Accountability Report

Ph.D. in Management Program

Glenn Shafer, Director

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The Ph.D. in Management is offered by the Rutgers Graduate School-Newark, with faculty drawn from Rutgers Business (the Rutgers Faculty of Management) and from NJIT's School of Management and Department of Computer and Information Science at NJIT.

1. Introduction

This report concludes my three-year term as Director. This period, 1997-2000, was marked by numerous changes and improvements in the Program:

1. The number of graduates of the Program, which began in 1978, increased from 93 to 138.

2. The curriculum of the Program was updated and streamlined, allowing students in each major to complete their course work within two years and yet to specialize more effectively, with more experience in research during the course work period.

3. The total number of doctoral course sections offered by Rutgers Business each semester was reduced by 40%, and the participation by NJIT faculty in teaching these courses was increased, freeing resources for other degree programs.

4. A comprehensive long-term plan of course offerings was developed for each major, so that the progress of the student will not be delayed by the unavailability of required courses.

5. More opportunities were provided in information systems, with two new majors (Information Technology and Accounting Information Systems) that allow students to specialize in different directions while using the same core doctoral-level courses.

6. Substantial improvements were made in teacher training and consequently in the performance of our doctoral students in the classroom.

7. In cooperation with the Rutgers Graduate School-Newark and the Dean of Rutgers Business, we improved our students' opportunities for instruction and tutoring in writing.

8. Practices were put into place to assure that students and their advisers plan adequately and update their plans regularly.

9. Policies and oversight practices were developed that will prevent students from lingering in the Program without making reasonable progress.

10. The official limit of eight years for remaining in the Program without completing a degree was enforced.

11. Part-time enrollment is now limited to those unusual students who can devote enough time to the Program—approximately 30 hours per week—to complete two doctoral courses each semester and thereby complete the Program in 6 years.

12. A new web site provides extensive information to potential applicants, current students, faculty, and potential employers of the students.

13. Our ability to process admissions quickly was enhanced by the transfer of some admissions functions from the Rutgers Admissions Office to the Rutgers Graduate School of Management Admissions Office.

14. The Dean of Rutgers Business provided more work space for doctoral students in Ackerson Hall and the Management Education Center on the Rutgers-Newark campus.

15. Student funding was improved. In addition to modest improvements in the university-wide union-negotiated level of Rutgers TA stipends, we added summer support, supplemental fellowships for students with outstanding skills in written English, and dissertation fellowships for students who have defended dissertation proposals but need a 5th year to complete their dissertations.

16. The assignment of TA duties was made transparent to the students, faculty, and administration. This has helped us garner administration support for the diversity of TA duties appropriate to a business school. In most majors, we must provide research as well as teaching assignments in order to compete with other business schools in attracting and developing students.

17. Recruiting was improved, resulting in stronger entering students. For Fall 2000, we have increased sharply the proportion of new students who are native English speakers, and especially the number of American minority students.

18. A new membership process was developed, which gives the faculty of the Program responsibility for maintaining standards for academic achievement and currency, assures equal treatment of Rutgers and NJIT faculty, and provides the documentation of quality needed for continued AACSB accreditation of Rutgers Business.

19. The participation of NJIT in the Program was strengthened by integrating NJIT faculty into teaching and decision making at the level of the majors.

20. The faculty of Rutgers Business approved a detailed proposal for the evolution of the Program into a truly joint doctoral program in management with NJIT, in which each major will be a team undertaking between the faculty in the two universities.

These changes create a setting in which the faculty can undertake to make real improvements in the quality of our doctoral training and the placement of our graduates. The progress we seek will require yet further improvements in recruiting and financial aid, so that the students coming into the Program will be able to engage all the leading scholarly talent in Rutgers Business and in NJIT's School of Management and Computer and Information Science Department. It will also require sustained and determined action by the leadership of the Program and the participating academic units to extend the research culture of the faculty to our doctoral students. We must aim for a culture in which students in all majors are expected to seek out faculty, be present on campus daily, and attend all available seminars. This will require additional steps to strengthen the cohesion of the faculty groups for the various majors, which cut across two universities, several campuses within Rutgers, and numerous departments.

Negotiations currently under way to make the Program joint with NJIT will be crucial to our success in achieving these goals. It is essential that we integrate the NJIT and Rutgers faculty into joint teams rather than allow the development or perpetuation of teams that involve faculty from only one of the two universities. It is also important that the joint governance create no barriers to continued improvement in financial aid and recruiting.

2. Graduates

Table 1 shows the numbers of graduates from our Program through May 2000.

	Acct	AIS	CIS[1]	Fin	IB	MS	IT	Mktg	OM	Total
84-85				1					2	3
85-86										0
86-87			1							1
87-88									1	1
88-89			1						1	2
89-90				2		1	1			4
90-91	1		1	1						3
91-92	1		2	3		1	1		3	11
92-93	4			1		3	1	1	2	12
93-94	4		1	4	2	2		2		15
94-95			3	3		4		1	3	14
95-96		1	2	4	1	6	1		1	16
96-97	1		2	2			1	2	3	11
97-98	1		3	1	1	3	1		3	13
98-99	2			1	3	1			1	8
99-00	7		2	1	4	3	2	1	4	24
Total	**21**	**1**	**18**	**24**	**11**	**24**	**8**	**7**	**24**	**138**

Table 1. Degrees by year for the nine majors: Accounting, Accounting Information Systems, Computer Information Systems, Finance, International Business, Information Technology, Marketing, and Organization Management.

We had a record number of graduates, 24, in 1999-2000. This included about a dozen students who had lingered in the Program for a decade or more without completing their degrees. These students benefited from a deadline of May 2000 for completing their degrees or leaving the Program without a degree, from decisions by the Program and the Rutgers Graduate School-Newark to extend financial aid (especially dissertation fellowships) to help them complete their degrees, and most importantly, from the close attention of a large number of dedicated faculty members.

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[1] This column understates the contribution made by the CIS major, because the AIS and IT majors did not exist before the curriculum reform of 1998. The 7 graduates listed for these new majors between 1989 and 1998 actually graduated as CIS majors, but with dissertation advisers who are now working with the new majors.

In 2000-2001, our total number of graduates will again be swelled by old-timers finally completing their degrees. After that, we can expect the number of graduates each year to be between 9 and 12, corresponding to approximately 75% of the number we admit each year.

Tables 2, 3, and 4 show placement information for our graduates over the past three years. For some of the graduates, these are local positions, in teaching, management, or consulting, that they held while they were completing their studies. Some of those in the private sector plan to seek teaching positions now that their doctorate is completed, but others will remain in their current positions. After we complete the process of graduating students who have remained in our program too long and sunk other roots too deeply while here, we expect that a larger fraction of our students will be moving into teaching positions upon graduation. As the students entering under our new curriculum begin to graduate, and as the reputation of our program improves, we also expect to place more of our students in research universities. The mission statement and strategic plan of Rutgers Business call for 25% of our graduates to be placed in research universities and other research institutions of the stature of Rutgers University.

