Continuing Student Opinion Survey

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EXECUTIVE SUMMARY

Introduction

This report presents the results of the *Continuing Student Opinion Survey (CSOS)* which was administered to Rutgers undergraduates during the 1995-1996 academic year. The *CSOS* is one of a series of surveys of Rutgers undergraduates conducted by the Office of Institutional Research and Academic Planning, and was designed to obtain information about students' characteristics, goals, expectations, and experiences at Rutgers, The State University of New Jersey. In addition, the survey results provide information about students' time allocation, employment activities, and contact with Rutgers faculty. The answers of survey respondents are examined by various student categories, including gender, racial/ethnic identity, class level, and regional campus. This report also includes an analysis of the factors that influence undergraduate academic success and satisfaction.

Methodology and Student Characteristics

The *CSOS* was designed collaboratively by the Office of Institutional Research and Academic Planning and a graduate research methods class in the Department of Sociology at Rutgers-New Brunswick. The survey was administered to a random sample of 3,000 undergraduates. In order to ensure an adequate number of responses from minority students and from all three regional campuses, students from selected racial/ethnic categories and campuses were sampled disproportionately to their representation in the population. Because there was an over- and under-representation of certain student groups in the sample compared to the population, weights were applied during analyses to obtain accurate and unbiased information about the population. After four mailings of the survey, a total of 1,320 usable surveys were returned for analysis, resulting in an overall response rate of 44 percent.

University-wide, approximately 40 percent and 50 percent of all respondents reported that their mother and father were college graduates, respectively. Ninety percent of the respondents indicated that they were never married while eight percent indicated that they were married. Forty-two percent of respondents noted that they lived on campus at the time of the survey. Students who lived off-campus had an average distance of 15 miles to commute to school. Most of the survey respondents (68%) reported an approximate grade average of B or better. The major with the highest percentage of declared students was psychology (9%). Parents and other family members are a source of college financial support for the largest proportion of respondents (74%).

Findings

Student Educational Expectations and Goals

Seventy-eight percent of respondents felt that they would definitely graduate from Rutgers, while another 16 percent indicated that they would probably graduate. Twenty-four percent of respondents indicated that the baccalaureate degree would be their highest level of educational attainment, while 42 percent planned to attain a Masters degree.

Survey respondents were presented with 20 goal statements in four categories -- academic goals, career preparation and career improvement goals, social and cultural participation goals, and personal development and enrichment goals -- and were asked to indicate which goals they considered important to them, and which goals they were in the process of achieving or had achieved. Respondents' most

important academic goals were: to obtain a degree or certification (76%), to increase knowledge in an academic field (73%), and to improve the ability for critical thinking (63%). The academic goal most cited by respondents as being achieved was improvement of thinking skills (58%). The majority of responding students (at least 52%) deemed all four career goals important. However, less than a majority of students indicated that they had achieved or were achieving these career goals.

The two social and cultural participation goals (to become active in student life and campus activities, and to meet people and make friends) were important to 37 percent and 45 percent of respondents, respectively. Of the respondents who indicated that these goals were important, 37 percent and 67 percent achieved or were achieving them. In the personal development and enrichment category, students' most important goal was to enrich their daily life and become a more complete person (57%), while the goal most often achieved was to improve the ability to get along with others (60%).

An index was derived to measure the extent to which the four goal categories were selected by various student subgroups. Among all student subgroups, first-year students had the highest rate of selecting academic goals, while Newark students selected academic goals at the lowest rate. All student groups gave considerable importance to career goals, with the highest rate of selection among Latino students. First-year students exceeded all other student groups in the selection of social and cultural participation goals, while Asian and first-year students selected personal development and enrichment goals at higher rates than all other student groups.

Assessment of Rutgers' Academic Experiences and Student Services

Seventy-four percent of all respondents rated their academic experience at Rutgers positively. Students were presented with 29 different services offered to undergraduates at Rutgers, and were asked to indicate their awareness and use of, and satisfaction with these services. Overall, the majority of respondents were aware of most services, and utilization of and satisfaction with these services were moderate to high. The services that were least familiar to respondents included the Educational Opportunity Fund (71% indicated awareness), college cultural programs (70%), psychological counseling (64%), minority affairs (60%), and international student services (58%).

Generally, the services that were most known to respondents were also the most used. The most widely known services that were <u>not</u> used included intercollegiate athletics programs (68%), tutoring and campus security (both 61%), career planning and services (59%), student employment (58%), and the Educational Opportunity Fund (58%). All but one of the 29 services received a satisfactory rating from the majority of users, ranging from 94 percent to 53 percent. The only service receiving a distinctly low satisfaction rating was parking services -- only 28 percent of users gave it a satisfactory rating. Most services did not vary across student subgroups in terms of usage. However, certain services such as campus security and first-year student orientation received differential ratings of satisfaction among the various student groups considered.

Extracurricular and General Activities

Slightly more than half of the survey respondents participated in at least one extracurricular activity. Participation in academic and professional organizations was the most common activity, with a participation rate of 20 percent. Over 60 percent of respondents indicated that they spent between 11 and 20 hours a week attending classes. Almost 50 percent of respondents spent ten hours per week or less studying, while approximately 35 percent studied between 11 and 20 hours a week. Forty-three percent of respondents reported that they worked for pay between one and 20 hours per week.

Respondents reported spending an average of 29 hours per week on school-related activities, 15 hours per week on job/volunteer-related activities, five hours per week on sports/exercise-related activities, 19 hours per week on extracurricular/social activities, five hours per week on household-related activities, and six hours per week commuting to and from school. Several differences emerged in the time allocation of various student subgroups. For example, Camden and Newark students spend considerably more time than New Brunswick students working for pay or as volunteers (22 hours for Camden and Newark students vs. 13 hours for New Brunswick students).

Faculty Contact

Several items on the *CSOS* asked students to estimate the amount of contact they had with Rutgers faculty. Based on the overall responses to these items, contact with faculty among Rutgers students is low. Most respondents reported that they had "a little" or "some" contact with faculty at the end of class (73%) or outside of class (64%), and had met with a faculty member in his/her office (65%). More than eight out of ten of students indicated that they never helped a faculty member with research (85%), and approximately three out of four students never had discussed a faculty member's research (73%). In addition, most students had never discussed with faculty an independent study project (66%), future career options (66%), future education (63%), or personal issues (62%).

Students were also asked to answer several survey items regarding their perceptions of Rutgers faculty in their role of furthering students' educational and personal goals. Slightly more than a quarter of respondents felt that faculty helped to prepare them for further education, and most felt that to some extent, faculty helped them to improve their grades (63%), introduced them to exciting thoughts and ideas (58%), and helped prepare them for future education (52%). Yet, students indicated that they perceived faculty as unhelpful in guiding their future career plans and personal development.

Students indicated that it was <u>not</u> important that faculty share the same religious identity, racial identity, cultural/ethnic identity, language skills, gender, or extracurricular interests. However, many students felt that it was at least of "some" importance that faculty share similar intellectual interests. When comparing the responses of student subgroups, females had more frequent and more positive perceptions of faculty contact than males; white students had the most frequent and most positive perceptions of faculty contact among the five racial/ethnic groups; and Camden students had the most frequent and most positive perceptions of faculty contact among the three regional campuses.

Student Employment

A section of the CSOS asked students about their employment while attending Rutgers. Two-thirds of respondents indicated that they were employed, and 30 percent of these respondents indicated that they worked on-campus. Twenty-two percent of working students were employed by faculty and 18 percent indicated that they were employed in a supervisory or managerial capacity. African American students worked the most hours per week among the racial/ethnic student groups (22 hours), and Asian students worked the least among these groups (16 hours). New Brunswick students worked fewer hours per week than either Camden or Newark students (16 vs. 25 and 26 hours, respectively).

Over one-third of all working respondents indicated heavy reliance on their present employment to provide money for: social and recreational activities (46%), a feeling of independence (41%), the purchase of clothing (39%), help in personal development and growth, help in learning technical or specific

job-related skills (both at 38%), help in paying off outstanding loans and debts, and a feeling of personal accomplishment and mastery (both at 37%).

A majority of students did not feel that working interfered with their attendance at classes (66%), though 20 percent indicated that their working did interfere a "little" with their attendance at classes. Sixty percent of respondents indicated that their employment interferred a "little" or "some" with their studies.

Factors Influencing Academic Acheivement and Satisfaction

Data from the *CSOS* provided the basis for building statistical models that sought to explain differences among respondents in academic achievement and student satisfaction. These models were created through hierarchical multivariate regression; they identify factors that were found to influence cumulative GPA, which was used as the indicator of academic achievement, and the satisfaction of respondents with student services offered by the university. The cumulative GPA model explained 38 percent of the variance in the dependent variable, with academic background (measured by composite SAT) having the strongest unique effect. The student satisfaction model had the lower explanatory power of the two models, but did identify various factors such as gender and faculty remoteness as statistically significant predictors of student satisfaction.

CHAPTER ONE:
INTRODUCTION

BACKGROUND TO THE STUDY

The purpose of this report is to present the results of the *Continuing Student Opinion Survey (CSOS),* which was administered to Rutgers undergraduates during the 1995-1996 academic year. This survey of Rutgers undergraduates is part of the university's continuous effort to obtain comprehensive feedback from its various constituencies regarding their opinions and attitudes toward the university's programs, policies, and practices. The *CSOS* is one of a series of surveys of Rutgers undergraduates that has included an annual survey of first-year students, periodic surveys of graduating seniors, a survey of Rutgers undergraduates who left the university before graduating, and surveys on undergraduate use of academic support services and the Rutgers Study Abroad Program.[1] In addition to asking students about their characteristics, goals, expectations, and experiences at Rutgers, the *CSOS* was also designed to obtain information regarding the extracurricular activities and time allocation of students, their employment activities, and the nature of their contact with faculty.

These areas of student life are basic elements of the undergraduate experience and are commonly seen as directly affecting the quality and success of students' educational pursuits. The notion that the achievement of undergraduates is related to how well students 'fit' within their attendant institution has acquired so much currency today that it has become commonplace to assert the importance of the symmetry of student and college in accounting for student success. This is the central point of various research efforts regarding student success that abound today, with the work of Vincent Tinto being perhaps the best theoretically developed and most empirically tested of these efforts.[2] This research tradition identifies a variety of factors that include the setting and achieving of goals, participation in extracurricular activities, student employment, and faculty contact as some of the critical components that contribute to the academic and social integration of students and, by implication, concomitant and tangible college outcomes, such as academic achievement and student satisfaction.

Rutgers undergraduates are highly motivated students and have a long history of academic success. Many facts exist to bear this out, but perhaps the most impressive indicator of this achievement, at least on an institutional level, has been the consistently high graduation rates of Rutgers undergraduates. This is highlighted in a comparison of Rutgers' six-year graduation rates with the other public institutional members of the prestigious Association of American Universities (see Table 1.1). Yet, regardless of the academic achievements of Rutgers undergraduates, we are also aware that student persistence and success at Rutgers

varies among its undergraduates. For example, although the university eventually graduates approximately three quarters of its students, roughly 20 percent never successfully complete their studies at the university, with slightly over 10 percent of Rutgers undergraduates leaving the university immediately after their first-year of attendance (see Table 1.2). Rutgers undergraduates also differ on other measures of academic success, such as the time it takes to graduate and cumulative grade point average.[3] In addition, previous surveys of Rutgers undergraduates undertaken by the Office of Institutional Research and Academic

Table 1.1
Six-Year Graduation Rates for Public AAU Institutions
Fall 1990 Entering Class, Full-Time Students

University of Virginia	91%
University of Michigan	84
University of North Carolina	82
University of California - Berkeley	80
University of Illinois	78
Pennsylvania State University	78
University of California - Los Angeles	77
University of California - Irvine	72
University of Wisconsin	72
Rutgers, The State University of New Jersey	**71**
University of California - Santa Barbara	70
Indiana University	70
University of Washington	69
Purdue University	69
University of Colorado	66
Michigan State University	66
University of Texas	63
University of Florida	63
University of Iowa	63
University of Pittsburgh	62
University of Maryland	61
Iowa Sate University	60
State University of New York - Buffalo	60
University of Missouri	57
University of Oregon	56
University of Kansas	56
Ohio State University	55
University of Minnesota	52
University of Arizona	51
University of Nebraska	49

Includes all students who graduated through August 1996.
Data for University of Cal.- San Diego and University of Cal.- Davis unavailable.
Source: NCAA 1997 Division I Graduation-Rates Report

Planning have shown that students vary in their attitudes toward their academic experience and their satisfaction with student services at Rutgers.[4] It is thus reasonable to assume that factors contributing to the academic and social integration of students should also vary among Rutgers undergraduates, and a fundamental purpose of the *CSOS* is to examine the extent of variation in these factors among undergraduates at the university.

Table 1.2
Retention of First-Time First-Year Students

Cohort	N	1-Year Retention %	2-Year Retention %	3-Year Retention %	4-Year Retention %
1986	6,207	88.0	80.5	77.3	74.9
1987	5,426	89.0	81.6	78.6	72.9
1988	5,358	88.4	81.0	77.8	76.5
1989	5,351	89.2	81.9	79.9	76.4
1990	5,110	88.0	81.5	78.5	75.7
1991	5,100	88.5	79.7	76.5	73.9
1992	4,954	88.7	80.1	77.4	73.6
1993	5,253	88.1	80.3	76.3	-
1994	4,827	90.2	82.8	-	-
1995	5,463	89.0	-	-	-

An important benefit of this effort is the documentation of valuable information about undergraduates that can be used by members of the Rutgers community to facilitate their commitment to provide a quality education to all Rutgers students. For example, faculty can use the information about the type and extent of faculty contact, or at least how undergraduates perceive their contact with faculty, to develop strategies that can enhance faculty-student interaction. Administrators can learn the extent to which students use the wide range of services available at Rutgers and their perceptions of these services, and to identify those services which need improvement. The survey's sections on student allocation of time, extracurricular activities, and student employment can be used by academic support personnel to structure programs that will ensure maximum student utilization.

