choosing an advisor; and professional socialization. A few programs assign a student mentor to each new student, distribute detailed program handbooks, or offer comprehensive orientation courses.

We also discovered variety in program policies for advising new students regarding course selection. Graduate program directors, graduate coordinators, and faculty committees act as the initial advisor for 41%, 29%, and 9% of the programs, respectively. For the remaining programs, the student selects courses according to suggestions from advisors which are generally based on the student's academic and research interests. Advisors are generally assigned and/or selected due to mutual interests.

## CHAPTER 6: FACILITATING POSITIVE STUDENT-FACULTY RELATIONSHIPS

---

The third of the *Four Conditions* focuses on the *sine qua non* of doctoral study: faculty-student working relationships. Tinto (1993) emphasized the importance of faculty in integration into a doctoral program and degree completion. In one study (Lawson, 1985), degree completers were better able than non-completers to determine and describe faculty expectations. Preston (2003) found simply having a mentor enhances the likelihood of degree completion. However, Lovitts (2001) found that different dissertation supervisors had markedly different success rates; the authors found that the most successful supervisors participate frequently in meetings with each advisee, spend more hours per week interacting with their advisees, help advisees with job searches, engage in more professional activities, see students in both informal and formal settings, and co-author journal articles or chapters with advisees. Gender differences are also noted. For instance, women students were more positively influenced than men by faculty support (Baird, 1974) and rated role-model relationships as more important than did male students (Gilbert, 1985).

Due to the primacy of the relationship between the doctoral student and faculty members in doctoral education, we examined these relationships in greater detail. For instance, we sought to study methods by which programs encourage productive relationships between students and faculty members. Additionally, we wanted to understand more fully how doctoral students currently choose their advisors. Last, we examined what faculty members and current doctoral students perceive as their ideal advisor-advisee relationship.

The participating programs and students also reported ways in which programs facilitate student and faculty cohesiveness. One method for facilitating positive relationships involves simply increasing opportunities for faculty-student interactions. The majority of programs (91%) arrange for social activities. Of the programs who actively organized social events, 77% percent host events on a weekly or monthly basis and 23% host events between two to eight times per year. Activities ranged from ice-cream socials, coffee and cookies, brown-bag seminars, weekly teas, pizza lunches and periodic happy-hours to more elaborate events like softball games, bowling nights, gatherings at faculty homes or restaurants, annual picnics, new student welcome receptions, student recognition and awards events, holiday parties and formal receptions. These events allowed students and faculty to build professional networks with one another as well as participate in relaxing recreational activities.

Involving students in program decision-making processes also helps strengthen student-faculty relationships. Additionally, doctoral student involvement is positively associated with completion (Nerad & Cerny, 1991). For example, some of our participating programs invited students to serve on committees for admissions/recruitment, faculty searches, and curriculum. Another practice for promoting faculty-student interaction and encouragement is through publicly recognizing student and faculty achievements, such as publications, presentations,

passing comprehensive examinations, and achieving tenure. Moreover, faculty who make significant contributions to improving doctoral completion should be lauded.

Regarding how advisors are chosen, the majority of programs (61%) report the selection process is entirely student-driven and final selection is via mutual agreement between the student and the chair. The selection of the student's dissertation chair in remaining programs included the following methods: student interviews of each faculty member, faculty members who recruit students through research assistantship, or student participation in a rotation in each faculty member's lab. Although the research literature is limited in its description of how dissertation chairs should be selected, Gell (1995) found that parallel expectations of an advisor/advisee relationship and advisor training were crucial to a successful professional relationship.

Although most programs (97%) report that their students can change dissertation chairs, few of the programs have formal policies in place if that situation arises. Twenty-six percent of the participating programs report that if the student initiates the change, then he or she would need to complete a written request with the graduate coordinator or the director of graduate studies. However, for 35% of the programs a dissertation chair change can occur after verbal discussions between the student, the chair, and the graduate program director or graduate coordinator.

Both faculty and students generally agree on the importance this primary student-faculty relationship has on doctoral completion. One faculty member stated, "another reason why students who do finish, finish, is because of having a mentor, a research professor, or a chair of the supervising committee who is committed to [his or her] obligation to educate the next generation of Ph.D. students."

Our studies and the research literature suggest there are benefits to improving student-faculty relationships in the following areas: mentoring, communication, research, and opportunities that increase student and faculty interactions.

### *Mentoring*

Several positive outcomes occur when mentors are utilized to provide encouragement and support to students. For example, doctoral students who have mentors produce significantly more research publications, and are more content overall with their program (Nettles & Millett, 2006). Additionally, Preston (2003) found that a significant factor between completers and non-completers is whether or not a student has a mentor. In our research studies, participants reported personal examples of mentoring that ranged from micromanagement to completely independent research. Interestingly, faculty and students have different ideas as to what defines a good mentor as such. Faculty believe their role is one of coach, colleague, supporter, and facilitator; whereas students believe a mentor's role as is providing guidance on how to meet the student's goals.