1997/October	CIS	Chiu, Chao-Min	Professor at National Kaohsiung First University of Science & Technology in China.
1997/October	CIS	Olsen, George	Assistant Professor & Director of Material Program at Bloomfield College's Business Division in New Jersey.
1997/October	MS	Gursoy, Kemal	Assistant Professor in the Management Science Department at Long Island University's School of Business.
1997/October	OM	Christensen, Edward	MBA Director at Monmouth University's School of Business in New Jersey.
1998/January	CIS	Balasubramanian, Venkatraman	President/CEO, E-Papyrus, Inc.
1998/January	MS	Xu, Yang	Resides in China.
1998/May	Acct	Palas, Ramona	Initially at St. John's University in Staten Island, currently teaching at Haifa University in Israel.
1998/May	Fin	Li, Li	Portfolio Manager, Fleet Financial Group in Providence, Rhode Island.
1998/May	IB	Laraqui, Saad	Assistant Professor at Embry Riddle Aeronautical University's School of Business in Daytona Beach, Florida.
1998/May	IT	Huang, Wei-Kuang	Assistant Professor in the Department of Operations & Information Management at the University of Connecticut.
1998/May	MS	Keresty, Georgia	Director, Quality & Compliance Services, Johnson & Johnson.
1998/May	OM	Santoro, Michael	Assistant Professor in the Department of Management at Lehigh University's College of Business in Bethlehem, PA.
1998/May	OM	Schneider, Marguerite	Assistant Professor of Management at the College of New Jersey's School of Business in Ewing, NJ.

Table 2. Placements for the 13 students awarded degrees in 1997-1998.

1998/October	Acct	Giles, Jill	Assistant Professor at Seton Hall University, New Jersey.
1998/October	IB	Wallace, Lorna	Manager at Bellcore in New Jersey.
1999/January	Acct	Callen, Mindy	Resides in Israel.
1999/January	Fin	Pagano, Michael	Assistant Professor in the Finance Department at Baruch College, New York.
1999/May	IB	Ra, Wonchan	Position in Korea.
1999/May	IB	Wymbs, Clifford	Assistant Professor at Baruch College, New York.

1999/May	MS	Gu, Shanhong	Position at Chase Bank in Japan.
1999/May	OM	Wischnevsky, J.Daniel	Assistant Professor at Fairleigh Dickinson University in New Jersey.

Table 3. Placements for the 8 students awarded degrees in 1998-1999.

1999/October	Acct	Chang, Chingfu	Assistant Professor at National Chung Cheng University in Taiwan.
1999/October	Acct	Hughes, Peggy	Director-Team Leader, Guaranteed Price Contracting, Pfiser, Inc. in New York.
1999/October	Acct	Pinto, Jo Ann	Assistant Professor, Montclair State University, New Jersey.
1999/October	Acct	Wang, Ting	Assistant Professor, University of Wisconsin, Milwaukee.
1999/October	IB	Dilyard, John	Assistant Professor in the Management Department at St. Francis College in New York.
1999/October	IB	Hamalainen, Timo	Development Manager at SITRA (Ministry of Trade and Industry) in Finland.
1999/October	MS	Liu, Qing	Senior Technical Staff, AT&T Labs, Middletown, NJ.
1999/October	OM	McGill, Joseph	Division Manager, Lucent Technologies.
1999/October	OM	Pothukuchi, Vijay	Manager, IT, Conexant Systems, Inc., California.
1999/October	OM	Schons, Edward	Associate Professor in Business Administration at Caldwell College in New Jersey.
2000/January	Acct	Tyska, Claudia	Assistant Professor, Bloomfield College, Bloomfield, NJ.
2000/January	IB	Lin, Jyh-Der	AT&T.
2000/January	Fin	Schuh, Joseph	Retired in 1993 from Orange and Rockland Utilities, Pearl River, NY. Plans to work as a research associate and adjunct university instructor.
2000/May	Acct	Jeffers-Gooden, Agatha	Director of Financial Services, Ministry of Finance, Nevis Island.
2000/May	Acct	Uddin, Nancy	Assistant Professor of Accounting, Monmouth University.
2000/May	CIS	Rao, Gururajan	President of Quantum Enterprises, Inc., a consulting company specializing in Document Management, Health Care Information Systems, Intranet and Internet-based applications for drug companies, especially Merck & Co.
2000/May	CIS	Yoo, Joonhee	Currently interviewing for academic positions in Korea.
2000/May	IB	Pak, Yong Suh	Currently interviewing for academic positions in Korea.
2000/May	IT	Adiwijaya, Igg	Currently interviewing in the private sector in the US.
2000/May	IT	Wu, Ta-Peng	Consultant with MKL Consultants, Inc.
2000/May	Mkt	Srinivas, V.K.	Director, Market Research, Standard +ACY- Poor's.
2000/May	MS	Chen, Guangjun	Analyst, Office of Management and Budget, NYC.
2000/May	MS	Koppel, Nicole Berliner	Assistant Professor, Montclair State University, New Jersey.
2000/May	OM	Crick, Ann	Lecturer, Department of Management Studies, University of West Indies.

Table 4. Placements for the 24 students awarded degrees in 1999-2000.

3. Enforcement of the 8-Year Rule

In May 1998, the Executive Committee set May 2000 as the deadline for students in violation of the 8-year rule to complete their degrees or leave the Program. In order to stay in the Program beyond 8 years, students must now be explicitly granted an extension by the Executive Committee,

which has granted extensions very sparingly. Only two students have extensions for Fall 2000. About a dozen other students have been told that they will no longer be in the Program if they do not deposit their dissertations by October 2, but that if they complete the dissertation at a later time they will be readmitted into the Program in order to defend it.

Table 5 presents information on the longevity of our students as of October for the years 1997, 1998, and 1999, together with estimated information for October 2000. As this table shows, there are still 15 students now in the 6th year or beyond, and the majority of them are in their 7th year. Most of these students are now making good progress towards completion of their degrees. Most of the students now in their 1st, 2nd, 3rd, 4th, or 5th years are also making appropriate progress towards completing their degrees. So the problem of students staying more than 8 years should be thoroughly behind us in another year or two. At that point, we can begin enforcing the official time limit for students who begin on a full-time basis: 7 years.

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th and above	**Total**
1997	22	22	13	16	18	18	11	8	28	**156**
1998	10	18	17	10	16	14	12	9	23	**129**
1999	24	8	16	13	7	12	7	6	18	**111**
2000	18	25	8	13	13	3	9	2	2	**93**

Table 5. Numbers of students in their 1st year, 2nd year, etc., as of October 1. (Students matriculating in January are counted as still being in their first year the following October.)

One additional feature of Table 5 merits mention. The numbers of new students in their 1st and 2nd years (18 and 25) is much greater than the numbers in their 3rd and 4th years (8 and 13). The low number for the 3rd and 4th years results from the phasing out of NJIT support several years ago and my decision in Fall 1998 to limit new admissions so existing funds could be used to help older students complete their degrees. As NJIT support was renewed and the older students no longer needed or were no longer eligible for continuing support, the numbers of students who could be admitted with financial support increased sharply. Because three-fourths of our teaching assistantships are now tied up in 1st and 2nd year students, admissions will again be low in Fall 2001 and Fall 2002, and we will have another bulge in Fall 2003. Both the faculty and administration should be aware of this cycle when they plan teaching schedules and other resources for students.

4. Other Milestones for Monitoring Students' Progress

The Individual Study Plan, which was adopted by the Program in Fall 1997, has helped the Program Director and Doctoral Coordinators monitor the progress of students relative to the Program's principal milestones: the qualifying examination and the proposal defense. Students must update their plan every semester, on May 1 and December 1, and the update must include planned dates, approved by the adviser and the faculty in the major, for the student's qualifying examination and proposal defense.

