Capacity and Preparatory Review

Pardee RAND Graduate School

July 2009

Introduction

The Pardee RAND Graduate School (PRGS) is a unique and exceptional institution. Established as one of the original schools of public policy in 1970, PRGS is moving to achieve its vision of becoming the premier policy PhD program in the nation. To accomplish this goal, our priorities for 2009-2010 and beyond are as follows: (1) maintain our core capabilities, even with a somewhat reduced endowment and a challenging environment for philanthropic support; (2) continue to improve the academic quality and breadth of our Ph.D. program with a particular emphasis on addressing gaps in an overall rigorous set of requirements and offerings; (3) provide adequate financial support to our students in order to enable them to focus on their educational experience and training; and (4) to support our students as they prepare for careers beyond PRGS. These four priorities address the three key elements in a premier policy graduate program—our institutional foundation including faculty, students, and finances; our curriculum to include coursework, project work (on-the-job-training or OJT), and the dissertation; and support to students including admissions, orientation, scholarships, enhanced library services and career services.

It should be noted that PRGS is successfully emerging from a year of significant leadership change. The new Dean, Susan Marquis, assumed her responsibilities on January 1, 2009. In November 2008, after a vacancy of several months, the School's new development officer, Maura Krah, joined the team. And in June 2009, PRGS lost its Assistant Dean and began its search for his successor. In the interim, PRGS has been fortunate to have been able to split the duties and responsibilities between two RAND researchers. Keith Henry is serving as the Interim Assistant Dean for Technology and Student Affairs and Gery Ryan is serving as the Interim Assistant Dean for Academic Affairs. Despite this year of change and a challenging financial outlook, what has not changed is the school's commitment to, and execution of, its mission of providing an exceptional Ph.D. education to our students.

The data exhibits we include in the Appendix attest to the continued strength of the school. In addition to the required data exhibits which show our commitment to diversity, our solid financial state, our high retention and graduation rates and our continued competitive admission rates, we have included other exhibits which demonstrate our commitment to the WASC standards.

- To demonstrate our commitment to Standard 1: Defining Institutional Purpose and Ensuring Educational Objectives we include:
  - Exhibit A: A background paper on PRGS which provides an overview of PRGS status and agenda prepared by Dean Marquis for presentation to a number of audiences including the Executive Committee of the RAND Board of Trustees.
  - Exhibit B: A data-intensive overview of PRGS strategy and operations which is updated and shared with the PRGS Board of Governors on a regular basis.
  - Exhibit G: The Student Handbook
  - Exhibit J: The PRGS Mission Statement and Board of Governor's Charter
- To demonstrate our commitment to Standard 2: Achieving Educational Objectives through Core Functions we include:
  - Exhibit A which demonstrates our commitment to developing and maintaining the infrastructure to support student learning at the highest levels.

- o Exhibit B which includes data on job placement for our graduates, information on their careers 10 years out, and completion and attrition rates.
  - o Exhibit C: our Faculty Policies and Procedures manual
  - o Exhibit D: A sample of our current course evaluations for instructors and TAs
  - o Exhibit E: Our list of Dissertation Award recipients in 2008
  - o Exhibit F: The one-pagers on dissertation requirements
  - o Exhibit H: Our list of first year scholarship recipients for the 2008-09 academic year
- To demonstrate our commitment to Standard 3: Developing and Applying Resources and Organizational Structures to Assure Sustainability we include:
  - o Exhibit A which discusses the investments we are making over the next few years to enable us to continue to provide a high quality program. This includes a description of our plan to purchase new database software to replace our current system and enable us to automate the admissions process and provide students the ability to schedule classes and access their records online.
  - o Exhibit B which provides details on the School's financial position. (Note: the financial data provided in the Data Exhibits is based on information reported on RAND's published financial statements as a whole rather than just for PRGS alone since RAND does not report all financial data by unit.)
  - o Exhibit C: our Faculty Policies and Procedures manual
  - o Exhibit E: the list of Dissertation Awards for 2008
  - o Exhibit H: the list of Scholarship recipients for 2008-9.
  - o Exhibit I: the Charter of the Board of Governors
  - o Exhibit G: the Student Handbook
- Finally, we believe our commitment to Standard 4: Creating an Organization that is Committed to Learning and Improvement is demonstrated most clearly by the Self-Study on our three selected themes which follows.

Overview of Self-Study Themes
With the basic infrastructure to support our mission solidly in place, PRGS has chosen to focus our self-study on three aspects of the program where we believe we could benefit most from developing more explicit standards and better data and measurement devices to enhance our ability to judge the learning outcomes of students. In fact, all three of our chosen areas of self-study: OJT learning, classroom teaching effectiveness and dissertation quality are designed to enable us to better track, evaluate and support student success in our program. Through our three targeted self-studies, we believe we will be able to create systems for tracking student success where they did not previously exist—such as OJT learning—and enhance systems where they existed, but needed refining such as dissertation quality and teaching effectiveness.

Commitment to Student Success
PRGS maintains that our students are our most important asset and the best demonstration of the quality of our program. Over the past few years, PRGS has expanded its recruiting and admissions efforts to reach out broadly to students whose previous life experiences demonstrate a commitment to public service, an understanding of critical public policy issues, exceptional communication skills and leadership ability. We have recognized, however, that some of these students may be deficient in one or more of the foundational skills needed to succeed in our program such as univariate calculus or micro economics. While PRGS continues to maintain rigorous admissions standards, we have committed to admitting a few of these students with non-traditional backgrounds each year who have demonstrated these qualities and to supporting them

with short courses during orientation ("boot camps" in micro economics, math and U.S. language and culture) as well as tutoring and mentoring as needed. We have seen evidence that with targeted support, most of them can succeed and we expect them to go on and become leaders in their chosen fields.

Furthermore, PRGS is continuing efforts to improve the academic environment for all of our students to enable their success. These efforts include: seeking resources to fund first and second-year scholarships and dissertation awards to reduce the financial burden and workload so students can concentrate more on their academic requirements; providing seminar series and other opportunities for students to interact with other policy analysts and decision makers outside of RAND; and supporting student travel to conferences where they are scheduled to present posters or papers. PRGS is also developing a new opportunity for contextual learning to provide students with an understanding of the context and reality of policy making by spending 5-6 months in RAND's Washington office working on projects and extensively interacting with RAND's federal clients.

To enable all of our students to make the leap from the academic program which prepares them to succeed, to the career where they will actually be able to employ their skills, PRGS, with investment funds from RAND, created a Career Services office in spring 2009. This career services office, staffed by an executive from Korn-Ferry, is charged with assisting PRGS fellows in preparing for and then obtaining their first job after graduation. While PRGS graduates have been exceedingly fortunate in obtaining work upon graduation even without this service, we expect that with this additional support they will be able to obtain even better and earlier first placements and go on to even more successful careers.

Pardee RAND Graduate School Self-Study Themes

Theme 1: Learning Through On-the-Job-Training (OJT)

Purpose: PRGS is working to develop an explicit system that measures how and to what extent OJT learning objectives are being attained by all students

On-the-job-training (OJT) has been a critical component of PRGS since the school's creation and is one of two characteristics that distinguish PRGS from other schools of public policy, the second being the robust analytic coursework required of all students. By working on RAND research projects, students gain invaluable professional experience, apply research techniques learned in the classroom, obtain in-depth substantive knowledge about their chosen policy field and fund their graduate studies. Given its significant role within the doctoral program, PRGS has chosen to evaluate the existing OJT model and develop a more formal system for tracking, understanding and improving OJT-related learning. As part of our self-study such an accountability system will include: (a) making explicit the expectations and responsibilities for OJT learning; (b) identifying ways to measure and monitor each student's OJT experience; (c) incorporating the monitoring process into ongoing student assessments, individual faculty assessments, and annual program assessments; (d) establishing mechanisms for motivating students, OJT project leaders and others to meet these expectations; and (e) ensuring that students, project leaders and others have the capacity to carry out their OJT responsibilities. We

believe this will improve the effectiveness of the OJT experience and enable us to more directly shape this unique learning environment that complements our academic framework.

To undertake tasks related to a review of OJT learning for the re-accreditation process, the Re-accreditation Committee appointed two of its members to convene a task force. The OJT Study Group includes Gery Ryan, the Committee's faculty representative, and Sarah Outcault, one of the Committee's student representatives.

Setting Standards and Expectations

The first step of the OJT Study Group in establishing an accountability system to evaluate learning through OJT was to make explicit what PRGS students should be learning during their OJT experiences. To ensure we captured the range of learning that might occur through OJT, the Study Group began by conducting a series of semi-structured interviews with PRGS students and the researchers who supervise their OJT work.

For the initial interviews, the Re-accreditation Committee selected a purposeful sample of 20 students who had done project work (OJT) over the past year. They selected a range of first, second, third and fourth year students and picked students with a diverse range of policy interests including health, education, and national security. Interviews, conducted by the OJT Study Group, followed a structured protocol where the team first asked students to think about the OJT projects they had worked on in the last year. They then asked them to list (a) the kinds of tasks they performed on each project; and (b) what they had learned from each task. Once they had completed this task, the Study Group prompted them to list things they might have learned in terms of three broad categories: methods, substantive knowledge, and project and professional skills. To ensure that they had not missed anything, the Study Group also asked students to list what they hoped to learn from OJT but had not been exposed to yet. Such interviews generated long and diverse lists of what students did and what they learned.

The OJT Study Group used a similar data collection strategy with OJT supervisors. First, the Re-accreditation Committee identified a purposeful set of 20 researchers who worked in a diverse set of substantive areas (e.g., national security, health, education, etc.) and who we knew had frequently and infrequently used PRGS students on their projects. A member of the OJT study group then asked them to list: (a) what kinds of tasks students performed on their projects; and (b) what kinds of learning experiences they hoped students acquired on such projects. The Study Group also prompted them about additional learning associated with methods, substantive knowledge and project and professional skills students might have gained. And finally, the Study Group asked them what kinds of things they hoped students would learn in OJT overall.

Table 1. Core OJT Learning Tasks

Methods
Primary data collection
Secondary data collection
Quantitative data management
Qualitative data management
Quantitative data analysis
Qualitative data analysis
Analytic Modeling
Project and professional skills
Proposal development and writing
Literature review
Collaborating with project members
Critiquing research
Client relations
Writing and synthesizing for project team
Publication of methods and results

To analyze these data from both students and their OJT supervisors, each item mentioned by students or OJT supervisors in the unprompted and prompted tasks was sorted into one of the three categories the Study Group had identified earlier: methods, substantive knowledge, or project and professional skills. The resulting subcategories are shown in Table 1. They identified seven core methodological tasks: primary and secondary data collection techniques, quantitative and qualitative data management, quantitative and qualitative analysis, and analytic modeling. Tasks associated with project and professional skills extended across the research process and included the following additional seven categories: proposal writing, literature reviews, collaboration with project members, critiquing others' research, client relations, creating summaries and syntheses for project consumption, and submitting results for publication.

Sorting the items associated with learning on substantive topics proved to be more difficult than identifying the core methodological and professional skills learned. Table 2 outlines the broad range of substantive areas where students have worked or would like to work. The list was developed by the Re-accreditation Committee after reviewing results of the interviews. Not surprisingly, many of the substantive subcategories correspond to those covered by RAND's core business units – Health, Education, Labor and Population, Civil Justice, Infrastructure, Safety and Environment, and Defense and National Security.