Research in the area has shown that a student's research productivity is influenced by two aspects of mentoring- *psychosocial* support (rapport), which includes listening, building confidence, and support; as well as *career* support (apprenticeship), which includes networking

and professional advice (Lunsford, 2007). Lunsford (2007) found that “career support has greatest positive effect on student productivity.” Accordingly, programs should focus on promoting career support in all doctoral fields. Psychosocial support is positively associated with the research productivity of doctoral students in engineering; however, students in all disciplines had significantly more positive outcomes if they receive higher levels of career support.

Several mentoring practices were implemented by the participating programs. Some programs organized a formal mentoring system. Other programs assigned a mentor immediately after enrollment that helped the student choose an academic advisor; and later assigned a long-term mentor, after the first year of doctoral study. Programs also matched a student and advisor the summer before enrollment for a mentoring relationship which lasted the duration of doctoral study and included informal, social events, such as going out for coffee.

### *Communication*

Both faculty and students reported that communication between faculty and doctoral students facilitates positive relationships. One participant stated the importance of “open, regular, timely, respectful, and professional communication.” Communication should be frequent and both parties should be accessible to one another in order to be effective. In particular, participants reported that problems often arise when faculty are not accessible to students as students often interpret this behavior as the professor not caring about the student’s success. Additionally, both faculty and students agreed that it was faculty’s role to clearly delineate the roles and expectations of each party in relation to specific activities, such as dissertation completion, professional training, and academic performance (Guadelope-Williams, 2005).

We also found that communication in the form of student feedback is crucial for ongoing success in faculty-student relationships. Several participating programs utilized research questionnaires focusing on this topic. The questionnaires are given both after the student reaches candidacy, and after degree completion. Other programs organize annual reviews (either through meetings or paper documents) that address the student’s progress and goals. One participant reports these annual meetings “provided important information on the program, gave students an opportunity to express their opinions in a private and confidential setting, and imparted to the student that their well-being and success are important to the program.” Another program held annual student-faculty forums during which both parties could openly communicate information and concerns.

### *Research*

Given that research is necessary in order for a doctoral student to complete his or her degree, it was logical that our study found that this topic is crucial to student-faculty relationships. Several effective practices concerning research are recommended. Studies have found that students have fewer difficulties completing dissertations when they initiate research early in their doctoral studies (Golde, 1996). One method for ensuring doctoral students have early research experience is by awarding research assistantships, which are associated with higher completion rates more than any other funding source (Lovitts, 2001). Other early research promotions that were utilized by our participants were symposiums, colloquia, and brown bag

sessions. Positive professional relationships can also be encouraged by inviting students to critique faculty research proposals and papers, as well as by promoting joint faculty-student publications (Nettles & Millett, 2006).



## CHAPTER 7: ENCOURAGING STUDENT COHESIVENESS

---

The fourth of the *Four Conditions* relates to the mutual support students provide to one another. Tinto (1993) suggests that students' relationships are an important condition influencing degree completion. Numerous studies have determined that positive peer interaction correlates with degree completion (Bair & Haworth, 1999). Peer support was found to be critically important for women and "minority" students, who reported lower levels of support and have higher attrition rates (Rocha-Singh, 1992). For instance, female students placed a greater value and need on academic-based peer support groups, especially for science courses. Additionally, Adkins-Hutchinson (1996) found that academic and social integration improved the academic success of black doctoral students. Programs that provide and encourage social support increase the likelihood of full integration into a graduate program.

As echoed in the research, doctoral student cohesiveness is extremely important in doctoral education (Lovitts, 2001). In order to ensure nurture positive relationships among students, we first asked current doctoral students and faculty to describe student cohesiveness in their programs. We also examined the methods programs were utilizing to facilitate these relationships. Last, we studied what program practices would be most effective for promoting doctoral student cohesiveness.

Both faculty and doctoral students in the current study suggest that due to the challenging nature of doctoral education, other students can provide a sense of community and support. One student echoes the importance of student support by stating, "If you didn't have it [support], it could be so alienating and isolating to be a graduate student." One faculty member respondent explains that cohesiveness occurs because, "Anytime one's self image is challenged as it is for most people going into a graduate program, it's only natural for people to reach out to others and form bonds to help them through." Students experience a sense of community that can be helpful during both the successful and the more difficult periods of doctoral education. For example, one participant states, "During preliminaries, we get together and share notes...we usually have parties when people get jobs. When people fail prelims we gather around them...Therefore, I think there is a supportive culture." Beyond the realm of graduate school, faculty also report that this social support is important for developing collegiality which will be an asset in their professional careers.

However, our findings also indicate that students do not always demonstrate positive relationships with one another. For instance, students were sometimes (either intentionally or unintentionally) divided within their program by differences in culture, separate research teams, or by cohort. Additionally, many of the participants reported that the sense of community can decline during the later years of doctoral education due the potentially competitive and/or isolating nature of research and academic pursuits. One student describes it this way, "Independent research and writing scholarship is a pretty solitary pursuit and writing a

dissertation is a solitary pursuit. So, there is not much that a sense of community has to offer to people in a situation like that.”

The majority of the programs (94%) did sponsor and support activities designed to foster social support and collaborative learning. Some programs have students serve on departmental committees and task forces. Others develop organizations that encourage participation by both faculty and students, or form professional organizations and journals specifically for students. Another way the participating programs increased interactions among students is through establishing physical spaces, such as connected offices or a student lounge, that encourage dialogue.