In the case of the qualifying examination, the Program Director will not approve the student's enrollment for the following semester until the student has a course plan that the faculty has agreed will permit the student to take the qualifying examination in a timely way. Full-time

students are expected to take the examination at the end of their second academic year—preferably in April so that their summer is free for research work. If the student fails the examination and wants to try again, they must do so within one semester. If the student is a teaching assistant, early March of the 3rd academic year is a final deadline for passing the examination, because decisions on renewal of teaching assistantships for the 4th year are made on March 31, and students who still have not passed the examination will not be renewed.

Part-time students are expected to take their examination at the end of the third year. If they fail to meet this deadline, they can expect to be placed on academic probation.

Tables 6 and 7 show our progress in getting students through their qualifying examination. As the last line of Table 7 shows, we have nearly eliminated the problem of students not passing this milestone in a timely way.

	3rd	4th	5th	6th	7th	8th	9th and above	Total
1997	0	6	8	14	7	8	25	**68**
1998	1	6	11	9	11	8	22	**68**
1999	7	10	7	11	6	6	18	**65**
2000	7	12	12	3	9	2	2	**47**

Table 6. Numbers of students in their 3rd year and beyond who had passed their qualifying examination by October 1. Figures for 2000 are estimates.

	3rd	4th	5th	6th	7th	8th	9th and above	Total
1997	13	10	10	4	4	0	3	**44**
1998	16	4	5	5	1	1	1	**33**
1999	9	3	0	1	1	0	0	**13**
2000	1	1	1	0	0	0	0	**3**

Table 7. Numbers of students in their 3rd year and beyond who had <u>not</u> passed their qualifying examination by October 1. Figures for 2000 are estimates.

The second major milestone is the proposal defense. Our faculty have high standards for what they expect the student to do before they defend a proposal, because the defense must take place before a committee, approved by the Program Director, which includes at least two colleagues and one outside member, who must be a recognized authority in the area of research of the dissertation.

The danger is that the student, after concentrating for years on passing the qualifying examination, may not have learned the skills needed to develop a dissertation proposal. Students without these skills can spend semesters or years consulting faculty member after faculty member, never understanding why they have been unable to find "the right topic." The new curriculum, adopted in 1998, addresses this problem by requiring that the student write a paper with a faculty member in each of their first two summers. (Part-time students may choose two of their first three summers for this research work.) The Individual Study Plan assures that the student has consistent faculty advice, because it includes a "dissertation progress report," where the student must report on what they have done during the past semester and provide month-by-month milestones for the coming semester.

For students who have financial aid that includes tuition remission, there is a financial incentive to defend a proposal in a timely way, because the student can enroll in only 6 credits of dissertation research before defending a proposal, and if the student exhausts their 4 years of tuition remission as a teaching assistant without defending a proposal, they will face having to pay for the additional 18 credits of dissertation research out of their own pocket. Fifth-year dissertation fellowships also provide tuition remission, but the student is eligible for one of these fellowships only after defending a proposal. Having defended a proposal is also the minimal requirement for eligibility for the instructorships that participating departments sometimes offer to advanced students.

Students who still have not defended a proposal a full year after passing the qualifying examination are placed on academic probation by the Program Director. This means that if they do not finally defend a proposal during the following semester, they must meet with the Executive Committee, which will consider whether they should be dismissed from the Program. Academic probation is a signal to everyone involved that the student may need more intensive advising.

Tables 8 and 9 show how these measures have helped us move students through the proposal defense. There has been a marked improvement during the past three years, but we still have a number of students who have struggled too long to identify a dissertation topic, including some who will be in their 7th year in 2000-2001. This situation should improve for the students now in their 1st, 2nd, and 3rd years, who will benefit from the early research requirement in the new curriculum.

	4th	5th	6th	7th	8th	9th and above	**Total**
1997	1	1	1	1	3	4	**11**
1998	1	3	6	7	5	11	**33**
1999	0	5	5	3	5	17	**35**
2000	7	10	2	5	2	2	**28**

Table 8. Numbers of students in their 4th year and beyond who had defended a proposal by the end of October. Figures for 2000 are estimates.

	4th	5th	6th	7th	8th	9th and above	**Total**
1997	5	7	13	4	7	21	**57**
1998	5	8	3	4	3	11	**34**
1999	10	2	6	3	1	1	**23**
2000	6	3	0	4	0	0	**13**

Table 9. Numbers of students in their 4th year and beyond who had passed the qualifying examination but had not defended a proposal by the end of October. Figures for 2000 are estimates.

The lure of the job market for students at the proposal stage remains a problem for our Program. Because most of our courses meet in the day, and because the course work is paced so that work cannot be delayed, students who begin full-time usually continue full-time for the two years needed to complete their courses. But at that point many are tempted to believe that they can develop a proposal while holding a full-time job. In order to limit this illusion, the Director must insist on placing the student on probation if they do not defend a proposal within one year after the qualifying examination, regardless of what else they are doing. The student can avoid

this timetable only if granted an official leave of absence by the Director, but such a leave is granted only if the Director and the student agree on a date when the student will return to the program, normally after at most one year. The leave does not extend the 8-year limit; the student must still complete the degree within 8 years of matriculation.

Because of our recent emphasis in moving students through milestones more quickly, many students have concluded that speed is all important. Now that the new curriculum is well established and we are in fact getting most students through the qualifying examination by the end of the second year and through a proposal defense by the end of the third year, we need to put more emphasis on the importance of taking time to produce a quality dissertation. It is a mistake for students to spend too much time on course work, because many of the courses they take are often tangential to the research they do in the end. And it is disastrous for students to spend too much time choosing a topic. But once they have arrived at an acceptable dissertation proposal, we must encourage them to develop it thoroughly. Once they graduate, they will face a new treadmill, which will require them to produce numerous publications in short order in order to survive in their new profession. The better their dissertation is, and the more publications they already have in print or in the pipeline before they graduate, the more prepared they will be for what they will face.

The 5th year dissertation fellowships now available to our students provide us with an essential tool for this improvement in the quality of our students' work. Students should be encouraged to take advantage of this opportunity rather then seek full-time teaching elsewhere. The instructorships sometimes offered our students by Rutgers and NJIT can provide them a further opportunity for polishing their work before plunging into the real job market, especially if they require less teaching than the student will need to do in their first job as an assistant professor. Students should be encouraged, however, to take advantage of a dissertation fellowship first if one is available and to take an instructorship only if their fellowship opportunities are exhausted. The additional dollars the instructorship provides cannot compensate for the long-term advantages provided by the intensive work the student can do with a fellowship.

5. Training in Teaching and Writing

Most of the student's work in our program is supervised at the level of the major. The Program Director, however, is responsible for assuring that students are adequately trained in two areas not directly related to their research specialty: teaching and writing.

The primary source of funding for our doctoral students comes from Rutgers University and NJIT in the form of teaching assistantships. Although the Rutgers-Newark Provost and the President of NJIT have agreed that one-fourth of the students with assistantships can be assigned to research duties each year, the administration expects that this funding will contribute substantially to quality teaching for undergraduate and master's students. Moreover, the primary mission of the Program is to prepare students to be university professors, and we require that every doctoral student, even part-time students, teach at least one class by the time they complete the Program.