Table 2. Core OJT Substantive Learning Areas

Health	Infrastructure, Safety & Environment & Other
Health Econ, Finance & Organization	Energy
Healthcare Quality Assessment & Improvement	Environment & Climate Change
Health Promotion & Disease Prevention	Transportation
Global Health	Infrastructure (not energy or transportation)
Military Health	Technology
	Space
Education	Criminal Justice
Preschool	Drug Policy
Primary Education (K-12)	Safety/Policing
Secondary Education	
	Defense & Security
Labor & Population	National Security & Defense
Aging & Retirement	International Security and Defense
Manpower & Workforce issues	Logistics/Resource Management
Child & Family Policy	Military Acquisitions and Technology
	Military Manpower
Institute for Civil Justice	
Civil Justice	International
Market Regulation	Economic Development
Corporate Ethics & Governance	International Relations

Measuring and Monitoring OJT Learning

Currently, the only mechanism for monitoring student OJT experience is through the hours that students bill to each project. While this mechanism informs PRGS about who students are working for and how much they are working, PRGS knows little about the quality of the experience from either the student's or supervisor's perspective. The lack of a more formal review process makes it difficult to: (a) track progress in learning over time – either at the individual or aggregate level; (b) make systematic comparisons across students and their cohorts; (c) assess to what degree students are fulfilling the expectations of their OJT supervisors and to what degree OJT supervisors are meeting the learning needs of the students; and (d) identify areas for quality improvement in the OJT experience.

Pilot Student OJT Survey

To address these issues, the Re-accreditation Committee decided to pilot a self-administered, web-based self-assessment tool so PRGS students could report what and how much they learned on each of their OJT experiences. We hoped the pilot project would give us a sense of how well such a monitoring system might work in producing useful data and would assist us in determining the feasibility of implementing it on a school-wide basis.

The long-term goal of this survey is to collect information from all students about the types, amount and quality of learning through OJT to augment the existing mechanisms in place for monitoring OJT at the individual and program level.

The pilot survey was designed by the OJT Study Group. The web-based survey asks students about learning from their OJT projects during the previous fiscal year. Students report each of the projects they worked on (up to 4 individual projects and a "catch-all" for any additional ones). The list of methodological and professional skills that emerged from the interviews with students features prominently. In all, 14 skills were listed, under the headings Project Initiation & Preparation, Project Activities & Management, and Post Project Activities.

The OJT learning survey was pilot-tested on all 19 third-year students. They were asked to provide us with information related to the OJT they completed in their second year of the program. We chose this cohort because students in their second year typically work on a broader range of projects than other cohorts. Also, the selected cohort represented a good cross-section of the student body. Of the 19 students, there were 6 women and 13 men, 6 international students and 13 students from the U.S. We felt this diversity would be valuable for testing the degree to which the survey could capture the fullest range of experience. Sixteen third-year students completed the web-based survey over a 10-day period (3 members of the third-year class were unavailable to take the survey at the time of testing). On average, students took approximately 15 minutes to complete the survey with times ranging from 5 to 30 minutes. The survey, since this was a pilot test, also included a section where students were asked to give their feedback to aid further development of the survey instrument.

On the survey, students were first asked to rate their level of proficiency for each of the 14 learning skills identified from the semi-structured interviews. Students rated their level of

proficiency in each skill as of the beginning their second year (i.e., in October 2007). Their choices were: High, Medium, Low or No Proficiency. Next, they were asked to identify up to a maximum of 4 OJT projects in which they participated during Fiscal Year 2008 (October 1, 2007 – September 28, 2008). For each OJT project they identified, we asked them to report which of the 14 learning skills the project had required and how much they learned with respect to each. Students who had participated in more than 4 OJT projects during the fiscal year were asked to treat all their other OJT experiences as if they were a single project and report the same information.

To track the extent to which students' work on OJT projects was a source for improving their substantive area knowledge, students were also asked which substantive areas their OJT work involved. As with the skills list, students were asked whether each project involved any of 30 substantive topics listed, and if so, how much they learned about each subject covered. Finally, students were asked which substantive area listed most closely relates to their area of policy specialization. They were provided the option of suggesting additional substantive areas for the list if they did not find their topic on the list provided.

The survey produced a complex set of relational information on students, their OJT projects, core learning skills and substantive knowledge. By applying descriptive analysis techniques to these data, we found we could better understand how the kinds and amounts of learning were distributed across projects and students.

The OJT Study Group analyzed the data at both the program and individual levels. At the program level, for example, we were able to address the following issues, as experienced by the student at that particular point in their PRGS career:

- What kinds of learning opportunities (in terms of core skills and substantive areas) do students report being exposed to during their OJT experiences?
- How much do students report having learned in each of the core skill sets and substantive areas?
- How are the kinds and amounts of learning opportunities distributed across OJT projects and across students? For instance, to what degree are high-learning projects concentrated among few students or a few projects or does everyone have at least a few very good learning opportunities?

At the individual level, we were able to address the following issues, as measured at that particular point in time in the students' PRGS career:
- What are each student's strengths and weaknesses in terms of their core learning skills (as described by their own reports of proficiency)?
- To what degree is the student making progress toward augmenting their skill sets (breadth)? Or are they building on their existing strengths (depth)?
- To what degree has a student's OJT experience allowed them to learn more about their area of policy specialization?

Results of Pilot Survey

In all, the 16 students reported on 54 specific OJT projects and 12 "aggregated" projects (for any projects completed in addition to the specific ones reported). More than half of students reported working on 5 or more specific and aggregated projects in Fiscal Year 2008, with an overall mean of 4.125. Below, we report of some of the more illustrative findings from the pilot study.
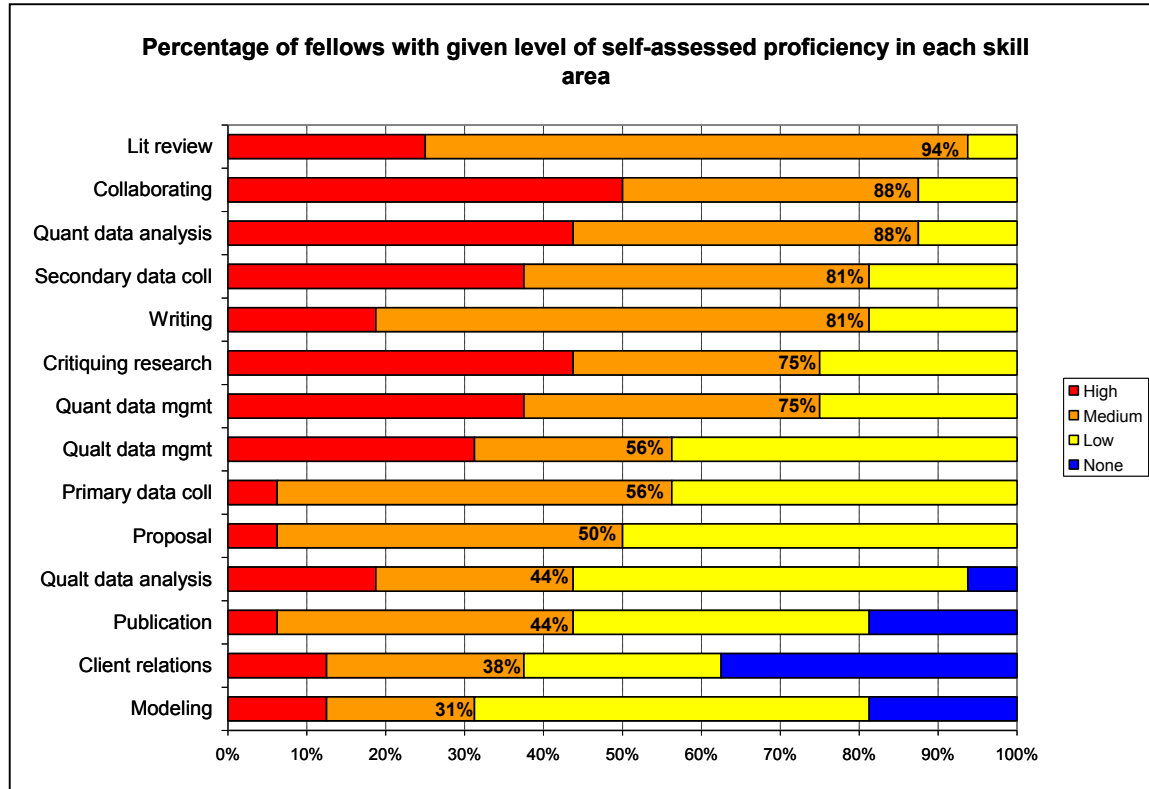

Figure 1. Students' Self-reported Proficiency in the 14 Core Learning Skills

Figure 1 shows students' self-assessments of their proficiency in the 14 core learning skills. Students felt most confident in skills related to conducting literature reviews, collaborating, quantitative data analysis, secondary data collection, and writing, with over 80% of the students rating their proficiency at medium or better. They felt least confident in the skills related to modeling, client relations, publications, qualitative data analysis, and proposal writing and development, with less than half rating their proficiency at medium or better. Thus, the display in Figure 1 is helpful for guiding OJT priorities. On the one hand, it suggests that more effort will need to be put into building skills at the bottom of the chart by increasing the number of students who report at least low or medium levels of proficiency. On the other hand, it also suggests that PRGS might want to exert additional effort encouraging depth of experience, thereby moving students from medium to high proficiency in areas such as literature reviews and writing skills where less than 25% of students described their proficiency as high. It is important to recognize that the students' proficiency in the 14 core learning skills will change over the course of their PRGS career.

Figure 2. Students' Self-reported Exposure and Learning Related to the 14 Core Skills
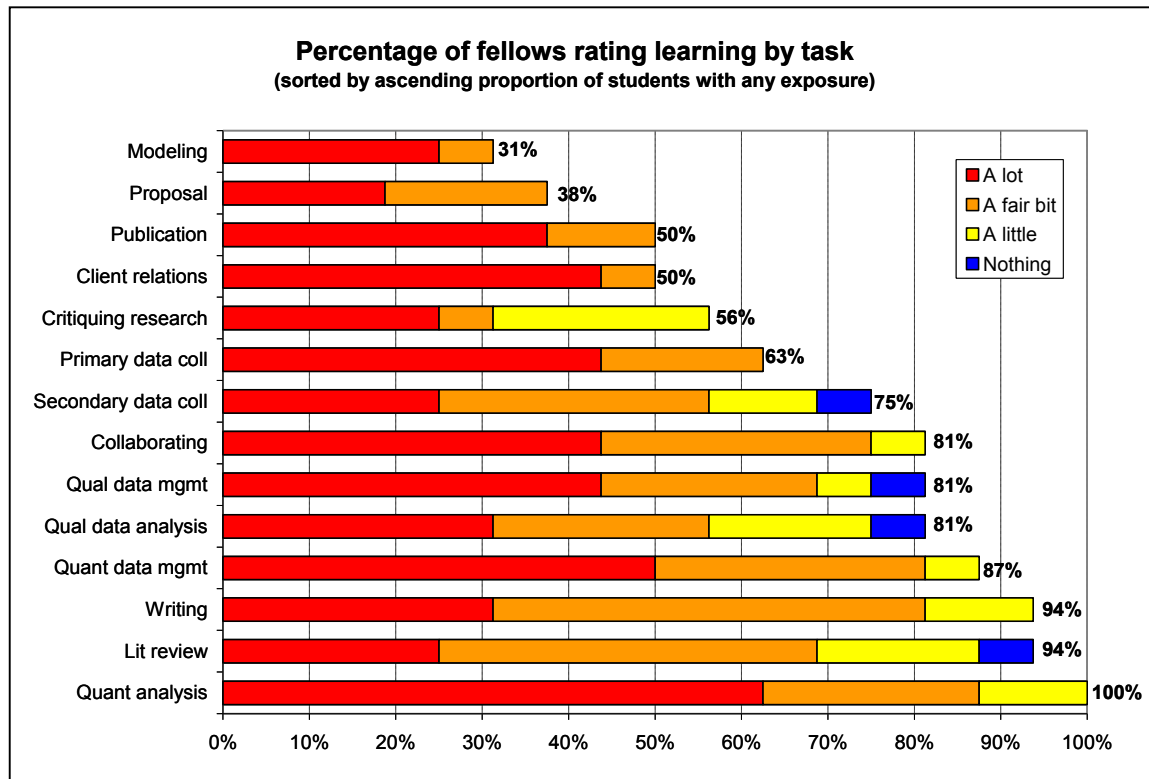
Percentage of fellows rating learning by task
(sorted by ascending proportion of students with any exposure)

