

GOODMAN RESEARCH GROUP, INC.
Program Evaluation • Consultation • Market Research

IGERT **Summative Evaluation** **Final Report**

PREPARED BY:

Victor van den Bergh, Ed.M.
Irene F. Goodman, Ed.D.

SUBMITTED TO:

Barbara Stallings, Ph.D. and Patrick Heller, Ph.D.
Watson Institute for International and Public Affairs
Brown University

July 2016



This material is based upon work supported by the National Science Foundation under Grant No. 11-533. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation

Contents

Executive Summary	4
Introduction.....	6
The IGERT Program.....	6
Program Timeline	7
Evaluation.....	7
Evaluation Research Questions.....	8
Methods	8
Results.....	9
IGERT Fellows and Curriculum.....	9
Research.....	13
Professional Development	27
Summary and Recommendations	31
Appendix A: Methods.....	35

EXECUTIVE SUMMARY

Goodman Research Group, Inc. (GRG) completed its external evaluation of the NSF-funded IGERT program at the Watson Institute for International and Public Affairs at Brown University (grant years 2010-16).

The evaluation concluded that the program successfully met many of its stated objectives, including promoting interdisciplinary research among cohorts of grantees from the four participating disciplines, providing Fellows with greater opportunities to conduct field research and collaborate with faculty on meaningful projects, and advancing participants' professional development. Persistent challenges over the course of the program included moderate confusion among participants regarding some program components and requirements, and wider systemic barriers to implementation of interdisciplinary approaches in trainees' dissertation research (e.g., lack of departmental buy-in, limited venues for publishing interdisciplinary research).

Key findings included:

- Successful recruitment of cohorts of Fellows that were balanced overall in terms of gender but not necessarily diverse in terms of race and ethnicity.
- The implementation of an interdisciplinary curriculum that advanced participant's knowledge of methods and theories used in other disciplines. This translated into some Fellows utilizing non-traditional research methods (i.e., data collection and analysis procedures) in their work.
- Opportunities for field research that advanced Fellows' dissertation research and likely positively influenced their chances of successfully applying for grants.
- Despite consistent reports of the mentorship component being unclear, numerous examples of successful mentorship relationships that resulted in Fellows delivering presentations and/or co-authoring written articles and gaining relevant experience.
- Limited formal collaboration occurring among trainees.
- Mixed success with the development of partnerships between the Watson Institute and foreign institutions.
- Dissemination of Fellows' research to diverse audiences, especially through presentations (and less so through written publications).
- Positive influence on Fellows' professional development and examples of successful job placement.

Best practices drawn from this IGERT implementation included:

- **Institutional support:** Support from the Watson Institute was instrumental in fostering the success and eventual institutionalization of the program.
- **Field research:** The field research component of IGERT was viewed by stakeholders as one of the most successful features of the program.
- **Community building:** Providing physical meeting spaces as well as requiring interdisciplinary coursework promoted a strong community culture in some years.
- **Small cohorts:** Some cohorts were very small (3 members) while others were larger (10 members). According to program administrators, the ideal cohort size was 5 members.
- **Interdisciplinary training:** Fellows reported learning a great deal about research methods and theories used in other disciplines but requested some additional guidance on how to translate those into their own work.
- **Mentorship component:** The mentorship component of IGERT was perceived as unclear, but Fellows and faculty reported that the trainees gained diverse benefits from these experiences.
- **Funding and time:** Fellows indicated that the funding for field research and the additional time gained from not needing to complete a Teaching Assistantship enabled them to advance their professional development and was critical to allowing them to pursue their research.

INTRODUCTION

THE IGERT PROGRAM

The Integrative Graduate Education and Research Traineeship (IGERT) was an interdisciplinary training program supported by the National Science Foundation (NSF). The purpose of the program was to provide interdisciplinary training to U.S. doctoral students. The underlying rationale was that students who engage in collaborative, team-based research that “*transcends traditional disciplinary boundaries*” will be better equipped to serve as leaders in the future.¹

In 2009, Brown University received a five-year IGERT grant to support the Graduate Program in Development (GPD), an initiative sponsored by the Watson Institute for International and Public Affairs that “*seeks to promote social science research on processes of social, political and economic transformation in the developing world with a special focus on the persistent problem of inequality.*” Specifically, the IGERT grant supported the “Development and Inequality in the Global South” program.”²

The objectives of the Brown University IGERT were to:

1. Create cohorts of highly qualified graduate students from the four participating disciplines of anthropology, economics, political science, and sociology.
2. Implement an innovative curriculum that reflects the IGERT principles of cross-discipline training
3. Provide the opportunity for students to engage with methodologies, texts and techniques from all four disciplines to supplement the base of knowledge from their home department
4. Create a collaborative environment between Fellows and between faculty and Fellows to produce high quality research within and across disciplines
5. Give program and financial support to students to gain early and extended experience in the field relating to both their individual research and team-based collaborative research
6. Facilitate access to professional experience and job placement
7. Diffuse research findings to both academic and policy audiences.

The GPD training program and requirements were organized into three categories: Coursework, Community-building, and Research and Fieldwork. Within these areas, IGERT Fellows were expected to participate in the following activities:

- Orientation (fall semester)
- Back-from-field presentations (fall semester)
- IGERT seminars (fall & spring semesters)
- Methodological modules
- Social gatherings
- Selection of new IGERT cohort (spring semester)

¹ For more details about the IGERT grant see <http://www.igert.org/>

² For more details see <http://www.gpdbrown.org/nsfigert/>

Between 2010 and 2016 (the six years covered in this evaluation), 38 trainees were selected for IGERT Fellowships, typically during the spring of their first year of graduate work. Most were provided full stipends for two years as well as summer research funds. Most paired with a faculty advisor (or “mentor”) and were expected to “*significantly contribute*” to an individual or collaborative faculty research project. They were also required to spend two summers conducting research in the field and were exempt from teaching assistantship and regular research assistantship requirements.³

PROGRAM TIMELINE

The first cohort of IGERT Fellows began their Fellowship in the 2010-11 academic year. There were two active cohorts of IGERT Fellows during each of the five subsequent years.

In 2015, the Brown University IGERT program received a no-cost extension to continue with the fifth cohort of Fellows during the 2015-16 academic year. Three more IGERT Fellows were then also recruited as the sixth cohort. Exhibit 1 displays the timing of the cohort model.

Exhibit 1. Timeline of Brown IGERT program and GRG evaluation

Academic year	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16*
Grant year	Received	1	2	3	4	5	6
IGERT Fellows	-	Cohort 1	Cohort 1	-	-	-	-
	-	-	Cohort 2	Cohort 2	-	-	-
	-	-	-	Cohort 3	Cohort 3	-	-
	-	-	-	-	Cohort 4	Cohort 4	-
	-	-	-	-	-	Cohort 5	Cohort 5
	-	-	-	-	-	-	Cohort 6
Evaluation	-	Y1	Y2	Y3	Y4	Y5	Final Report

*No-cost extension year

EVALUATION

Goodman Research Group, Inc. (GRG), a Cambridge, MA research firm that specializes in the evaluation of educational programs, materials, and services, conducted the external evaluation of Brown University’s IGERT program from 2010 through July 2016.

In the first three years of the evaluation, GRG focused on formative approaches in order to provide rapid feedback to improve the quality of the student and faculty experience. In the fourth, fifth, and sixth years, GRG shifted its focus towards a more summative evaluation in order to assess the overall effectiveness of the program in achieving its primary goals and objectives. This final report

³ For more details on the GPD program requirements for IGERT Fellows, see <http://watson.brown.edu/gpd/program/training-program-and-core-requirements/>

compiles findings from across all six years of the evaluation and is structured around the 11 guiding research questions below.

Evaluation Research Questions

The research questions are aligned closely with the seven objectives of the Brown IGERT program and are grouped into three main topic areas where the program was intended to have an impact: curriculum, research, and professional development. They are written in the past tense for this final report.

IGERT Fellows and Curriculum

1. Were IGERT Fellows diverse in terms of gender and underrepresented groups?
2. Was an innovative curriculum offered to IGERT Fellows? If so, what made the curriculum innovative?
3. Did IGERT Fellows become more knowledgeable about a range of research methods?
4. Did IGERT Fellows become more comfortable consuming a range of research methods in their research?

Research

5. Did IGERT Fellows conduct interdisciplinary research? If so, what made the research interdisciplinary?
6. Did IGERT Fellows conduct field research?
7. Did IGERT Fellows conduct collaborative international projects?
8. What types of collaborations occurred between IGERT students and faculty or other individuals? What topics did the collaborations focus on?
9. Did IGERT Fellows produce research on development and inequality?
10. Were research findings disseminated to both academic and policy audiences?