# CHAPTER 8: SUMMARY OF RECOMMENDATIONS FOR IMPROVING DOCTORAL COMPLETION

---

The administration and research team at The Graduate School at The University of Georgia has put copious amounts of time and effort into the study of doctoral education and its completion rates. In this final chapter, we offer eight practical suggestions for improving doctoral completion based on our research studies and findings from the doctoral completion literature. These recommendations are intended for both university administrators and faculty members of doctoral programs.

### *Administration Must Assume Proactive Leadership*

Administrators must serve doctoral students by demonstrating leadership in the area of improving doctoral completion rates. As mentioned earlier in the monograph, the Dean of The Graduate School at The University of Georgia and her research team did this through several methods. A literature-based theoretical framework, through which doctoral completion could be examined, was constructed. This framework allowed The Graduate School to better understand and research the issue.

Furthermore, our administration was proactive in conducting an institution-wide self-study of doctoral completion, which involved collecting completion data as well as completing research related to the practices and policies that were being implemented by our doctoral programs. Faculty members also became increasingly aware of this issue, and also were inspired to participate in improving their doctoral programs, as the administration demonstrated its leadership.

### *Administration Should Provide Faculty with Needed Data*

As one may expect, The Graduate School administration and the research team learned early in the project that faculty could be resistant to “top-down” administrative mandates that directly impact their programs. Several faculty members from the participating programs initially disliked the idea of improving their program completion rate as something that would add to the numerous deadlines that were already approaching, and undermine some of the valuable interventions already in place to improve doctoral education. However, whether it was at a conference or in a meeting with The Graduate School administration, faculty tended to be more motivated by their program’s actual data, and how their program compared to similar programs both internally and at other institutions. In other words, it is important to “let the data drive.”

With the notion of being proactive in mind, The Graduate School at The University of Georgia distilled several types of useful data. As outlined in previous chapters, it was helpful to provide program leaders with their program’s rates of completion, attrition, Time-to-Degree, and Time-to-Withdrawal. These statistics can be found on our website ([www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs) on the *Program Data page*). Additionally, their own program’s statistics allowed program leaders to

compare themselves to similar programs and across their university. The Statistical benchmarks also allowed for another method of comparison. Partnership with the University of Georgia's Institutional Research department yielded an interactive, drillable database for every doctoral program at our institution (<https://facts.oir.uga.edu/facts/Retention.cfm>).

In addition, our efforts produced quantitative and qualitative research studies. Various methods were utilized to communicate data summary findings to faculty, such as conferences, research briefs, strategy sheets, and informational meetings. More information about these findings can be found on our website ([www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs) on the *Project Publications* page). Faculty appreciated both the quantitative and qualitative data. Moreover, the faculty were eager to collaborate with our research team to examine their own program's data.

#### *Administration Must Respect the Uniqueness of Each Program and Accept that Change Happens at the Program-Level*

Once the faculty were made aware of their own program's completion rates, they were motivated to organize their own "grass roots" initiatives for improving doctoral education in their programs. It is crucial for change to occur at the program level because faculty are more aware than administrators of everyday occurrences in their programs and when faculty take ownership of change it is lasting. Additionally, The Graduate School administrators must recognize that each program has its own unique practices, policies, and challenges.

There are several ways faculty can effect program-level changes. To begin with, it is essential for faculty to understand their program's standing with regard to doctoral completion and practices. Faculty can accomplish this by examining the doctoral completion rates and Time-to-Degree statistics for their program. Additionally, faculty must objectively delineate the current practices and policies that are being implemented in their doctoral program. This can be done by completing a *Program Practices Survey* (Resource 1, p. 59) and utilizing the *Faculty Discussion Guide* (Resource 3, p. 64). Moreover, it is crucial for faculty to monitor their program's practices and policies systematically and on an ongoing basis. This action can be accomplished through utilizing the *Program Self Assessment* (Resource 4, p. 68) which is a more thorough document than the *Faculty Discussion Guide*, and should be implemented in the beginning of the program's improvement process. Lastly, faculty also can use the *Program Self-Study Guide* (Resource 5, p. 70) in order to monitor their program's progress regularly.

#### *Programs Must Give Potential Students the Information They Need*

The best practices with regards to Condition 1 of the *Four Conditions* focus on providing sufficient information prior to a student's enrollment so that they realistically grasp the demands and expectations of doctoral study. Researchers suggest that having realistic knowledge about graduate study prior to beginning a doctoral study is one characteristic that differentiates completers and non-completers (Lovitts, 2001).

In order to communicate these study demands, programs we reviewed provided information in a variety of mediums, such as websites, personal contact, career days, and summer research programs. Furthermore, recruiting weekends also were utilized, although less often. The students who participated in our study reported that a program's website, their advisor's work,

the location of the institution, and the promise of funding all contributed to their selection of a graduate school.

In addition to understanding the best methods, it is important to delineate what information is helpful to potential students. It has been recommended that “information about doctoral education, program expectations, and career prospects must be more transparent to students from the moment they begin to consider a Ph.D.” (Woodrow Wilson Foundation, 2005). Specifically, past studies (Golde & Dore; 2001; Lovitts, 2001) and our findings concur that providing realistic information about completion rates, job placements of alumni, and Time-to-Degree statistics would allow applicants to have an accurate estimate of both their potential for completion and how long it may take them to complete their doctoral program. Programs must also communicate to potential students the skills and knowledge they expect their doctoral students to possess. Specifically, a few of the participating programs in our study recommended that some potential students gain more research experience and/or take more coursework prior to enrollment.