Task	Any exposure
Modeling	31%
Proposal	38%
Publication	50%
Client relations	50%
Critiquing research	56%
Primary data coll	63%
Secondary data coll	75%
Collaborating	81%
Qual data mgmt	81%
Qual data analysis	81%
Quant data mgmt	87%
Writing	94%
Lit review	94%
Quant analysis	100%

Legend: A lot, A fair bit, A little, Nothing

Figure 2 shows the proportion of students who reported any exposure to the 14 core learning skills during their Fiscal Year 2008 OJT experiences and whether they reported learning a lot, a fair bit, a little, or nothing. Fifty percent or fewer reported that they had a chance to model, work on proposals, publish, or deal with clients across their year's worth of OJT. In contrast, over 90% of the students reported having had an opportunity to write-up internal memos and findings, conduct a literature review and be involved in

some sort of quantitative analysis. It is interesting to note that in the four skill areas that students were least exposed to (i.e., modeling, proposal writing, publication and client relations) all of the students who had been involved with these tasks reported having learned a lot or a fair bit. Further, those skills which relatively few students had had the chance to utilize in their OJT projects were the same skills in which students had reported the lowest proficiencies.

PRGS is still considering whether to require all fellows to obtain proficiency in each of the 14 skill areas we have identified. We do know that for the skill areas our Faculty Committee on Curriculum and Appointments (FCCA) identifies as important we will have to follow a 2-step intervention process. First, PRGS will need to determine how best to increase students' exposure to these skill sets in their OJT projects over the course of their PRGS career. Second, we will need to determine how best to improve the amount of learning that students gain once they are exposed.

In addition to asking students about core learning skills, the survey also asked them about the substantive topics their projects covered. As Figure 3 shows, fifty percent of students were involved in at least one project that related to National Security and Defense and the same number worked on one or more projects related to economic development. In contrast, topics like drug policy and early childhood education were rarely part of a student's portfolio, as the graph below indicates. Relative to students' exposure to the range of tasks involved in research projects, their exposure on substantive topics need not be quite as broad. However, developing some breadth while exploring across RAND's many research topics is one of the unique opportunities PRGS provides. The OJT Study Group's ability to track how students trade off substantive breadth and depth over the course of their time at PRGS will help us to understand the strategies students employ to prepare for their careers ahead. It may also help us to identify key substantive policy areas where PRGS may need to engage in fundraising in order to bolster work opportunities in an important policy area.

Figure 3. Students' Self-reported Substantive Area Learning Ranked by Exposure
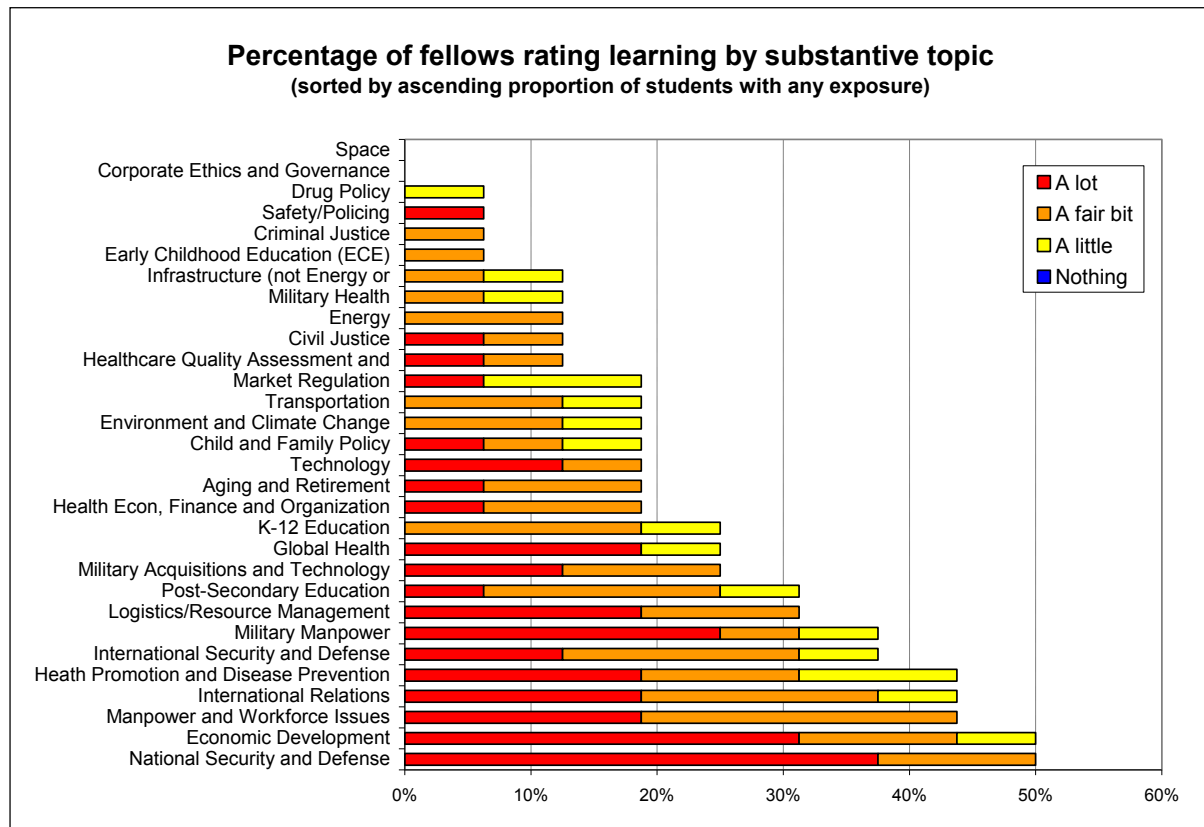
The PRGS curriculum is designed to teach the tools of policy analysis. In elective courses these tools are sometimes taught through the lens of a particular policy area. But such courses are the exception rather than the rule. Instead, students are expected to obtain substantive policy

knowledge through exposure to RAND project work in their chosen areas of interest as well as their dissertation research. To ensure that one of the learning objectives of OJT is fulfilled, students are required to declare a policy area specialization. To meet this requirement they must complete 50 days of OJT related to a particular substantive area.

Figure 4. Number of Students with OJT Projects that Match their Policy Area Specialization by the Number of Related Projects.

Number of students with OJT projects that match policy area specialization, by number of related projects

# of students

# of OJT projects in policy area specialization
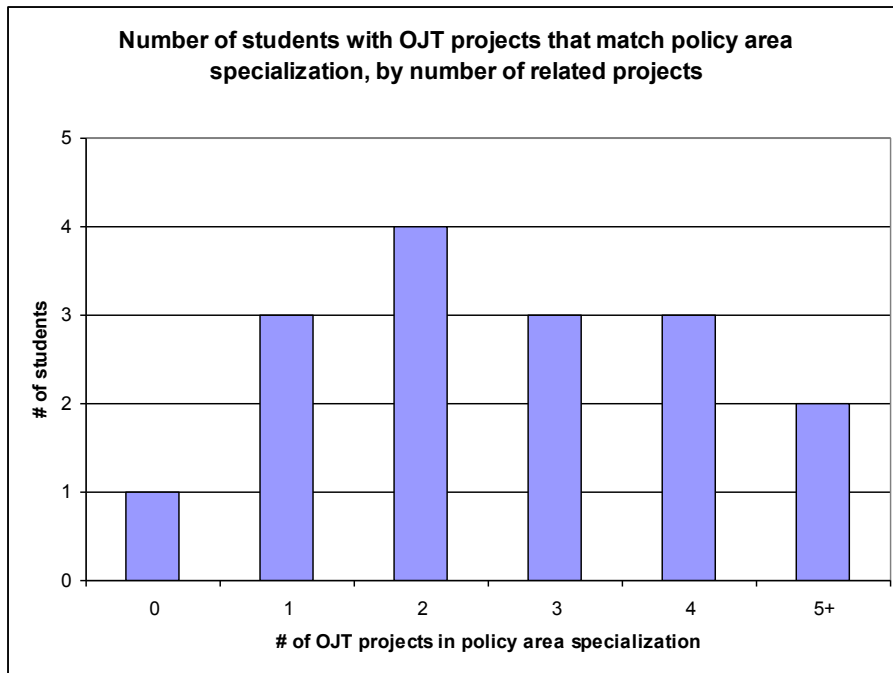
In the pilot survey we sought to determine the extent to which students' OJT projects involve a substantive topic that matches their policy area specialization. Figure 4 shows that all but one student worked on at least one OJT project that involved their declared or intended policy area specialization. In fact, half of the students surveyed worked on 3 or more projects in the previous fiscal year whose substantive topic was the same as their policy area specialization.

Of course, Figure 4 does not indicate how much time they spent on each topic or how much they reported learning. For the most part, however, students in their second year were able to find work that related to the topic in which they wanted to specialize. It is encouraging to note that for three quarters of the students at least half of their OJT projects (whether they had 2 or 5) involved the same substantive area as their declared or intended policy area specialization. The idea that students will be exposed to and learn about their substantive areas through OJT opportunities appears to be working as intended, at least according to the pilot study.

The OJT Study Group has also employed qualitative analysis methods to develop a better understanding of the patterns among students and skills.

Figure 5 displays the relationships between all 66 OJT projects and the 14 core learning skills. Red dots represent skills and blue boxes represent individual OJT projects. Each number associated with the OJT projects represents the student who participated in the project. The thickness of the lines represents the amount of learning the student reported on that project where the thicker the line, the more learning was reported. [The figure is literally a visualization of the OJT Project–by–Core Skills data matrix.]