Professional Development

11. Were IGERT Fellows assisted in gaining professional experience?

Methods

GRG used a multi-method approach during all six years of the evaluation to assess the success of the IGERT program. Surveys of Fellows and IGERT faculty, focus groups, and de-briefs with the program Co-PI's were conducted annually, while other activities (including surveys of post-IGERT Fellows and Social Network Analysis) were introduced gradually as new opportunities emerged and the guiding research questions were revised. Some activities varied from year to year (e.g. individual phone interviews replaced online faculty surveys in Y2) to accommodate the needs of participants. Details about each data collection activity (including response rates) are located in Appendix A.

RESULTS

IGERT FELLOWS AND CURRICULUM

A major objective of the IGERT program has been to bring together diverse students from the four participating disciplines and offer them an innovative experience that positively impacts their understanding of one shared theme and teaches them multiple ways to study it.

Research Question 1: Were IGERT Fellows diverse in terms of gender and underrepresented groups?

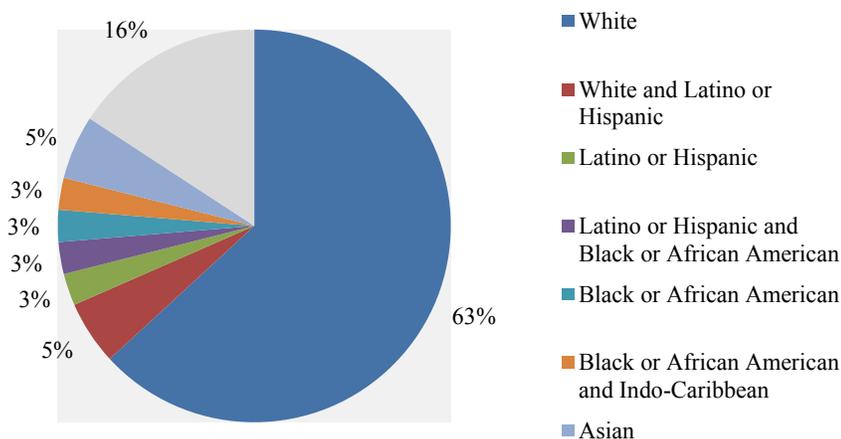
Men and women were nearly equally represented among IGERT Fellows.

Over the course of five years, 18 male trainees (47%) and 20 female trainees (53%) were selected to be IGERT Fellows. In Cohorts 1, 2, 5, and 6, there were more female than male IGERT Fellows (Cohort 6 was entirely female); however, there were more males than females in Cohorts 3 and 4.

The majority of IGERT Fellows were White. Approximately one fourth self-identified as Latino/Hispanic, Black/African American, Indo-Caribbean, Asian, or a combination of these.

Incoming Fellows self-reported their racial identity on the baseline survey. Six IGERT Fellows (16%) either did not answer this question or preferred not to respond. Among the remaining 32 who did answer this question, 24 Fellows self-reported as White (63% of the overall group of Fellows), one as Latino or Hispanic (3%), one as Black or African American (3%), and two as Asian (6%). Two students identified as both White and Latino or Hispanic (6%), one as Latino or Hispanic and Black or African American (3%), and one as Black or African American and Indo-Caribbean (3%).

Exhibit 2. IGERT Fellows' self-reported racial identities



Research Question 2: Was an innovative curriculum offered to IGERT Fellows? If so, what made the curriculum innovative?

The interdisciplinary nature of the IGERT curriculum and opportunities to engage with experts distinguished it from more traditional approaches.

Fellows and faculty consistently reported that the opportunity to learn about the unique perspectives and distinct methods used in each of the four disciplines (through the seminars, methodological modules, and interdisciplinary course requirements) made the IGERT curriculum “innovative.” In their responses in various surveys, focus groups, and interviews, participants made it clear that these courses exposed the Fellows to research and ideas that they likely would not have had otherwise (i.e. had they followed a more traditional academic trajectory).

Furthermore, these courses facilitated interactions between trainees from disciplines who might not otherwise have interacted. Alluding to traditional boundaries between these disciplines, one economics student reflected on a survey about how the curriculum was “*very innovative [and] useful to gain a respect for other social science disciplines through direct interaction with students and teachers in these disciplines.*”

The opportunity to engage in field work after the first year of IGERT was also frequently cited as an innovative aspect of the program.

Finally, IGERT Fellows gained additional depth in their understanding of development and inequality as they connected with visiting expert scholars and lecturers, another unique aspect of the IGERT curriculum.

While the data suggested that the IGERT curriculum was innovative within the context of the Watson Institute, further work would be required in order to evaluate how the program differs from similar ones at other institutions. One professor hinted that the interdisciplinary approach is ultimately not a unique feature of IGERT, stating that getting “*students out of their own disciplinary comfort zones is... innovative, though hardly an original idea.*”

Fellows said that developing a “shared language” would advance the innovativeness of the program and suggested updating the seminar texts with more examples of interdisciplinary research.

During the final annual IGERT focus group, GRG asked Cohort 5 Fellows to reflect on the “innovativeness” of the IGERT curriculum. They reported that despite being given the opportunity to learn about concepts and methods used in other disciplines, they still needed a common language to translate those methods to their own work. For example, Fellows from the other disciplines reported that economics methods were not presented in “*a friendly way.*”

As a remedy to this, the Fellows suggested incorporating more examples of successful interdisciplinary work, so that the connections between methods

and ideas used in one discipline could more easily be drawn into another. Several students said that the IGERT seminars used “classic” texts that served as good introductions to each discipline, in isolation, but did not make it easy to gain insights about how to do interdisciplinary work, in practice.

Research Question 3: Did IGERT Fellows become more knowledgeable about a range of research methods?

Fellows reported a better understanding of research methodologies in the social sciences after participating in IGERT than at baseline.

Before starting the program, Fellows were asked to rate their understanding of methodologies used to study inequalities, qualitative research methods in social sciences, and quantitative research methods. They were asked to rate their understanding again at the end of their first and second years.

As shown in Exhibits 3-5, students’ self-reported levels of understanding increased between baseline and the end of their second year. In some cases, the mean increase was as large as 2 points on a 7-point scale.

Exhibits 3-5. Comparison between baseline and two years later on Fellows' current understanding of various methods

Exhibit 3. Methodologies to study inequalities

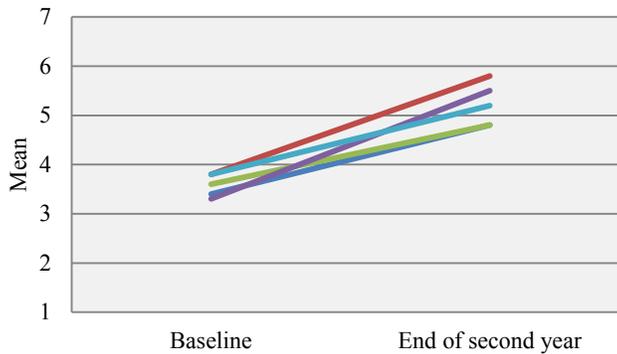


Exhibit 4. Qualitative research methods in social sciences

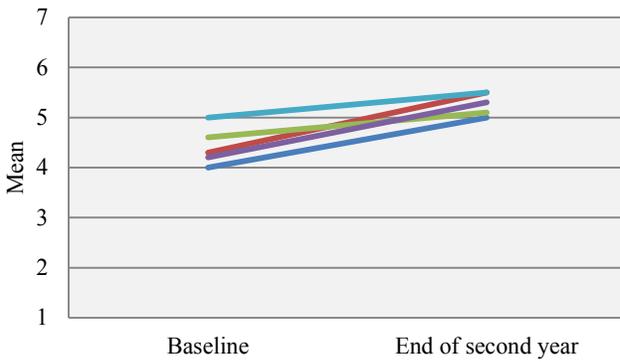
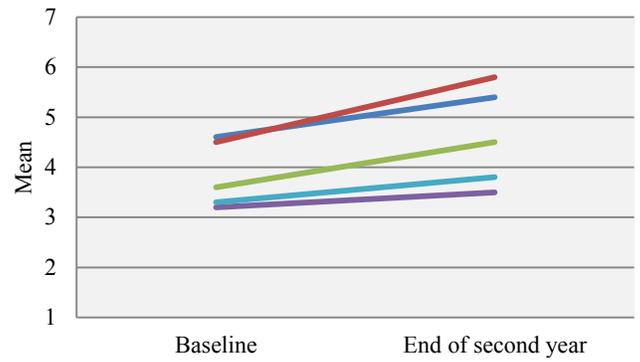


Exhibit 5. Quantitative research methods in social sciences



— Cohort 1 (N=5) — Cohort 2 (N=6) — Cohort 3 (N=6) — Cohort 4 (N=9) — Cohort 5 (N=10)

Scale: 1 = "No understanding", 7 = "Expert understanding"

Research Question 4: Did IGERT Fellows become more comfortable consuming a range of research methods in their research?

Fellows utilized a range of research methods in their research.

IGERT Fellows reported utilizing a wide variety of methods in their research. Examples of both quantitative and qualitative research methods used included interviews, surveys, ethnography, GIS, focus groups, observations, and statistics. Often, Fellows said that they learned about these methods during the methodological modules offered as part of IGERT and applied them during their field research or in work conducted together with faculty.