Many of our students come from abroad, often from China, and a serious effort is required in order to prepare these students for the American classroom. This effort proceeds on two fronts. First, students who are not ready to walk into the classroom are initially assigned to professors as teacher's aids. This is structured as teacher training. The professor gets help in grading papers and preparing classes, perhaps also in web work or recitation sections, but the professor must also help the student prepare to teach the class on their own. They are expected to give guest lectures by their second semester, with coaching from the professor. The second front is the Teacher Training Seminar, which meets on Monday mornings at least every other week. In this seminar, students work with experienced faculty on teaching issues, and each student is required to make a presentation each year on his or her own training activities. The Teacher Training Seminar was originally developed by Professor Barbara Stern, in 1998-1999. It is built around the very popular teaching seminars given by Professor Farrokh Langdana. During the past year the seminar also benefited from contributions by Donna Dickinson, Director of the Rutgers-Newark Teaching Excellence Center, and Professor Alex Sannella.

After two semesters of teacher training, on average, students are ready to teach their own sections. In this role, they have dual supervision. They receive guidance from a faculty member in their specialty and from the deans of the undergraduate units in which they work, Lew Kerman at the Rutgers-Newark School of Management, Marty Markowitz at the Rutgers-New Brunswick School of Business, and Barbara Tedesco at the NJIT School of Management also monitor their classes. They "graduate" from the Teacher Training Seminar by obtaining a satisfactory rating from their undergraduate dean and preparing a satisfactory teaching portfolio, which we encourage them to post on their home page along with information about their research interests.

For students for whom English is a foreign language, training in spoken and written English is provided by the Rutgers-Newark Program in American Language Studies (PALS). Depending on their performance on an examination administered when they arrive on campus, students are required to take PALS classes in pronunciation, conversation, and English composition at the high school level. Similar classes are available to our students in the NJIT ESL Program when PALS classes are unavailable because of scheduling conflicts. Students often resent these classes, because they take them away from the specialized research that is central to the Program, but it is important that they gain the foundation the classes provide. The Program Director needs the support of the faculty in insisting that students take and even repeat these classes until they can communicate in English at an acceptable level.

All students, whether or not they have English as their mother tongue, must also take a college writing course as part of our program, unless they are excused on the basis of written work submitted to our faculty in a first-semester course. This course, planned by Mary Moya of PALS and Patricia Bender of the Rutgers-Newark Writing Center, meets an hour and half a week and then provides an hour and half of individualized tutoring—an innovative and effective combination. After taking the college writing course or being exempted from it, students must take an intensive seminar on writing in the second half of May. This seminar was developed by Professor Barbara Stern, with support from the GE Educational Development Grant to Rutgers Business. This year, it was conducted by Michael Pennella, a writing professional who also works with the Rutgers MBA program.

All English and writing classes are taken on an overload basis, in addition to the three degree courses per semester required of full-time students or the two required of part-time students.

6. Pulling Together the Far-Flung Faculty of the Program

The faculty for the Ph.D. in Management Program currently consists of 118 full-time faculty members, 92 at Rutgers and 26 at NJIT, together with 3 adjunct members. (A listing of these faculty may be downloaded from our web site, www.phd-business.rutgers.edu; from the home page, click on "Information for Faculty." The listing is for faculty already appointed who will be returning next academic year. Additional members will be appointed in Fall 2000.) The greatest challenge the Program as a whole faces is integrating these faculty members, who are spread across two universities and many departments, specialties, and geographic locations, into effective teams for working with our students.

The 92 full-time Rutgers faculty participating in the Program are spread across 3 campuses—61 have offices in Newark, 29 have offices in New Brunswick, and 2 have offices in Camden. Those in Newark and New Brunswick are all in Rutgers Business (the Faculty of Management) and are distributed across 6 Departments:

- 20 are in Management Science and Information Systems.

- 20 are in Finance and Economics.

- 19 are in Accounting and Information Systems.

- 14 are in Organization Management.

- 11 are in Marketing.

- 6 are in International Business and Business Environment.

The two faculty members located on the Camden campus are members of the Rutgers-Camden School of Business and specialize in management information systems.

The 20 faculty members in the Rutgers Department of Management Science and Information Systems include 15 whose interests are primarily in Management Science and 5 whose interests are primarily in Information Systems. The balance is shifting towards Information Systems, however, because this field offers more opportunities for employment in university teaching and research. Our Information Technology major requires a minor in Management Science, and a number of the faculty primarily identified with Management Science are now advising students whose major is Information Technology.

The 20 faculty members in the Rutgers Department of Finance and Economics include 12 trained in Finance and 8 trained in Economics. Our Program no longer has a major in Economics, but the faculty in Economics teach courses that are prerequisites for the Finance courses and also participate in advising and even in teaching the courses in Finance. Recently the Department added a faculty member in healthcare economics, Mahmoud Hassan, and we are looking for students who might want to work with him in an individualized major.

The 19 faculty members in the Rutgers Department of Accounting and Information Systems include 4 who specialize in Information Systems and 15 who specialize in other areas of Accounting. The Information Systems faculty in the department train doctoral students in collaboration with the Accounting faculty and the faculty in the Management Science and Information Systems Department.

The 14 faculty members in the Rutgers Department of Organization Management specialize in a number of topics. The best represented are strategy, the management of innovation and technology, the management of diversity and change, and organizational justice.

The 11 faculty members in the Rutgers Department of Marketing include a very quantitative group and several senior faculty who study consumer behavior using qualitative methods. Junior members of the department have diverse research interests and include faculty whose primary interest is in electronic commerce.

Of the 6 full-time faculty members in the Rutgers Department of International Business and Business Environment, only 2 (Farok Contractor and Sam Beldona) specialize in International Business, which is one of the majors of the Program. The other 4 (Ed Hartman, Wayne Eastman, James Gathii, and Michael Santoro) specialize in Business Environment, which includes business law and ethics. The 2 faculty members in International Business are assisted by 3 adjunct faculty members. But the adjunct participation is being phased out, and because the number of full-time faculty in International Business is not expected to grow substantially, the International Business major is now being administered together with the Organization Management major. Students in the two majors take almost the same courses and are supervised by the same Doctoral Coordinator and Doctoral Committee. The 4 faculty members specializing in Business Environment have not yet found a way to participate effectively in the Program. But they include several individuals who have distinguished themselves with their research in ethics, and we have been looking for students who might want to pursue an individualized major in this area.

The 26 full-time NJIT faculty members participating in the Program are all located in Newark, but they are in several different units:

- 14 are in the NJIT School of Management and are distributed across the academic specialties of the Program. They are Asokan Anandarajan (Accounting), Theologus Bonitsis (Finance), Alok Chakrabarti (Organization Management), Rene Cordero (Organization Management), Jerry Fjermstad (Computer Information Systems), Shanthi Gopalakrishan (Organization Management), Iftekhar Hasan (Accounting and Finance), Bruce Kirchhoff (Organization Management), Ken Lawrence (Management Science), Rock Mathis (Finance), Hindy Schachter (Organization Management), Mark Somers (Organization Management), Cheickna Sylla (Management Science), and Joe Wen (Computer Information Systems),

- 8 are in the Computer Science Division of the NJIT Department of Computer and Information Science. Of these, 2 (James Calvin and Marvin Nakayama) have research interests closely aligned with the Management Science faculty at Rutgers, while 4 (James Geller, Vincent Oria, Richard Scherl, and Jason Wang) have research interests more

aligned with the Information Technology faculty. The other 2 (Joe Leung, the department chair, and Michael Reece, in neuroscience) have not been directly involved in the Program.