Figure 5. Visualization of OJT Projects and the Core Learning Skills Students Report being Exposed to While Participating in Such Projects
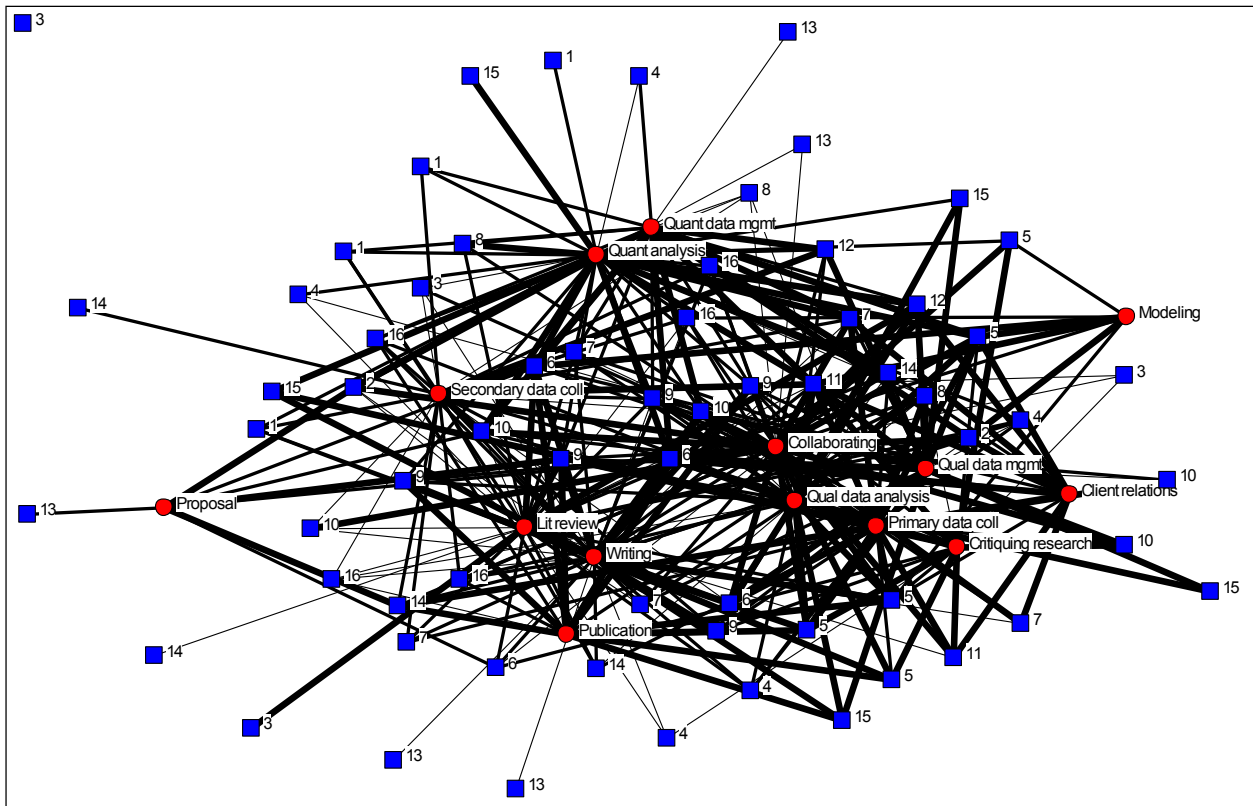

Figure 5 also provides a sense of the types of OJT projects students are exposed to. The projects on the bottom left side of the figure are those that are primarily related to tasks such as proposal writing, literature reviews, writing for project members and publications. Projects on the upper left portion of the figure are more strongly associated with quantitative analysis and data management and secondary data collection. Projects on the right side of the graph are associated with qualitative data collection, analysis and management as well as with critiquing research and collaborating. Projects in the center of the figure are associated with multiple groups of tasks.

Figure 6 shows a visualization of students in relation to the skill sets they report learning. Here, blue boxes represent the 14 core learning skills and red dots represent the 16 students. The presence of a line indicates that the student reported at least a little learning about the skill. The thickness of the line indicates the maximum amount of learning they reported.

The figure suggests that students in the bottom left (1, 13, 3, 16) are primarily acquiring skills related to quantitative data management and data analysis, secondary data collection and literature and collaborating. Those students in the upper left (12, 7, 4, 8, 15) are reporting learning both quantitative and qualitative skills (qualitative data management and analysis and primary data collection). Finally, those students in the middle (14, 10, 11, 5, 9, 6, 2) report learning quantitative and qualitative and are acquiring skills related to client relations, publication, critiquing research and modeling.

Figure 6. Visualization of Students and the Core Learning Skills they Report Learning while Participating in OJT Projects
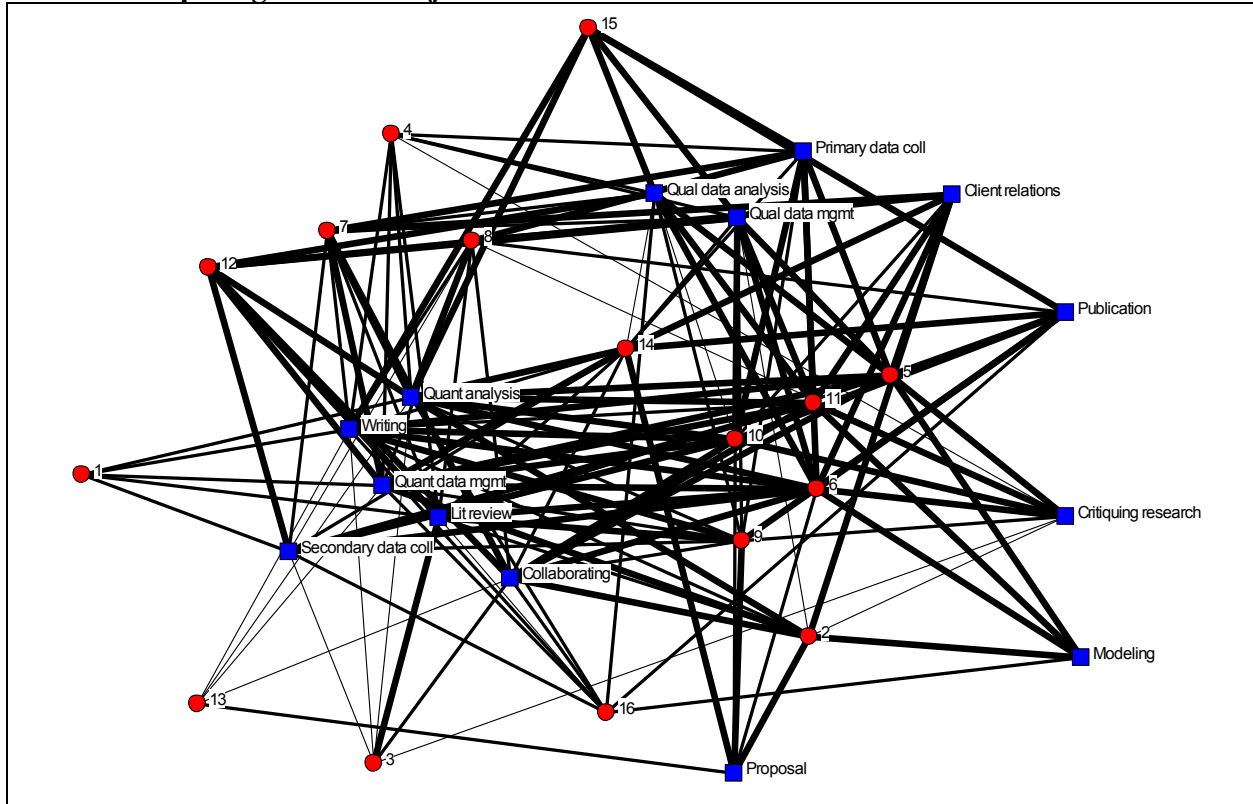
Incorporating OJT Learning Measures into Ongoing Student and Program Assessments

The Re-accreditation Committee believes data like those obtained in the pilot survey will allow us to improve the effectiveness of the OJT experience and enable us to more directly shape this learning environment that complements our academic framework. For instance, we can use this visualization tool to look at an individual student's projects or to look at those projects led by a particular individual to see what skills are being taught. The ability to aggregate and disaggregate the data in this manner is what makes this a useful tool. A number of lessons and limitations emerged from this process, that we will use in the next stage of developing a system to monitor and evaluate learning through OJT.

First, we recognized that we would need to be cautious in how we used the self-assessments of skill proficiency. We realized we would not be able to track an individual student's learning by calculating the difference between one year's self-assessment of a particular proficiency and the next year's self-assessment. For example, if a student rated her proficiency in quantitative analysis as "medium" in the first year of the program and rates herself the same rating in the following year, we cannot assume she has failed to learn anything. In fact, she could easily have reported learning a lot about quantitative analysis in several of her OJT projects. Self-assessments of skill proficiency are essentially measuring a combination of students' knowledge about a particular skill set and how confident they are in applying those skills.

Second, the Reaccreditation Committee has come to realize that students' self-reports of having learned something about a particular skill or topic are most likely to be our most important measure of learning. Thus, we plan to administer the OJT survey to the whole student body at periodic intervals. We will need to think carefully about how frequently to report and evaluate learning through OJT. Likely, we will use this data as part of an annual review of student progress. Currently, such reviews happen on an ad hoc basis and focus primarily on those who are clearly struggling with one or more aspects of our program.

In these additional student reviews, we will examine the amount that students report learning in each of the skills and topics to identify any potential problems (e.g., little learning or lack of exposure). Reviewers will look to see what kinds of learning each student is reporting. Lack of learning or learning in narrow bands will be treated as red flags for further investigation.

Additionally, the aggregated data will be used to identify areas for improvement in the OJT program. By merging project data with learning assessments, we will be able to conduct comparisons across RAND research units, skills and cohorts. From this, we can identify whether there are any persistent problems in certain units or among particular tasks. Likewise, we will consider adopting a benchmark for the level of proficiency of each cohort as students enter their second year, which is OJT-intensive.

As some of the figures above highlight, we can see from students' experiences the types of tasks to which students get little exposure and/or fewer opportunities to learn a great deal. PRGS will use this information to target our efforts for continual improvement, in terms of access to and quality of opportunities. We have already identified proposal writing as an area in which students need more exposure. As such we have secured funds to subsidize 2 days of student time which they can offer to a RAND research team in the proposal writing stage. Using the data available for us, we will continue to make targeted efforts such as these to improve learning through OJT.

Going forward, we hope to use this survey (which will be referred to as a "self-assessment") both to collect data and as a means of communicating the program's objectives for OJT. The school leadership's views on learning through OJT have been incorporated into the structure of the self-assessment. In particular, skills to be used and learned through OJT are organized according to the flow of the research process from beginning to end. The skills on which students must rate themselves and their OJT experience relate to methodological tools, substantive issues and project and professional skills. While the program is designed to allow students to determine for themselves the optimal balance of breadth and depth of experience beyond the basic requirements (until such a time when the FCCA decides to change this), PRGS would like to send a clear message about the range of what is possible through OJT. By communicating to students the types of skills they could be learning through OJT (through an annual self-assessment, for example), we aim to help them clarify the skills they need to build and the learning opportunities to do so.

Finally, the semi-structured interviews we conducted with students and their OJT supervisors also proved to be a valuable opportunity for each group to communicate with the school. We

heard from researchers and students alike that they would like more structured channels of communication with respect to OJT.

Theme 2: Classroom Instruction- Teaching Effectiveness

Purpose: *PRGS has recently established standards and expectations with respect to teaching and is developing a process for providing more objective feedback to classroom instructors regarding the effectiveness of their instruction.*

In our self-study PRGS identified support for and evaluation of the effectiveness of classroom teaching as an area where improvement could be made. Nearly all PRGS professors are full-time RAND researchers who elect to teach in addition to their project responsibilities. Professors who teach in the core curriculum typically teach one course every year, while professors who teach electives may teach annually, biennially, or as rarely as every third or fourth year. At PRGS, like at many institutions of higher education, in any given year some of our faculty have been teaching for decades, some have been teaching for 3-5 years and a few are teaching at PRGS for the very first time. Moreover, because of the multi-disciplinary nature of the program our students come into the program with varying degrees of sophistication in and exposure to economics, statistics, and social science methodologies, as well as a wide range of policy area interests. The heterogeneity of their prior preparation means that instructing PRGS students, especially in the courses that comprise the core curriculum, can be very challenging. Taken together, all of these elements make PRGS an institution where appropriate and objective feedback to instructors could have a significant positive impact on the effectiveness of classroom instruction.