A significant fraction of the IGERT Fellows borrowed methods from other disciplines in their own research.

During the last three years of the program, we made efforts to ask Fellows about whether or not they utilized research methods from other disciplines in their research. Nearly all current and Advanced Fellows indicated that they were more aware of research methods used in other disciplines, and some had used these non-traditional methods in their work:

“I conducted ethnographic research in the field over the summer, which I used to write several papers and presentations, as well as for the basis of grant proposals... I had a greater awareness of interdisciplinary approaches because of courses and modules I had taken through IGERT, and incorporated surveys into my research design, which I would not have otherwise done.” – Anthropology

“This past year, I prepared the proposal for my dissertation. I intend to incorporate participant observation (e.g., less intensive ethnography) which is not common in my discipline but common in anthropology.” – Political Science

“My current work is on pollution and the economy in India. I would describe it as interdisciplinary in that the data and methods I use to measure weather and pollution come primarily from the Earth sciences.” - Economics

Our estimation is that approximately one-third of IGERT Fellows used research methods considered non-traditional for their home discipline in their research, although we do not have a direct measure of this.

The remaining Fellows gave various reasons why they did not use non-traditional methods. For some, it was a practical matter of having completed their dissertation proposal before participating in workshops on new methods. Others said that it was too difficult to make it work, or that it did not make sense. For example, one economics student said that the methods in that discipline are “*set in stone*,” and so it was not an option for them to use novel methods. Finally, at least one Fellow in the Political Science department argued that the IGERT methods modules were “*not particularly long... [and] that to be sufficiently skilled in statistical analysis or ethnography... it requires a few semester-long courses.*”

RESEARCH

A second major objective of the IGERT program at Brown University was to facilitate interdisciplinary dissertation research as well as formal and informal research collaborations among students and faculty from the four disciplines. Formal partnerships with international institutions were also formed in order to provide students with opportunities to continue their research abroad. These efforts were, in part, intended to produce formal research outputs, such as publications and presentations at conferences.

Research Question 5: Did IGERT Fellows conduct interdisciplinary research? If so, what made the research interdisciplinary?

The majority of IGERT Fellows reported that their own research was interdisciplinary in some way.

We asked IGERT Fellows to describe their work (i.e. dissertation research) and expand on ways in which it was interdisciplinary. Those who were completing their first or second years of the program were typically very early in their research and were often unable to address the question of interdisciplinarity as their approach was still being formed (although about half of the current Fellows did suggest on our final survey that their work would be interdisciplinary). However, Advanced Fellows surveyed in Years 5 and 6 – those who were one, two, or three years further into their PhD program – provided valuable insights into this topic.

In the final year of the program, 7 out of 11 Advanced Fellows (from Cohorts 1, 2, 3, or 4) said that they would describe their research as interdisciplinary:

“My work is definitely interdisciplinary. I often read things from people from different disciplines such as economic geography, regional science, environment historians and others.” – Economics

“My dissertation mixes works from political science, anthropology, and sociology, and I think the exposure to different theoretical traditions, different forms of scholarship, and new methodologies assisted my thinking about my research and helped to create a more innovative research agenda and product.” – Sociology

“My research has much more of a qualitative methods influence than the majority of my economics peers. I think this has a lot to do with having gone through the IGERT sequence (taking anthropology courses).” – Economics

“My research is interdisciplinary, as it applies theoretical frames from political science and sociology, as well as utilizing empirical data gathered by scholars in both disciplines.” – Political Science

The Advanced Fellows who described their work as interdisciplinary came from each discipline except for Anthropology (the one Anthropology student who completed the Year 6 Advanced Fellows survey did not describe their research as interdisciplinary but acknowledged an interest in being part of the interdisciplinary conversation around their particular topic). This was similar to Year 5, when 4 out of 8 respondents said their work was interdisciplinary and yet both of the Advanced Fellows from Anthropology said that their dissertation research was not interdisciplinary. These Fellows’ thinking had been influenced by the program, but their dissertation research was not interdisciplinary in the same ways as reported by other Fellows:

“I would not describe my dissertation research as interdisciplinary. This is mainly because I use traditional ethnographic research methods (participant observation, interviews) in my work. I think IGERT has helped me situate my own discipline and potential contributions to debates on development rather than making me entirely rethink my disciplinary orientation.” - Anthropology

“My dissertation research draws mostly on literature from within my discipline, but I do prioritize presenting my findings to interdisciplinary audiences and have had some success in making clear arguments in front of those audiences. Also my side project was interdisciplinary - I worked closely with four scholars from different disciplines.” - Anthropology

These findings suggest that the IGERT Fellows generally conducted interdisciplinary research as part of their dissertation, but that trainees in the Anthropology department were less inclined to do so than students in the other departments.

The interdisciplinary work conducted by IGERT Fellows incorporated theories, methods, and scholarly input from disciplines outside of the Fellows’ home departments.

The research team sought to define interdisciplinary work in the context of the IGERT program. We found that the term “interdisciplinary” could refer to a number of things.

At its most basic, the interdisciplinary work conducted by IGERT Fellows simply referred to various disciplines in some way, as described by this Economics student: *“I would very much describe my work as interdisciplinary as it is at the intersection of economics, public health, public policy and computer science.”*

More specifically, research conducted by an IGERT Fellow might have been interdisciplinary if the student referenced or incorporated theories from one of the other three disciplines. For example, the student may have reviewed the literature from these other fields and determined how their work fits within the larger body of work on their particular topic. They may have used perspectives gained from participating in the various components of IGERT (the seminars, work done with their mentor, or discussions with scholars in other fields) to refine their research questions, as described by two Advanced Fellows in Year 5:

“The two development classes were incredibly useful as well for finding a research question, framing my dissertation in the larger field of development studies, and being exposed to perspectives and methodological approaches outside of my discipline.” – Political Science

“Participating in IGERT has affected my dissertation research by introducing me to interdisciplinary debates about development. This has given me a basis from which to create my discussion questions.”
- Anthropology

Finally, another common way in which Fellows’ work was interdisciplinary (described in the research methods sections above) was through the use of research methods not traditionally used in their home discipline.

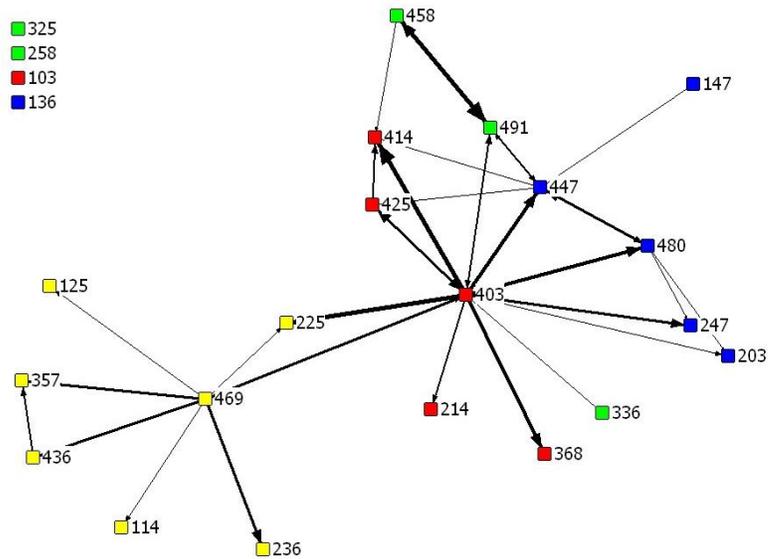
Social Network Analysis revealed a rich network of informal collaboration among IGERT Fellows, yet also showed that formal collaboration across disciplines was rare.

In addition to asking IGERT Fellows about their own research, we were interested in the extent to which grantees embraced opportunities to collaborate with fellow graduate students in other disciplines.

In Years 4 and 5, we asked current IGERT Fellows to complete an online survey for a Social Network Analysis (SNA). SNA is typically used to create a descriptive illustration of the strength and frequency of associations between people, places, and events; in the case of this evaluation, it was intended to provide insight into the extent to which interdisciplinary collaboration (either informal or formal) did or did not occur among IGERT Fellows from the perspective of the most recent cohort.