- 4 are in the Information Systems Division of the NJIT Department of Computer and Information Science. These are Michael Bieber, Roxanne Hiltz, Murray Turoff, and Bartel Van der Walle.

Current plans call for the NJIT Department of Computer and Information Science to become a college, at which point its two divisions, Computer Science and Information Systems, will become separate departments.

Within our Program, the 118 faculty members are organized into 6 faculty groups that handle 9 majors. These groups cut across the universities, departments, and campuses, but they have become more cohesive in the past few years. We have made a special effort to assure that NJIT participation in the leadership of these faculty groups is commensurate with the potential of the NJIT faculty and the current NJIT contribution to financial aid for our students.

- The largest of our 6 faculty groups is the group for the Management Science major and the Information Technology major. In addition to handling the two majors, this group also teaches a number of doctoral courses (in probability, statistics, stochastic processes, and optimization) that are used by most of the other majors. It has 33 members: 20 from the Rutgers Department of Management Science and Information Systems (10 with offices in Newark and 10 with offices in New Brunswick), 2 from the Rutgers-Camden Business School, 8 from the Division of Computer Science of the NJIT Computer and Information Science Department, and 3 from the NJIT School of Management. The Chair of the Rutgers MSIS Department, Ron Armstrong, currently serves as Doctoral Coordinator. Two NJIT faculty members, Ken Lawrence (NJIT SOM) and Marvin Nakayama (NJIT Computer Science Division), will serve on the Doctoral Committee next year. This group will be working with 24 students next year: 11 majoring in Management Science and 13 majoring in Information Technology. Qualifying examination committees in the two majors usually involve faculty from both universities. Next year an NJIT faculty member (James Calvin from the Computer Science Division) will teach the stochastic processes course, which is required for the Management Science major, the Information Technology major, and the Finance major.

- The faculty group for the Organization Management major and the International Business major has 25 members: 14 from the Rutgers Department of Organization Management (10 with offices in Newark and 4 with offices in New Brunswick), 7 from the Department of International Business and Business Environment, and 4 from the NJIT School of Management. A Rutgers-Newark faculty member, Deborah Dougherty, will serve as Doctoral Coordinator next year. The Doctoral Committee serves as the qualifying examination committee for the two majors; it includes Farok Contractor from the Rutgers IBBE Department, Mark Somers from the NJIT School of Management, and 4 members of the Rutgers Organization Management Department. This group will be working with 24 students next year: 21 majoring in Organization Management and 3 in International

Business. Two NJIT SOM faculty members, Alok Charkrabarti and Mark Somers, have been teaching doctoral courses for these students in recent years.

- The faculty group for the Finance major has 23 members: 20 from the Rutgers Department of Finance and Economics (15 with offices in Newark and 5 with offices in New Brunswick) and 3 from the NJIT School of Management (Theologus Bonitsis, Iftekhar Hasan, and Rock Mathis). A Rutgers-Newark faculty member, Avri Ravid, will serve as Doctoral Coordinator next year. Iftekhar Hasan, an NJIT SOM faculty member who has taught doctoral courses in the major, will serve on the Doctoral Committee. This group will be working with 13 students majoring in Finance. This major now admits students only every second year. Our admissions for Fall 2001 will be concentrated in Finance, and this will bring the total number of students in the major back to a level comparable with the numbers working with the other large faculty groups.

- The faculty group for the Accounting major and the Accounting and Information Systems major has 21 members: 19 from the Rutgers Department of Accounting and Information Systems (11 with offices in Newark and 8 with offices in Piscataway) and 2 (Iftekhar Hasan and Asokan Anandarajan) from the NJIT School of Management. Hasan will serve as Doctoral Coordinator next year and will teach a required course in accounting research. Both the NJIT faculty members will serve on the Doctoral Committee for the two majors. This group will be working with 22 students next year: 15 students in Accounting and with 7 majoring in Accounting Information Systems.

- The faculty group for the Marketing major has 11 members, all from the Rutgers Marketing Department (8 with offices in Newark and 3 with offices in New Brunswick). This group includes some distinguished methodologists, who teach courses (causal modeling, multivariate analysis, and qualitative analysis) used by students in a number of the other majors. But because of the relatively small size of its faculty and a correspondingly small allocation of assistantships, the faculty has had difficulty working out a doctoral curriculum that can be implemented. It has suspended admissions in the major for the time being, and currently only 4 students remain in the major.

- The Computer and Information Systems major has a core faculty group of 6 faculty members, 4 in the Information Systems Division of the NJIT Computer and Information Science Department (Murray Turoff, Roxanne Hiltz, Michael Bieber, and Bartel Van der Walle) and 2 in NJIT SOM (Jerry Fjermstad and Joe Wen). The major also sometimes draws on the Computer Science Division faculty who also work with the Management Science major and the Information Technology major. Since the Information Technology and Accounting Information Systems majors were created in 1998, the CIS major has not used Rutgers faculty on its Doctoral Committee or in its qualifying examination committees. As a result of a decision by the NJIT administration to support an Information Systems track in the NJIT Computer and Information Science Ph.D. Program, which is also run by the Information Systems Division, few of the students in our CIS major have received financial aid in recent years. The major is now down to 5 students.

The rules of the Program also permit individualized major. Currently the only student with an individualized major is in Management Information Systems, and is being advised by Julie Kendall, of the Rutgers-Camden Business School. Our web site encourages applications from students interested in individualized majors in Ethics or Healthcare Economics.

The Doctoral Coordinator for each major plays a crucial role in pulling together the faculty within that major. This person's job is truly to coordinate, not advise all the dissertations in the major by himself or herself. The Doctoral Coordinator should be aware of the progress of all the students in the major and should be prepared to counsel students and faculty when difficulties arise and to help students find advisers who best match their interests and temperaments. Because the Doctoral Coordinator is working across universities and campuses whose distances are often not bridged in this way, he or she needs to be open with all concerned and sensitive to possible misunderstandings. He or she needs to be prepared to act in the best interests of each student, even when this risks ruffling colleagues or appearing disloyal to his or her own university in the Rutgers-NJIT partnership.

7. Advising

Teaching in a business school is demanding, especially at the MBA level. Students for the MBA are usually paying customers, and their agents, Business Week and U.S. News and World Report, have created a system where the quality and appearance of MBA instruction is closely inspected by outsiders. Consequently, the level of attention that business faculty can devote to their first love, research and doctoral teaching, is more limited than in many of the arts and sciences. This has led to a national trend among business school doctoral programs towards intensive advising of a smaller number of students, distributed over a wider range of faculty members. The reforms in our program during the past 3 years were designed to bring us into conformity with this new national model, which now defines the expectations and demands with respect to doctoral education of the accreditation teams to which we must respond and the new faculty we want to recruit.