At present, the teaching evaluation process consists primarily of two steps: 1) syllabus vetting prior to the start of each course by the Faculty Committee on Curriculum and Appointments (FCCA) and 2) course evaluations completed by students at the end of each quarter. Course grades and performance on the comprehensive exams are also looked at by the PRGS Administration in aggregate as a signal as to whether or not the core instructors are successfully communicating their course material to the majority of PRGS students. No other systematic mechanisms currently exist whereby faculty members are provided with support or guidance on appropriate teaching methods or receive feedback regarding the effectiveness of their classroom instruction. Informal mechanisms do exist, of course, and given the small size of the PRGS program one-on-one meetings by the PRGS Administration with students to solicit feedback on particular courses, and with faculty to provide guidance and support have generally proven effective. However, PRGS believes it is necessary to buttress these informal and ad hoc activities with a more formal and structured process based on clearly articulated standards and expectations. Therefore, we are moving to develop a more explicit and structured process for providing feedback to our teaching faculty on the effectiveness of their instruction and on ways to make improvements. With this goal in mind, the objectives of this self-study are:

> 1) to develop explicit teaching standards and expectations;
> 2) to create a "Best Practices of Pedagogy" handbook to share with all faculty; and
> 3) to study and improve the process of instructor review and feedback.

Developing Teaching Standards and Expectations

The Re-accreditation Committee appointed two of its members, Gery Ryan, the Committee's faculty representative, and Richard Bowman, one of the Committee's student representatives, to a study group to spearhead tasks related to a review of teaching effectiveness. The Teaching Effectiveness Study Group's first objective was to develop an explicit list of standards and expectations for effective teaching.

Initially, the Study Group conducted a preliminary review of relevant literature already available, but quickly decided that the unique aspects of the PRGS program and their own backgrounds as researchers on education issues argued for developing the standards in-house rather than drawing them from the literature. Since the judgment of what constitutes effective teaching ultimately rests with the recipients of the instruction, the next step in the process was to conduct a focus group with students in their first and second years. These cohorts were selected because exposure to coursework is most intensive in the first two years of the program. Two teaching assistants were included in this focus group on the assumption that as supplemental instructors TAs had perhaps the keenest sense of where instructors tended to be deficient and what contributed to both effective and ineffective instruction.

The members of the focus group were asked in general what elements they believed were associated with effective teaching. They were also asked for their thoughts and feedback on 1) improving the evaluation process; 2) the potential merits of videotaping classes; 3) improving class structure and the coherence of courses in a sequence; and 4) desirable teacher behaviors. After some open-ended discussion, the conversation was focused on the four topics indicated in turn. For example, participants were asked, "We are considering videotaping, or recording lectures in some other fashion, what are your thoughts on this?" Later: "How can course evaluations be improved?" And: "In particular, what should professors do to improve their teaching effectiveness?" The focus group discussions were transcribed and the responses were organized into five categories: 1) desirable teaching behaviors; 2) desirable class/course elements; 3) desirable assessment methods; 4) desirable evaluation techniques; and 5) desirable program elements.

Subsequently, these focus group results were discussed with the full Re-accreditation Committee and incorporated into a matrix of teaching expectations. This "Expectations Matrix" categorized PRGS classes as one of three types: 1) lecture, with a focus on methods (pertaining to most core courses and some electives); 2) lecture, with a focus on applying methods in context; and 3) seminar classes (focusing on topical issues rather than analytical methods). For each of the three types of classes the Study Group broke down the desired structures and behaviors for four components of the classroom experience: 1) student-student interaction; 2) student-teacher interaction; 3) classroom teaching expectations; and 4) class structure. This matrix was then presented to the FCCA for their review. The modified matrix, which incorporates their comments, is below.

Class Type:	Lecture - Methods	Lecture – Applied Methods	Seminar / Invited Speakers
Student-Student Interaction	• n/a	• n/a	• Actively moderate discussion • Encourage positive and respectful student interactions
Student-Teacher Interaction	• Speak loudly and clearly • Give positive feedback before negative feedback • Give appropriate and timely feedback for exams and homework • Provide a method for students' questions to be answered outside of class	• Speak loudly and clearly • Give positive feedback before negative feedback • Give appropriate and timely feedback for exams , homework and papers • Provide a method for students' questions to be answered outside of class	• Speak loudly and clearly • Give positive feedback before negative feedback • Give appropriate and timely feedback • Provide a method for students' questions to be answered outside of class
Classroom Teaching Expectations	• Communicate clear expectations • Tie math/theoretical material to policy implications • Balance the methods of instruction (e.g. PowerPoint, board writing, projects) • Provide notes in close proximity to the lectures • Elaborate on the written material with classroom instruction • Use terminology consistently • Use relevant and accurate high-quality examples in instruction • Scaffold lecture content to what students know	• Communicate clear expectations • Tie substantive knowledge to tools used in the field • Balance the methods of instruction (e.g. PowerPoint, board writing, projects) • Provide notes in close proximity to the lectures • Elaborate on the written material with classroom instruction • Actively engage students • Scaffold lecture content to what students know	• Communicate clear expectations • Tie substantive knowledge to tools used in the field • Actively engage students
Class Structure	• Arrive promptly and finish promptly • Required readings should be integrated into class • Provide some mechanism to encourage reading of all required readings • Be realistic about time available to students • Clearly describe what students should know or be able to do after taking the course (i.e. purpose or goals of course) • Grade transparently • Provide mechanism(s) for receiving feedback from students • Class content should be linked to relevant past and/or future classes • Provide suggested solution set for exams	• Arrive promptly and finish promptly • Required readings should be integrated into class • Provide some mechanism to encourage reading of all required readings • Be realistic about time available to students • Clearly describe what students should know or be able to do after taking the course (i.e. purpose or goals of course) • Grade, including projects, transparently. • Provide mechanism(s) for receiving feedback from students • Class content should be linked to relevant past and/or future classes	• Arrive promptly and finish promptly • Required readings should be integrated into class • Provide some mechanism to encourage reading of all required readings • Be realistic about time available to students • Clearly describe what students should know or be able to do after taking the course (i.e. purpose or goals of course) • Grade transparently • Provide mechanism(s) for receiving feedback from students • Class content should be linked to relevant past and/or future classes

As can be observed in the chart above, many of the expectations for effective teaching are shared across class types. These include giving appropriate and timely feedback, providing an option

for students' questions to be answered outside of class, and providing some mechanism to encourage students to read all of the required readings. Naturally, some of the expectations are specific to a particular type of class. For instance, professors who teach seminar-style classes, especially those who base a large percentage of the grade on class participation, need to pay attention to student-to-student interactions and actively manage and moderate the discussion to ensure an effective learning environment for all.

This matrix then formed the basis for the creation of a simplified checklist for course vetting. Each element of the "Expectations Matrix" that related to teaching methods or course structure was translated into a one-sentence affirmative statement. Together these form the Checklist for Course Review which is designed for the FCCA to use while vetting courses prior to their inclusion in the curriculum. Each statement such as "Professor describes what students should know or be able to do after taking the course" is intended to prompt the members of the FCCA to either look for an element on the course syllabus or to ask the professor proposing the course how s/he intends to address the expectations. The Checklist below was presented to the FCCA for their review and feedback.

Checklist for Course Review

Teaching Expectations

☐ Professor has relevant experience with the course topic.

☐ Professor demonstrates awareness of what students entering the class will know, or a method by which to discover and incorporate that knowledge into teaching.

☐ Professor describes how this course fits into the PRGS curriculum, including past and future courses.

☐ Professor describes what students should know or be able to do after taking the course.

☐ Professor describes the connection between methods and policy area in the course.

☐ Professor has considered a method for encouraging equitable participation in class.

☐ Professor has considered a method for encouraging attendance in class.

☐ Professor has considered a method for ensuring required readings are completed.

☐ Professor has considered a method for dealing with shirkers in group projects, if applicable.

Course Structure

☐ Course fits into a methodological concentration. (Quantitative methods/ Economics/ Political and Social Science)

☐ Required reading is appropriate in content and amount for the course unit designation.

☐ Overall workload is appropriate for the course unit designation.

☐ Course syllabus contains as much information as appropriate, including expected class topics, office hours, location, readings, TA, and brief description of the final paper or project, if appropriate.

☐ The course has a chance of attracting some students who wish to enroll in it.

The Checklist is now being used on a trial basis at two stages of the course development process. First, it is shared with faculty members who are in the process of developing new courses to provide them with a clear indication of what information PRGS requires professors to include in

their syllabus as well as to give them an early indication of situations they need to be prepared to respond to in the classroom.

The Checklist is also being employed as planned by the FCCA when they vet new or redesigned courses. While many of the elements, such as "Identifying a method for ensuring required readings are completed", have been part of the review and approval process for many years, other issues addressed by such statements as "Professor has considered a method for dealing with shirkers on group projects" have not been previously raised by the FCCA in a consistent manner. These newer additions have generated lively discussions about the most appropriate and effective methods to use in given circumstances. The FCCA does not require that a professor decide at the meeting which method they will be using to address these concerns, only that they show evidence that they have thought about the problem. How each professor chooses to deal with each possible situation is left up to the professor's discretion.

The next steps are to get additional feedback on these new standards from our faculty and to communicate the content of the Checklist and the more detailed Expectations Matrix to faculty beyond those who are proposing new or revised courses. Our intent is that these standards will be distributed to all current and prospective PRGS instructors, regardless of their teaching history within the program, and that they will serve as a benchmark for both classroom observations and student responses on course evaluations. In an effort designed to create a regular avenue for communication between the PRGS administration and the faculty, Susan Marquis, the recently appointed Dean of PRGS, has instituted twice-yearly faculty luncheons. Therefore, in addition to sending each faculty member an electronic version of the Checklist and the Expectations Matrix, PRGS will also place this on the agenda as an item for discussion at our next faculty lunch in fall 2009. PRGS will also develop a process to allow for a periodic updating and amendment of the Checklist.

Creating a "Best Practices of Pedagogy" Handbook

Once standards and expectations have been clearly defined and communicated, the next step in improving the effectiveness of teaching is to ascertain what teaching strategies and practices have proven most effective in the PRGS environment in the past. At present, the options for dealing with each possible classroom situation - such as encouraging attendance, ensuring students are completing the required reading and dealing with group project shirkers - are communicated orally by members of the FCCA to the professor whose new syllabus is under review. To rectify this situation, PRGS plans to develop a "knowledge base" of instructors' methods of dealing with the various scenarios listed in the checklist. The intention is to gather this accumulated wisdom from the FCCA, past and present classroom instructors, teaching assistants, and students and compile it into a "Best Practices of Pedagogy" handbook which can be shared with all PRGS professors.

The Handbook, which will be available in both an online as well as a hardcopy version, will also provide guidelines for how to assess an appropriate workload based on the course unit designation (full or half-credit), how to give appropriate and timely feedback and make suggestions for setting office hours and grading transparently among other items. Finally, the Handbook will provide an outline of the PRGS core curriculum and a description of each

methodological concentration to enable instructors to better assess where and how their course fits into the PRGS curriculum. Our intent is that new, as well as continuing, instructors can review what other instructors have done successfully with our student body, and modify these methods where necessary to fit their teaching style.