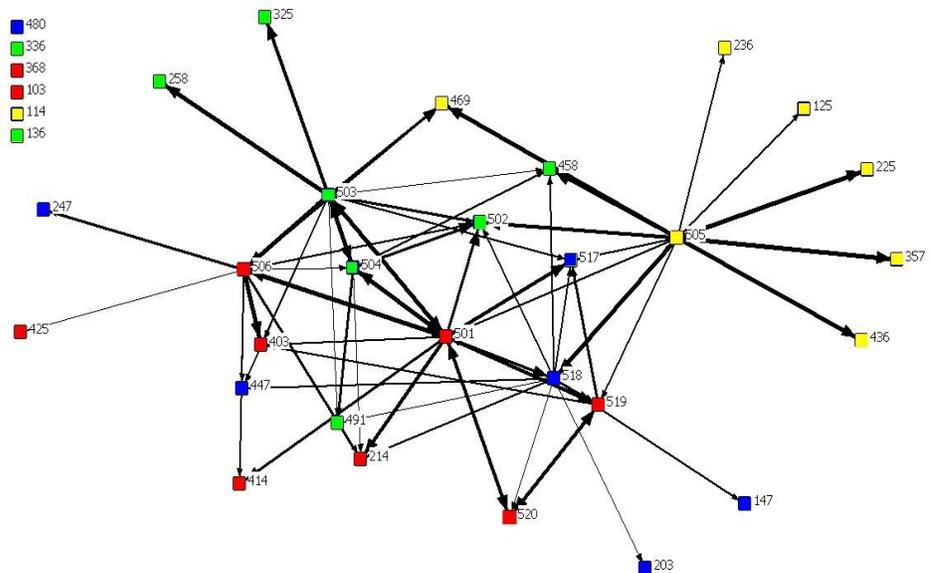
In both years, we found a great deal of informal collaboration occurring among Fellows. Informal collaboration referred to: reviewing one another’s research papers, discussing research ideas and topics, and/or sharing resources (such as literature, methodologies, frameworks, etc.). As shown in Exhibits 10 and 11, below, this collaboration frequently occurred across disciplines. The Economics Fellows were consistently more peripheral to the network (meaning Economics Fellows were reported to engage in these behaviors less frequently or that the value of these contributions was rated as lower, on average). Numbers in SNA are ID numbers of Fellows.

Exhibit 6. SNA of the strength and direction of informal collaboration activities across disciplines and cohorts as reported by Cohort 4 (2013-14)



Note: **Red** = Anthropology, **Yellow** = Economics, **Green** = Political Science, and **Blue** = Sociology

Exhibit 7. SNA of the strength and direction of informal collaboration activities across disciplines and cohorts as reported by Cohort 5 (2014-15)



Note: **Red** = Anthropology, **Yellow** = Economics, **Green** = Political Science, and **Blue** = Sociology

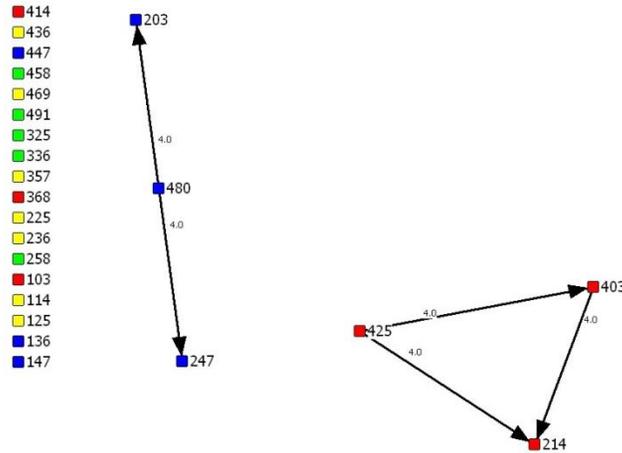
We also asked Fellows to report any instances of formal collaboration with other IGERT Fellows (i.e. working on a research project/paper, and/or working on a joint initiative such as starting a class or conference). The results (shown in Exhibits 12 and 13 below) suggested that very little formal collaboration occurred during the two years covered by the SNA, and

Economics students were not involved in any of the collaboration that did take place.

In Year 4, some Sociology and Anthropology students reported working on a joint initiative such as starting a class or conference with Fellows inside their own discipline. None reported working on a research project or paper together. In most cases, formal collaboration was infrequent, but very valuable.

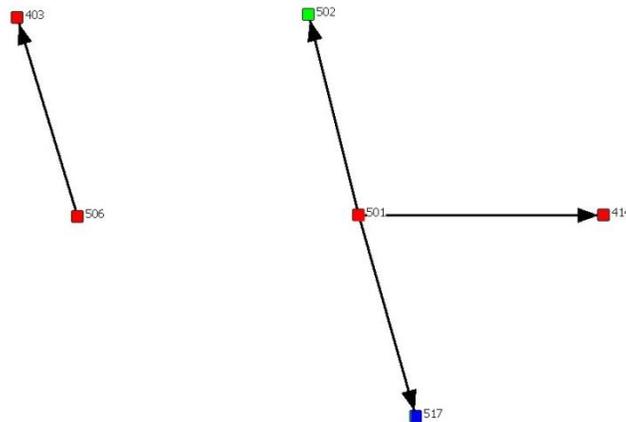
We again observed very little formal collaboration in Year 5. Two Anthropology students reported working on a conference or class with other IGERT Fellows. Unlike Year 4, at least one Fellow reported that this formal collaboration occurred across disciplines.

Exhibit 8. SNA of the strength and direction of formal collaboration activities across disciplines and cohorts as reported by Cohort 4 (2013-14)



Note: **Red** = Anthropology, **Yellow** = Economics, **Green** = Political Science, and **Blue** = Sociology

Exhibit 9. SNA of the strength and direction of formal collaboration activities across disciplines and cohorts as reported by Cohort 4 (2014-15)



Note: **Red** = Anthropology, **Yellow** = Economics, **Green** = Political Science, and **Blue** = Sociology

During our de-briefs with the IGERT Co-Principal Investigators in Year 6, we learned that two student-run workshops occurred during the final year of the IGERT grant that clearly demonstrated interdisciplinary collaboration. Groups of five or six students applied for and were awarded small grants to organize working groups and bring in guest speakers on topics related to inequality in the Global South. These activities are not reflected in the SNA diagrams above.

Research Question 6: Did IGERT Fellows conduct field research?

Nearly all IGERT Fellows conducted field research.

All but two of the IGERT Fellows conducted field research in the summer after their first year using funds provided by the program. Some of them spent the summer at the IGERT foreign partner institutions, while others conducted preliminary observations or data collection at the primary site for their dissertation research. Examples of countries in which students worked included Argentina, Bangladesh, Bolivia, Brazil, Cameroon, Ecuador, Egypt, Ghana, India, Nigeria, Panama, Poland, Russia, and Tanzania.

The field research experience was appreciated by Fellows as an opportunity to test out ideas, develop networks, and gather valuable data and insights that would then lay the groundwork for more advanced work later in their graduate studies.

Throughout all years of our evaluation, the field work component was consistently viewed as one of the most important and successful features of IGERT. On surveys, current Fellows and those who had advanced beyond the program cited this field work as critical for allowing them fine-tune their research earlier than they would have otherwise been able to:

“IGERT impacted the direction of my work by offering travel support that allowed me to explore my research interests early on. I eventually arrived at a dissertation project on a different topic and in a different region than the project I originally undertook with IGERT funding, but this early experience was formative to helping me identify and design my dissertation research.” - Sociology

The evaluation team attended Back-from-the-Field presentations in the fall of 2012, 2013, 2014, and 2015 to learn about Fellows’ field work experiences. During these presentations, IGERT and non-IGERT GPD Fellows described their research questions, methodology, and activities. They typically concluded by sharing lessons learned and some ideas for future directions. Following each presentation, there was a Q&A period, during which faculty and students asked the presenter about their work and gave suggestions.

During these visits, the impression of the evaluation team was that the Q&A discussions were especially constructive and interdisciplinary. Fellows and

faculty from different departments weighed in on the work from the perspective of their home discipline, providing ideas for other questions, resources, theories, and methods for the presenter to consider. For example, following one presentation by a Cohort 5 Anthropology student on their ethnographic work studying labor and migration programs in India, a Political Science student raised their hand and asked, “*What is the [Indian] government’s incentive to promote this program?*”

The field work experience may have helped IGERT Fellows secure grants.

IGERT Fellows and the program organizers agreed that the field work gave students an advantage when applying for grants, as they were better able to demonstrate the viability of their project:

“Because of IGERT money, I was able to do two summers of preliminary fieldwork and this was a huge advantage for my dissertation in getting on the ground early, figuring out what would be feasible indicators for different variables, getting a feel for different hypotheses and whether or not they made sense... in context. Preliminary fieldwork is a big benefit, not only for the dissertation but also for applying for funding later on.” – Political Science

“IGERT’s financial support for preliminary dissertation fieldwork, however, has been the key to success for me and many of my colleagues. IGERT’s support is the reason I received grants for my fieldwork and subsequent research, I have no doubt.” – Political Science

Research Question 7: Did IGERT Fellows conduct collaborative international projects?

The IGERT program achieved mixed success with developing foreign partnerships. The extent to which Fellows collaborated with scholars in foreign institutions was unclear.

A stated goal of the IGERT program was to establish partnerships with foreign institutions both in support of Fellows studying abroad and receiving graduate students and scholars from those institutions at Brown. Letters of agreement with four foreign institutions were obtained before the program began. Our data suggested that while exchanges did occur between Brown and the partner institutions, the foreign partnerships achieved a mixed degree of success overall. The India partnership was cited as the most successful, while the partnership with China was the least successful (in part due to strict language requirements imposed by the partner institution). Scholars and graduate students from these institutions visited Brown occasionally, but the primary aspect was that IGERT funding was used to send Fellows abroad.