In addition to providing adequate information about the doctoral program, prospective students should also be encouraged to make realistic assessments about themselves based on the information they received from prospective doctoral programs. This is extremely important as most of the doctoral student participants from our interviews believed the applications process was a bureaucratic step to get into graduate school. In fact, most (79%) of the participating students never fully assessed their readiness for a doctoral program because they did not think to do so or trusted the admissions committee to make that decision. In particular, applicants must examine whether or not they have enough personal resources- both financial and other support- to endure doctoral study. Applicants should also be encouraged to assess whether or not they believe they possess the necessary skills and knowledge that are necessary for their doctoral program.

#### *Programs Must Select the Right Students*

Doctoral programs must properly screen potential students in order to strive for an optimal doctoral completion rate. It is important to identify potential non-completers during the admissions process, as it is the earliest possible stage to do so. Admitting only the *right* students would facilitate an increase in completion rates as well as preserve the economic resources and efforts of students, faculty, and universities.

In the admissions process, undergraduate grades, GRE performance, essays, reference letters, and curriculum vitae are routinely collected in order to gain more information about prospective students. However, faculty members should also view these objective measures with caution. Our findings and those from past studies (Smallwood, 2004) concur that the primary difference between doctoral completers and non-completers are internal characteristics that are currently not being measured by these objective assessments.

As stated previously, 80% of students and 20% of faculty believe in the importance of gauging internal student characteristics (Barry, 2005). In particular, a student’s aptitude towards persistence should also be investigated, either through interviews or a questionnaire, given that it is demonstrated to be the most important characteristic associated with doctoral completion.

Additionally, the current study and others have found that campus visits allow for faculty to better assess a prospective student's compatibility with the program (Barry & Grasso, 2008; Lovitts, 2001). Campus visits should be a time to meet current students, as well as for faculty to educate applicants about faculty research, program expectations, the university social life, and funding opportunities. Furthermore, reference letters and essays should be required during the admissions process; they can also be helpful in determining whether or not an applicant's interests "fit" with those of the program. Another practice for assessing proper "fit" is including currently enrolled graduate students on the admissions committee. Furthermore, potential students should simply be asked whether they have comprehensively assessed their readiness for the doctoral program, as well as if their goals and interests "fit" with the program.

#### *Programs Must Facilitate Positive Student and Faculty Relationships*

Tinto (1993) supported the notion that a positive student-faculty dynamic is essential to doctoral completion. Due to the importance of student-faculty relationships in doctoral study, programs must take a proactive approach. First, programs must increase the number faculty-student interactions through socials, brown bag seminars, happy hours, picnics, and other events, to build on those relationships and succeed in integrating students into their program. Additionally, because a key predictor of completion is whether or not the student knows the program's expectations, faculty must communicate this knowledge through orientations and formal handbooks, rather than through mere word-of-mouth. Students must also be integrated into the formal processes of the program through their participation on committees for potential faculty hires, admissions, and curriculum. Student-faculty mentoring relationships can also have a significant impact on a student's successful integration into the program. Furthermore, students and faculty who make contributions to the program should be acknowledged.

The majority of participants in our research studies affirm the importance of a student's advisor. In particular, it is important for the advisor to clearly state his or her expectations of the student and of their partnership. Lovitts (2001) found that successful supervisors participate frequently in meetings with each advisee, spend more hours per week interacting with their advisees, help advisees with job searches, engage in more professional activities, see students in both informal and formal settings, and co-author journal articles or chapters with advisees. Additionally, the advisor can practice effective mentoring by being consistently available to the student. It is also helpful for advisors to give regular and constructive feedback about the student's performance. Lastly, it is certainly important for the advisor to ensure the student has adequate exposure to and experience in research. Research assistantships, symposiums, seminars, and colloquia are appropriate arenas to bolster the student's learning comfort level in performing research.

#### *Programs Must Encourage Student Cohesiveness*

Overall, most faculty and students who participated in our research agree that students in their program enjoy a strong social network. Both sets of respondents also report that they believed that the graduate school experience creates a "common bond" among students. Faculty also report that many friendships which begin in graduate school last a lifetime.

Although the majority of our participants reported a strong degree of student cohesiveness in their program, certain factors reportedly resulted in the unraveling of that bond. For instance,

many reported that initial cohesiveness declines when the students conduct independent research or when they compete for the same scarce resources. Additionally, divides between students can exist based on culture, research team, or cohort. A few participants reported the students in their programs generally associated only with other students of the same nationality or race. This is particularly alarming in that minority students reported higher levels of academic and social stress and lower levels of support (Rocha-Singh, 1992).