PRGS will devise a process for periodically soliciting new input to the Handbook. We envision adding a question to the student course evaluations to solicit this input on effective teaching strategies and practices from students. We are discussing the best methods for obtaining this input from faculty. The Assistant Dean for Academic and Student Affairs will be responsible for maintaining and updating the Handbook which will be added to the Faculty Policies and Procedures Manual (see Exhibit C in Appendix).

Improving the Process for Instructor Review and Feedback

PRGS currently measures teaching effectiveness though student grades, performance on the comprehensive exams at the end of the first year, and teaching evaluations. We recognize the need to augment these measures and to more consistently track and analyze the data we currently gather. Below we lay out our ideas for improving our current process of instructor review and feedback. We also believe that teaching effectiveness will be reflected in the project work (On-the-Job Training, OJT) PRGS students do and in the quality of their dissertations. We examine these two important elements of the program in separate sections of this self-study.

Student Evaluations

The third objective of the self-study on teaching effectiveness is to improve the process for assessing classroom instruction and providing feedback to professors. At present, student evaluations are the primary method of identifying pedagogic quality – although the educational environment at PRGS is still sufficiently small and personal that fellows may raise specific concerns to the Administration either individually or collectively outside of the formal evaluation process. In 2006, the course evaluations shifted to an online format that can be completed outside of the classroom thereby providing fellows the necessary time to craft thoughtful comments, as well as improving anonymity – a particular concern for smaller classes. On the downside, response rates have dropped significantly, and we are currently re-examining whether or not to return to in-class evaluations or otherwise compel completion.

The current course evaluations cover ten areas and consist of 28 multiple choice questions and one open-ended question (see Exhibit D in Appendix). The primary areas of evaluation are: course organization and planning, communication, faculty/student interaction, assignments and grading, course outcomes, and TA sessions. The Administration reviews and records the course evaluations quarterly, and the instructors are provided with summary results for multiple choice items and a list of comments as they appear in the evaluations. If there is a consistently problematic pattern of feedback described in the evaluations, the faculty member meets with the Assistant Dean or the Dean. The Administration discusses the concern with the faculty member and together they reach agreement on the path to improvement. If the course requires reworking, course development funds are provided to the professor.

Although professors have generally proven responsive to this type of intervention, the relative infrequency with which most professors teach at PRGS means that the overall response time may be slow. Under the current system, unless students report a problem during the course itself, the school has no formal way of monitoring teaching effectiveness until the quarter (and the course) is over. Thus it may take several years for a pattern to emerge, and intervention to occur. The Teaching Effectiveness Study Group is in the process of brainstorming options for mid-course evaluations to enable faster response

In the meantime, PRGS is focused on improving our existing student evaluations, which pre-date the development of explicit teaching standards. While they have been helpful in the past, as a result of the changes we are making in the teaching standards and expectations, we plan to revamp our evaluations over the next six months. Our goal is to include questions in our evaluation that assess how well a professor is doing relative to the standards we have set. As mentioned previously, we also plan to add an open-ended question on whether or not the professor in question employed any teaching methods that the student found particularly effective. This question will then feed into the Best Practices Handbook. Because we already have problems getting students to fill out the existing evaluation, PRGS recognizes we will have to be judicious in how many questions we add. The Re-Accreditation Committee is in the process of formulating a process for revising the evaluations. Our goal is to have the revised forms ready for pilot testing during the fall quarter 2009.

While a student evaluation-based feedback process is a common practice at universities, it has not proved to be highly effective at PRGS. Class sizes are small and many fellows have relationships with their instructors either as mentors or colleagues outside the classroom. This dynamic may influence fellows when they evaluate courses; it can be difficult for fellows to dissociate pedagogy from course content and instructional skill from analytical reputation. In addition, as mentioned previously, since moving to online evaluations the response rates have dropped significantly. In the face of this dynamic, PRGS is planning additional ways to evaluate classroom instruction. One option which we have proposed is direct classroom observations.

Classroom Observations

Classroom observation is a widely practiced method of monitoring and evaluating instructional quality. Observation systems come in many flavors. Observers can come from inside or outside the system. In the case of PRGS, inside observers could include school administrators, other teaching faculty, members of the FCCA, or faculty who have received the PRGS Huddleson Teaching Award – an annual prize which is given alternate years to the best core instructor and the best elective instructor based on a vote of the student body. Videotaping is another method of observation and has the benefit of allowing instructors to critique themselves.

Whatever methods we ultimately select, our intent is to use the observations as a constructive mechanism rather than a "report card"-type critique. While the act of observation may itself raise the quality of instruction in some courses, it is equally likely to create an environment in which pedagogical acumen becomes viewed as important to instructors as analytical skill. Mid-course observations may also allow professors to correct or improve teaching techniques sooner than relying on end-of-course student evaluations alone.

PRGS had planned to implement classroom observations prior to the Capacity and Preparatory Team visit. However, the arrival of a new dean in January 2009 caused us to postpone this activity for a few months. Dean Marquis wanted to become better acquainted with the faculty before observing their classrooms. Over the next year, PRGS will design and implement a system of classroom observations that will be utilized 1) to ascertain the teaching effectiveness of new instructors and to provide prompt feedback and guidance as needed; 2) to assess how effective seasoned professors are at engaging students at all skill levels and backgrounds; and 3) to observe and document best practices. Given these purposes, PRGS Administration will prioritize the observations choosing to first observe our newest teachers, followed by professors whose course evaluations indicated some struggles, and finally professors whose course evaluations indicated they were doing something exemplary in the classroom.

Incentives and Rewards for Effective Teaching

PRGS faculty teach because they like to teach and enjoy the interaction with students. But they do this in addition to their full-time jobs as RAND researchers. PRGS pays them honorarium above and beyond their base salary. They have no opportunity for tenure and, as a consequence, PRGS does not have the opportunity to contribute to their annual review or affect their base salary. Faculty rates are fixed and are paid out based solely on the type of class—core or elective—and the length of the class—5 or 10 weeks. There is no additional pay given to faculty who have taught for extended periods of time or who have proved to be particularly effective in the classroom.

The only mechanism PRGS has currently to monetarily reward faculty who are exemplary teachers is the annual Huddleson Teaching Award referred to above. This award, which is worth $5000 per year is given to a professor selected by the students. As PRGS moves forward to implement the Teaching Effectiveness Standards, we believe we will also have to find additional ways to reward those professors who consistently demonstrate their commitment to teaching excellence. In the short-term this might involve simply redirecting all or part of the Huddleson Teaching Award. In the longer term, we may need to develop additional reward mechanisms. We will raise this issue at our next all-faculty luncheon in fall 2009.

Theme 3: Dissertation Quality

Purpose: *PRGS intends to refine and clarify dissertation requirements and quality standards for PRGS dissertations, a key indicator of student learning, and to monitor and measure progress towards those objectives on an individual and programmatic level.*

Learning Objectives and the Dissertation

At PRGS we have identified five key educational objectives of our program. We expect all five of these objectives will be met and demonstrated, at least in part, by each student through research and writing of the dissertation. These key educational objectives are to:

1. Understand the purpose of policy analysis and its place within the political process;
2. Master the basic methodologies used in policy research: economic analysis, quantitative methods, and social and behavioral science methods;
3. Acquire more in-depth knowledge in one of these three methodological fields;
4. Obtain a basic understanding of a specialized substantive field of public policy; and
5. Develop project and professional skills relevant to the selected field of policy analysis.

This self-study is designed to ascertain to what extent students are demonstrating these objectives in their dissertations, refine and clarify dissertation requirements and quality standards, and to devise better procedures for tracking their achievement.

Changes to the PRGS Program and the Dissertation Process since 1997

PRGS last conducted a dissertation quality review in 1997. Since then, the program has undergone significant change, much of which was designed to bolster student learning and improve the quality of PRGS dissertations. Some of these changes have been in place for several years while others have been implemented more recently. Examples include:

1. In 2006 the core curriculum was reworked and consolidated into the first year. Previously, students took two years' worth of required coursework before sitting for comprehensive exams. In the new system, comprehensive exams are held after only one year's worth of required courses. The second year of coursework focuses on acquiring more in-depth knowledge in a methodological field and increasing issue area knowledge. The primary reason for this consolidation was to enable students to focus on their dissertations earlier in their PRGS career.

2. In addition, PRGS developed formal analytic concentrations in three areas: economics, quantitative methods and social and behavioral science methods. Each student must declare an analytic concentration by November of their second year. The formation of these analytic areas had numerous effects. First, they helped PRGS to be more strategic in terms of the kinds of elective courses that the program offered. Second, they increased the number of electives from which students could choose. And third, by requiring students to declare a concentration early in their second year, students focus more quickly on the selection of their dissertation topics.

3. Under the new curriculum, students are now required to enroll in a non-credit dissertation workshop in their area of analytic concentration. (Previously, PRGS offered just one generic dissertation workshop.) During their second year in the program, students are expected to select one of three monthly dissertation workshops (economics, quantitative methods, or social science methods) depending upon the primary methodology they plan to use in their dissertation. The purpose of the workshop is to serve as a bridge between classroom

instruction and the dissertation by giving them guidance in the practical skills they will need to launch and then successfully complete this piece of independent research. Attendance in one of these workshops is mandatory and each student is required to select their dissertation chair and develop a dissertation plan -- to include topic, data requirements, and potential funding sources – before the workshop faculty will declare the student has completed the workshop. These requirements are discussed in greater detail in the Dissertation Quality section of this paper.

4. The guidelines for dissertation committee composition have been slightly revised in the last few years to allow OJT supervisors to serve as committee chairs and to encourage the inclusion of qualified scholars and practitioners from outside RAND as full committee members. In the past, PRGS has required an "outside reader" of a near-final draft of the dissertation. This requirement is now waived if the student has an outside committee member. Moreover, should the student opt for an outside reader, s/he must read and comment on both the proposal and the final dissertation. The broadening of the pool from which dissertation committee members are drawn and the inclusion of the outside reader earlier in the process are both designed to strengthen the quality of the final product. In conjunction with this practice, PRGS also increased the payments to Dissertation Chairs from $2000 to $3000 to acknowledge the role they are expected to play in providing guidance to those students whose committees they are chairing.

5. The program has also introduced revised eligibility requirements for proposing a dissertation to ensure that each student is well-grounded in the tools of policy analysis and has a solid understanding of their chosen policy field. To be considered eligible to propose their dissertation in a scheduled proposal defense, students must show that they have:

   - Satisfactorily completed all core courses
   - Satisfactorily completed first year review
   - Declared, but not necessarily completed, an analytic concentration
   - Completed a policy area specialization which consists of:
     - At least three substantive policy seminars
     - At least 50 days of OJT in their chosen policy area
     - At least one independent study in their policy area
   - Successfully completed the dissertation workshop

6. Since 1997, PRGS has made great strides in securing funds to support students' work on dissertations. While most PRGS dissertations continue to be funded by and closely linked to RAND project work, beginning in 2002 with a multi-year $350,000 pledge from a member of the PRGS Board of Governors, PRGS began to provide dissertation awards on a competitive basis with the goal of catalyzing superb policy research on some of the most intractable problems facing the world. In 2004, PRGS awarded three dissertation fellowships of $42,500 each for a total of $127,500. Four years later in 2008, PRGS awarded just over $400,000.