One informant described the foreign partners as “*gateways for the IGERT students.*”

While all IGERT Fellows did conduct international field research (and some leveraged the partnerships to accomplish this), it was not often the case that they collaborated on formal research activities with scholars located in other countries. The Fellows did receive assistance from visiting scholars from the partner institutions and saw public presentations that they delivered. Overall, participants tended to report that they were at least able to develop their networks abroad in order to lay the groundwork for their field research and perhaps also advance their professional development:

“The IGERT was crucial in getting me connected with the partners through whom I conducted my field work... Without the IGERT, I would have had a much harder time pursuing my interests in field work and in development economics.” – Economics

“The program has helped to create important networks overseas which will contribute to their long run professional success.” – IGERT faculty member

Research Question 8: What types of collaborations occurred between IGERT students and faculty or other individuals? What topics did the collaborations focus on?

IGERT Fellows were mentored by a faculty member (usually in addition to their primary faculty advisor, but sometimes these were the same person) and students reported positive experiences overall. The nature of the mentorship varied across Fellows. Activities ranged from meeting several times over the course of the year in an informal capacity to collaborating on joint projects, and faculty advising Fellows on their research.

The intention behind the mentorship component of the IGERT Fellowship was to pair trainees with professors at Brown in order to provide them with more opportunities to develop their research skills and collaborate on projects. Typically, they were encouraged to foster relationships with mentors outside of their own discipline. These were not envisioned as formal Research Assistantships, but rather faculty and students were supposed to develop projects together or advance the Fellow’s research in some way.

In practice, the faculty mentorships were different for each trainee. Some Fellows established mentorship relationships with faculty outside of their home discipline, while others utilized their home-discipline advisor as their mentor. A minority (two out of 13 who responded to our Year 5 annual survey) reported not having an IGERT mentor at all or meeting only very infrequently with the mentor.

Fellows reported performing a variety of tasks in support of their faculty mentor's work, as well as receiving direct advice and feedback from their mentor on their own research. These collaborative activities ranged in their level of formality. Some activities were similar to traditional RA duties (such as conducting literature reviews), while others resulted in the students making a direct contribution to a paper, course, or presentation being prepared by the faculty member. For example, one Fellow reported editing their mentor's undergraduate course syllabus. These types of engagements represented a more formal level of collaboration. The following quotes were collected during the year-end surveys in Years 5 and 6:

"I have a wonderful relationship with my faculty mentor. We worked on several research projects together and I helped her develop a few new courses she'll be teaching next year." – Anthropology

"I have a very close relationship with my faculty mentor. We worked on a collaborative research proposal with one of his colleagues. We hope to get this proposal funded and begin research in 2016. My faculty mentor is also on my dissertation committee and has advised my own independent research." – Sociology

"I worked with [name omitted] for my mentorship. Since he was traveling last fall, I submitted literature reviews of books and articles to him over email, and he returned them with comments. This spring we met every other week to discuss recent readings. Our meetings and the reading I did under his guidance were useful in allowing me to explore literatures relating to my own work that lie outside my own discipline. I also found our conversations very enriching. If not for IGERT, I never would have reached out to an academic outside my discipline." – Political Science

"My relationship with my faculty mentor was great. We were able to collaborate on a few different projects, and one of them has turned into a policy briefing paper." – Sociology

When asked to describe their working relationship with the Fellows and their research activities, IGERT faculty mentors also primarily described Research Assistant-type duties, including data collection, proposal writing, and conducting literature reviews. In some cases, this work was applied to the professors' work, and sometimes to the students' research.

Examples of topics that Fellows and their mentors collaborated on included:

- *"An interdisciplinary medicine and language project"*
- *"The intersection of warfare and drugs"*
- *"Cosmopolitanism"*
- *"The psycho-social determinants related to migration and employment in health outcomes in South Africa"*

Fellows reported drawing numerous benefits from their mentor relationships.

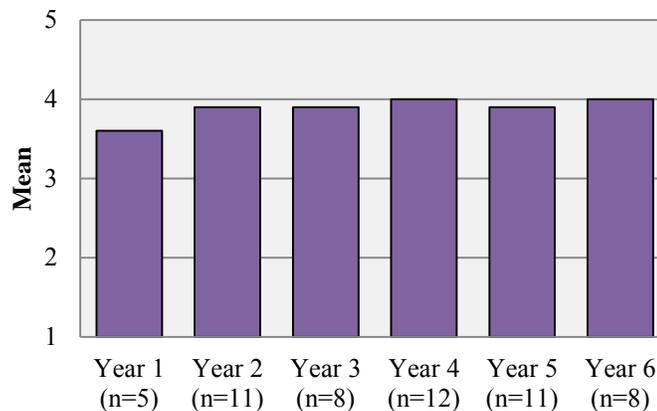
Each of the Fellows who was able to establish a mentorship relationship reported drawing substantial benefits from this aspect of their IGERT experience. Examples of benefits reported by students included:

- Opportunities to co-author publications and presentations
- Gaining experience with paper writing and presenting
- Advisement on dissertation research
- Improved research abilities (e.g. learning citation management, organizing and annotating literature reviews, data analysis and statistical skills)
- Opportunities to network with academics at other universities

IGERT fellows said that the program was effective at providing mentorship opportunities.

IGERT Fellows tended to say that the program was “very effective” at providing opportunities to work closely with a mentor, as shown in Exhibit 10.

Exhibit 10. Fellows’ ratings of the IGERT program’s effectiveness at providing opportunities to work closely with a mentor.



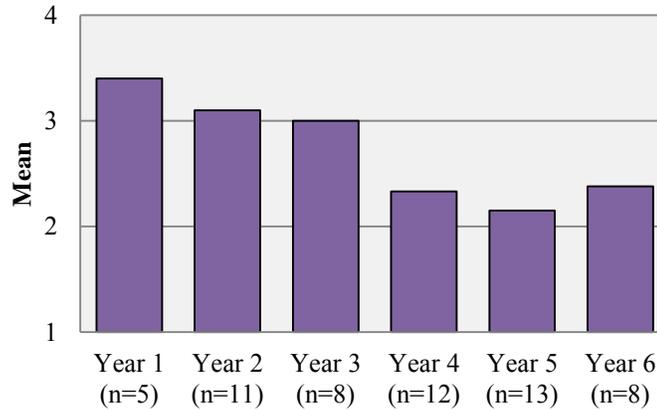
Scale: 1 = “Not at all effective,” 2 = “A little bit effective,” 3 = “Somewhat effective”, 4 = “Very effective,” 5 = “Extremely effective”

The objectives and processes around the mentorship component were somewhat unclear to trainees, despite efforts to strengthen this aspect of IGERT.

Each year, Fellows were asked to rate how clear they found the objectives and processes of the mentorship IGERT program (i.e., how to go about fulfilling this requirement and the purpose of the mentorship). As shown below, in the first three years of the program Fellows tended to rate the

mentorship component as “somewhat clear,” but in the final three years they rated it as “a little clear,” on average.

Exhibit 11. Fellows’ ratings of the clarity of the objectives and processes of the mentoring component



Scale: 1 = “Not at all clear”, 2 = “A little bit clear” 3 = “Somewhat clear”, 4 = “Very clear”

The program organizers took steps to strengthen the mentorship component of the Brown IGERT in response to evaluation findings that the Fellows (and faculty) were unclear about the requirements. For example, starting in Year 4 they held individual meetings with incoming Fellows to explain the mentorship piece and provided information to faculty. This was followed up by recurring sessions throughout the year.

Ultimately, a challenge to the mentorship component was that it may have been too much to ask of the trainees, who already had “so much on their plates” (in the words of a program Co-PI). An even more successful mentorship component might require more time.

Research Question 9: Did IGERT Fellows produce research on development and inequality?

Fellows reported a better understanding of issues related to development and inequality after participating in IGERT than at baseline.

Before starting the program, Fellows rated their understanding of various issues related to development and inequality. They again rated their understanding at the end of both their first and second years.

As shown in Exhibits 16-19, below, students’ self-reported levels of understanding increased between baseline and the end of their second year across all cohorts. In some cases, the average increase was as large as 1.4 points on a 7-point scale.