Several program-level practices are suggested for improving student cohesiveness. Faculty and program leaders should create a specific plan for providing students with opportunities for social interaction. For example, seminars, symposiums, or informal events are common practices. Other programs appoint a social chair or social advisor who is responsible for hosting events. Additionally, faculty should create a physical space, such as a student lounge or open offices, which facilitate interaction between students. Programs can also establish peer advisement and mentoring programs for all incoming doctoral students. Programs should encourage student involvement in recruitment, seminars, professional organizations, and discussion groups. One unique program practice was a student-student mentoring program that included focus groups on work/life balance and professional issues pertinent to the discipline. Other effective practices include having a student social chairperson who is responsible for planning and organizing events for students.

### *Conclusions*

It is our hope that others will find this work of value in addressing doctoral completion on their campuses. It is clear to us that lasting change must originate at the program level. In addition, we know that the graduate dean can motivate that change through the use of data by “shining a mirror” on each program and asking “Is this where you want to be?” The use of data can be very effective in initiating the conversation that can result in programmatic change. We found that having a theoretical framework and an action plan based on that framework along with data were extremely valuable in assisting departments to see the continuity of what they were doing as they made decisions to improve doctoral completion. The theoretical framework formed the foundation and assisted us in framing all conversations and university wide forums on doctoral completion. The success we experienced with respect to programmatic change at The University of Georgia is the direct result of framing the conversation and using data to inform faculty. While we realize that not all of the recommendations and ideas in this monograph will be appropriate for every institution, it is our hope that we have inspired you to think about doctoral completion and to take the action necessary for your institution.

# REFERENCES

---

- Adkins-Hutchinson, C. (1996). Social support and adjustment among black psychology graduate students. *Dissertation Abstracts International*, 57, 1956A.
- Bair, C. & Haworth, J. (1999). Doctoral student attrition and persistence: A meta-synthesis of research. Association for the Study of Higher Education. San Antonio, TX, University of Northern Iowa.
- Baird, L. (1974). The practical utility of measures of college environments. *Review of Educational Research*, 44, 307-330.
- Barry, M. (2005). *What are the most effective admissions practices for doctoral programs?* Available at [www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs).
- Barry, M. & Grasso, M. (March, 2008). The role of recruitment, integration, and post-integration inclusive practices in doctoral degree completion. University of Georgia Interdisciplinary Conference, Athens, GA.
- Coleman, J. (1970). *The principle of symmetry in college choice*, Report on the commission of tests. New York: College Entrance Examination Board.
- Gell, S.K. (1995). Factors associated with completion or non-completion of doctoral dissertations: Self direction and advisor/advisee congruity. *Dissertation Abstracts International*, 56 (11), 4292A.
- Gilbert, L.A. (1985). Dimensions of same-gender student-faculty role-model relationships. *Sex Roles*, 12, 111-123.
- Golde, C. (1996). How departmental contextual factors shape doctoral student attrition. *Dissertation Abstracts International*, 57, 3415A.
- Golde, C. & Dore, T. (2001). At Cross Purposes: What the experiences of doctoral students reveal about doctoral education. *Science*, 291, 408-409.
- Guadelope-Williams, M. (2005). Student and faculty perceptions of the advisor-advisee relationship. Available at [www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs).
- Lawson, L. (1985). Doctoral student attrition: A role theory approach. *Dissertation Abstracts International*, 46, 1532A.
- Lovitts, B. (2001). Leaving the ivory tower: The causes and consequences of departure from doctoral study. Lanham, MD: Rowman and Littlefield.



- Lunsford, L. (2007). Doctoral Advisors and Their Protégés. Available at [www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs).
- Nerad, M. & Cerny, J. (1991). From Facts to Action: Expanding the educational role of the graduate division. CGS Communicator, Special Edition.
- Nettles, M. & Millett, C. (2006). *Three Magic Letters: Getting to Ph.D.* Baltimore, MD: Johns Hopkins University Press.
- Preston, A. (2003). Leaving science: Occupational exit of scientists and engineers. Presented at the Joint Society Conference on Increasing Diversity in the Earth and Space Sciences. Received on August 15, 2004, from [http://www.agu.org/sci\\_soc/education/jsc/preston.ppt](http://www.agu.org/sci_soc/education/jsc/preston.ppt).
- Rocha-Singh, I. (1992). Doctoral students' perceptions of stress and social support: Implications for the retention of targeted students of color. *Dissertation Abstracts International*, 52, 3200A.
- Smallwood, S. (2004). Doctor dropout. The Chronicle of Higher Education. Retrieved August 14, 2007, from <http://chronicle.com>.
- Sowell, R., Zhang, T., Redd, K. & King, M. (2008). *Ph.D. completion and attrition: Analysis of baseline program data from the Ph.D. Completion Project*. Council of Graduate Schools: Washington, D.C.
- Tinto, V. (1993). *Leaving college – Rethinking the causes and cures of student attrition*. Chicago: The University of Chicago Press.
- Woodrow Wilson National Fellowship Foundation (2005). *Diversity & the Ph.D.: A review of efforts to broaden race & ethnicity in U.S. Doctoral Education*. Princeton: NJ.
- Workshop on graduate student attrition*. (1997). Washington: National Science Foundation, Division of Science Resources Studies. Retrieved on August 15, 2004, from <http://www.nsf.gov/sbe/srs/nsf98322/qualit.htm>.