We have made significant progress in conforming to the new national model. In 1978, when our program began, it was primarily staffed by the few research faculty in the MBA-oriented Rutgers Graduate School in Business Administration, and many practices established during that period persisted until recently. In particular, a single person often advised most of the students in each major. But during the past three years, we have eliminated most of the vestiges of this pattern. We still have two faculty members who are advising 5 students each. But most advisers now handle only 1, 2, or at most 3 students. Altogether, we now have 51 different faculty members advising our 93 students.

We insist that every student have a personal adviser, and by the second semester that adviser must be working with the student on research in preparation for the student's completion of the first early research paper during their first summer. The student is free to choose and change advisers, provided the faculty member they choose is a full member of the doctoral faculty and is willing to work with the student. The Program Director and the Doctoral Coordinator for each major work together to choose an initial adviser for each new student when they are admitted and to help students change advisers when this is necessary or desirable.

The fact that two universities are involved in funding our program adds to the delicacy of the process of recruiting advisers. We must balance the number of advisers at each university with the level of funding provided by each university, and yet we must give each student maximal freedom in their choice of adviser. If the number of students being advised by NJIT faculty members gets out of balance with the number being supported by NJIT, because of students' choices of advisers, because of students leaving the Program, because NJIT-advised students are awarded dissertation fellowships by the Rutgers Graduate School-Newark, or because of other changes, then it is the responsibility of the Director and Doctoral Coordinators to right the balance when new students are assigned advisers and when the need arises to seek out faculty members to help students who are not being advised effectively.

It is important that the faculty and administration in both universities recognize that it is the responsibility of the Director and Doctoral Coordinators to maintain the balance between funding and advising. Under no circumstances should individual NJIT or Rutgers faculty members feel that they should be competing to attract students from faculty at the other institution. Such competition would damage the Program and the students in many ways.

8. Coordination of TA duties

As the result of a generous decision by Provost William van Buskirk of NJIT, the teaching assistants in our program who are funded by NJIT and work in NJIT's School of Management are now hired as Rutgers TAs rather than as NJIT TAs. This allows for uniform health and tuition benefits for all our students. It also allows us to strengthen the teamwork by the faculty at the two universities in developing students. Over the 4 years that a student normally holds an assistantship, they are sometimes assigned to work with their faculty adviser, but they may also be assigned to work with other faculty members on any of our three campuses. By the same principle, a student is not always assigned to work for their adviser as a TA even if their adviser is on the same campus as the TA duty.

In June of each year, after admissions for the coming fall have been finalized, the Program Director makes a comprehensive proposal for the assignment of students to TA duties for the coming. The proposal is made after consultation with the chairs of the Rutgers Business departments, the Dean of Rutgers Business, and the Dean of the NJIT School of Management. These assignments are then finalized by a coordinating committee that includes the Associate Dean of the Graduate School-Newark and the Dean of Graduate Studies at NJIT.

9. The Seminars for the Majors

An essential tool for developing a culture that will reinforce the aspirations and research abilities of doctoral students is the major seminar. Most of our majors have regular seminars that students are expected to attend. The Program Office maintains e-mail lists for the students in each major, and so the organizer of each seminar series can easily notify the students in the major of the schedule and of last-minute changes.

The most successful of our seminars is the weekly Friday morning Rutgers Accounting Research Forum, established some years ago under the leadership of Professor Miklos Vasarhelyi. This seminar meets in Newark two weeks out of three and in New Brunswick every third week. NJIT as well as Rutgers faculty regularly attend. All doctoral students in Accounting and in Accounting Information Systems are required to attend. Attendance is taken and is provided to the Ph.D. Program Office before TA renewals are made each March. The seminar is the most reliable occasion for interchanges among students, between students and faculty, and even for faculty meetings on doctoral student issues. Recently participating NJIT faculty have attended this seminar regularly, and this has facilitated tremendously their full participation in decisions affecting the doctoral students.

The Finance major has regular seminars on Tuesday and Friday mornings. The new Doctoral Coordinator, Avri Ravid, intends to establish practices like those in Accounting: He will monitor attendance by the doctoral students make sure they know it will be reported to the Program Office and considered when TA renewal decisions are made.

The Organization Management major has regular seminars on Wednesday afternoons. The value of these seminars to the doctoral program would be enhanced if attendance were taken and reported to the Program Office. International Business majors as well as Organization Management majors should be required to attend. Of equal importance, we need to establish a pattern of attendance at the seminars by the participating NJIT faculty, in order to ensure their full participation in the informal decision making associated with the seminar.

When the schedule of doctoral classes for the Fall and Spring semesters is prepared and distributed each year, the regular meeting times for the Accounting, Finance, and Organization seminars are marked, and care is taken not to schedule any courses that students might use at times that conflict with their seminars.

Management Science and Information Technology unfortunately do not have regular seminars. This is due in part to the fact that the faculty is even more dispersed than that for the other majors. Some of the faculty for these majors attend seminars at Rutcor in New Brunswick, some attend seminars in the NJIT Computer Science Division, some attend the seminars organized by Nabil Adam and Vijay Atluri at Newark, and some do not attend any NJIT or Rutgers seminars at all. The students have suffered significantly in the past from the lack of a regular seminar; many Management Science and Information Technology students, unable to integrate into a community with the faculty, have dropped out or failed their qualifying examination. It would significantly improve the student culture in this major if the faculty were to organize two regular seminars: one involving the faculty in Rutgers-Newark, NJIT SOM, and the NJIT Computer Science Division who work in Management Science, and one that brings Adam and Atluri together more regularly with the NJIT Computer Science Division faculty who also work in databases.

Marketing has not had a regular seminar, and this is undoubtedly one of the principal factors in its failure to develop an effective student culture in the past. The Program should invest in reviving this major only if there is a clear and convincing plan for a regular marketing seminar.

The core faculty for the Computer Information Systems major have a very effective seminar that meets regularly on Monday afternoons. Most of the students attending this seminar are those

in the large Information Systems track of the NJIT Computer and Information Science Ph.D. Program. Professor Turoff has told me that there are now about 50 students in this track—more than half as many as in the entire Ph.D. in Management Program.

10. Ties with NJIT's School of Management

An important factor in the effectiveness of our regular seminars in pulling together the faculty and pulling in the students of each major will be the importance attached to these seminars by the NJIT School of Management.

Because its small faculty is distributed over so many specialties, the School of Management cannot by itself mount seminars that are as specialized and helpful to the doctoral students as the Rutgers seminars, but the current workload of the faculty in the School makes attendance at the Rutgers seminars a luxury they can seldom afford. Practical success in achieving full NJIT participation in the leadership of the Ph.D. in Management Program cannot be achieved until this equation is changed. The faculty of the School of Management who participate in our program need workloads appropriate for doctoral faculty (this is also essential for the continued accreditation of both schools if we have a joint doctorate), and the administration of the School of Management needs to establish the expectation that faculty members who participate in the doctoral program attend regularly the seminars their doctoral students are expected to attend.

A practical step that can be taken in the short run would be for the Office of the Dean of the School of Management and the Doctoral Coordinators of each major in our program to arrange that the "job talk" by each potential faculty being recruited by the School of Management be made part of the seminar series for the appropriate major in our program. These talks must often be scheduled on short notice, but because the times for the principal seminars are well established (Friday mornings for Accounting, Wednesday afternoons for Organization, and Tuesday and Friday mornings for Finance), the School of Management would have a chance of scheduling these visitors at times when the students are available. And regardless of when the talk is in fact scheduled, the Doctoral Coordinator for each seminar series could announce it by e-mail to the doctoral students of the major as part of the series and record their attendance as part of their attendance record for the series.