This report not only presents the data collected from the *CSOS* for the entire Rutgers undergraduate student body, but also compares the answers of survey respondents by various student categories. Because Rutgers undergraduates are quite diverse[5] and enter the university with varying needs and expectations,[6] and because these needs and expectations change as students progress through their undergraduate career, it is important to consider how different student groups vary in the areas of student life covered in the *CSOS*.

Although responses to the survey can be related to many different classifications of students, this report uses four distinct characteristics of students for the presentation of answers to many of the questions asked on the *CSOS*. These include gender, racial/ethnic identity, the class level of respondents, and the regional campus students attend.

A basic feature of any institution's mission is to strive to ensure that their students succeed academically and come away from their tenure as undergraduates with positive feelings regarding their academic experience and school. Thus it is critical for an institution to monitor itself to ascertain if it is meeting this most basic of goals. Various means are available to an institution to provide this self-regulatory function, including the surveying of its students with instruments such as the *CSOS*. But beyond this data-gathering effort, it is also helpful to understand what contributes to student differences in academic achievement and student satisfaction. Therefore, a final component of this report presents results of an analysis of the *CSOS* data that attempt to identify and statistically model those factors that influence the academic achievement of Rutgers undergraduates and their satisfaction with student services at Rutgers.

In summary, results from the *CSOS* that are presented in this report seek to answer the following questions:

- What are the basic background and academic characteristics of students who responded to the *CSOS*?

- How do undergraduates rate their educational experience and what are their goals? To what extent are these students achieving their stated goals?

- What is the extent of utilization of various Rutgers services by students? Are undergraduates satisfied or dissatisfied with these services?

- In what extracurricular activities do Rutgers undergraduates participate? What is the extent of this participation?

- How do Rutgers undergraduates spend their time during the academic year?

- What is the nature and extent of the interaction between undergraduates and faculty at the university?

- What types of employment do undergraduates engage in while attending Rutgers? Why do students work while attending Rutgers? How is work viewed by undergraduates in the context of their undergraduate education?

- How do answers to these questions vary across student categories such as gender, race/ethnicity, class level, and regional campus?

- What factors are responsible for the academic achievement and satisfaction of undergraduates at Rutgers?

ORGANIZATION

Chapter 2 discusses the survey methodology used to produce the data presented in this report and also describes the representativeness of the sample of students surveyed. In addition, Chapter 2 profiles respondents according to various background and demographic questions that were asked of students in the *CSOS*. The *CSOS* also asked students about the goals they consider important and whether they are achieving or have achieved them; the results from this section of the questionnaire along with respondents' long-range goals are presented in Chapter 3. Students' rating of their academic experience at Rutgers and their evaluations of Rutgers student services comprise Chapter 4. Documentation of the type and extent of extracurricular activities in which undergraduates participate is detailed in Chapter 5; this chapter also shows students' responses to questions regarding their allocation of time during the school year. Chapter 6 presents student responses regarding their contact with faculty, and Chapter 7 presents information on student employment behavior. Chapter 8 reports on the results of an analysis of the *CSOS* data that attempts to identify factors responsible for differences in the academic achievement and satisfaction of Rutgers undergraduates. A summary of the results of the continuing student study comprises Chapter 9. Appendix A contains a copy of the *CSOS* questionnaire. More detailed versions of tables found throughout this report are presented in Appendix B, and Appendix C presents statistical information on scales developed from questionnaire items used in Chapters 6 and 7. Appendix D contains statistical information pertaining to the analysis in Chapter 8.

ENDNOTES, CHAPTER 1

[1] These surveys include: Rutgers' participation in the Higher Education Research Institute's *Cooperative Institutional Research Program* (CIRP), the *1992* and *1997 Graduating Student Opinion Surveys*, the 1997 report on undergraduate attrition, a series of surveys on student use of academic support needs services, and the *Rutgers Study Abroad Survey*.

[2] Tinto (1993). See Braxton et al. (1997) for a recent review of the literature regarding student persistence.

[3] In 1996, the average grade distribution for spring semester courses among Rutgers' undergraduates was 29 percent 'A's, 16 percent 'B+'s, 21 percent 'B's, 11 percent 'C+'s, 14 percent 'C's, six percent 'D's, and three percent 'F's (Office of the Registrar, *Fall Semester 1996 Enrollment Reports*). The average time to degree completion for undergraduates is 4.4 years (Office of Institutional Research and Academic Planning, *1997 Accountability and Excellence Report*).

[4] For example, preliminary results from the recently administered *1997 Graduating Student Opinion Survey* shows that 25 percent of graduating seniors felt that their academic experience at Rutgers was "excellent," 61 percent stated that it was "good," 13 percent gave it only a "fair" evaluation, and one percent indicated their academic experience at Rutgers was "poor." Preliminary results from this survey also revealed that graduating students vary in their appraisal of student services at Rutgers, with some services such as recreational activities and student centers receiving almost uniform positive ratings and other services such as parking and transportation services receiving low satisfaction ratings.

[5] Rutgers has one of the largest minority undergraduate student bodies among public research institutions and has slightly more female than male undergraduates.

[6] An indication of the diversity in academic needs of Rutgers undergraduates is seen in the number of students who are required to take remedial courses for no credit in Mathematics and English before they can begin to take courses for credit in these two fundamental academic areas. For example, in Fall 1995, approximately 3,600 students out of 34,939 undergraduates were enrolled in remedial mathematics and English courses.

CHAPTER TWO:
METHODOLOGY AND STUDENT CHARACTERISTICS

INTRODUCTION

This chapter describes the process by which the *Continuing Student Opinion Survey (CSOS)* was developed, the basic steps taken in its administration, the representativeness of the sample used in the study, and the self-reported characteristics of the survey's respondents.

QUESTIONNAIRE DEVELOPMENT

To a certain extent the items included in the *CSOS* are similar to many of the items included in previous surveys of undergraduates undertaken by the Office of Institutional Research and Academic Planning (OIRAP).[1] Sections of the *CSOS* that include questions about student goals, extracurricular activities, evaluations of student services and student life, and self-reported demographic and academic characteristics contain many of the items from previously administered OIRAP student surveys. However, the sections of the *CSOS* asking students about their time allocation to various activities, their employment and work activities, and their contact with faculty contain many questions that have not been asked on previous OIRAP student surveys. The presence of these questionnaire items on the *CSOS* is the result of the combined effort of the Office of Institutional Research and Academic Planning and a graduate research methods class in the Department of Sociology at Rutgers-New Brunswick. Students enrolled in the year-long graduate research methods course participated in the development of the continuing student questionnaire, which served as a practicum for students to acquire actual survey research experience. As part of this graduate course, students initially developed questions regarding student activities, employment, and faculty contact through formal class discussion and informal student exchanges. These graduate students then pretested the questionnaire items on approximately 100 Rutgers undergraduates selected in an unsystematic manner. Evaluating the responses of students in the pre-test led to further refinement of the questionnaire items before their inclusion in the *CSOS.* These questions were combined with questionnaire items from standard OIRAP student surveys to create the *CSOS*.

SURVEY METHODOLOGY AND ADMINISTRATION

Because it would have been an enormous effort and expense to administer the *CSOS* to all Rutgers undergraduates, a random sample of 3,000 undergraduates was selected for the administration of the *CSOS*.[2] However, in order to ensure that an adequate number of responses were received from minority

students and from all three regional campuses, students from the various racial/ethnic categories and three regional campuses were sampled disproportionately to their representation in the population.[3] Certain student groups were over-represented in the sample while other student groups were under-represented. Columns 1-4 of Table 2.1 show the number and percentage of students that constituted the undergraduate population and the *CSOS* sample.

The *CSOS* was mailed to the 3,000 stratified randomly selected students through either the Rutgers University campus mail system or by first class mail.[4] There were a total of four mailings. The first mailing occurred on November 15, 1995 and included the questionnaire, a cover letter from the instructor of the sociology graduate methods course, Professor Stephen Hansell, explaining the purpose of the survey and ensuring complete confidentiality, and a self-addressed return envelope.[5] The second mailing consisted of a postcard that was also sent to all sampled students one week later. The message on the postcard expressed gratitude to the student if he or she had already returned the survey, while reminding others to do so as soon as possible. A third mailing occurred on December 5, 1995, approximately two weeks after the mailing of the postcard to students who did not yet return a questionnaire. This mailing included another copy of the questionnaire, a second letter from Professor Hansell, which was slightly revised from the original letter and once again described the purpose of the survey and ensured confidentiality, and a self-addressed envelope.

A final mailing that included another copy of the questionnaire, another revised letter from Professor Hansell, and a self-addressed envelope occurred on February 5, 1996 and was sent to students

Table 2.1
Continuing Student Opinion Survey Response Rates

Student Category	(1) Population	(2)	(3) Sample	(4)	(5) Number Returned	(6)	(7) Response	(8) Weight
	N	%	N	%	N	%	Rate	
Camden								
African American	493	1.4	225	7.5	80	6.1	.36	.23
Asian	190	0.5	190	6.3	71	5.4	.37	.10
Latino	164	0.5	164	5.5	59	4.5	.36	.11
White	2,391	6.8	225	7.5	94	7.1	.42	.96
Other	245	0.7	100	3.3	35	2.7	.35	.26
Newark								
African American	1,386	4.0	225	7.5	86	6.5	.38	.61
Asian	867	2.5	242	8.1	110	8.3	.45	.30
Latino	1,024	2.9	255	8.5	122	9.2	.48	.32
White	2,050	5.9	225	7.5	114	8.6	.51	.68
Other	722	2.1	100	3.3	48	3.6	.48	.57
New Brunswick								
AfricanAmerican	2,048	5.4	225	7.5	91	6.9	.40	.85
Asian	4,096	11.7	243	8.1	127	9.6	.52	1.22
Latino	2,080	5.0	256	8.5	115	8.7	.45	.68
White	15,625	44.7	225	7.5	122	9.2	.54	4.84
Other	1,551	4.4	100	3.3	46	3.5	.46	1.25
TOTAL	34,932	100	3,000	100	1,320	100	.44	

who did not yet respond to the previous mailings. This final mailing was accompanied by a telephone call to the student's residence asking for their cooperation in completing and returning the questionnaire. In all, 1,320 useable surveys were returned and their data were entered into a database that was then merged with certain demographic and academic background information about each respondent obtained from the university registrar's database. Thus the overall response rate for the *CSOS* was 44 percent. Of the 3,000 sampled students, 222 of them could not be contacted because of problems with their campus address and attempts to reach them through other means such as United States Postal Service and telephone calls proved futile. Also, five of the returned questionnaires were not usable; either these questionnaires had no identifying number on them, thus preventing the data collected on these surveys from being merged with data from the registrar's database, or the information recorded on the questionnaire was deemed unreliable (i.e., these returned questionnaires were largely incomplete or the answers were obviously not seriously considered by the respondents).

The response rates for the different strata of students identified in the sampling strategy are presented in Table 2.1. These response rates for the various student groups ranged from 36% for African American and Latino students at Camden to 54% for white students at New Brunswick.

Profiling Respondents

Representativeness of the Respondents

Because there was both an over- and under-representation of student groups in the sample compared to the population (columns 2 and 4 in Table 2.1), there was a need to weight the responses of individuals from the various student groups in order to obtain accurate and unbiased information about the entire Rutgers undergraduate population. To arrive at the weights used in this report, the population proportion for each student category was divided by its respective proportion in the sample. These weights are presented in column 8 of Table 2.1.[6]

Table 2.2 presents a comparison of respondents of the *CSOS* to the population from which these respondents were sampled, i.e., all Rutgers undergraduates. For most of these characteristics there is very little difference between the percentage distributions and mean statistics for respondents and the undergraduate population. Respondents do tend to be composed of a slightly higher percentage of females than in the population (56% versus 53%) and have more second-year students (26% versus 23%). Thus we must be aware that survey responses are slightly biased and more reflective of female and second-year students.

Self-Reported Respondent Characteristics

The *CSOS* also asked undergraduates to report selected background (i.e., demographic) and academic characteristics about themselves. Self-reported background characteristics are presented in Table 2.3. University-wide, slightly over 40 percent of all respondents reported that their mother was a college graduate while approximately half of all respondents indicated that their father was a college graduate. At the time when the *CSOS* was administered, 90 percent of the respondents indicated that they were never married while eight percent of the respondents indicated that they were married. Forty-one percent of the *CSOS* respondents stated that they were Roman Catholics, 17 percent stated that they were Protestants, and six percent of respondents stated that they were Jewish. Seventeen percent of the respondents noted that they did not have a religious affiliation.

Table 2.2
Comparison of Survey Respondents and
Total Continuing Student Population

GROUP	Respondents (N = 1,320) %	Total Population (N = 34,932) %
GENDER		
Female	55.9	52.9
Male	44.0	47.1
RACE		
African American	11.2	11.2
Asian	14.8	14.8
Latino	9.4	9.4
White	57.4	57.4
Other	7.2	7.2
AGE		
< = 22	71.5	71.7
> 22	28.5	28.2
CAMPUS		
Camden	9.9	10.0
Newark	17.4	17.3
New Brunswick	72.7	72.7
ACADEMIC YEAR		
First-year	23.9	24.5
Second-year	26.0	23.1
Third-year	25.2	26.6
Fourth-year	24.8	25.8
Mean GPA	2.92	2.81
Mean SAT-VERBAL (non-recentered scores)	490	480
Mean SAT-MATH (non-recentered scores)	560	560

Undergraduates were also asked to report certain academic-related information (Table 2.4). One question asked respondents to indicate their academic major. The major with the highest percentage of declared students was psychology (9%); followed by biology, English, and accounting (all at 6%); computer science (5%); and political science, history, business administration, and pharmacy (all at 4%).