Twenty-two fellows received grants ranging from $5,000-$47,500 to support their dissertation research and five students received grants of $2375-$2500 to support the development of their dissertation ideas. These grants were made possible by annual gifts and contributions to the PRGS Endowment by nine different individuals (see Exhibit E in Appendix for list of 2008 Awards).
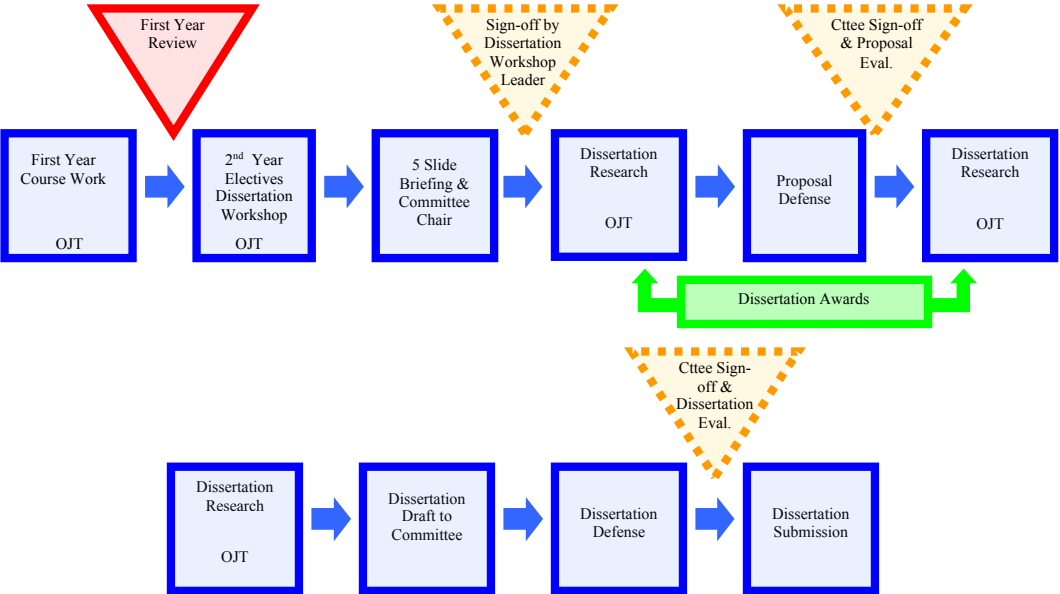
Dissertation Quality

We believe that the dissertation and the process by which students produce it are critical components of PRGS's learning objectives. We have chosen to focus our assessment of dissertation quality on the explicit milestones directly connected to the dissertation process including dissertation workshops, mentoring, and clearer communication of standards. To conduct this self-study, the Re-accreditation Committee appointed a Dissertation Quality Study Group which included Gery Ryan, our faculty representative, Rachel Swanger, Associate Dean, who also serves as the Quality Assurance Manager for PRGS, and our two student representatives on the Re-Accreditation Committee, Richard Bowman and Sarah Outcault.

The group began its work by focusing on relatively simple and straightforward changes to existing processes and on establishing multiple means of communicating information on existing and revised processes to students and other stakeholders. This included establishing more explicit objectives and requirements for the dissertation workshops and clarifying the dissertation requirements for all cohorts of students as described below. The final and largest task for this study group is to establish explicit dissertation standards for both the process of completing the dissertation and the final product.

A flow chart which lays out the major milestones in the revised dissertation process along with points where interventions will take place is shown below.

Figure 1. Dissertation Process

Standardizing Dissertation Workshops

Working with the Dean, the Dissertation Workshop leaders and the Faculty Committee on Curriculum and Appointments (FCCA), one of the first steps the Dissertation Quality Study Group took was to standardize the minimum requirements for the Dissertation Workshops. While each workshop instructor may augment the content of their specific workshop, they are expected to ensure that all fellows:

- Develop an understanding of the components of the dissertation;
- Develop a research topic and research questions;
- Understand the feasibility of their topic including data sources and funding potential; and
- Secure a committee or at least formulate a plan for identifying a committee chair and committee members.

Fellows are required to submit two items as a fulfillment of these requirements:
- A five-slide briefing articulating the policy issue, research questions, motivation, method and approach, feasibility and personalized work plan for their dissertation, and
- A two-to three-page paper covering the items on the slides in slightly more detail.

Clarifying Dissertation Requirements for all Cohorts

As briefly described earlier in this report, the dissertation requirements were changed in 2006 when the curriculum was revised. This means there are now two parallel sets of requirements. Students who started the program in 2005 or before are expected to follow one path, while students who started the program in 2006 or thereafter are expected to follow the other. The option also exists for students who started prior to 2006 to select the revised requirements. Naturally, there was some confusion among PRGS students about what the changes meant for them. This was especially true because at the same time all students, regardless of when they began the program, were given the option of submitting 3-paper dissertations instead of a monograph as well as to elect to have an outside member of their committee instead of an outside reader. In response to this, the Dissertation Quality Study Group took a careful look at the presentation of dissertation requirements in the Policies and Procedures Manual, clarified and refined them, and created a handout on dissertation requirements for each of the two sets of requirements (pre- and post-2006). These are now being distributed to students, faculty, and dissertation committee members (see Exhibit F in Appendix).

Creation of Explicit PRGS Quality Standards

The final, and most complex, task the Study Group is addressing is refining and improving PRGS quality standards for dissertations. For the last decade, PRGS has used as its model the standards developed by the Carnegie Foundation for the Advancement of Teaching, which reflect a broad consensus in the academic community as to what constitutes quality in scholarly work.

However, the Dissertation Quality Study Group recognized that these standards were not designed with either dissertations or the PRGS program in mind. In addition, they did not provide a tool for PRGS or dissertation committee members to assess to what degree students were attaining these standards. The Study Group is working to develop standards directly relevant to the PRGS Ph.D. program by convening an informal focus group of faculty members representing a range of disciplines as well as policy areas, some of whom also serve as dissertation committee members. This strategy was designed to elicit two types of information. First, what could PRGS learn from the quality assurance practices these faculty members had been subject to in their own dissertation programs; and second, given their knowledge of PRGS, what policies and practices would they find most helpful to them as dissertation committee members to enable them to better support and assess quality dissertations at PRGS?

The results of the focus group were perhaps not surprising. Uniformly, faculty indicated they had been unaware of any particular quality standards or processes to assess the achievement of those standards in their own PhD programs. They did, however, agree that providing more clearly articulated standards that related directly to the dissertation process at PRGS could be helpful to both faculty advisors and students.

With this in mind, the Study Group looked at both the existing standards for scholarly work at PRGS (the Carnegie Foundation standards) and at RAND's own quality standards. The Study Group decided to create two quality assessment tools. The first is intended to assess the preparation of PRGS students at the time of their proposal defense. The second is to be used as part of the final review and approval of the dissertation.

To create the Dissertation Proposal Quality Assessment Tool the Study Group took the existing Carnegie Foundation standards for scholarly work found in the PRGS Policy and Procedures Manual and, using the categories that applied to the early stages of the dissertation process, turned the questions in those categories into affirmative statements. For example, under goals, the Study Group took two questions, "Does the scholar state the basic purposes of his or her work clearly? And, "Does the scholar define objectives that are realistic and achievable?" and created the standard "The objective should be clear, realistic and achievable." These questions were then compared to RAND's own quality standards and adjusted to be consistent with this standard of excellence. This was done for seven standards across three categories: goals, background and preparation, and methods.

As evident in Figure 2 below, the resulting tool consists of seven questions which are relatively straightforward and easy to answer, but should yield information that will be useful to PRGS, the student, and the dissertation committee in assessing how well-prepared the student is for writing his or her dissertation.

Figure 2. Dissertation Proposal Quality Assessment Tool

Criteria	Standards	Process	Evaluation		
			Rating	Justification	Suggestions for Improvement
Goals	The objective should be clear, realistic and acheivable.	To what degree are the objectives realistic and acheivable?			
	The student should identify important questions in the policy field.	To what degree has the student identifed important questions in the field?			
Background/Preparation	The student should be well-prepared for the dissertation and demonstrte knowledge of a significant facet of the chosen area of concentration in the final product (s).	To what degree is the student adequately prepared for the dissertation?			
	The student should have the requisite skills to complete the dissertation and the dissertation should demonstrate significant knowledge of the chosen "policy area" of specialization.	To what degree does the student have the necessary skills for this project?			
	The student should identify the resouces needed for the project and bring them together to support the project.	To what degree has the student brought together the resources to move the project forward?			
Methods	The methods should be appropriate for the policy and research questions.	To what degree has the student chosen the appropriate methods for the policy and research questions?			
	The fellow should adapt his methods in response to changing circumstances and the methods used should be appropriate to the goals of the dissertation.	To what degree has the student appropriately modifed his or her procedures in response to changing circumstances over the course of this project?			
Please rate each item above on a scale of 1-5. 1=does not meet expectations; 2=meets some expectations; 3=meets all expectations; 4=exceeds some expectations; 5=exceeds all expectations. Provide brief comments justifying your rating and where you give a 1 or 2 please include steps the student could take to improve in this area.					

Currently, dissertation committee members are asked to fill out a one-page evaluation sheet at the time of the proposal defense indicating whether the student passed, passed with conditions, or failed the defense. PRGS will ask the committee members to also use this new tool to provide a consensus evaluation of the student's progress on this standard as demonstrated by their proposal by responding to questions such as "To what degree are the objectives clear, realistic and achievable?" by selecting a number which corresponds to a ranking from 5 for "exceeds all expectations" to 1 "does not meet expectations". PRGS will also ask for a written justification for the assigned number and, if the committee grades the student as a 1 or a 2, for some suggested action the student could take to remedy the problem.

Figure 3. Dissertation Quality Assessment Tool

Dissertation Quality Assessment					
Criteria	Standards	Process and Product	Evaluation		
			Rating	Justification	Suggestions for Improvement
Goals		To what degree were the objectives realistic and acheivable?			
		To what degree are the objectives clearly stated in the final product?			
	The objective should be clear, realistic and acheivable.				
	The fellow should identify important questions in the policy field.	To what degree did the student identify important questions in the field?			
Background/Preparation		To what degree did the student adequately prepare for the dissertation?			
	The fellow should be well-prepared for the dissertation and demonstrte knowledge of a significant facet of the chosen area of concentration in the final product (s).	To what degree did the student demonstrate knowledge of a significant facet of the chosen area of analytic concentration?			
		To what degree did the student have the necessary skills for this project?			
	The fellow should have the requisite skills to complete the dissertation and the dissertation should demonstrate significant knowledge of the chosen "policy area" of specialization.	To what degree did the student demonstrate knowledge of the chosen area of policy specialization?			
	The fellow should identify the resouces needed for the project and bring them together to support the project.	To what degree did the student bring together the resources to move the project forward?			
Methods	The methods should be appropriate for the policy and research questions.	To what degree did the student choose the appropriate methods for the policy and research questions?			
	The fellow should adapt his methods in response to changing circumstances and the methods used should be appropriate to the goals of the dissertation.	To what degree did the student appropriately modify his or her procedures in response to changing circumstances over the course of this project?			
		To what degree are the methods appropriate to the dissertation goals?			
	The selected methods should be effectively applied.	To what degree are the selected methods effectively applied?			
Results	The results should be significant.	To what degree are the results significant?			
	The results should be in line with the goals and objectives of the research.	To what degree did the student achieve his or her goals?			
	The work should make a new contribution to knowledge.	To what degree does this work make a new contribution to knowledge in some way?			
	The work should open up additional areas for future exploration.	To what degree does the work open up new areas for future exploration?			
	The author should demonstrate the relevance of the work to significant public policy questions.	To what degree did the student demonstrate the relevance of the work to significant public policy questions?			
Presentation	The work should be well-organized.	To what degree was the oral presentation well-organized?			
	The style should be suitable to the subject matter and the intended audience.	To what degree was the presentation style suitable to the subject matter and the audience?			
Critique	The limitations of the work should be clearly stated.	To what degree did the student critically evaluate his/her own work?			
	The fellow should bring an appropriate breadth of evidence to his or her critique.	To what degree did the student bring an appropriate breadth of evidence to his or her critique?			
	The fellow should demonstrate the ability to use evaluation to improve the quality of future work.	To what degree is the student equipped to use evaluation to improve the quality of future work?			