# **APPENDIX**

**PROGRAM PRACTICES SURVEY**  
**(Example)**

Questions 1A, 1B - Communication with Potential Doctoral Students

Questions 2A, 2B – Admission

Questions 3A, 3B, 3C, 3D – Orientation and Advisement

Questions 4A, 4B – Social Interactions

<b>Questions (Example)</b>		<b>Answers (Example)</b>
1A	When potential graduate students contact your department for information, who handles the inquiries?	Graduate secretary (for routine requests) or graduate coordinator (for particular non-routine questions).
1B	What type of information is usually sent in response to such inquiries?	The program description and admissions information is e-mailed to them.
2A	Who in your department makes the decision about which applicants to admit (or to recommend for admission)? (Please provide the title rather than names).	The graduate committee, which is comprised of five faculty including the graduate coordinator.
2B	What criteria are used in making this decision?	The strength of the applicant is evaluated based on test scores, grades, recommendation letters, math skills, and research potential.
3A	How does your department orient new students to graduate study?	There is a math preparation session that meets for three weeks prior to the start of the term and there are a variety of orientation meetings organized by the University, the College, and the Department the week before classes start.
3B	Who handles initial course advisement for new doctoral students, and how is that person selected?	The graduate coordinator who is appointed by the department chair.
3C	Describe the process by which a student selects or is assigned a dissertation chair.	Typically, after the student has taken field exams in the summer following the second year, the student decides on a general area or topic and approaches a faculty member in that area to be the dissertation advisor.

3D	Can students in your department change dissertation chairs? If so, how is that change accomplished?	Yes. Until the semester of the final defense, the student is free to change his or her supervisory committee including the chair. The student finds a new faculty member who is willing to chair. In some cases, the faculty who was chairing a supervisory committee will decide not to continue because the topic has evolved or because the faculty member will be on leave. In such cases, in consultation with the graduate coordinator, the student will seek another faculty member to be chair.
4A	Other than formal coursework, does your department offer, sponsor, or support activities designed to foster social support and/or collaborative learning among doctoral students?	The Department does not organize formal study groups but the students do seem to form informal groups on their own.
4B	Does your department hold regular social activities in which students can interact informally with faculty members and other students? If so, please describe	The Department organizes periodic happy hours and has several departmental parties during the year to create such student-faculty interactions.

## PROGRAM STATISTICAL REPORT

**Program: University Program**

**Date of Report:** *December 16, 2005*

### About This Report

The Graduate Schools at the University of Florida, the University of Georgia, and North Carolina State University are working together to examine and optimize doctoral completion at our institutions. You are one of the thirty-seven programs at our three universities who have agreed to participate in this project, which is described at our project website (<http://www.grad.uga.edu/cgs>).

For one of our project activities, we are examining enrollment data across a ten-year time period in an attempt to establish benchmarks; we hope that these benchmarks will allow faculty members to better understand—and if necessary improve—their own doctoral programs.

We have compiled a single data set that describes complete enrollment histories for all doctoral students who enrolled in the thirty-seven programs between the Summer of 1992 and Spring of 2002. On the following pages, you will find a preliminary report delineating your program's enrollment and completion patterns, and providing you the data you'll need to compare your program's performance to other programs you might respect.

If you have any questions about the project, please contact your Graduate School. If you believe that there are inaccuracies in the data, please contact the project's data manager at your institution. The data managers are:

- University of Florida: Name (email address)
- University of Georgia: Name (email address)
- North Carolina State University: Name (email address)

We thank you for your continued efforts to improve doctoral education.

**PROGRAM STATISTICS**  
(Sample)

<i>Project Year</i>	<i>Time Period of Doctoral Enrollment</i>	<i>Number enrolled</i>	<i>Status (as of the end of Spring, 2002)</i>					
			<i>Still Enrolled</i>		<i>Earned PhD</i>		<i>Left Program</i>	
			<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
1	<i>Sum. 1992 – Spr. 1993</i>	5	0	0	3	60	2	40.0
2	<i>Sum. 1993 – Spr. 1994</i>	4	0	0	4	100	0	0
3	<i>Sum. 1994 – Spr. 1995</i>	4	0	0	3	75	1	25.0
4	<i>Sum. 1995 – Spr. 1996</i>	4	1	25	2	50	1	25.0
5	<i>Sum. 1996 – Spr. 1997</i>	5	1	20	3	60	1	20.0
6	<i>Sum. 1997 – Spr. 1998</i>	4	3	75	0	0	1	25.0
7	<i>Sum. 1998 – Spr. 1999</i>	6	1	16.7	0	0	5	83.3
8	<i>Sum. 1999 – Spr. 2000</i>	6	5	83.3	0	0	1	16.7
9	<i>Sum. 2000 – Spr. 2001</i>	5	4	80.0	0	0	1	20
10	<i>Sum. 2001 – Spr. 2002</i>	9	8	100	0	0	0	0
<b><i>All Years</i></b>	<b><i>Sum. 1992 – Spr. 2002</i></b>	<b>57</b>	<b>23</b>	<b>45.1</b>	<b>15</b>	<b>29.4</b>	<b>13</b>	<b>25.5</b>