Forty-two percent of the *CSOS*' respondents noted that they lived on campus at the time of the survey. The 58 percent of respondents who lived off campus had an average distance of 15 miles to commute to school. When asked to report their approximate grade average, 68 percent of respondents indicated that they had a B or better. Very few respondents noted that they had an overall grade average of D or F (approximately 1%).

Table 2.3
Self-Reported Background Characteristics of Respondents

		N	%
PARENTS' EDUCATION			
Mother			
	Eighth grade or less	77	6.0
	High school	423	32.9
	Some college	258	20.1
	College graduate	325	25.3
	Graduate or professional school	201	15.7
	Total	1,284	100.0
Father			
	Eighth grade or less	86	6.9
	High school	348	27.9
	Some college	192	15.4
	College graduate	322	25.9
	Graduate or professional school	298	23.9
	Total	1,246	100.0
STUDENTS' MARITAL STATUS			
	Never Married	1,163	89.8
	Married	101	7.8
	Separated	4	0.3
	Divorced	27	2.1
	Total	1,295	100.0
STUDENTS' RELIGIOUS AFFILIATION			
	Christian	15	1.2
	Greek/Eastern Orthodox	22	1.8
	Hindu	45	3.7
	Jewish	75	6.2
	Muslim	27	2.2
	Protestant	202	16.6
	Roman Catholic	498	40.9
	Other	47	3.9
	None	212	17.4
	Athiest/Agnostic	24	2.0
	No Answer	51	4.2
	Total	1,218	100.0

Table 2.5 reports the sources and extent of financial aid for college expenses provided by *CSOS*' respondents. Parents and other family members are the source of support for the largest proportion of respondents, with nearly three quarters of all respondents indicating at least some dependence on this financial source. Moreover, 34 percent of respondents indicated that their dependence on parents and family members was quite substantial (i.e., students who indicated that they depended on their parents' or other family members' support "very much"). Student loans, financial aid other than loans, personal savings, and current employment were all relied upon as sources of payment for college expenses by approximately one out of every two students.

Table 2.4
Self-Reported Academic Characteristics of Respondents

DECLARED MAJOR	N	%
Psychology	111	8.9
Biology	74	5.9
English	74	5.9
Accounting	72	5.7
Computer Science	64	5.1
Political Science	50	4.0
History	48	3.8
Business Administration	44	3.5
Pharmacy	44	3.5
Exercise/Sport Science	38	3.0
Economics	37	3.0
Nursing	34	2.7
Other*	564	45.0
Total	1,254	100.0
CAMPUS RESIDENCE		
On Campus	550	42.1
Off Campus	756	57.9
Total	1,306	100.0
Average miles from campus, if off campus	626	15.4**
APPROXIMATE GRADE AVERAGE		
A	145	11.4
B+	310	24.3
B	411	32.2
C+	287	22.5
C	113	8.8
D	9	0.7
F	2	0.2
Total	1,277	100.0

* Each other major accounts for less than 2 percent of the population
** Overall mean

Table 2.5
Source of Payment for College Expenses

	N	None %	A Little %	Some %	Much %	Very Much %
Parent and other family members	1,254	25.9	12.6	13.1	14.4	34.0
Student loans (from the government or a bank)	1,216	51.5	7.2	15.4	13.4	12.5
Financial aid (other than loans)	1,217	48.7	9.7	16.9	12.0	12.7
Personal savings from previous employment	1,222	42.0	28.0	19.6	5.0	5.4
Current employment	1,213	49.5	20.0	12.2	6.6	11.8
Other sources	839	77.9	6.6	6.8	2.5	6.3

ENDNOTES, CHAPTER 2

[1] A copy of the *CSOS* is presented in Appendix A.

[2] Although, in general, increasing the sample size reduces the amount of sampling error expected in various statistical estimates of the population, the degree to which this error is reduced diminishes as the sample size increases. For example, assuming an affirmative response of fifty percent to a question that only allows for a dichotomous response (i.e., yes/no), the expected sampling error is 3.2% for a sample of 1,000 cases, 2.6% for a sample of 1,500 cases, 2.2% for a sample of 2,000 cases, 2.0% for a sample of 2,500 cases, 1.8% for a sample of 3,000 cases, and 1.6% for a sample of 4,000 cases. Thus we see that the rate of reduction in sampling error lessens as the sample size increases and it was deemed inefficient to exceed 3,000 cases for the CSOS.

[3] An important reason for this over- and under-sampling of student groups was to allow for the comparison and sub-analysis of students from all ethnic/racial backgrounds and from all three regional campuses. A proportionate sampling of some of these student groups would have resulted in sample sizes not adequate for statistical analysis. The fact that non-response would further diminish the size of these groups only enhances the importance of this disproportionate sampling strategy.

[4] Most of the questionnaires were mailed via the university's campus mail system and delivered to students' Rutgers PO mail boxes. However, for those students who did not have a Rutgers mail box (e.g., Rutgers-Newark students who did not live on-campus), the questionnaire was mailed to their official address for university mailings by first class United States postal mail.

[5] Those sampled students who were sent their questionnaires through first class United States mail received a return envelope that was self-addressed and stamped. The inclusion of a stamped, self-addressed envelope occurred for all subsequent mailings to these students in which another copy of the questionnaire was included.

[6] These weights do not affect the overall sample size because they are normed to sum to the total number of respondents.

CHAPTER THREE:
STUDENT EDUCATIONAL EXPECTATIONS AND GOALS

INTRODUCTION

The present chapter examines the educational expectations of Rutgers' undergraduates and the goals that they set and achieve. In addition to asking undergraduates about their intention to graduate from Rutgers and their future educational expectations, the *Continuing Student Opinion Survey* included items that assessed two dimensions of student goal commitment. The first dimension identified specific goals that students classified as important to them at the time of the survey, and the second dimension identified those goals that students reported they had achieved or were in the process of achieving. The 20 goal statements were organized under four headings: academic goals, career preparation and career improvement goals, social and cultural participation goals, and personal development and enrichment goals.

This chapter presents the educational intentions of respondents, their future educational expectations, and their selection of various student goals according to their importance and achievement. In addition, this chapter considers whether different groups of students vary in their selection of the importance and achievement of goals.

EDUCATIONAL EXPECTATIONS

Although a fundamental reason for attending a four-year institution is to successfully complete an academic program and receive a baccalaureate degree, for various reasons, some undergraduates may not be entirely certain that they will in fact graduate from the university. This uncertainty is reflected in the responses given by undergraduates to the *CSOS* question regarding their intention to graduate from Rutgers. Table 3.1 reveals that 78 percent of all respondents felt that they would definitely graduate from Rutgers, while another 16 percent indicated that they would probably graduate from the university. Five percent of respondents were either unsure or felt that they would probably not or definitely not graduate from Rutgers. Not surprisingly, the extent to which students profess their intention to graduate increases as they progress through their undergraduate career. For example, a lower percentage of first-year students (67%) declared their definite intention to graduate compared to second-year, third-year, and fourth-year students (74%, 83%, and 89%, respectively). Asian, African American, Latino, and female students were more likely than "other" students to declare that they will definitely graduate from Rutgers (85%, 83%, 81%, and 81%, respectively). Male and white students had the lowest percentages of students stating definitively their intention to graduate from Rutgers (76% and 75%, respectively).

The *CSOS* also asked respondents about their educational expectations as an undergraduate. Specifically, respondents were asked to predict their highest level of educational attainment ten years from now. Table 3.2 presents the responses to this question. Twenty-four percent of all respondents indicated that the baccalaureate degree would be their highest level of educational attainment, with Camden respondents (35%), males (28%), and white students (27%) selecting this degree the most frequently among student groups. The choice of a Masters degree was consistently cited by most respondents regardless of background as the highest degree they expected to receive. University-wide, 42 percent of respondents indicated their plan of attaining a Masters degree. The percentage of Asian students stating their expectation to receive a professional degree was substantially higher than any other group of students listed in Table 3.2 (30%).

THE IMPORTANCE AND ACHIEVEMENT OF STUDENT GOALS

Academic Goals

Academic goals were represented on the survey by nine statements. Table 3.3[1] presents these nine academic goals along with goals from the other three major areas. The corresponding percentages of selection for both importance and achievement dimensions are also presented in this table. Respondents

Table 3.1
Intention To Graduate From Rutgers

		Race/Ethnicity					Gender	
	Total	African Am	Asian	Latino	White	Other	Female	Male
	%	%	%	%	%	%	%	%
Definitely Will	78.4	82.9	85.1	81.2	75.4	77.9	80.7	75.6
Probably Will	16.3	12.6	11.8	15.6	18.6	14.6	14.4	18.8
Uncertain	3.2	3.2	1.9	3.0	3.2	5.3	3.7	2.5
Probably Will Not	0.5	0.5	0.3	0.1	0.8	0.0	0.8	0.3
Definitely Will Not	1.6	0.8	0.9	0.1	2.1	2.2	0.4	2.8
Total N	1,307	147	192	123	750	95	728	578

	Campus			Academic Year			
	Camden	Newark	New Bruns.	First-yr	Second-yr	Third-yr	Fourth-yr
	%	%	%	%	%	%	%
Definitely Will	77.3	80.4	78.0	66.7	74.3	83.4	89.0
Probably Will	16.8	15.5	16.5	23.1	21.1	12.7	8.9
Uncertain	3.2	3.0	3.2	6.9	2.9	2.4	0.6
Probably Will Not	1.5	0.1	0.5	0.3	1.5	0.0	0.0
Definitely Will Not	1.2	0.9	1.8	3.0	0.3	1.5	1.5
Total N	129	227	952	303	342	332	326

selected the following academic goals as most important: to obtain a degree or certification (76%); to increase knowledge in an academic field (73%); and to improve the ability for critical thinking (63%). The least important academic goals selected by respondents were to better understand cultures and institutions, both Western (32%) and non-Western (35%). Respondents selected the remaining academic goals listed on the questionnaire at the following rates: to increase communication skills (59%); to understand scientific concepts (49%); to develop the ability to assess values and make moral judgements (48%); and to appreciate literature and the arts (41%).

While approximately 50 percent of respondents indicated that six of the nine academic goals were important to them, most of these respondents indicated that they were not achieving nor had they achieved these goals. The academic goal most cited by respondents as being achieved or having been achieved was improvement of thinking skills (58%). Academic goals that follow in the rate of goal achievement included an increase in knowledge in an academic field (54%) and the development of the ability to assess values and make moral decisions (48%). Academic goals with the lowest rate of achievement included understanding Non-Western cultures and institutions (29%) and understanding Western cultures and institutions (32%).

Table 3.2
Educational Expectations

		Race/Ethnicity					Gender	
	Total	African Am	Asian	Latino	White	Other	Female	Male
	%	%	%	%	%	%	%	%
Some College	0.6	1.2	0.1	0.4	0.6	1.3	0.2	1.2
AA Degree	0.4	0.0	0.0	0.0	0.8	0.0	0.0	0.8
BA Degree	24.4	24.7	16.8	22.4	26.7	24.5	21.3	28.4
MA Degree	42.3	40.3	36.8	41.5	45.5	33.0	44.2	40.1
Specialist Degree	2.6	1.5	1.1	4.2	2.9	3.2	2.2	2.9
Prof. Degree	17.4	18.8	30.0	17.0	13.4	20.8	16.5	18.5
Doctoral Degree	12.2	13.5	15.2	14.6	10.1	17.1	15.5	8.1
Total N	1300	146	192	121	746	95	719	580

	Campus			Academic Year			
	Camden	Newark	New Bruns	First-yr	Second-yr	Third-yr	Fourth-yr
	%	%	%	%	%	%	%
Some College	0.2	0.1	0.8	1.0	1.8	0.0	0.0
AA Degree	0.8	0.0	0.5	2.0	0.0	0.0	0.0
BA Degree	35.2	23.9	23.1	21.5	28.4	27.4	19.8
MA Degree	39.9	46.1	41.8	32.8	42.7	44.3	48.6
Specialist Degree	4.0	3.0	2.4	2.6	3.2	1.2	3.4
Prof. Degree	13.9	15.3	18.3	25.2	14.6	14.8	15.8
Doctoral Degree	6.1	11.6	13.2	14.9	9.4	12.3	12.4
Total N	127	227	945	302	342	332	323

Career Preparation and Career Improvement Goals

The majority of responding students - at least 52% - deemed all four career preparation goals important. However, less than a majority of respondents indicated that they achieved or were achieving any of these goals. The career preparation goal that was most important to respondents was to improve knowledge and/or competence in work-related areas (68%) and the least important career preparation goal cited by respondents was to improve the chances of obtaining a raise or promotion (52%). The most frequently achieved career preparation goal was discovering career interests: four out of ten respondents who indicated that this was an important career goal also indicated that they had achieved or were achieving this goal. Less than a third of respondents indicated achievement of the other three career goals.