Please rate each item above on a scale of 1-5. 1=does not meet expectations; 2=meets some expectations; 3=meets all expectations; 4=exceeds some expectations; 5=exceeds all expectations. Provide brief comments justifying your rating and where you give a 1 or 2 please include steps the student could take to improve in this area.

Likewise, as can be seen above in Figure 3, the Study Group used a similar process to create standards against which to evaluate student achievement as they near completion of their dissertation. In the case of the final product, the Study Group decided that it was appropriate to assess both how successful the student was in meeting the standards which relate to process-- such as choosing the appropriate method and adapting methods to changing circumstance--as well as how well they did at meeting the standards which relate to the final product—such as the significance of the results. The resulting Dissertation Quality Assessment Tool is more comprehensive than the Proposal Quality Assessment Tool, consisting of twenty-two questions relating to seventeen standards. PRGS will ask members of the dissertation committee to arrive at a consensus assessment at the time the student offers his or her dissertation defense.

Before these two new Quality Assessment Tools are introduced as part of the PRGS dissertation process, the Study Group plans to pilot-test them on five students who will defend their dissertation proposal this calendar year and five who complete their dissertations. The Study Group will use the resulting information to amend the evaluation tools. Subsequently, the evaluation tools and the pilot test results will be presented to the FCCA, the student government organization (COCOM) and other stakeholders to solicit feedback and ideas for further improvement.

Once the Study Group and the Re-accreditation Committee are satisfied with the two Quality Assessment Tools, they will be disseminated to all faculty and students and will be routinely used to assess dissertation quality when students present their dissertation proposals and when they present their dissertation defense. The results will be used by PRGS to assess any weaknesses in the program and by dissertation committees as they provide guidance to the students entering and in the midst of the dissertation process. One way in which the information may be useful is as an indicator of how well the core curriculum is preparing students prior to their dissertation research. If students are consistently falling below expectations in terms of choosing an appropriate methodology, this will provide a signal to PRGS that enhancements are needed in the core curriculum to acquaint students with how to choose methodologies appropriate to the policy question they are addressing. Dissertation workshop faculty will also find the collected information of value as they refine the content and approach of the workshops.

The results of these Quality Assessments will also be used by faculty and staff to assist students in identifying their individual strengths and weaknesses. These two assessment tools can create a constructive dialogue between the student and his or her committee. Furthermore, and perhaps most importantly, these assessments can be used to inform students and faculty of what PRGS desires all students to accomplish through the dissertation process.

PRGS had originally proposed commissioning an outside evaluation of PRGS dissertation proposals and final products. At this point, the Re-accreditation Committee believes the inclusion of an academic from outside of RAND on every dissertation committee or as an outside reader provides a more valuable avenue to collect feedback and gather new ideas for refinement.

One final goal of the Study Group is to identify barriers to further quality improvement and devise strategies for lowering those barriers over time. The Study Group recognizes that creating an assessment process is just the beginning. Possible barriers to implementation of the process outlined above include:

- Dissertation committee members who either do not understand or do not see the reasoning behind these new procedures;
- Students who do not understand and/or do not see the logic behind and value of the new procedures; and
- Staff who may not have the time, a) to monitor student progress as closely as necessary to ensure the processes are well-understood and adhered to, or b) to engage effectively with dissertation committee members to ensure their understanding of and best use of the new evaluation tools.

Therefore, as with any new process, it will also be important to make sure that the expected benefits are clear and that the benefits to all participants exceed their costs. Once these costs in terms of time and effort are better understood, PRGS may need to align the incentives it has available, including dissertation committee honoraria, differently.

Conclusion

The process of self-study has proved tremendously beneficial to PRGS allowing the School to make progress in areas, such as measuring OJT learning, where previously we were operating more or less on faith and anecdote. Although we are still in the early stages of our analysis, in all three areas we can reach some preliminary conclusions, and even take initial steps toward improvement, regarding our findings.

Learning through OJT

The good news is that our early analysis indicates that on-the-job-training is fulfilling the role in the program we have assigned it. Initial results indicate OJT is providing our students with exposure to the policy areas where they plan to specialize in their dissertations. Our analysis also clarified some areas where interventions of some sort may need to be designed and implemented.

There are significant tasks ahead. The pilot survey will have to be revised based on the input we gathered from the students who took it and will then need to be incorporated into our annual data collection activities. PRGS plans to field this survey at the beginning of fiscal year 2010 (mid-October 2009). Once we have the data from all students in the program (with the exception of the entering class), PRGS will have to make some decisions about how best to use this data to assist individual students as well as make programmatic changes. If we implement these surveys annually, PRGS may decide to incorporate this data into more regular comprehensive student assessments modeled on the First Year Review.

We have identified a list of Core OJT Learning Tasks which have been validated through focus groups, the FCCA, and the pilot test of the survey. PRGS needs to decide how and to whom to communicate this information. PRGS will also have to decide whether or not to require that all fellows obtain proficiency in each of the 14 skills identified, and if so, at what level of proficiency. In either event, we will have to determine how best to increase students' exposure to these skill sets over the course of their PRGS careers and how to improve the amount of learning that occurs with that exposure.

The results of our survey indicated that students were getting exposure to a broad range of policy areas, but that the numbers of students working in some areas such as drug policy or energy was not large. For some, this might reflect the level of student interest rather than the amount of work, but in most instances we believe this data partially reflects the actual availability of project work on these topics. PRGS has already identified ensuring research opportunities in major policy issue areas as one of it fundraising priorities for the next few years. We are striving to replicate a successful program whereby a multi-year gift of $600,000 provided for coursework, faculty time for mentoring, dissertation support and OJT in the field of economic development in Asia across a broader range of policy issues such as education, civil justice, energy and environment.

Time-line going forward for OJT Self-Study

Action Items	Time
Present findings to RAND CEO/CFO at the PRGS Unit Review	June 10th, 2009
Present progress to PRGS Board of Governors	June 26th, 2009
Present progress to RAND Board of Trustees Executive Committee	July 14th, 2009
Revise OJT survey to incorporate lessons from pilot testing	Current and ongoing
Communicate initial findings and OJT skills list to students and OJT supervisors	September 2009
Roll out OJT learning survey to all students in third year and beyond	October 2009
CPR Visit	October 21-23, 2009
Analyze OJT learning survey data at program and individual level	November-December 2009
Create Process for interventions to resolve problems at both individual and programmatic levels	January-June 2010

Teaching Effectiveness

PRGS has made significant progress in developing explicit teaching standards and expectations. These now exist in fully-coordinated written form as a Checklist for Course Review and an Expectations Matrix. The Checklist is being used on a trial basis by the FCCA when vetting new courses. These are both living documents and we expect that as we share them with the broader faculty and with students there may be suggestions for amendment. But in the meantime, the Checklist has successfully generated the types of thoughtful discussion that we believe will lead to more effective teaching practices in the classroom.

Another piece of our plan to improve the effectiveness of classroom teaching at PRGS is the creation of a "Best Practices of Pedagogy" Handbook. We know anecdotally that some professors have devised very effective strategies for addressing some of the challenges of teaching in PRGS. For instance, the demands of OJT mean that students have a tendency not to do assigned readings unless they know the professor is serious about them doing it. Professors have developed various successful ways of demonstrating that assigned readings are required. We believe if we can gather these effective methods together in a handbook, other professors and their students will benefit.
This handbook will be available in hard copy and online as part of the Faculty Policies and Procedures manual.

The final and most challenging piece of our Teaching Effectiveness self-study is improving the process for assessing classroom instruction and providing feedback to professors. Revised student evaluations will be part of this, but there are clear limitations to student evaluations especially in the context of a school as small as PRGS where faculty are also past, present or future project leaders for OJT and mentors on dissertation. Therefore, PRGS plans to design and

implement classroom observations to assess the teaching effectiveness of new professors and existing professors and to observe and document the best practices of more seasoned professors. Once we have conducted the observations, the PRGS administration will have to decide on what feedback mechanisms will be most effective in communicating the outcomes of the evaluations.

In support of these efforts to improve teaching effectiveness, PRGS will also examine what incentives and rewards we might be able to offer professors who demonstrate a commitment to effective teaching. This may involve rethinking the Huddleson Award for Teaching, raising new funds to support new awards or other monetary incentives, or otherwise recognizing this important contribution to the learning environment at PRGS.

Time-line going forward for Teaching Effectiveness Self-Study

Action Items	Time
Present findings to RAND CEO/CFO at the PRGS Unit Review	June 10th, 2009
Present progress to PRGS Board of Governors	June 26th, 2009
Present progress to RAND Board of Trustees Executive Committee	July 14th, 2009
Implement checklist as FCCA tool for evaluating courses	Current and ongoing
Modify Teaching evaluations to match standards	Summer 2009
Distribute checklist to current faculty and solicit initial "knowledge base" submissions	Summer 2009
Reevaluate methods of observation	Late Summer 2009
Implement new teaching evaluations	Fall 2009
CPR Visit	October 21-23, 2009
Design Process for Feedback to Faculty	November 2009-June 2010

Dissertation Quality

The effort put forth thus far by the Dissertation Quality study group has proven to be quite productive. The study group has devised two new assessment tools. The first will be used to assess the quality of dissertation proposals at the time they are being defended. The second will be used to assess the quality of dissertations at the time they are orally presented to the PRGS community in near final form. In both cases, we believe that the need to respond to the questions on the assessment tool will help both the student and his or her committee members to pay more attention to the elements in the dissertation process we have identified as important educational goals, thus resulting in higher quality dissertations and enhanced student learning.

However, we have not yet pilot tested either of these tools so it is difficult to predict how effective they will be in practice and what changes might be required to make them as effective as we wish. As with any new procedures, it will be important to introduce them to the faculty and the students in a way that emphasizes the benefits and minimizes the costs.

At the same time, as a result of the re-accreditation self-study effort, PRGS has established common standards for successful completion of the mandatory dissertation workshops and clarified and communicated dissertation requirements. These improvements have been well-received by students and faculty alike.

Time-line going forward for Dissertation Quality Self-Study

Action Items	Time
Present findings to RAND CEO/CFO at the PRGS Unit Review	June 10th, 2009
Present progress to PRGS Board of Governors	June 26th, 2009
Present progress to RAND Board of Trustees Executive Committee	July 14th, 2009
Pilot test new assessment tools	August-October 2009
CPR Visit	October 21-23, 2009
Analyze results, modify and disseminate tools	November-December, 2009
Continue to gather data and evaluate	January 2010--