**SUMMARY STATISTICS  
(Sample)**

<i>Statistic</i>	<i>Your Program</i>	<i>All Programs at your University</i>		<i>All Programs at NCSU, UFL, and UGA</i>	
		<i>Median Rate</i>	<i>Your Rank (of 12 programs)</i>	<i>Median Rate</i>	<i>Your Rank (of 37 programs)</i>
<b>Completion Rate (ten-year)</b>  <i>Number of graduates divided by (the total of those who have finished the program, either by graduating or leaving)</i>	53.6	48.5	4	52.6	18
<b>Completion Rate (three-year cohort; students enrolling between Sum. of 1992 and Spr. of 1995).</b>  <i>Number of graduates divided by (the total of those who have finished the program, either by graduating or leaving)</i>	76.9	55.3	2	57.55	6
<b>Time to Degree (ten-year)</b>  <i>Median semesters to degree completion for all those who earned the doctorate.</i>	5 years, 1 semester	5 years	8	4 years, 2 semesters	25
<b>Time to Degree (three-year cohort; students enrolling between Sum. of 1992 and Spr. of 1995)</b>  <i>Median semesters to degree completion for all those who earned the doctorate.</i>	5 years, 2 semesters	5 years, 1 semester	10	5 years	29

## FACULTY DISCUSSION GUIDE

The Graduate Schools at The University of Georgia, The University of Florida, and North Carolina State University are working together to examine and optimize doctoral completion in our graduate programs. During the project, each of the graduate schools will work closely with the faculties of selected programs in assessing strengths and weaknesses and developing reasonable plans for program improvement. Additional information about the project is available at our **website** at **[www.grad.uga.edu/cgs](http://www.grad.uga.edu/cgs)**

To date, most of the project activities have been centered at The University of Georgia, where the project's Research Component is housed. The project's Research Component is charged with compiling and analyzing a variety of data, including enrollment histories, interviews with our faculty and students, and a range of programmatic information that is being collected directly from 37 participating programs from your designated contact person. Throughout the coming months, we will feed that information back via the project website ([www.gradsch.uga.edu/cgs](http://www.gradsch.uga.edu/cgs)) to participating faculties in a variety of forms including research briefs, program analyses, and recommendations for program practices. Hopefully, this information will prove useful as programs strive to improve in whatever ways they deem best.

You are one of the twelve programs at our university that has agreed to participate in the project. Our project is unique in that three universities are working together from a common research-based conceptual framework. We are convinced that meaningful program improvements at a research university can only occur with the commitment of faculty; consequently, our entire project is based on program self-examination and program-initiated change. We are asking the faculty to meet some time between now and the middle of January to take a systematic look at your program and to discover ways in which it might be improved. The following pages contain some questions to guide you in that discussion. I look forward to hearing about the results and about your plans for optimizing doctoral completion in your programs.

Sincerely  
Maureen Grasso  
Dean of The Graduate School



## A Conceptual Model for Optimizing Doctoral Completion

All of our project work is based on a conceptual model derived from the scholarly literature and from our own experiences. The model proposes four conditions that we believe optimize doctoral completion:

<b>Four Conditions for Optimal Doctoral Completion</b>	
<i>Condition</i>	<i>Description</i>
#1: The right people apply for doctoral study	Applicants must be realistic about the demands and expectations of doctoral study.
#2: The right applicants are admitted as doctoral students	Admissions committees must properly screen applicants and, upon enrollment, orient them to the program.
#3: Students and faculty form productive working relationships	Faculty members and students must interact in a mutually respectful and task-oriented manner.
#4: Students experience social support from fellow students	Students must recognize themselves as members of a community of learners facing common challenges and opportunities.

### The Immediate Task

We're asking the faculty of each participating program to assess their program with respect to these four conditions and to develop clear strategies for optimizing doctoral completion in your program. **These plans will be submitted to the Graduate School by January 25, 2006.**

***Condition #1: The right people apply for doctoral study.***

**The Central Question:** Optimal doctoral completion starts at the point in time when potential students are deciding whether or not to apply to your program. Are the right people applying to your program?

**Some possible discussion questions:**

- When you look at your applicant pool, does it consist of the type of people you're looking for? Why or why not?
- Is accessible information about the program and its expectations sufficient to allow would-be applicants to assess their fit with the program? What needs to be added?
- Do students understand the resources that they will need (assistantships, equipment, etc.) and the extent to which your program will provide those resources? How can this information be improved?
- What actions can your faculty take to improve the quality of the applicant pool?

**Needed actions?**

***Condition #2: The right applicants are admitted as doctoral students.***

**The Central Question:** Sound admissions practices are crucial to doctoral completion. Is your program admitting the right applicants?

**Some possible discussion questions:**

- Does your program use the right criteria for doctoral admission? What are the strengths and weaknesses of your procedures?
- In general, are you confident that most of the students you admit have the capacity to complete the program? Why or why not?
- Does your program use a variety of evidence (e.g., test scores, writing samples, interviews, etc.) to predict an applicant's readiness to succeed in doctoral study? Should it? Why or why not?
- Does the admissions process encourage students to assess their own financial readiness, life situations, and psychological readiness? How can you foster such reflection?
- What actions can your faculty take to improve the quality of admissions decisions?

**Needed actions?**

***Condition #3: Students and faculty form productive working relationships.***

**The Central Question:** Faculty-student relationships are complex and take many forms. Do students and faculty members in your program generally form productive relationships?