Social and Cultural Participation Goals

Social and cultural participation goals were represented by two statements on the continuing student questionnaire. These goals - to become active in student life and campus activities, and to meet people and make friends - were important to 37 percent and 45 percent of respondents, respectively. Two-thirds of

Table 3.3
Student Goals

	Goals Important At This Time %	Goals Achieving or Achieved* %
Academic Goals		
--To improve my ability for critical thinking	63	58
--To increase my communication skills	59	44
--To better understand Western cultures and institutions	32	32
--To better understand Non-Western cultures and institutions	35	29
--To appreciate literature and the arts	41	48
--To understand scientific concepts and methods of analysis	49	44
--To develop my ability to assess values and make moral decisions	48	48
--To increase my knowledge in an academic field	73	54
--To obtain a degree or certification	76	45
Career-Preparation/Career-Improvement Goals		
--To discover career interests	57	40
--To formulate long-term career plans and/or goals	65	33
--To improve my knowledge and/or competence in work-related areas	68	33
--To improve my chances for a raise and/or promotion	52	17
Social and Cultural Participation Goals		
--To become active in student life and campus activities	37	37
--To meet people and make friends	45	67
Personal Development and Enrichment Goals		
--To improve my self-confidence	53	48
--To improve my leadership skills	54	35
--To improve my ability to get along with others	40	60
--To enrich my daily life or make me a more complete person	57	47
--To become more independent, self-reliant, and adaptable	55	43

* The N's for each goal are equal to the number of respondents selecting the respective goal as important.

respondents who indicated that meeting and making friends was important also noted that they were achieving or had achieved this goal. Slightly over one in three respondents (37%) who cited becoming active in student life and campus activities as an important goal also reported that they had achieved or were achieving this goal.

Personal Development and Enrichment Goals

All but one of the five personal development and enrichment goals were selected as important by over half of the respondents. The rate of selection for these items ranged between 53 percent (to improve self-confidence) and 57 percent (to enrich daily life and become a more complete person). Only the goal of improving the ability to get along with others was an exception to this observation. Although this latter item was selected as an important goal by only 40 percent of all respondents, this goal received the highest rate of achievement among all personal development and enrichment goals - six out of ten respondents who cited this as an important goal also indicated that they were achieving or achieved this goal. The personal development and enrichment goal with the lowest rate of achievement was improving leadership skills (35%).

Differences in Goal Importance and Achievement Among Selected Student Groups

Because students can be expected to differ in what goals they consider important and consequently in the goals they achieve, it is useful to inquire if indeed this is the case among different categories of students. As was just done with educational intentions and expectations, student selection of the importance and achievement of goals can be examined for differences in response patterns among student qualities such as gender, race/ethnicity, class level, and regional campus. Although there exist many other student characteristics that no doubt distinguish undergraduates in the goals they select as important and subsequently achieve, these four student traits are the most fundamental characteristics of Rutgers undergraduates and thus warrant closer examination.

One way to approach the examination of goal selection is to compare the selection of each goal listed in the continuing student questionnaire for the various student characteristics under consideration. This approach is particularly useful if one is interested in identifying differences among students with regard to a specific goal item. However, when interest is in the detection of general tendencies in goal selection among student groups, the focus on individual goal items becomes quite limiting. Rather, it would be best to aggregate the goal items into logical categories of goal selection and achievement so that a single measure for each goal category can be derived.

Table 3.4 presents the results of such an approach. It contains an index of responses measuring the extent to which the four goal categories were selected by various student groups. This index ranges between zero and one, where the closer the value of the index is to unity the higher the rate of selection for a goal set - or category - by a particular student group.[2] This table allows the reader to compare which of the four goal sets was most important (or conversely, least important) to a particular student group. It also enables the comparison between or among student groups with regard to the selection of a particular goal set. Both the importance and achievement dimensions of goal selection are included in Table 3.4.

Table 3.4 reveals that among all student groups, first-year students had the highest rate of selecting academic goals (.57) while Newark students selected academic goals at the lowest rate (.49) among all respondents. Within each of the other goal sets, the following observations can be made: all student groups gave considerable importance to career goals, with the highest rate of selection having occurred among Latino students (.65) and the lowest rate of selection having occurred among male students (.58); first-year students (.55) exceeded all other student groups in the selection of social and cultural participation goals; and Asian students (.59) and first-year students (.58) selected personal development and enrichment goals at higher rates than all other student groups. Asian students had the highest rate of selecting all goals as important (.57) and male, "other," and Newark students selected all goals at the lowest rate among the categories of undergraduates listed in Table 3.4 (all at .50).

Table 3.4
Student Goal Sets

	Important					Achieved				
Group	Academic	Career	Soc/Cult	Pers. Dev.	Total	Academic	Career	Soc/Cult	Pers. Dev.	Total
Race/Ethnicity										
African American	.51	.63	.38	.50	.51	.40	.28	.38	.44	.38
Asian	.54	.64	.47	.59	.57	.35	.25	.42	.35	.33
Latino	.52	.65	.46	.53	.54	.42	.27	.42	.47	.40
White	.53	.59	.40	.50	.52	.53	.35	.62	.56	.50
Other	.52	.57	.32	.48	.50	.41	.25	.45	.40	.37
Gender										
Female	.55	.63	.40	.56	.55	.49	.33	.58	.50	.46
Male	.50	.58	.42	.46	.50	.44	.28	.48	.47	.41
Campus										
Camden	.52	.64	.33	.48	.51	.52	.36	.54	.51	.48
Newark	.49	.59	.36	.49	.50	.37	.23	.39	.39	.34
New Brunswick	.54	.61	.43	.53	.54	.48	.32	.56	.51	.46
Academic Year										
First-year	.57	.63	.55	.58	.58	.36	.24	.52	.51	.39
Second-year	.55	.64	.41	.49	.54	.38	.26	.47	.43	.37
Third-year	.52	.59	.36	.53	.52	.53	.39	.53	.47	.49
Fourth-year	.52	.63	.36	.52	.53	.62	.35	.64	.54	.54
Total	.53	.61	.41	.52		.47	.31	.53	.49	.44

Perhaps somewhat surprisingly, the career-preparation and career-improvement goals exceeded academic goals as the goal set that was indicated as most important for all respondents (.61) as well as for each student group. Social and cultural participation goals consistently received the lowest rate of selection among the four goal categories university-wide (.41) and for each student group.

Fourth-year students had the highest rate of goal achievement (.54) while Asian and Newark students had the lowest rate of achieving the goals they cited as important (.33 and .34, respectively). Fourth-year students indicated that they were achieving or had achieved academic goals at a substantially higher rate than all other student groups (.62 compared to .53 for third-year and white students, the next highest rate of academic achievement by a student group). Student categories with high rates of achievement for the other goal categories included third-year students for career-preparation and career-improvement goals (.39), white and female students for social and cultural participation goals (.62 and .58, respectively), and white and fourth-year students for personal development and enrichment goals (.56 and .54, respectively).

While career-preparation and career-improvement goals were cited the most frequently by respondents as important goals, these goals were also consistently selected at the lowest rates of achievement by respondents (both university-wide and within each student group). Given that these goals are perhaps the least directly related to undergraduate student life, as well as being goals that probably cannot be fully realized until one enters the world of work, it is perhaps not unexpected to find that these goals are the least likely of the four goal types to be achieved during an undergraduate's career.

SUMMARY

Approximately eight out of ten respondents to the *Continuing Student Opinion Survey* indicated that they definitely intend to graduate from Rutgers. When combined with those respondents who indicated that they will probably graduate, 95 percent of all respondents indicated on the *CSOS* that they expect to graduate from the university. A majority of the respondents to the *CSOS* also indicated that their educational pursuits will not terminate with a baccalaureate degree. Approximately 75 percent of all respondents indicated that they expect to have an advanced degree beyond the baccalaureate in ten years.

This chapter also reported on the selection by respondents of goals that they thought were important and whether they thought they were achieving or had achieved them. In responding to the four different goal types covered by the *CSOS* (i.e., academic, career-preparation and career-improvement, social and cultural participation, and personal development and enrichment), respondents indicated that the career goals were the most important set of goals to achieve. However, respondents were less likely to have

answered that they had achieved or were achieving these career-oriented goals. The pattern of these responses indicates that while undergraduates recognize the significance of career-oriented goals to their success in life, the extent to which they have been able to achieve them while in school has been limited. This observation also points to a disjunction between what is actually achieved as an undergraduate and what students feel they need to succeed once they receive their baccalaureate degree. Although the fundamental purpose of an institution of higher education is to provide an environment for the acquisition of knowledge, an important ancillary function of higher education is to provide the skills needed for students to succeed in deciding and embarking on a career. The integration of these two functions of higher education has recently been reinforced at Rutgers with the implementation of the Writing and Speaking at Rutgers Program, which seeks

> to enhance students' preparation for the workplace by developing their skills in writing clear reports, making compelling presentations, and using resources available through electronic communication. [An essential component of this program is to] link English composition more closely to other disciplines by incorporating assignments into course work in a wide variety of subject areas.[3]

Such a program illustrates how the pursuit of knowledge can be integrated with the more practical concerns of undergraduates.

ENDNOTES, CHAPTER 3

[1] Appendix B contains a more detailed version of Table 3.3

[2] This index is simply a count of the responses to each item in a goal category (i.e., academic, career preparation and improvement, social and cultural participation, or personal development and enrichment), which is divided by the number of goals within the particular goal category and the number of respondents comprising the respective student group.

[3] Rutgers University. 1996. *University Strategic Plan: A New Vision of Excellence, Implementation Progress Report*.

CHAPTER FOUR:
ASSESSMENT OF RUTGERS' ACADEMIC EXPERIENCES AND STUDENT SERVICES

INTRODUCTION

The *Continuing Student Opinion Survey* contained questions that sought to obtain information regarding the awareness, utilization, and satisfaction of student services offered by Rutgers. The *CSOS* also sought to obtain student impressions regarding their overall academic experience at Rutgers. Responses by undergraduates to these questions are presented for all respondents as well as for selected groups of students.

OVERALL RATING OF ACADEMIC EXPERIENCE

Seventy-four percent of all respondents to the *CSOS* rated their academic experience at Rutgers positively (i.e., 13% "excellent" or 61% "good"). Only three percent of respondents gave a "poor" rating to their academic experience, while 22 percent indicated that their academic experience was "fair". Among racial/ethnic student groups, white and Latino respondents gave the highest positive rating (77% and 75%,

Table 4.1
Rating Of Academic Experience

	Excellent %	Good %	Only Fair %	Poor %	Total (N)
Total	13.4	60.9	22.3	3.4	1,311
Race/Ethnicity					
African American	9.8	55.2	30.9	4.0	147
Asian	10.4	60.3	25.3	4.0	193
Latino	13.0	62.0	22.2	2.8	123
White	15.8	61.5	19.6	3.1	752
Other	5.9	65.2	24.5	4.4	95
Gender					
Female	13.5	62.5	21.8	2.3	729
Male	13.3	58.9	23.0	4.8	580
Campus					
Camden	20.9	55.8	21.0	2.3	130
Newark	12.4	60.9	24.2	2.4	229
New Brunswick	12.6	61.6	22.0	3.8	952
Academic Year					
First-year	13.0	61.4	22.4	3.2	308
Second-year	9.4	62.2	26.4	2.1	341
Third-year	12.0	56.6	25.3	6.0	332
Fourth-year	19.3	63.9	14.7	2.1	327

respectively), while African Americans gave the lowest positive rating (65%). Female students gave a slightly higher positive rating compared to male students (76% versus 72%), and there was very little difference in the positive rating of academic experience among students from the three regional campuses. Interestingly, fourth-year students gave a more favorable rating to their education at Rutgers than students in other class levels by over nine percent (83% for fourth-year students compared to 69% for third-year students, 72% for second-year students, and 74% for first-year students). Moreover, 19 percent of fourth-year students gave their academic experience at Rutgers a rating of "excellent," which was the second highest rating of this type among all student groups listed in Table 4.1.

Table 4.2
Awareness, Utilization, And Satisfaction With Services

	Did not know about this service	Knew about the service but did not use it	Used the service and was satisfied	Used the service and was not satisfied	Total
	%	%	%	%	N
Academic advising	1.8	33.3	42.2	22.8	1,267
Admissions	5.8	27.1	58.2	8.9	1,220
Bookstore	0.3	2.2	85.6	11.9	1,271
Campus security	4.3	60.6	28.1	7.1	1,256
Career planning and services	9.7	59.4	21.2	9.7	1,270
College cultural programs	29.8	47.9	18.6	3.6	1,249
Computer services	2.1	17.6	67.2	13.1	1,274
Dining services	3.6	25.2	38.2	33.0	1,260
Educational Opportunity Fund (EOF)	29.5	58.2	10.5	1.9	1,265
Financial Aid	3.7	38.0	39.2	19.1	1,273
First-year student orientation	10.5	25.4	51.0	13.1	1,259
Health services	6.5	37.1	40.8	15.6	1,272
Housing	6.1	37.0	38.1	18.8	1,274
Intercollegiate athletics programs	16.6	67.6	12.4	3.3	1,256
International student services	41.8	54.4	2.6	1.2	1,259
Library	0.7	7.5	84.3	7.5	1,282
Minority affairs	40.3	50.1	6.3	3.3	1,260
Parking	3.0	28.3	19.0	49.7	1,276
Psychological counseling	35.8	55.3	7.2	1.8	1,263
Reading, writing, math, and study skills improvement	18.3	54.6	21.5	5.5	1,267
Recreational services	15.7	34.9	46.4	2.9	1,265
Registration	1.6	3.1	72.2	23.1	1,260
Schedules of classes	1.5	1.8	70.7	26.1	1,258
Student accounting/bursar/cashier	10.9	18.5	54.1	16.5	1,257
Student Center	3.0	9.7	82.0	5.3	1,269
Student employment	18.0	57.9	15.9	8.2	1,254
Transportation (if applicable)	15.1	22.8	32.7	29.4	1,141
Tutoring	8.8	61.2	21.8	8.2	1,266
Undergraduate catalogs	9.6	14.7	69.9	5.8	1,248

RUTGERS SERVICES AND STUDENT LIFE

The *CSOS* asked respondents to assess their awareness of, use of, and satisfaction with 29 different services offered to undergraduates at Rutgers. Overall, the majority of respondents was aware of most of these services, and utilization of and satisfaction with these services were moderate to high. The responses by students to this section of the questionnaire are presented in Tables 4.2 through 4.6. Table 4.2 shows the specific percentage distribution for each service listed, Table 4.3 ranks the services based on respondent awareness of their existence, and Table 4.4 ranks the services based on user satisfaction. Tables 4.5 and 4.6 compare the utilization and satisfaction of student services across various student categories.