While announcing the NJIT seminars to the students in the appropriate major, we could also announce them to the entire faculty for that major, for which the Program also maintains an e-mail list. This would be a very powerful way of keeping faculty on the Rutgers side informed about the quality and interests of faculty being recruited at NJIT, and it would enhance the possibility that Rutgers faculty members might sometimes help the administration of the NJIT School of Management in its recruiting work.

11. Ties with NJIT's Computer Science Division

Because the NJIT Computer and Information Science Department now plans to split in two parts, it is important that the administration and all our faculty be aware that we have important connections with both parts. The Information Systems group has played an important role in the

Program historically, because of its leadership in the CIS major and because until recently all our students were required to take courses it offered. Today, however, students in majors other than CIS rely more heavily on the Computer Science group. This group makes a variety of contributions:

- Our students take a large variety of graduate courses from the Computer Science Division. The total number of enrollments is not great—only about a dozen a semester. But the two dozen enrollments each year are spread across almost the entire graduate curriculum of the Division. This wide variety of computer science courses is indispensable for providing our students in Management Science, Finance, Accounting Information Systems, and Information Technology with technical tools they need to be creative in their disciplines.

- The Computer Science Division supplies some of our strongest faculty in management science and information technology. We are now beginning to use these faculty in teaching the courses scheduled by Rutgers Business for the Program. Bill Van Buskirk, NJIT Provost, and Joe Leung, Chair of the Computer and Information Science Department, have agreed to allow James Calvin to teach our stochastic processes course next year, and we hope that this is only the first of regular contributions from the Computer Science Division to the teaching of our Management Science and Information Systems courses.

- The Computer Science Division regularly supplies members of qualifying examination committees for the Information Technology major. We can expect this to also be true for the Management Science major now that Calvin is teaching stochastic processes and Nakayama is serving on the Doctoral Committee for the two majors.

- Several of the faculty members in the Computer Science Division have agreed to provide summer funding from their grants for students they advise in our program. We were able to take advantage of this offer for students admitted for Fall 2000 in the case of Calvin and Nakayama.

I hope the NJIT administration will continue to encourage this strengthening of our ties with the Computer Science Division. One sensible step would be to allow the occasional assignment of students who are advised by Computer Science Division faculty to TA duties with their advisers.

12. Ties with NJIT's Information Systems Division

Our students also continue to use, on a more modest scale than in the past, the courses taught by the Information Systems Division of the NJIT Computer and Information Science Department. Recently, we have been trying to reciprocate by scheduling our courses so that they will be as available as possible to the students in this Division's NJIT doctoral track. According to Murray Turoff, these students may be especially interested in Electronic Commerce, which will be taught in Fall 2000 by Alex Kogan, in Qualitative Analysis, which will be taught in Spring 2001 by Deborah Dougherty, and in Management of Innovation and Technology, which will be taught in Spring 2001 by Fariborz Damanpour. If we get several NJIT enrollments in each of these

courses, we will have gone a good way towards reciprocating for our students' regular enrollments in NJIT courses.

As negotiations proceed on making our Program fully joint with NJIT, the question will arise as to whether it makes sense for the Information Systems Division to continue to administer two nearly identical Ph.D. degrees, one part of a purely NJIT program (the Information Systems track in the NJIT Computer and Information Science Ph.D.), and one now part of the joint program (the CIS major in our program).

Certainly it would not be acceptable to Rutgers Business for the new joint program to absorb the current NJIT Information Systems track. That track is so different from our program, in terms of enrollment and advising policy, that it would raise unanswerable questions for accreditation and threaten our ability to enforce policies essential to the continued improvement of the rest of the Program.

Should the CIS major in our program be built back up even while the NJIT Information Systems track continues in parallel? This would raise some of the same issues. The faculty of the Information Systems Division is so small that the number of students in the NJIT track alone will raise questions with business-school accreditation teams. Problems also arise because the faculty of the major, as a practical matter, must follow essentially the same policies for the CIS major as for the NJIT track, regardless of what our program's rules say. Students tend not to be advised as intensively as the current national business-school model requires, and if a faculty member is participating in a qualifying examination or other activity for the NJIT track, he will end up participating in the same way for students in the CIS track, regardless of whether our program's membership committee (which includes two NJIT representatives) has agreed that he is qualified for our program's doctoral faculty.

The best solution may be to continue not admitting supported students in the CIS major for the time being, while efforts are made to increase connections on other fronts. Use of courses taught by Rutgers faculty by students in the NJIT Information Systems track may lead to the greater involvement of these faculty in other aspects of the NJIT Information Systems track, including qualifying examination committees, dissertation committees, and so on. This could gradually produce a picture where the distance between the CIS major and our other information systems majors are not so great and different arrangements can be considered.

13. Reviving the Marketing Major

In order for a Marketing major to be viable in the future, it must evidently be structured to share courses with one of more of the other majors. The obvious choice, given the current demand of students graduating in information systems, is to align the major with the three existing information systems majors. Alignment with the Accounting Information Systems and Information Technology majors might be achieved most easily. These majors now share four courses, Electronic Commerce, Expert Systems, and two database courses, which are required as 4 of the 5 major courses for every student in both majors. We could accommodate marketing majors by adding a fifth course, Electronic Marketing, provided that the Marketing faculty is able to provide

the additional specialized training needed by their students through independent study and a regular seminar.

I have suggested that the Marketing faculty design a new curriculum relying on information systems courses in other majors, with a few new admissions to begin in Fall 2002 and Fall 2003. By that time we may have new faculty members in NJIT SOM who can collaborate effectively with the group.

14. www.phd-business.rutgers.edu

Our web site, begun in 1998, is now a major tool for the administration of the Program. It provides information to 4 distinct groups.

1. Potential employers of our students. They can find home pages and dissertation abstracts for many current students and recent graduates. Employers are also encouraged to send announcements of openings to our Program Office.

2. Potential applicants. They can find information concerning admissions policies, financial aid, our faculty, our majors, and our alumni. They can apply online or download an application form. Further information is provided by a list of frequently asked questions and a photo gallery.

3. Current students. They can find information on courses, program rules, requirements for majors, the individual study plan, resources available in the Program Office, and the Student Government. We also provide photo directories (in pdf format) of students and faculty for the coming academic year.

4. Faculty. They can find information about faculty governance of the Program and guidance for their participation in the Program.

The primary principle governing our development of this web site has been maximal openness and sharing of information. A visitor to our site can see the placements of all our alumni, even though these are not nearly what we would like them to be. In the responses to the frequently asked questions, they can learn the truth both about our admissions rate (about 10%) and our graduation rate (40% to 60%). They can see the syllabi for the courses we actually teach (and which professors have not bothered to provide such syllabi). They can read the abstracts of the dissertations our existing students actually write. They can find out where our faculty publish and what their research interests are. Some potential applicants may look elsewhere after they have absorbed this information. But I believe that our best chance for attracting students with whom we can work on a basis of mutual respect is to tell the truth as best we can.