**Some possible discussion questions:**

- Do faculty members clearly communicate what students may and may not expect in an advisor/advisee relationship? How is this accomplished?
- What measures do you have in place to ensure a satisfactory match between students and their doctoral supervisors?
- Does your program have a mechanism for recognizing and addressing non-productive advisor-advisee relationships? Should it?
- What actions can your program take to enhance advisor-advisee relationships?

**Needed actions?**

***Condition #4: Students experience social support from fellow students.***

**The Central Question:** Doctoral students are more apt to succeed if they study in a collegial and supportive environment. To what extent is your program characterized by social cohesion and student mutual support?

**Some possible discussion questions:**

- Does your program have a healthy social climate? In what way is it healthy or unhealthy?
- Does the faculty specifically encourage student interactions? Why or why not?
- What actions can faculty take to improve social cohesion among doctoral students?

**Needed actions?**

**PROGRAM SELF-ASSESSMENT  
(Sample)**

**Instructions:** For each condition, please **list** your goal(s) and the activities you plan to implement, or are currently implementing, to reach your goal(s). Each activity should have a corresponding timeline.

**Condition #1:** *The right people apply for doctoral study.*

**Condition #2:** *The right applicants are admitted as doctoral students.*

**Condition #3:** *Students and faculty form productive working relationships.*

**Condition #4:** *Students experience social support from fellow students.*

Conditions	Goals /Activities	Timeline
#1.	<ul style="list-style-type: none"> <li>• Complete a major overhaul of departmental website to make it more informative, intuitive, and easier to navigate.</li> <li>• Revise domestic faculty recruiting visitation program to provide better focus; identify a selected set of priority undergraduate institutions</li> <li>• Make annual faculty visits to China and Puerto Rico</li> <li>• Host active summer undergraduate research program (current programs: NSF REU, NSF AGEP)</li> </ul>	<p>Spring 2007</p> <p>Fall 2006 thru Fall 2007</p> <p>In progress</p> <p>In progress</p>
#2.	<ul style="list-style-type: none"> <li>• Hold annual visitation weekend in early spring for prospective graduate students where ample opportunities are provided for individual interactions with faculty and current graduate students.</li> <li>• Restrict international admission offers to applicants in one of the following categories: 1) personally interviewed; 2) telephone interviewed by admissions committee; 3) guaranteed full research support by a faculty member.</li> </ul>	<p>In progress</p> <p>In progress</p>

	<ul style="list-style-type: none"> <li>• Consider research area availability when making admission decisions.</li> <li>• Contact applicant's references if any questions exist regarding suitability and qualifications for our graduate program.</li> </ul>	<p>In progress</p> <p>In progress</p>
#3.	<ul style="list-style-type: none"> <li>• Faculty give research overview talks to new students during first two months of fall semester.</li> <li>• New students complete minimum of three individual interviews with faculty.</li> <li>• Require that PhD candidacy exam be taken during the first semester of third year.</li> <li>• Implement PhD candidacy exam evaluation sheets for faculty.</li> <li>• Obtain student feedback by implementing post-candidacy and post-degree questionnaires for doctoral students.</li> <li>• Evaluate how to better engage research advisory committees in student progress.</li> </ul>	<p>In progress</p> <p>In progress</p> <p>In progress</p> <p>Fall 2007</p> <p>Spring 2007</p> <p>Spring 2007</p>
#4.	<ul style="list-style-type: none"> <li>• Initiate regular meetings between Chair and a select group of graduate students</li> <li>• Obtain student feedback by implementing post-candidacy and post-degree questionnaires for doctoral students.</li> </ul>	<p>Fall 2006</p> <p>Spring 2007</p>

## PROGRAM SELF-STUDY

This self-study document has been compiled for your use to examine your program and identify strengths as well as opportunities for improvement. The four areas are the identified necessary conditions for optimal doctoral completion and each area has several strategies listed to bolster each of these four conditions.

### **Condition 1: The right people apply for doctoral study**

- Involve program faculty in recruitment efforts.
- Use technology to better disseminate information.
- Share program information with colleagues.
- Provide more attractive assistantship benefits.
- Advocate for reduced time to degree (TTD).
- Build alliances with undergraduate programs.
- Actively recruit faculty and students from underrepresented groups.

Comments:

---

---

---

---

---

### **Condition 2: The right applicants are admitted as doctoral students**

- Provide opportunities for prospective students to evaluate the program for “fit.”
- Consider applicants’ interest and needs.
- Involve applicants’ support system.
- Establish early communication between potential students and faculty.

Comments:

---

---

---

---

---

**Condition 3: Students and faculty form productive working relationships**

- Promote opportunities for faculty-student research and presentations.
- Institutionalize mentoring into the program’s culture.
- Actively solicit students’ feedback.
- Involve students in program decision-making.
- Encourage faculty to advocate for students’ funding.
- Provide opportunities for information sharing.
- Create opportunities for faculty-student social interactions.
- Celebrate achievements.
- Expedite time to degree (TTD).

Comments:

---

---

---

---

---

**Condition 4: Students experience social support from fellow students**

- Encourage student socialization.
- Establish joint social support ventures.
- Create opportunities for inclusion.

Comments:

---

---

---

---

---