Table 4.3
User Awareness Of Rutgers Services

Awareness Rank	Service	Awareness %	Total N
1	Bookstore	99	1,271
1	Library	99	1,282
1	Schedules of classes	99	1,258
4	Registration	98	1,260
4	Academic Advising	98	1,267
4	Computer services	98	1,274
7	Parking	97	1,276
7	Student center	97	1,269
9	Dining Services	96	1,260
9	Financial aid	96	1,273
9	Campus security	96	1,256
12	Admissions	94	1,220
12	Health services	94	1,272
12	Housing	94	1,274
15	Tutoring	91	1,266
16	Career planning and services	90	1,270
16	First-year student orientation	90	1,259
16	Undergraduate catalogs	90	1,248
19	Student accounting/bursar/cashier	89	1,257
20	Transportation (if applicable)	85	1,141
21	Recreational services	84	1,265
22	Intercollegiate athletics programs	83	1,256
23	Reading, writing, math, and study skill improvement	82	1,267
23	Student employment	82	1,254
25	Educational Opportunity Fund (EOF)	71	1,265
26	College cultural programs	70	1,249
27	Psychological counseling	64	1,263
28	Minority affairs	60	1,260
29	International student services	58	1,259

Awareness

All but five of the 29 services listed on the *CSOS* were known to at least 80 percent of the respondents (Table 4.3). The services that were least familiar to the respondents included the Educational Opportunity Fund (71%), college cultural programs (70%), psychological counseling (64%), minority affairs (60%), and international student services (58%). These services tend to be relevant to specialized groups and therefore are not services that all students would necessarily know existed.

Utilization

There were wide variations in students' use of services. Generally, the services that were most known to the students were also the services that were most used. As Table 4.2 shows, the most widely known services that were not used by responding students included intercollegiate athletics programs

Table 4.4
User Satisfaction With Rutgers Services

Awareness Rank	Service	Awareness %	Total N
1	Recreational services	94	1,265
1	Student center	94	1,269
3	Undergraduate catalogs	92	1,248
3	Library	92	1,282
5	Bookstore	88	1,271
6	Admissions	87	1,220
7	Educational Opportunity Fund (EOF)	85	1,265
8	College cultural programs	84	1,249
8	Computer services	84	1,274
10	Campus security	80	1,256
10	Psychological counseling	80	1,263
10	Reading, writing, math, and study skill improvement	80	1,267
10	First-year student orientation	80	1,259
14	Intercollegiate athletics programs	79	1,256
15	Student accounting/bursar/cashier	77	1,257
16	Registration	76	1,260
17	Schedules of classes	73	1,258
17	Tutoring	73	1,266
19	Health services	72	1,272
20	Career planning and services	69	1,270
21	International student services	68	1,259
22	Financial aid	67	1,273
22	Housing	67	1,274
24	Minority affairs	66	1,260
24	Student employment	66	1,254
26	Academic Advising	65	1,267
27	Dining Services	54	1,260
28	Transportation (if applicable)	53	1,141
29	Parking	28	1,276

(68%), tutoring and campus security (both 61%), career planning and services (59%), student employment (58%), and the Educational Opportunity Fund (58%). Again, and not surprisingly, services aimed at specific undergraduate populations were less likely to be used by most students. These services included psychological counseling (55%), international student services (54%), minority affairs (50%), and college cultural programs (48%). Other services that were available to students and yet surprisingly under-utilized as reported by the *CSOS* included financial aid (38%), health services (37%), recreational services (35%), and academic advising (33%).

Satisfaction with Services

The continuing student questionnaire also asked respondents whether or not they were satisfied with the services that they used. Table 4.4[1] shows the approval rating of each service given by respondents who used that service. The only service that received a distinctly low satisfaction rating was parking services - only 28 percent of users of this service gave it a satisfactory rating. All other services listed in Table 4.4 received a satisfactory rating from the majority of users, ranging from 94 percent for both recreational services and student centers to 53 percent for transportation services. Other services given high satisfactory ratings include: undergraduate catalogs and libraries (both at 92%); the bookstore (88%); admissions (87%); the Educational Opportunity Fund (85%); college cultural programs and computer services (both at 84%); and campus security, first year student orientation, psychological counseling, and reading, writing, math, and study skill advancement (all at 80%).

UTILIZATION AND SATISFACTION OF RUTGERS SERVICES AMONG STUDENT GROUPS

Table 4.5 presents a visual picture of the utilization of Rutgers student services for various student characteristics that include gender, race/ethnicity, class level, and regional campus. An immediate observation of Table 4.5 is the consistency in the pattern of responses across all student groups. For many of the services listed in Table 4.5, the percentage of respondents indicating utilization of a service was quite consistent across all groups of students. Services that showed some variation in student utilization among student categories included college cultural programs, computer services, and student accounting services.

Such degree of consistency is not evident when we look visually at the pattern of rates regarding student satisfaction of services used at the university (Table 4.6). There are services for which various student groups gave similar ratings of satisfaction, which include; academic advising, admissions, the bookstore, computer services, dining services, health services, housing, the library, parking, recreational services, class scheduling, student centers, student employment, transportation, tutoring, and

Table 4.5

Utilization of Rutgers Services

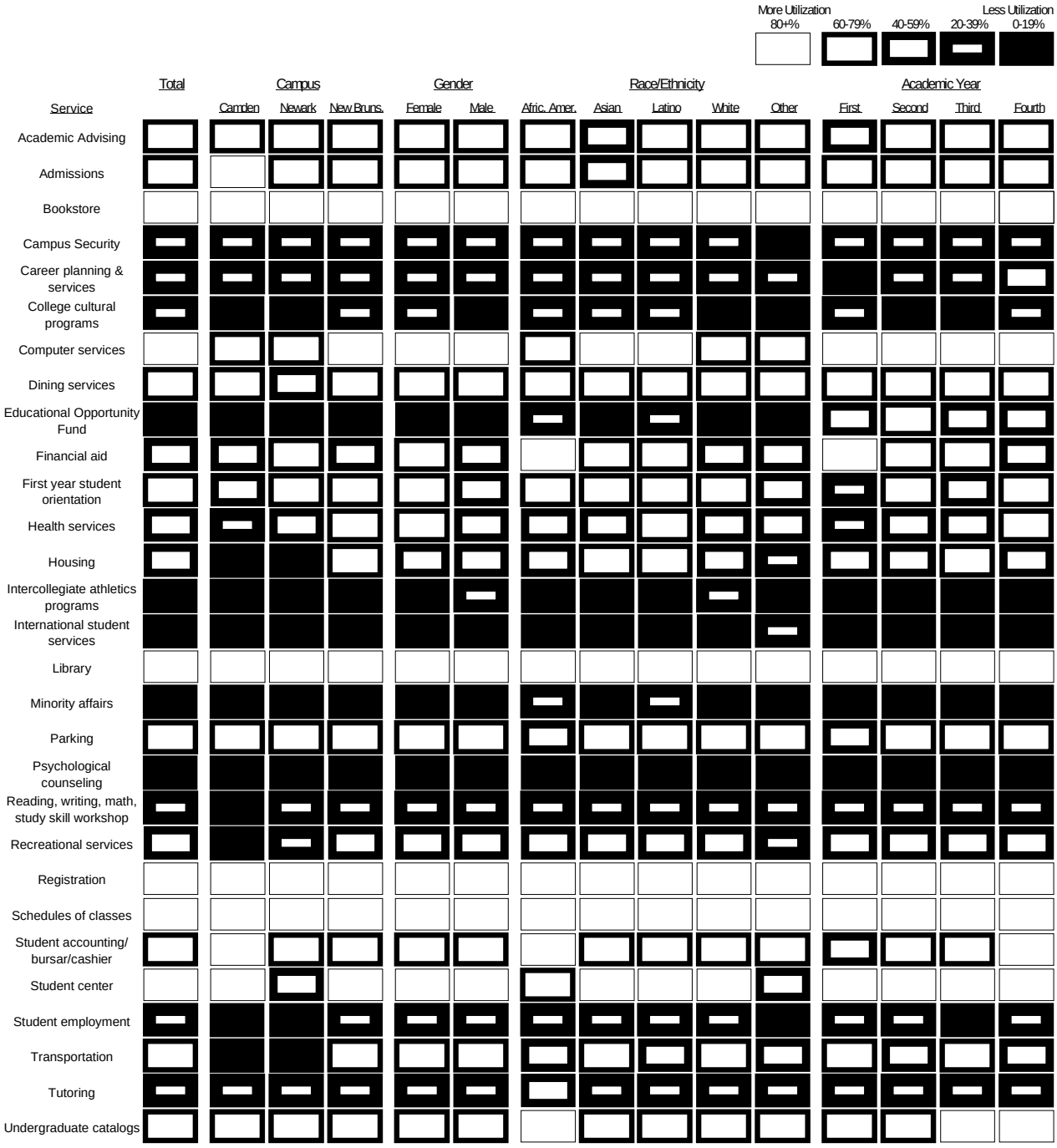
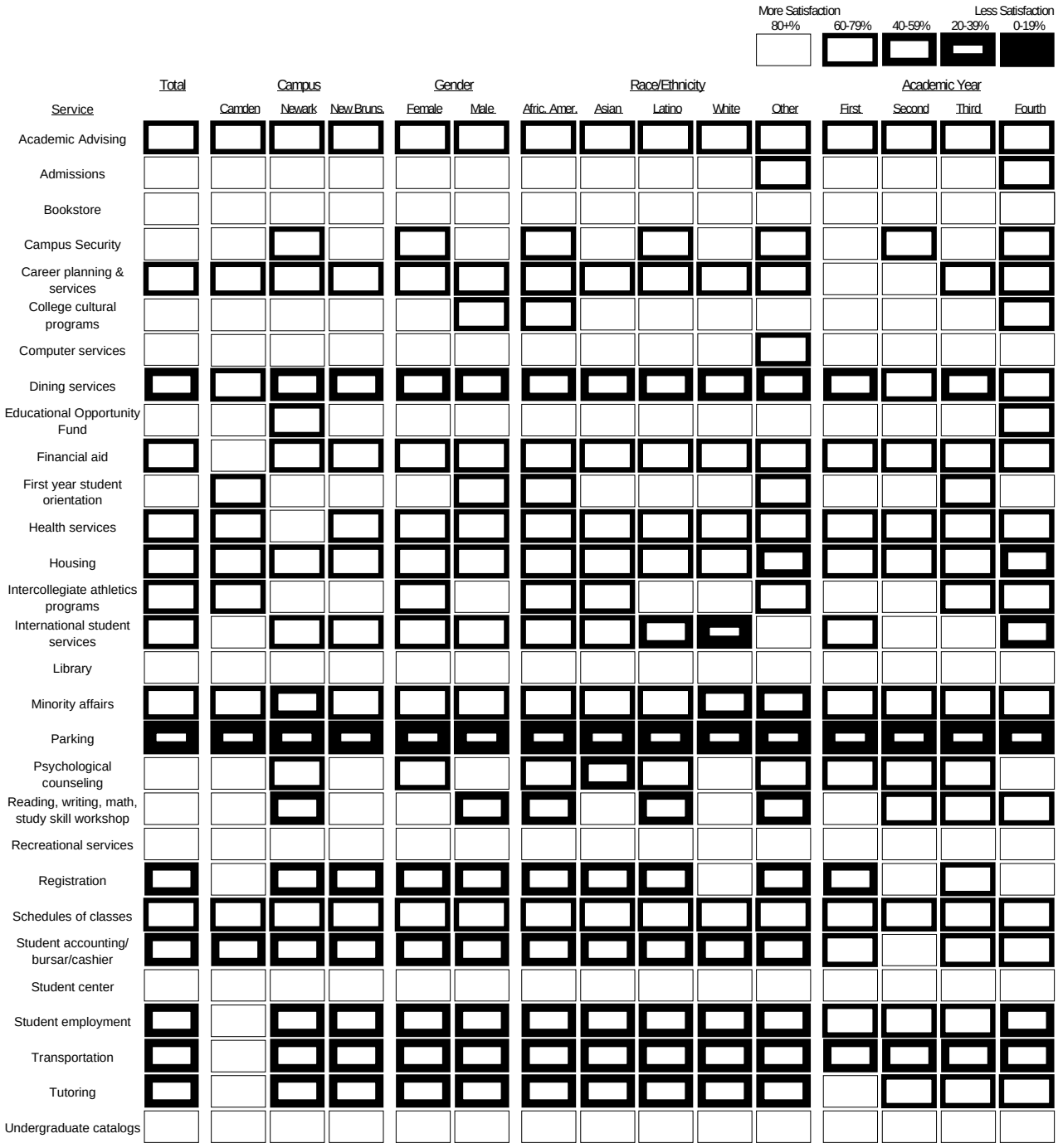


Table 4.5

Satisfaction of Rutgers Services



undergraduate catalogs. However, other services received differential ratings of approval by the various student groups presented in Table 4.6. These included campus security, first-year student orientation, intercollegiate athletic programs, international student services, psychological counseling, and reading, writing, math, and study skill improvement.