Exhibits 12-15. Comparison between baseline and two years later on Fellows' current understanding of various topics related to development and inequality

Exhibit 12. The main issues related to inequalities in the fields of economics, political science, anthropology, and sociology

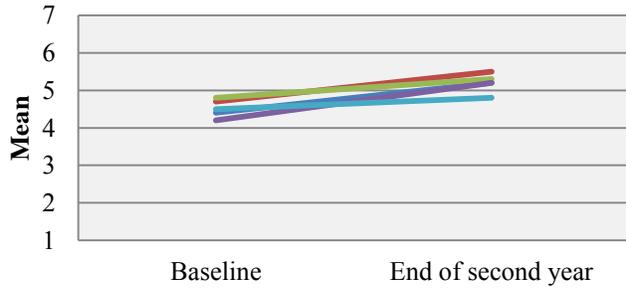


Exhibit 13. Policies to mitigate inequalities

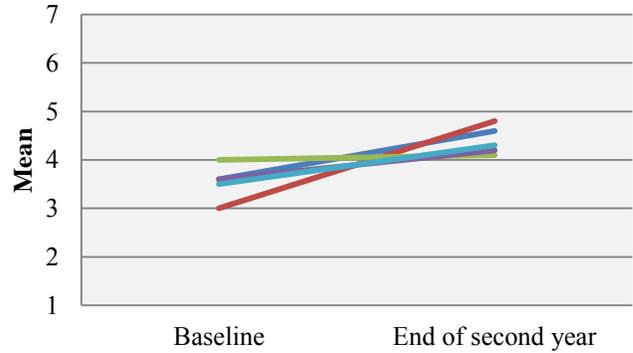


Exhibit 14. Effects of inequalities on security, environment, and governance

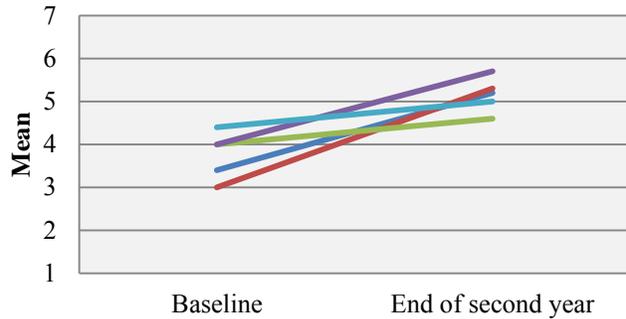
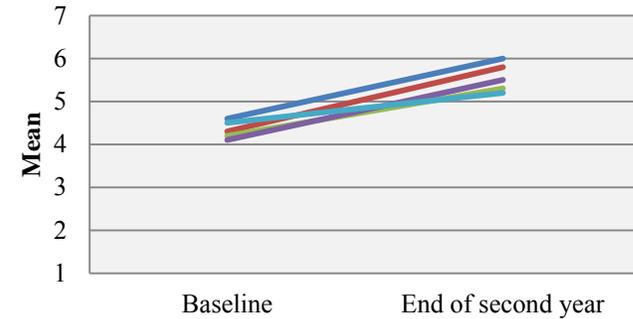


Exhibit 15. Relationship between economic development, globalization, and inequalities



— Cohort 1 (N=5) — Cohort 2 (N=6) — Cohort 3 (N=6) — Cohort 4 (N=9) — Cohort 5 (N=10)

Scale: 1 = “No understanding”, 7 = “Expert understanding”

IGERT Fellows produced research on development and inequality, which was the primary focus of the GPD program.

The data we collected from Fellows, faculty, and the Co-PI’s supported the finding that development and inequality were central to the research conducted by the program participants. This was the main topic of the Brown IGERT, and was the subject of the seminars that formed the core of the IGERT curriculum. It was also a common theme in the work that trainees carried out with faculty. The following quotes highlight the central focus on development and inequality in IGERT Fellows’ research:

“The IGERT program comes with an excellent support system and an unparalleled opportunity to work with other scholars to achieve an interdisciplinary understanding of development and inequality.” – Anthropology

“[Through IGERT] I hope to gain greater facility in incorporating development and inequality issues into my research.” – Anthropology

“I wrote an MA thesis using original fieldwork I collected last summer... I also collaborated on an interdisciplinary research project with two professors toward the production of a publishable manuscript. I pursued extensive coursework in methods and theory, including in stratification and inequality.” – Sociology

In thinking on their experiences with IGERT, one Sociology Fellow argued that the focus on development and inequality may in fact have been too narrow:

“As it stands, the program is very narrowly focused, and not very open to different, more critical approaches to thinking about ‘development’ and global inequity. Still, I valued my time as an IGERT fellow in that I was able to conduct research with a faculty member who I was able to learn a lot from. In my case, I was also able to work within a research group that worked collaboratively with grad students, research fellows, faculty members, and undergrads. This was an incredible experience made possible through my IGERT funding.”

Research Question 10: Were research findings disseminated to both academic and policy audiences?

IGERT Fellows successfully delivered numerous presentations related to their research and contributed to their mentor’s work but did not produce as many written publications on their own research while in the program.

Evidence collected throughout the course of the evaluation suggested that IGERT Fellows were highly successful at delivering presentations around their work. In Year 4 of the program, for example, 17 trainees gave presentations in various venues, including the annual meetings of academic associations (e.g. the American Sociological Association) and other universities. Six of the eight Advanced Fellows who completed a survey in Year 5 had presented their IGERT-related work by that time. Feedback given by the program Co-PI’s confirmed that Fellows were successful at disseminating their work through presentations.

The evaluation data suggested further that students had moderate success with written publications. In Year 4, three students published papers in journals and national magazines, and by the end of Year 5, three Advanced Fellows reported having published articles, while one contributed to a book.

The venues in which Fellows disseminated their work varied across academic and policy audiences. With regards to the Year 5 survey of the

eight Advanced Fellows, all but one Fellow had published or presented their work in academic venues (i.e. conferences or journals), while four had presented their work to policy audiences (e.g. the US State Department, US AID, and NBER), and one had had their work publicized on a popular blog.

It was not surprising that more trainees did not produce written publications while they were still active IGERT Fellows, given the one-to-two year duration of the program and the fact that it took place early in their graduate career. That said, Fellows did frequently report contributing to the written publications being worked on by their mentors and many described learning to improve their writing as the result of IGERT (especially through the workshopping that took place during the seminars and modules, and the collaborations with mentors).

IGERT Fellows rated the program as “somewhat effective” at helping them to publish and present their work.

In Years 5 and 6, we asked Fellows completing the year-end annual survey to rate how effective the Brown IGERT was at increasing opportunities to disseminate their research (i.e. publish, present, etc.). The mean rating in Year 5 was 2.6 on a scale of 1 (“not at all effective”) to 5 (“extremely effective”), and the mean rating in Year 6 was 3.4. These means both correspond approximately to a rating of “somewhat effective,” although there is a notable upward trend between the two years. Given the success that Fellows had with disseminating their work, it is unclear why they gave such moderate ratings. However, this may have occurred if Fellows did not attribute their success to the program.

PROFESSIONAL DEVELOPMENT

One of the objectives of the Brown IGERT was to “*facilitate access to professional experience and job placement.*” In order to measure this, we asked Fellows, faculty, and the program Co-PI’s to share their perceptions of how participants benefitted.

Research Question 11: Were IGERT Fellows assisted in gaining professional experience?

Participation in IGERT positively impacted Fellows’ professional development in numerous ways, including networking, writing and presentation skills, learning how to plan and execute a project under the mentorship of a faculty member, and forming relationships through the field work experience. The workshops and conducting field work early also gave Fellows a “leg up” when applying for grants later in their careers.

The feedback collected from participants in the IGERT program at Brown strongly supported the claim that Fellows benefitted in terms of professional development. Qualitative data collected during the final years of the evaluation provided some perspective on the numerous ways in which participation in the program provided Fellows with training and prepared them for the next stages in their academic and professional careers, including experience with publication and presentations. Below are some quotes from Fellows and faculty that highlight these impacts:

“I think I learned a lot from interacting with people from many different fields and that will be important for me in the future.” – Economics

“IGERT gave me the funds to ‘test drive’ my dissertation and refine my question and methods, in addition to the training provided through the program. Without IGERT, I would not have had these opportunities to advance my research, and I believe those opportunities were crucial to securing funding for my fieldwork.” – Political Science

“To the extent that the program supported my student's professional development, it would be through supporting things like conference travel and interdisciplinary engagement.” – IGERT faculty member

“The mentorship they receive and the opportunity to work on projects is an important contribution to the professional development of the students.” – IGERT faculty member

“I think it was helpful for the IGERT fellow to see, concretely, how a senior professor develops a book project. This, I hope, made it easier and more realistic for the IGERT fellow to imagine him/herself also writing a book.” – IGERT faculty member

As illustrated by these quotes, the impact on Fellows' professional development occurred in a variety of ways. Firstly, both Fellows and faculty acknowledged that exposure to interdisciplinary scholarship and the opportunity to exchange ideas with graduate trainees in other fields contributed to students' development. Secondly, the training provided by the program (via workshops and modules) assisted Fellows with their dissertation research. This early fine-tuning, training, and the field work experience helped some Fellows write successful grant proposals or publications. Thirdly, Fellows had the opportunity to present their work at conferences, and they were supported by IGERT funds in this. Finally, working closely with a mentor gave students valuable professional experience.

Not all participants agreed that Fellows' benefitted substantially in terms of their professional development (although this was only explicitly stated by two Fellows). Some Fellows acknowledged that their academic training was positively impacted by IGERT but stated that they did not think the program provided them with opportunities for professional advancement that they

would not have otherwise been able to achieve. For example, one Sociology trainee said, *“I am not 100% certain that this program provided me with opportunities that I could not have gained through my own initiative and hard work. The funding provided through IGERT is the main help provided by this program.”*

Funding for field research and freedom from Teaching Assistantships enabled Fellows to make the most of professional development opportunities.