15. Report on Recruiting

In the past three years, the financial aid we have been able to offer to our students has improved dramatically. First, the basic stipend for all Rutgers University TAs has gone from

approximately $11,000 to approximately $14,000. Secondly, starting with seed money from the Provost and continuing with contributions from faculty grants, centers, and teaching budgets, we have been able to offer additional $3,000 employment opportunities. Third, through our relationship with NJIT, we have been able to restructure existing funding so that we have fewer teaching assistantships, but some of the assistantships, for students with demonstrated skills in English and business experience, have supplemental stipends, Newark Graduate Center Fellowships, which add 50% to the TA stipend.

Several other factors have also improved our ability to recruit. One is our web site, which has had its full effect only during the recruiting for Fall 2000. The extensive information on this site has, I believe, enabled potential applicants to sort themselves better. The site provides a very detailed story about our faculty, about the demands placed on our students and the resources available to them, about the rules of the Program, and about the employment opportunities our graduates have had. As a result, the Program Office now receives fewer inappropriate inquiries and inappropriate applications. We have also had fewer applicants decline our offers this year. A few applicants still accept and then withdraw once they receive offers from more prestigious universities. But this has happened less often this year than in the recent past. Last year none of the students that we accepted in our initial round of admissions in early March ended up actually coming to the Program. This year it appears that a majority will end up coming to the Program. While this must be partly due to the better financial aid that we were able to offer to some of the students, it is also true for students who were not offered better financial aid, and so I believe that it is also partly a result of a better match between us and our applicants.

Another factor is greater participation in recruiting by the faculty and our more aggressive use of the Ph.D. Project (www.phdproject.com), which has been funding the recruitment of minority students with business experience into business doctoral programs. Since 1993, the Project has annually invited about 400 young minority business people to a conference in Chicago, where they learn about the academic profession and are courted by doctoral directors from the leading business schools (including Rutgers). Each year, about 10% of these young people do enroll in business school doctoral programs, and the total number of minority (African-American, Hispanic, and Native American) students put into the pipeline by this process now promises to double the minority presence in business school faculties nationally, from 2% to 4% of all faculty. Our program has participated in the Project every year since it began, but this is the first year we were able to do so effectively. We did this by providing effective literature on all our majors (printouts from our web site) to potential applicants who visited our booth at the conference and following up quickly and aggressively (with the help of a large number of faculty members) on all contacts. The result is that the majority of the acceptable applications we received from Americans were from African-Americans. This has produced 5 new African-American students for our program for Fall 2000.

Altogether, we have recruited 18 new students for the fall, 16 with teaching assistantships (8 of whom have Newark Graduate Center supplemental fellowships and 2 of whom have more modest supplemental fellowships funded by the Reinvest in Rutgers program), 1 funded by a faculty grant, and 1 funded by a scholarship from his country's government.

The 18 new students come from 8 different countries: 7 are United States citizens, 5 are from China, and one each is from Barbados, Belgium, Byelorussia, Ecuador, Saudi Arabia, and Turkey.

16. Further Improving Recruiting

As I stated in the introduction, the achievement of truly high quality in our doctoral program depends on the dedication of our faculty to the intellectual development and placement of our graduates. The changes that we have put in place, including the improvements in recruiting, can do no more than create the possibility of such achievement. Moreover, further improvements in recruiting are needed in order for the faculty in our participating units to make its best possible contribution to doctoral education.

As we all understand, the geographical location of Rutgers provides pluses and minuses for recruiting doctoral students. Our ethnic diversity and ready access to international travel makes us attractive for students around the world. But the high cost of living of the metropolitan New York area makes study here impossible for many potential students, especially those who must live on the financial assistance we can provide. And the presence of many prestigious universities in our area means that we are not as natural a choice for outstanding students in New Jersey as the public universities of the Midwest, West, and South often are for students in their regions.

These problems are especially acute for a business school, for although business school doctoral programs are very academic and provide a good career opportunity for bright and academically inclined students graduating from college in economics, mathematics, psychology, or sociology, they are not a salient opportunity for such students. The young people who are most likely to think of studying to become business school professors are those who have earned a business school degree and have subsequently become dissatisfied with life in the business world, and these are often not the individuals best suited for doctoral study.

I believe that these problems can be further addressed, but that the leadership in doing this must pass from the Program Director to the faculty in each of the majors. If they are to have the doctoral students they want to work with, they must create new opportunities for recruiting and funding.

The opportunities for recruiting will be different in each major, but in most cases, it may be effective to mount a serious campaign to reach students completing undergraduate degrees in the arts and sciences, especially in the better regional colleges and universities.

All our faculty members who engage in research are in constant communication with faculty colleagues in the region as well as nationally and internationally, but only a few of them think of making the recruitment of students part of their conversations with these colleagues. During my three year term as director, several of my colleagues have taken it upon themselves to recruit students to apply to our program; I recall 8 colleagues who have done this repeatedly: Nabil Adam, Ron Armstrong, Peter Hammer, Nancy DiTomaso, dt ogilvie, Ben Melamed, and Miklos Vasarhelyi. We need similar help from the other 110 faculty members in the Program. Recruiting should be a topic of discussion in every meeting of every one of our doctoral committees.

17. Further Improving Financial Aid

We also need wider faculty involvement in improving the funding for our students. We need help in providing the summer funding opportunities that we are now promising all new supported students. And we also need help in expanding the supplemental fellowships to a wider group of students.

We promise students who are recruited with teaching assistantships an opportunity to earn $3,000 in each of their first four summers. This will usually be a teaching opportunity in the second, third, and fourth summers, but some students are not prepared to teach in the first summer, and in these cases, at least, we must provide other employment opportunities, ideally in research. The Provost provided, as seed money, funds to pay 12 students admitted in Fall 1999 to do research in Summer 2000. We have turned to faculty members to provide 6 more slots for Summer 2000 and to provide all the slots for Summer 2001.

The plan for supplemental fellowships approved by the Rutgers and NJIT administrations this spring called for sacrificing 6 of our 47 assistantships in order to provide 50% supplements for 12 students. A larger sacrifice of assistantships would be difficult for us to absorb. But in the first year, I have already used 4 of the 6, providing supplements for 8 incoming students, who will retain that funding for 4 years if they remain in the Program. That means, in theory, that we can provide such improved funding for only 4 additional students admitted during the next 3 years. As I noted in Section 3, we will admit a limited number of students in Fall 2001, and Fall 2002, and it therefore may be reasonable to provide supplemental fellowships to only a couple each year. But in Fall 2003 we will admit a large number of students, and we will certainly miss the ability to continue providing new supplemental fellowships then. We should begin planning now for providing additional supplemental fellowships from grants and centers.

The full cost of an assistantship is very high—between $30,000 and $40,000 once fringe benefits, university overhead, and tuition are included, and few of the funding sources business professors can access will provide this. But a much wider range of funding sources become available if we seek only $10,000 to supplement an assistantship provided by the university ($7,000 for a supplemental fellowship and $3,000 for summer support). In my draft proposal for a joint degree with NJIT, I have suggested that the administration agree to assign up to 20% of our assistants to duties specified by research centers that will provide such supplemental support. It is very likely that the administration will agree to this if the faculty shows its ability to raise the money.

The allocation of teaching assistantships across majors and the assignment of initial advisers was heavily influenced this year by the ability of faculty to fund the new students' first summer from their grants and research centers with which they work. In the future, the allocation of teaching assistantship resources will be increasingly influenced by the ability and willingness of the faculty to provide summer money and supplemental fellowships so we can recruit the best possible students.