SUMMARY

Respondents to the *CSOS* generally rated their academic experience at Rutgers to be a positive one. Approximately three quarters of the respondents to the CSOS indicated that their academic experience was either "excellent" (13%) or "good" (61%). Fourth-year students gave relatively high positive ratings of their academic experience at Rutgers.

Many of the services available to students at Rutgers were known to substantial majorities of respondents. Services that were not as well known are those that are geared to specific sub-populations of students and thus all Rutgers students would not be expected to know about the existence of such services. It was generally the case that services that were known to respondents were also utilized by them. However, certain Rutgers services such as the intercollegiate athletics program, tutoring, campus security, career planning and services, and student employment were well-known by respondents but not utilized by them. The only Rutgers' service that was given a distinctly low rating of satisfaction was parking services: only 28 percent of users rated this service as satisfactory.

Most services considered on the *CSOS* did not vary across student types in rates of usage. However, there were certain services such as campus security and first-year student orientation that recorded differential ratings of satisfaction among the various student groups considered.

ENDNOTES

[1] Appendix B contains a more detailed version of Table 4.4.

CHAPTER FIVE:
EXTRACURRICULAR AND GENERAL ACTIVITIES

INTRODUCTION

An important goal of the *Continuing Student Opinion Survey* was to obtain information concerning the extracurricular and weekly activities of the Rutgers undergraduate student body. The *CSOS* was designed to study two distinct areas of student life and activities, which included the extent of involvement in specific extracurricular activities at the university, and the amount of time devoted to various weekly activities, such as studying, working for pay, and socializing. These areas were examined for all respondents to the *CSOS* as well as for various student subgroups.

EXTRACURRICULAR ACTIVITIES

Involvement

One question on the *CSOS* asked students if they were involved in any extracurricular activities at Rutgers. If the answer was yes, then they were given a choice of 13 possible activities, including an "other" category, and asked to indicate all those in which they participated. Table 5.1 summarizes the rate of student involvement in these various extracurricular activities. The overall rate of participation in extracurricular activities indicated by *CSOS*' respondents was 55 percent, with 45 percent not participating in any extracurricular activity. Participation in academic and professional organizations was the most common extracurricular activity cited by respondents, with a participation rate of 20 percent. The next three most reported extracurricular activities were community service (14%), intramural athletics (13%), and ethnic organizations (12%). A variety of other extracurricular activities had reported participation rates of less than nine percent. The least common activities included ROTC (less than 1%), theater (2%), and campus media (3%). Also, 16 percent of respondents indicated that they had participated in some "other" activity.

Differences in Involvement Among Various Subgroups

Table 5.1 also summarizes participation rates in extracurricular activities with respect to gender, ethnic/racial categories, regional campus, and class year. Males reported overall participation in extracurricular activities at a higher rate than females (58% versus 52%), with much of this difference accounted for by a substantially higher involvement of male respondents in intramural athletics than female respondents (21% versus 7%). Many of the other activities listed in Table 5.1 recorded relatively small

Table 5.1
Student Involvement in Extracurricular Activities

	Total		Female	Male	African Am	Asian	Latino	White	Other
	N	%	%	%	%	%	%	%	%
Involved in any activity	707	54.6	51.8	58.0	44.5	64.3	48.3	56.5	43.7
Not involved in any activity	588	45.4	48.2	42.0	55.5	35.7	51.7	43.5	56.3
Academic and professional	259	19.6	19.7	19.6	12.7	19.2	12.7	22.7	15.6
Campus media	34	2.6	2.3	2.9	1.5	3.5	1.6	2.4	4.5
Community service	183	13.9	14.9	12.6	15.4	18.8	15.4	13.1	5.2
Ethnic organizations	165	12.5	13.0	11.9	25.4	27.6	18.7	5.3	10.7
Event programming	61	4.6	4.7	4.4	3.6	4.6	3.7	5.3	1.6
Greek life	66	5.0	4.9	5.1	5.3	2.6	6.6	5.8	0.9
Honor societies	117	8.9	9.5	8.0	4.7	9.2	4.3	10.3	9.3
Intramurals	173	13.1	6.9	21.0	4.0	14.5	6.2	16.8	4.2
ROTC	5	0.3	0.3	0.4	0.6	1.4	0.8	0.0	0.0
Music	72	5.5	3.4	8.1	5.6	4.3	2.5	6.6	2.6
Religious	92	7.0	7.6	6.2	4.4	17.2	2.8	5.3	8.2
Student government	62	4.7	3.5	6.2	2.0	4.7	5.8	5.3	2.5
Theater	31	2.3	2.9	1.6	0.7	1.8	1.4	2.6	4.4
Intercollegiate Athletics	78	5.9	5.4	6.6	4.6	0.6	4.1	8.0	4.8
Other	207	15.7	16.5	14.8	10.2	15.9	14.3	17.0	15.1
	Total		Female	Male	African Am	Asian	Latino	White	Other
	N	%	%	%	%	%	%	%	%
Number of activities									
None	595	45.1	48.4	40.9	56.0	35.6	50.8	43.0	56.6
One	291	22.0	18.4	26.4	17.6	21.3	22.7	23.4	18.0
Two	190	14.4	15.1	13.5	9.9	18.6	12.7	14.8	11.7
Three	129	9.8	9.3	10.5	7.1	16.2	6.4	9.2	9.6
4 or more	115	8.7	8.9	8.9	9.3	8.3	7.3	9.4	4.2

	Camden	Newark	New Bruns.	First-yr	Second-yr	Third-yr	Fourth-yr
	%	%	%	%	%	%	%
Involved in any activity	38.5	34.2	61.8	53.9	55.5	47.7	61.8
Not involved in any activity	61.5	65.8	38.2	46.1	44.5	52.3	38.2
Academic and professional	15.4	9.0	22.7	6.0	14.2	23.1	34.9
Campus media	2.1	1.8	2.8	1.9	1.7	0.6	5.5
Community service	7.6	5.9	16.6	7.6	10.8	15.1	22.0
Ethnic organizations	7.8	11.1	13.5	13.3	9.9	11.1	15.9
Event programming	1.8	1.5	5.7	2.5	4.4	4.2	7.3
Greek life	5.8	4.0	5.1	1.9	7.3	2.4	8.0
Honor societies	3.9	3.2	10.9	1.9	2.6	10.2	20.7
Intramurals	4.8	2.1	16.9	12.4	15.7	9.6	14.7
ROTC	0.0	0.3	0.4	0.3	0.9	0.0	0.0
Music	1.7	2.3	6.7	6.7	3.8	3.9	7.6
Religious	1.7	1.7	8.9	9.8	7.3	3.6	7.6
Student government	1.7	1.3	5.9	0.6	3.5	4.2	10.4
Theatre	0.3	1.6	2.8	2.9	3.5	1.2	1.8
Intercollegiate Athletics	4.1	4.0	6.6	9.2	2.9	5.4	6.4
Other	10.8	9.9	17.8	16.5	17.4	12.9	16.2
	Camden	Newark	New Bruns.	First-yr	Second-yr	Third-yr	Fourth-yr
	%	%	%	%	%	%	%
Number of activities							
None	61.7	65.0	38.0	47.0	43.9	52.4	36.7
One	18.3	18.8	23.3	29.5	24.1	16.6	18.0
Two	11.9	10.6	15.6	13.7	20.3	12.7	10.7
Three	6.0	3.1	11.9	3.5	6.4	12.3	16.8
4 or more	2.1	1.4	11.1	6.3	5.3	6.0	17.8

differences in the participation rates of males and females. Besides intramural athletics, only music activities recorded any substantial difference in the participation of males and females (8% versus 3%).

Among the racial/ethnic student categories, Asian respondents reported the highest rate of extracurricular involvement at 64 percent, followed by white respondents at 56 percent, Latino respondents at 48 percent, and African American and "other" respondents at 44 percent. Much of the participation of African American, Asian, and Latino respondents was in ethnic organizations (25%, 28%, and 19%, respectively) and community service (15%, 19%, and 15%, respectively).

Extracurricular participation rates are also summarized for regional campus affiliation and class designation in Table 5.1. New Brunswick respondents had substantially higher participation rates in extracurricular activities than Camden and Newark respondents (62% versus 38% and 34%, respectively). In addition, New Brunswick respondents indicated higher rates of participation than Camden and Newark respondents in the following areas: academic and professional organizations (23% versus 15% and 9%, respectively); community service (17% versus 8% and 6%, respectively); honor societies (11% versus 4% and 3%, respectively); intramurals (17% versus 5% and 2%, respectively); and "other" activities (18% versus 11% and 10%, respectively).

With regard to class level, fourth-year students had the highest participation rates in extracurricular activities and third-year students the lowest (62% versus 48%). Much of the participation in extracurricular activities by fourth-year students occurred in: academic and professional areas (35%), community service (22%), and honor societies (21%).

Participation in Multiple Extracurricular Activities

Table 5.1 also summarizes the total number of extracurricular activities in which respondents reported participation, ranging from no activities to four or more activities. Generally, these data reflect participation patterns that are not unexpected, with a negative relationship existing between the number of activities and the rate of participation by respondents. In the overall sample, 22 percent of the respondents reported participation in one extracurricular activity, 14 percent reported participation in two extracurricular activities, ten percent reported participation in three extracurricular activities, and nine percent reported participation in four or more extracurricular activities. This general pattern is also observed among all student subgroups except for academic class level. Rather than the participation rate declining as the number of activities increases, third-year and fourth-year students reported relatively high rates of participation in three or more extracurricular activities. Participation rates of fourth-year respondents who reported involvement in at least three extracurricular activities (35%) was substantially higher than any other group of students.

PARTICIPATION IN GENERAL ACTIVITIES

Another question on the survey asked students to indicate the approximate amount of time they spent engaged in the 13 listed activities on the *CSOS*. Table 5.2 summarizes the percentage of respondents who reported spending varying numbers of hours per week engaged in these activities. These data show that over 60 percent of the respondents indicated that they spent between 11 and 20 hours a week attending classes. Almost 50 percent of respondents spent only ten hours a week or less studying, while approximately 35 percent studied between 11 and 20 hours a week and a little over 16 percent studied over 20 hours per week. Forty-three percent of respondents reported that they worked for pay between one and 20 hours per week, and another 27 percent of the respondents indicated that they worked for pay more than 20 hours per week. A majority of *CSOS*' respondents reported that they spent no more than ten hours per week engaged in the following activities: exercise, extracurricular activities, socializing and spending time with friends, commuting to work and/or school, watching television, and performing household chores.

In order to more effectively interpret these data and conduct comparisons across different student groups, the activities listed in Table 5.2 were collapsed into six categories - school, jobs/volunteer work, sports/exercise, extracurricular/social/television, household, and commuting. The median value of each time interval was used as an estimate of the amount of time spent on an activity (e.g., for the category "6 -10 hours", a value of 8 was used). The number of hours spent on the activities in each of the six categories was averaged. These data were then examined across various student categories, and are summarized in Table 5.3. This table shows that respondents report spending an average of 29 hours per week on school-

Table 5.2
Time Spent on Activities

Activity	Hours Per Week								
	None	1 - 5	6 - 10	11 - 15	16 - 20	21- 30	31 - 40	> 40	Total
	%	%	%	%	%	%	%	%	N
Attending classes or labs	0.4	6.6	17.3	34.0	26.8	10.1	2.4	2.5	1,289
Studying	1.1	17.5	30.3	19.8	15.0	10.2	4.8	1.4	1,278
Working in a job for pay	30.4	6.0	12.3	12.7	11.7	10.9	8.6	7.3	1,255
nterning for credit	91.4	3.1	2.0	1.3	1.4	0.2	0.4	0.1	1,096
Volunteer work	70.1	23.0	2.3	2.1	1.4	0.5	0.0	0.6	1,151
University sports teams	91.5	2.3	1.3	1.0	2.3	0.1	1.4	0.1	1,110
Other regular exercise	25.6	52.9	15.7	3.1	1.9	0.7	0.2	0.0	1,209
Other extracurricular activities	41.7	43.1	10.3	2.9	1.3	0.2	0.5	0.1	1,180
Socializing/time with friends	3.0	30.9	26.7	15.5	12.8	5.7	2.5	3.0	1,264
Commuting to school/job	14.5	51.7	23.8	6.7	1.4	0.6	0.2	1.2	1,257
Watching TV	15.4	52.4	18.5	7.7	3.8	1.1	0.5	0.6	1,258
Household chores/childcare	27.3	51.2	10.4	4.0	2.3	1.8	0.9	2.1	1,246
Other major activity	66.8	14.5	6.8	4.2	1.6	0.8	1.9	3.3	834

related activities, 15 hours per week on job/volunteer-related activities, five hours per week on sports/exercise-related activities, 19 hours per week on extracurricular/social/television-related activities, five hours per week on household-related activities, and six hours per week on commuting related activities. Across the various student categories, several observations are immediately apparent. The average time men and women spend engaged in various activities is relatively constant, with women spending slightly more time on school, household, and commuting-related activities, and men spending slightly more time engaged in job/volunteer, sports/exercise, and extracurricular/social/television-related activities.