A common theme in the data we collected was that funding and time were both crucial to facilitating Fellows’ professional development. Fellows were provided with funding to conduct field work and attend conferences, which they might not otherwise have been able to do, and freedom from TA-ships gave students extra time to advance their research:

“IGERT’s financial support for preliminary dissertation fieldwork has been the key to success for me and many of my colleagues. Having talked with many peers at conferences, the lack of funds at many institutions for preliminary fieldwork has been an obstacle for many graduate students. Without this funding, it is far more difficult to convince grant-giving institutions of the worthiness and feasibility of dissertation projects. Without IGERT’s support, I would never have realized the impossibility of my original dissertation idea until it was far too late. Instead, I was able to redirect my project, make the necessary connections, and return with a feasible idea and the time to develop and refine it. IGERT’s support is the reason I received grants for my fieldwork and subsequent research, I have no doubt.” – Political Science

“My IGERT was most beneficial in freeing me from TAing responsibilities, which allowed me to work on a side project with my IGERT faculty mentor that resulted in a co-authored article and book. This experience continues to benefit me as I work on publishing my own research.” – Anthropology

Despite these benefits, it is important to note that the exemption from TA requirements may also have detracted from some Fellows’ professional development, as they ended the program with less teaching experience than their peers at similar stages in their PhDs. At least one Fellow expressed this concern on our surveys, saying, *“I am somewhat concerned about my lack of TA experience three years into the program...I will have a later start TAing, which means that I may end up being less experienced as a professor.”* This Fellow later acknowledged, however, that *“the opportunity to do a [mentorship experience] more than makes up for this, as there are very few of these opportunities outside of IGERT.”*

Successful external grant proposals and job placement indicated that the IGERT program had a positive impact on Fellows' professional trajectory.

As illustrated in the above quotes, Fellows felt that participating in IGERT provided them with opportunities that translated into more successful grant applications. The Co-PI's echoed this during the annual debriefs and highlighted this as a major success for the program.

Another major success with the program was Fellows' job placement. Multiple IGERT Fellows have successfully defended their dissertations and obtained academic positions. Specific data on these outcomes are included in the annual reports authored by the program Co-PIs.

Despite these positive outcomes, Fellows reported that the professional development component of IGERT was unclear. They gave some recommendations for how this component could be improved.

Fellows consistently reported that the objectives and processes around the professional training element of IGERT were unclear (between 2.1 and 2.9 on a scale of 1 "not at all clear" to 4 "very clear" in the final years of the grant). During one year-end focus group, a Fellow asked, "*Uh, what exactly is the professional training component of IGERT?*"

They reported that they would be receptive to a greater emphasis on IGERT activities as "professional development." One trainee said that they needed help articulating the value of their interdisciplinary training and translating their IGERT experience into their CV. Another suggested that a writing workshop for students who had completed both seminar courses to continue workshopping their grant proposals and research would be helpful.

SUMMARY AND RECOMMENDATIONS

The IGERT program at the Watson Institute for International and Public Affairs at Brown University achieved many of its stated goals with a high degree of success. Below, we highlight these successes and some of the best practices that led to them. Where relevant, we identify challenges and provide recommendations so that other programs designed to promote interdisciplinary research may build on the model implemented at Brown.

Institutional support

The support of the Watson Institute was critical for the success of the IGERT program. The Institute dedicated resources (e.g., money, physical meeting space, and more), which were instrumental in enabling the development of formal partnerships abroad and a feeling of community around the program at Brown. It provided a home for the program and facilitated bridge-building across disciplines.

Also, the institutionalization of the IGERT program at Brown was one of the major successes of the grant. The Watson Institute has agreed to continue the program and provide significant resources, including physical space, salaries, and funds to keep the program going. Future programs should seek this level of support if they aim for long-term success and sustainability.

Recruitment:

The program Co-PIs reported that the number of applications to programs at the Watson Institute has risen to record highs now that the success of the IGERT approach has been demonstrated. They suggested that the most successful strategy for recruiting grant recipients was to select cohorts of five individuals, ideally from among trainees who were at the end of the first year of their PhD program, since students who were admitted prior to beginning their PhD dropped out more frequently. This was viewed as the optimal configuration for developing a community among the Fellows.

While IGERT did not directly recruit graduate students to the university, the opportunity to apply for an IGERT Fellowship during their first year was likely a factor in some PhD applicants' decision to come to Brown. Recruiting cohorts of Fellows who were racially diverse proved a challenge, but the Brown IGERT did achieve some success with this as approximately one third of Fellows self-reported as minority students. One strategy that IGERT used to recruit minority students was to offer Fellowships to incoming students (from outside of Brown). Informants report that this may have convinced up to three minority students to come to Brown. To the extent that they are able to recruit from outside of the university, other programs like IGERT should reach out to both minority-serving and non-minority serving undergraduate institutions (e.g. HBCUs and Hispanic-serving institutions).

Field research

Providing funding and support for trainees to conduct field work early in their PhD research was one of the most successful features of the IGERT program. Faculty and Fellows alike reported that trainees gained numerous benefits as a result, including high levels of success applying for grants. We recommend that this practice, and the Back-from-the-Field presentations (during which students had the opportunity to workshop their research with input from peers and faculty in other disciplines) be replicated in future IGERT-type programs.

Curriculum

Stakeholders remarked on the innovativeness of the IGERT curriculum. The required courses and workshop modules exposed Fellows to concepts, theories, and methods from other disciplines and facilitated conversations and collaborations among groups of students who may not otherwise have interacted. We recommend that future programs follow a similar structure.

Interdisciplinary research

The evaluation data suggested that Fellows' dissertation research was interdisciplinary in multiple ways. For example, some incorporated literature from other disciplines or utilized methods that were not traditional in their home discipline (e.g., use of ethnography in non-anthropological research). Some collaborated with faculty outside of their primary subject area. There was also a great deal of informal collaboration among Fellows. However, we did not observe much formal collaboration among the trainees, themselves, and also found that only about one third of Fellows were able to use interdisciplinary data collection and analysis methods. This was typically due to the brief nature of the training and resistance from within their own discipline (especially in Anthropology and Economics).

One of the program Co-PIs remarked on the phenomenon of Fellows gaining a greater understanding of interdisciplinary approaches without necessarily working together on this type of research, reflecting, "*We did almost nothing 'interdisciplinary,' but what we did do was 'cross-disciplinary.'* We told each discipline what the other disciplines were doing... We showed people about the methods and research findings in other disciplines but I don't think we ever really came to grips with what an interdisciplinary program would look like."

We recommend that graduate trainees in the social sciences continue to be trained in the theories and methods of other disciplines and encouraged to conduct interdisciplinary research. However, we also recommend that consideration be given to the Fellows' requests that additional practical guidance be given on how to implement interdisciplinary approaches in their own work. For example, a "shared language" might facilitate the integration of non-traditional research

methods (especially those taken from economics). More contemporary examples of successful interdisciplinary research could also be incorporated into the curriculum. More opportunities for Fellows to work together on projects (i.e., academic assignments, conferences, or workshops) may encourage increased formal collaboration across disciplines. The small grants that were awarded in Year 6 are a good example of this.

Department buy-in

Numerous stakeholders alluded to some tension among the four departments involved in IGERT. According to one Co-PI, some departments were resistant to the idea of additional funding for IGERT Fellows because it presented an issue of inequality (even jealousy) among the graduate students. Some departments felt that the exemption from TA-ships granted to IGERT Fellows “*siphoned off their talent.*” Another Co-PI acknowledged, “*At the end of the day, we’re not [the Fellows’] primary home; their primary home is their department.*” Future programs should seek to anticipate and mitigate these kinds of tensions, where possible.

Faculty collaboration

Although the mentorship component of IGERT at Brown was consistently viewed as “unclear” by Fellows and faculty, stakeholders reported that Fellows gained numerous benefits from participating in these mentorships. We recommend that future programs continue to encourage this practice, while ensuring that this requirement be clearly defined and that both faculty and Fellows be informed about what it entails. Also, sufficient time and support must be given for Fellows to develop mentor relationships outside of their home discipline and develop joint research projects.

Community building

In the words of one Sociology Fellow, “*The disciplines of the social sciences think about the world in very distinct ways from one another. This can be a source of conflict that can only be mediated by developing a strong community culture before diving into critique and discussion of our work and perspectives.*” Physical meeting spaces for gathering were useful in fostering a feeling of community among IGERT Fellows, as were the opportunities to engage in discussions during seminars, workshops, and Back-from-the-Field presentations. Unfortunately, some Fellows did not remain engaged in the program once their fellowship had ended. We recommend that opportunities for continued engagement be promoted.