Some of the more substantial differences among students occur across the regional campuses of the university and among the various class levels. New Brunswick students spend more time engaged in school-related activities compared to Camden and Newark students (30 hours versus 24 hours and 27 hours, respectively), and more time engaged in extracurricular activities (20 hours versus 15 hours for both Camden and Newark students). On the other hand, New Brunswick students spend less time than Camden and Newark students working in a job or as a volunteer (13 hours versus 22 hours and 22 hours, respectively) and doing household chores (4 hours versus 8 hours and 7 hours, respectively).

The amount of time students spend doing school related activities increases among first-, second- and third-year students (25, 29, 31 hours, respectively), with a slight decline for fourth-year students (30 hours). Fourth-year students spend substantially more time working or performing volunteer work compared to first-year students (19 hours versus 11 hours); also, fourth-year students, along with third-year

Table 5.3
Average Time (Number of Hours) Spent on Activities

	Schoolwork			Job/Volunteer Work			Sports/Exercise			Extracurr/Social/TV			Household			Commuting		
Group	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Total	1,292	28.9	14.9	1,263	15.2	14.3	1,219	5.0	7.5	1,279	18.6	13.6	1,289	4.9	7.6	1,074	6.1	5.7
Gender																		
Females	721	29.2	14.6	713	14.9	13.7	691	4.2	5.9	724	17.4	12.3	708	6.0	9.0	625	6.5	6.2
Males	570	28.5	15.2	549	15.6	15.0	526	6.0	9.0	573	20.1	14.9	536	3.5	4.8	447	5.6	5.0
Race/Ethnicity																		
African Am.	144	26.7	15.3	144	18.2	15.2	130	4.0	5.6	144	17.4	14.5	137	7.5	10.9	122	7.9	8.3
Asian	193	31.5	15.7	185	10.1	13.0	182	3.8	5.1	194	19.1	14.3	186	3.5	6.1	155	6.4	6.5
Latino	122	28.5	14.8	119	14.9	12.5	116	3.7	4.9	122	18.0	13.5	115	4.4	7.3	104	6.6	6.6
White	740	28.3	14.1	725	16.0	14.2	702	5.7	8.5	744	19.0	12.2	720	4.5	6.5	612	5.4	3.8
Other	93	32.3	17.3	90	14.7	15.9	89	4.5	7.3	94	17.6	20.2	88	7.4	10.7	81	8.3	8.8
Campus																		
Camden	128	24.5	13.6	127	22.1	14.1	114	4.7	7.0	127	15.0	10.8	121	7.8	9.4	121	6.3	5.9
Newark	225	27.2	16.5	221	21.7	14.1	205	4.2	5.8	222	15.1	11.9	214	7.4	9.9	203	8.1	7.6
New Bruns.	939	29.9	14.5	916	12.7	13.5	900	5.2	7.8	949	19.9	14.1	910	3.9	6.3	750	5.6	5.0
Class																		
First-year	304	25.1	12.0	294	11.2	13.4	295	5.5	6.4	307	17.3	11.3	294	3.6	6.0	262	6.1	5.7
Second-year	339	28.5	15.3	334	15.6	14.6	319	4.4	7.8	340	19.9	16.6	325	4.5	7.2	271	6.3	5.9
Third-year	332	31.4	15.9	329	14.9	13.7	322	4.5	7.2	330	18.6	13.3	325	5.6	8.2	264	5.8	5.4
Fourth-year	315	30.4	15.0	303	19.0	14.2	281	5.6	8.2	319	18.4	12.3	299	5.9	8.3	274	6.3	5.8

students, spend more time performing household chores than either first- or second-year students (6 hours for third- and fourth-year students versus 4 hours for first-year and 5 hours for second-year students).

SUMMARY

Results from the *CSOS* provide information on Rutgers undergraduates' engagement and time allocation to various activities. More than half of the respondents reported that they participated in at least one extracurricular activity, with academic and professional organizations providing the main source of this activity. Community service involvement, as well as intramural athletics, were also highly popular activities.

A good part of students' weekly activities are school-related. University-wide, students spend almost 30 hours a work on school-related activities, which include attending classes and studying. One interesting finding that emerged is that Camden and Newark students spend considerably more time than New Brunswick students working for pay or as a volunteer; these students also spend more time undertaking household chores than New Brunswick students. Such disparity in these activities between New Brunswick students and students from Camden and Newark also partially explains why Camden and Newark students spend less time in school-related activities than New Brunswick students.

CHAPTER SIX
FACULTY CONTACT

INTRODUCTION

As detailed in previous chapters of this report, the *Continuing Student Opinion Survey* provides descriptive information on Rutgers University students' characteristics, goals, and attitudes toward their school experiences. Another important goal of the survey was to obtain information regarding the processes and/or factors that contribute to students' academic achievement and satisfaction. Among these factors are faculty contact and student employment, which contribute to students' academic and social integration as well as to their overall success as undergraduates. The present chapter examines students' frequency and perceptions of faculty contact, and looks at differences in this contact among various categories of Rutgers' undergraduates.

FREQUENCY OF FACULTY CONTACT

Several items on the survey asked students to estimate the amount of contact they had with Rutgers faculty. Table 6.1 displays respondents' selection of these items, and shows that, overall, contact with faculty among Rutgers students is relatively low. Out of the 11 types of contact that undergraduates can have with faculty that are listed in Table 6.1, only two types recorded more than twenty percent of *CSOS'* respondents indicating "much" or "very much" faculty contact. These included discussion of class-related issues (29%) and contact with a faculty member at the end of class (21%). Most respondents reported that they had "a little" or "some" contact with faculty at the end of class (73%) or outside of class (64%), and had met with a faculty member in his/her office (65%). However, most students (67%) had never met with a faculty member in another location such as in a committee meeting or at a social event. The majority of responding students indicated that they never helped a faculty member with research (85%), nor had they discussed a faculty member's research (73%). In addition, most students had never discussed with faculty an independent study project (66%), future career options (66%), future education (63%), or personal issues (62%).

PERCEPTIONS OF FACULTY

Students were asked to answer several items on the survey regarding their perceptions of Rutgers faculty in their role of furthering students' educational and personal goals. Slightly more than a quarter of the respondents felt that faculty helped to prepare them for further education (i.e., responded "much" or

Table 6.1
Faculty Contact

How often have you:	None %	A Little %	Some %	Much %	Very Much %	Total N
Talked with a faculty member at the end of class	5.9	32.9	39.7	12.9	8.5	1,293
Talked with a faculty member outside of class	22.0	33.1	30.7	8.1	6.2	1,293
Met with a faculty member in his/her office	18.7	31.8	33.4	10.0	6.2	1,288
Met with a faculty member in another location	66.5	19.4	8.8	3.1	2.3	1,288
Discussed class-related issues	13.8	26.4	30.7	20.3	8.7	1,291
Discussed an independent study project	65.6	12.5	11.9	5.9	4.1	1,285
Discussed a faculty member's research	72.5	12.7	11.0	2.0	1.9	1,287
Helped a faculty member carry out his/her research	85.4	6.2	4.5	1.6	2.4	1,286
Discussed your future education	40.0	23.0	19.7	10.5	6.7	1,289
Discussed your future job or career	44.1	21.4	18.6	9.8	6.0	1,283
Discussed personal issues	61.6	18.5	13.4	4.5	2.1	1,284
To what extent does the Rutgers faculty:	None %	A Little %	Some %	Much %	Very Much %	Total N
Help you improve your grades	20.2	30.9	32.4	12.6	4.0	1,279
Introduce you to exciting thoughts and ideas	17.7	25.8	32.6	16.1	7.8	1,280
Help prepare you for further education	21.6	25.5	26.9	20.1	5.9	1,270
Help prepare you for a job or career	34.9	24.1	23.2	13.7	4.2	1,273
Help you learn technical and specific job related skills	45.1	20.8	19.6	10.8	3.8	1,267
Help you grow and develop as a person	34.7	26.0	22.6	11.8	4.9	1,271
Provide emotional support	60.7	19.9	13.6	3.6	2.2	1,269
Help you develop feelings of personal accomplishment and mastery	40.7	24.6	20.6	10.9	3.3	1,263
Help you develop feelings of independence	40.0	26.1	18.7	11.3	3.9	1,268
Make you feel like you are a part of Rutgers University	29.8	27.2	24.1	13.5	5.4	1,267
Introduce you to other faculty and students	55.7	19.5	17.8	4.3	2.8	1,268
How much would you agree that:	Not at All %	A Little %	Some %	Much %	Very Much %	Total N
Faculty are difficult to contact	18.0	32.8	32.5	8.8	8.0	1,274
Faculty are remote and discourage contact	44.8	24.8	22.5	5.8	2.1	1,277
Faculty do not understand students' concerns	26.4	34.3	27.4	8.0	3.9	1,265
How important is it that faculty share:	Not at All %	A Little %	Some %	Much %	Very Much %	Total N
Similar intellectual interests	17.9	21.1	28.8	24.0	8.3	1,234
Similar extracurricular interests	51.8	23.7	16.5	6.1	2.0	1,232
Similar skills in a language other than English	69.9	10.9	9.5	5.9	3.8	1,233
Similar racial identity	70.5	11.7	9.6	5.1	3.2	1,237
Similar cultural/ethnic identity	70.0	12.7	10.1	4.6	2.5	1,237
Similar gender identity	67.3	11.2	11.4	8.3	1.9	1,236
Similar religious identity	83.6	7.7	6.4	1.7	0.6	1,221

"very much"). Most students felt that to some extent (i.e., responded "a little" or "some"), faculty helped them to improve their grades (63%), introduced them to exciting thoughts and ideas (58%), and helped prepare them for future education (52%). However, most felt that faculty did "little" or "none" in providing emotional support (81%), introducing them to other faculty and students (75%), helping them develop feelings of independence (66%), helping them to develop feelings of personal accomplishment and mastery (65%), helping them to grow and develop as a person (61%), and making them feel like they are a part of Rutgers University (57%). Responding students also indicated that faculty did not help them to learn technical and specific job related skills (66%), nor did they help prepare them for a job or career (59%). Despite their low frequency of faculty contact, the majority of responding students felt that overall, faculty did not discourage contact (92% responded with "not at all," "a little," or "some"), were not difficult to contact (83%), and understood students' concerns (88%).

Importance of Shared Characteristics

The *CSOS* also sought to obtain information from respondents regarding the extent to which shared characteristics between students and faculty (e.g., interests, gender, religion, or racial/cultural identity) were important. The majority of respondents indicated that it was not important for faculty to share the same religious identity (84%), racial identity (71%), cultural/ethnic identity (70%), language skills (70%), gender (67%), or extracurricular interests (52%). However, many students felt that it was at least of "some" importance that faculty share similar intellectual interests (61%).

Differences in Faculty Contact Among Student Groups

As the student population at Rutgers is varied, so is the extent of students' contact with faculty. To examine differences in faculty contact among different groups of students, scales were created by averaging the responses about faculty contact across groups of similar items. Five scales were created: frequency of contact, perceptions of contact, contact regarding educational plans, contact regarding job/career plans, and contact regarding personal development. Reliability analyses of the scales revealed Cronbach alpha indices of .80 or higher, indicating strong internal consistency of the scales (see Appendix C). The scale means[1] were compared across various student characteristics (i.e., gender, racial/ethnic, campus, and class level), as shown in Table 6.2.

Table 6.2 shows that, overall, females had slightly more faculty contact and more positive perceptions of this contact than males. For example, females' mean score on the scale for contact regarding personal development was 2.23 compared to 2.05 for males. Males were slightly more likely than females

Table 6.2
Characteristics of Student-Faculty Contact

	Frequency of Contact			Perceptions of Contact			Contact re: Educational Plans			Contact re: Job/Career		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Total	1294	2.07	0.77	1284	2.23	0.84	1282	2.56	0.97	1276	2.18	1.09
Gender												
Female	727	2.09	0.79	722	2.29	0.89	721	2.61	1.00	716	2.20	1.11
Male	566	2.03	0.75	560	2.15	0.76	560	2.50	0.94	559	2.15	1.05
Race/Ethnicity												
African Am.	145	2.09	0.69	143	2.18	0.85	143	2.52	1.02	143	2.04	1.09
Asian	194	1.89	0.65	194	2.09	0.85	194	2.44	0.99	193	2.17	1.13
Latino	122	1.97	0.69	122	2.24	0.82	122	2.55	0.97	122	2.20	1.10
White	738	2.13	0.83	732	2.30	0.84	730	2.63	0.97	727	2.23	1.08
Other	95	2.02	0.74	93	2.10	0.75	93	2.35	0.89	92	1.99	0.99
Campus												
Camden	130	2.09	0.84	130	2.36	0.88	128	2.66	0.95	128	2.44	1.22
Newark	226	2.03	0.72	225	2.27	0.87	225	2.54	1.01	225	2.16	1.08
New Bruns.	938	2.07	0.78	930	2.20	0.82	930	2.55	0.97	923	2.15	1.06
Academic Year												
First-year	304	1.80	0.56	301	2.06	0.78	300	2.42	0.96	300	1.94	0.99
Second-year	342	1.87	0.61	335	2.14	0.76	335	2.47	0.90	330	2.02	1.00
Third-year	329	2.13	0.73	330	2.22	0.79	329	2.59	0.95	329	2.32	1.14
Fourth-year	317	2.47	0.95	316	2.50	0.93	316	2.76	1.06	315	2.43	1.12

	Contact re: Personal Development			Faculty Remoteness			Importance of Shared Characteristics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Total	1284	2.15	0.88	1279	2.26	0.92	1242	1.78	0.66
Gender									
Female	722	2.23	0.93	718	2.23	0.90	695	1.82	0.68
Male	560	2.05	0.80	560	2.31	0.94	546	1.72	0.62
Race/Ethnicity									
African Am.	143	2.12	0.88	143	2.16	0.93	141	2.02	0.77
Asian	194	1.97	0.86	193	2.44	0.91	187	1.85	0.64
Latino	122	2.16	0.85	122	2.29	0.88	120	1.85	0.77
White	732	2.22	0.89	727	2.22	0.90	705	1.69	0.60
Other	93	2.06	0.81	95	2.36	1.03	89	1.79	0.64
Campus									
Camden	129	2.26	0.90	130	1.95	0.97	128	1.76	0.71
Newark	225	2.23	0.91	225	2.23	0.95	216	1.87	0.74
New Bruns.	930	2.12	0.87	925	2.32	0.89	898	1.75	0.63
Academic Year									
First-year	301	2.00	0.81	301	2.17	0.89	289	1.69	0.65
Second-year	335	2.09	0.82	331	2.20	0.84	315	1.77	0.63
Third-year	330	2.09	0.79	329	2.46	0.99	322	1.77	0.63
Fourth-year	316	2.44	1.01	317	2.21	0.91	314	1.87	0.70

to indicate faculty remoteness (2.31 versus 2.23). Among the categories of race/ethnicity, white students indicated the most frequent faculty contact (2.13) and the most positive perceptions of that contact (2.30). Asian students indicated the least frequent (1.89) and least positive perceptions of faculty contact (2.09) among the five racial/ethnic groups. African American students had the highest mean score on the faculty remoteness scale (2.44), indicating these students' feelings that faculty were difficult to contact and did not encourage student contact.