Foreign partnerships

IGERT was able to formalize partnerships with four foreign institutions before the program began. These partnerships matured over the course of the program and the Watson Institute received scholars from these institutions and sent Fellows abroad, yet it was not clear that Fellows collaborated with scholars there. Participants did report being able to network with international experts and develop relationships abroad, which facilitated their field research.

Funding and time

Fellows indicated that the funding for field research and the additional time gained from not needing to complete a Teaching Assistantship enabled them to advance their own professional development and were critical to allowing them to pursue their research. These practices should be continued.

Still, IGERT Fellows may be left with less teaching experience than their non-IGERT peers, which could be a detriment if they are applying for university-level academic teaching positions. Thus, consideration should be given to these concerns, perhaps with accommodations made to include a TA-ship as part of a program such as IGERT.

Professional development

Stakeholders reported that Fellows benefitted in terms of professional development and this was borne out by high rates of success with applying for external grants and securing post-graduation jobs. In the words of the program Co-PI's, "*Fellows have been much more successful in getting grants... This was the whole point of the second semester of the two-semester sequence. Partly as the result of the field research, and partly as a result of the program, we had substantially more students getting outside grants (sometimes very prestigious) than in the past.*"

Nevertheless, Fellows were consistently unclear on what the professional development aspects of the program were. Explicitly labeling these aspects as professional development (where possible) and providing assistance for Fellows or participants in future programs to translate their experience into their professional resume could be beneficial.

In conclusion, the Brown IGERT program was highly successful at achieving a majority of its stated goals. The underlying program has achieved institutionalization at the Watson Institute and shows great promise for the future in terms of promoting interdisciplinary training, research, collaboration, and thinking in the social sciences. The lessons learned from this program evaluation should prove useful for future initiatives seeking to replicate this IGERT program.

APPENDIX A: METHODS

GRG used a multi-method approach during all six years of the evaluation to assess the success of the IGERT program. Surveys of Fellows and IGERT faculty, focus groups, and de-briefs with the program Co-PI's were conducted annually, while other activities (including surveys of post-IGERT Fellows and Social Network Analysis) were introduced gradually as new opportunities emerged and the guiding research questions were revised. Some activities varied from year to year (e.g. individual phone interviews replaced online faculty surveys in Y2) to accommodate the needs of participants. Exhibit 16 displays which evaluation activities occurred each year. It is followed by descriptions of each research activity.

Exhibit 16. GRG's annual evaluation activities

	Y1	Y2	Y3	Y4	Y5	Y6
Baseline surveys	✓	✓	✓	✓	✓	✓
End-of-year surveys	✓	✓	✓	✓	✓	✓
Fellows focus group*	✓	✓	✓	✓	✓	
Faculty surveys**	✓	✓	✓	✓	✓	
"Back from the field" observations			✓	✓	✓	✓
Advanced Fellows surveys			✓	✓	✓	✓
Social Network Analysis (SNA)				✓	✓	
PI(s) de-brief	✓	✓	✓	✓	✓	✓

* Focus group with Cohort 2 was supplemented by individual phone interviews with Cohort 3 Fellows in Y3 only

** Faculty survey was replaced with individual phone interviews in Y2 only

BASELINE SURVEYS

Each year, GRG administered an online pre-survey to incoming IGERT Fellows before they began any IGERT-related activities. The survey gathered baseline data on their academic background, motivations for joining the program, self-reports of knowledge relevant to the IGERT curriculum, and expectations for the program. The baseline survey response rates are shown in Exhibit 17.

Exhibit 17. Response rates for online baseline survey

	Y1	Y2	Y3	Y4	Y5	Y6
Cohort 1 (N=5)	5 (100%)	-	-	-	-	-
Cohort 2 (N=6)	-	6 (100%)	-	-	-	-
Cohort 3 (N=6)	-	-	6 (100%)	-	-	-
Cohort 4 (N=9)	-	-	-	9 (100%)	-	-
Cohort 5 (N=10)	-	-	-	-	8 (80%)*	-
Cohort 6 (N=3)	-	-	-	-	-	3 (100%)

*An economics Fellow and a political science Fellow did not complete the Y5 baseline survey

END-OF-YEAR SURVEYS

An end-of-year post survey was administered online to IGERT Fellows in the spring of both their first and second years in the program. Fellows were

asked to assess various aspects of the IGERT program, including its interdisciplinary focus and the required and optional opportunities provided to the Fellows. Self-report measures regarding understanding of topics relevant to the IGERT curriculum were repeated from the baseline survey to capture change in knowledge and attitudes. Exhibit 18 shows survey response.

Exhibit 18. Response rates for online annual survey

	Y1	Y2	Y3	Y4	Y5	Y6
Cohort 1 (N=5)	5 (100%)	5 (100%)	-	-	-	-
Cohort 2 (N=6)	-	6 (100%)*	4 (100%)*	-	-	-
Cohort 3 (N=6)	-	-	5 (83%)	4 (67%)**	-	-
Cohort 4 (N=9)	-	-	-	8 (88%)	6 (67%***)	-
Cohort 5 (N=10)	-	-	-	-	7 (70%)	7 (70%)
Cohort 6 (N=3)	-	-	-	-	-	3 (100%)

Note: Rates affected by Fellows dropping out of IGERT and the following circumstances:

* Two Cohort 2 Fellows were only given one-year fellowships

** Two Cohort 3 Fellows opted out of the evaluation during Y4

*** One Cohort 4 Fellow opted out of the evaluation during Y5

FELLOWS FOCUS GROUPS AND INTERVIEWS

GRG typically held an annual focus group with IGERT Fellows during the spring semester of their first year. Each year, the conversation focused on slightly different topics relating to findings from the previous year’s report and the participating cohort’s baseline survey results. In general, these focus groups covered the impacts (successes and challenges) of the program, levels of satisfaction with various program elements, and expectations for the remainder of the fellowship. In Year 2, an additional focus group was facilitated with Fellows at the end of their second year; in Year 3, second-year IGERT Fellows were interviewed individually over the phone. No focus groups were held in Y6.

FACULTY SURVEYS AND INTERVIEWS

GRG obtained feedback from faculty members affiliated with the IGERT program at the end of each year (except Year 6). In Years 1, 3, 4, and 5 of the evaluation, they responded either by email or by phone to questions about their experiences with the IGERT program over the previous year, their perceptions of the impact of the program on the Fellows, and their own roles as mentors. In Year 2, these data were collected via individual phone interviews. Exhibit 19 shows faculty response rates.

Exhibit 19. Response rates for faculty data collection

	Faculty invited	Faculty respondents	Response rate
Y1	12	7	58%
Y2	17	11	65%
Y3	14	8	57%
Y4	13	9	69%
Y5	17	8	47%*

*In Y5, two faculty responded to our invitation by saying they were not actually involved in the program, and one additional faculty member said that they were a “huge fan of IGERT... but [did] not have the time to respond to [this] questionnaire.”

“BACK FROM THE FIELD” OBSERVATIONS

IGERT Fellows were asked to share the results of their summer field work during “Back from the Field” presentations held in the fall of each year. Members of the evaluation team attended the presentations in November 2012 (Year 3), October 2014 (Year 5), and October 2015 (Year 6) in order to learn about some of the Fellows’ work and observe the workshopping that occurred.

ADVANCED FELLOWS SURVEYS

Starting at the end of Year 3, GRG asked “Advanced Fellows” (IGERT Fellows who had completed their one or two years of the program but were likely still at Brown) to complete a brief online survey about their experiences since leaving the program. They answered questions regarding the long-term impacts of the program on their research, professional development, and success with publication, as well as their ongoing relationship with the program, if any.

Exhibit 20. Response rates for Advanced Fellows (AF) data collection

	AF invited	AF respondents	Response rate
Y3	7	4	57%
Y4	11	5	45%
Y5	15	8	53%
Y6	21	13	62%

SOCIAL NETWORK ANALYSIS (SNA)

In Year 4, GRG introduced a new evaluation activity called Social Network Analysis (SNA) in order to quantify the collaborative activities among IGERT Fellows that led to concrete outcomes - such as interdisciplinary publications or presentations –or informally promoted the exchange of interdisciplinary knowledge and resources between Fellows, like discussions, study groups, and reviewing one another’s papers. Cohort 4 (n=8, 89% response rate) and Cohort 5 Fellows (n=8, 80% response rate) independently completed an online survey in the spring of their second year that collected data about the type, frequency, and value of interactions they had with past and present IGERT Fellows.

PRINCIPAL INVESTIGATORS DE-BRIEFS

The research team had a verbal de-brief with the Principal Investigators of the IGERT program at the end of each academic year. Topics that were typically discussed included the major successes and challenges for the year, their perceptions of the extent to which the objectives for the program were being met, and any planned changes for the coming year. In Year 6, these discussions took a more summative tone.

Goodman Research Group, Inc.

Main Office

929 Massachusetts Avenue, Suite 2A
Cambridge, Massachusetts 02139

Tel: (617) 491-7033

Fax: (617) 864-2399

info@grginc.com

www.grginc.com

© 2016 Goodman Research Group, Inc.