Among the three campuses, students at Camden indicated the most frequent and most positive perceptions of faculty contact (2.09 and 2.36, respectively). New Brunswick students indicated the most faculty remoteness (2.32), while Newark students gave the most importance to shared characteristics between students and faculty (1.87). As would be expected, fourth-year respondents had the most frequent faculty contact (2.47), while first-year respondents had the least frequent contact (1.80). Fourth-year students also had the highest positive perceptions of faculty (2.50) than students from lower class levels; they also had the most contact with faculty regarding their educational plans (2.76), job and career plans (2.43), and personal development plans (2.44). Third-year students were most likely to indicate faculty remoteness among the four class levels (2.46), while fourth-year students placed the highest importance on shared characteristics between students and faculty (1.88).

SUMMARY

The results of the *Continuing Student Opinion Survey* reveal that Rutgers students have relatively little contact with faculty outside of the classroom. Reasons for this limited faculty contact among undergraduates are probably very complex, but students' responses to questions regarding faculty contact do point to some reasons for this limited student-faculty interaction. Although respondents indicated a belief that faculty were <u>not</u> difficult to contact, did <u>not</u> discourage contact, and understood students' concerns, respondents also indicated that faculty were somewhat remote. Students did report that to some extent faculty helped them to improve their grades, introduced them to exciting thoughts and ideas, and helped prepare them for future education. Yet, students indicated that they perceived faculty as unhelpful in guiding their future career plans and personal development. These responses may have been due to students' low frequency of faculty contact rather than their actual experiences with faculty. Students indicated that the gender of faculty members, as well as religious, cultural, and racial/ethnic identity are not important factors in their contact with faculty. Some differences in the frequency and perceptions of faculty contact among different student groups were found. The most consistent and substantial differences among the student categories were between fourth-year students and lower division students on a number of

faculty-student contact scales, including frequency of contact, perception of contact, job/career contact, and personal development contact.

ENDNOTES, CHAPTER 6

[1] Individual items were given scores from 1 to 5 for the categories "None" through "Very Much," which were then averaged over the number of items comprising the respective scale.

CHAPTER SEVEN:
STUDENT EMPLOYMENT

INTRODUCTION

A section of the *Continuing Student Opinion Survey* included questions about student employment. These questions asked students to report on the extent and type of their present employment, as well as their reasons for working and the effect their work may have on their educational pursuits. This chapter presents student responses to these questions.

TYPE AND EXTENT OF STUDENT EMPLOYMENT

Several items on the *CSOS* asked students to indicate the kind of work in which they were engaged during the period of time when the survey was administered (see Table 7.1). One question asked respondents if they had ever obtained an internship, externship, or coop work experience during their attendance at Rutgers. Twenty percent of respondents answered affirmatively to this question, with eight percent of these respondents learning of this opportunity through career services and 26 percent learning of it through an academic department.

Two out of three respondents had jobs at the time of the survey, and 20 percent of respondents indicated that they had more than one job. Of those respondents who worked, 30 percent had jobs on-campus and 70 percent worked in jobs located off-campus. Twenty-two percent of respondents who worked were employed by Rutgers faculty and 18 percent were employed as supervisors or managers. Only 17 percent of these students worked as a necessary condition of financial aid (i.e., work study).

Table 7.1
Type of Student Employment

	Yes		No		Total
	N	%	N	%	N
Obtained an internship, externship or co-op work experience while at Rutgers.	258	19.8	1046	80.2	1304
How did you learn about this position:					
Through career services	19	7.8			
Through an academic department	62	26.2			
On my own	99	41.9			
Other	57	24.1			
Works for pay now	856	66.0	442	34.0	1298
Has more than one job now	181	21.1	675	78.9	856
Job is on-campus	243	29.8	571	70.2	814
Job is necessary condition of financial aid (i.e., work study)	137	16.9	672	83.1	809
Supervisor or manager	142	17.9	654	82.1	797
Employer is member of the Rutgers faculty	178	22.0	632	78.0	810

At the time of the survey, students had been employed, on average, for 26 consecutive months in their primary job (Table 7.2). On average, respondents earned $175.00 for working an average of 19 hours per week, with about 16 of these hours occurring on weekdays. Male students were employed at their present job for a longer period of time than female students (33 months versus 21 months), but worked approximately the same number of hours per week (19 hours) as female students. Males earned more money per week, on average, than females ($195 compared to $161).

Among racial/ethnic groups, Asian and Latino students worked for fewer months in their present job (18 and 20 months, respectively), than African American, white, and "other" students (27, 28, and 29 months, respectively). African American respondents averaged a longer work week (22 hours) than the other student groups, with Asian respondents having worked the least number of hours per week (16 hours). African American respondents earned the most money per week and per hour ($233 per week and $10.36 per hour). Among the campuses, New Brunswick students worked the shortest amount of time in their

Table 7.2
Extent and Renumeration of Student Employment

	Mean Length of Employment (months)			Mean Hours Per Week Worked			Mean Hours Worked During Weekdays			Mean Dollars Per Week Earned		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Total	779	25.9	31	781	18.9	12.8	664	15.7	12.4	678	175	191
Gender												
Female	451	21.1	24.5	453	18.6	12.7	394	15.5	12.3	408	161	189
Male	327	32.6	37.2	329	19.4	12.9	271	16.0	12.5	271	195	194
Race/Ethnicity												
African Am.	92	26.8	31.8	94	22.5	14.7	77	20.2	14.9	78	233	262
Asian	81	18.4	21.8	83	16.5	10.9	67	12.2	10.2	76	150	169
Latino	74	20.0	23.8	73	19.3	11.2	63	14.6	10.1	68	142	127
White	488	27.7	32.1	488	18.5	12.8	416	15.5	12.3	418	171	187
Other	44	28.7	39.2	44	20.0	12.5	41	16.7	12.1	38	199	186
Campus												
Camden	92	43.7	45.5	93	24.6	12.3	85	19.8	12.7	78	231	213
Newark	153	33.1	35.9	154	25.6	13.6	135	21.2	13.9	135	243	228
New Bruns.	534	20.8	24.2	535	16.0	11.5	445	13.3	11.0	465	146	168
Academic Year												
First-year	130	19.4	26.6	132	19.6	13.9	113	16.6	14.5	110	131	167
Second-year	219	22.8	26.3	220	17.7	11.3	179	15.1	11.4	196	169	202
Third-year	205	28.6	31.5	202	18.9	12.1	176	15.7	11.6	181	171	172
Fourth-year	222	30.2	36.1	226	19.6	13.8	194	15.6	12.5	190	209	206

present job compared to Camden and Newark students (21 months compared to 44 months for Camden students and 33 months for Newark students); worked the least amount of hours per week (16 hours compared to 25 and 26 hours per week for Camden and Newark students, respectively); and earned the least amount of money per week and per hour ($146 per week and $9.12 per hour compared to $231 per week and $9.39 per hour for Camden students and $243 per week and $9.49 per hour for Newark students). First-year students worked the shortest length of time in their present jobs (19 months); these students also worked the most (along with fourth-year students) at 20 hours per week, but earned the lowest pay per week ($131) and per hour ($6.68).

Characteristics of Student Employment

Table 7.3 presents the responses of students to questions regarding why they are presently working and potential problems with their employment. More than one-third of all working respondents indicated that they relied heavily (i.e., selected either "much" or "very much" to the respective statement) on their present employment to: provide money for social and recreational activities (46%); give a feeling of independence (41%); provide money for clothes (39%); help in growing and developing as a person, and help in learning technical or specific job-related skills (both at 38%); and provide money to pay off their debts and loans, and give a feeling of personal accomplishment and mastery (both at 37%).

Sixty-six percent of working respondents did not feel that their present job interfered with their attendance at classes, while 20 percent indicated that their present job interfered "a little" with their class attendance. Although only 15 percent of working respondents indicated that their work was not a major mitigating factor (i.e., responded "much" or "very much") in their studying, 60 percent acknowledged that their employment interfered somewhat (i.e., "a little" or "some") with their studies. Forty-six percent of students indicated that working interfered somewhat with their attainment of good grades, though only ten percent indicated that working played a major mitigating role in this academic endeavor. Perhaps one reason why most working students did not feel that their jobs interfered with their attending classes and studying was due to the flexibility in their work schedules and in the support from their employer for their academic pursuits (73% of respondents acknowledged "much" or "very much" flexibility in their work schedules and 55% of respondents indicated that their employer gave "much" or "very much" encouragement to them in their academic activities).

Investigation of reasons for and problems with student employment was expanded to include a comparison of student groups through the use of several scales based on items listed in Table 7.3. The scales created included: interference with school, money for school, money for personal use, personal

Table 7.3
Characteristics of Student Employment

How much does your job:	None %	A Little %	Some %	Much %	Very Much %	Total N
Provide money necessary for tuition	47.7	14.7	14.2	9.0	14.3	791
Provide money necessary for housing	54.4	11.7	9.2	9.5	15.2	782
Provide money to pay off debts or loans	36.6	15.3	11.0	14.6	22.4	784
Provide money for clothes	14.9	23.6	22.9	14.6	24.0	789
Provide money for social and recreational activities	8.8	21.4	24.3	17.7	27.8	789
Help you grow and develop as a person	18.4	18.1	25.6	19.5	18.4	785
Help you learn technical or specific job-related skills	25.9	16.9	19.3	16.5	21.3	791
Introduce you to people who may help you get a job in the future	31.6	19.1	21.6	12.8	14.9	789
Give you a feeling of personal accomplishment and mastery	25.8	19.0	18.1	20.3	16.8	787
Give you a feeling of independence	16.0	15.4	27.3	22.3	18.9	785
Provide work experience related to your declared or intended major	50.8	12.4	11.2	7.9	17.7	783
Provide work experience related to your career interests	46.7	14.1	13.7	9.6	16.0	786
Provide work experience related to another personal interest	42.6	15.6	20.6	10.0	11.2	779
Help you feel like you are a part of Rutgers University	69.8	9.0	8.2	7.4	5.6	774
Help you manage your time	29.4	21.7	30.5	11.0	7.5	784

How much does your job:	None %	A Little %	Some %	Much %	Very Much %	Total N
Interfere with attending classes	65.9	20.1	8.3	4.0	1.7	788
Interfere with studying	25.6	33.2	26.3	10.5	4.4	788
Interfere with getting good grades	43.7	27.8	18.6	6.2	3.6	788
Interfere with leisure activities	23.6	19.7	28.9	17.1	10.8	787
Give you a feeling of frustration or boredom	27.8	25.2	22.7	11.9	12.4	787

Does your employer:	None %	A Little %	Some %	Much %	Very Much %	Total N
Let you adjust your job schedule to fit your academic activities	6.6	6.8	13.8	19.8	52.9	783
Actively encourage you to do well in your academic activities	20.9	9.9	14.1	15.3	39.8	776

development, and work skills and experience. Table 7.4 includes the means and standard deviations of these scales for various student categories. (Appendix C includes the specific items included in each scale and their reliability estimates.)[1]

As mentioned above, working students, on average, felt that their employment only interfered with their school work "a little." This assertion of limited interference by working students university-wide was also reflected by a mean rating of 1.96 on a five point "interference" scale that is presented in Table 7.4. There was very little difference in the mean "interference" score between females and males (1.94 and 1.99, respectively), though substantial differences were apparent in the mean score on this scale for the other three student characteristics listed in Table 7.4. Third-year and first-year students (1.86 and 1.87), New Brunswick students (1.86), and white students (1.88) all had mean "interference" scores below the university-wide mean of 1.96. Conversely, Asian and Latino students (2.14 and 2.09, respectively), Newark students (2.25), and fourth-year students (2.05) exceeded the university-wide mean of 1.96.

Table 7.4
Characteristics of Student Employment by Selected Student Categories

	Job Interferes			Money for School			Money for Personal Use			Personal Development			Work Skills and Experience		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Total	788	1.96	0.89	791	2.24	1.35	791	3.22	1.28	792	2.63	0.98	792	2.50	1.24
Gender															
Female	453	1.94	0.89	452	2.18	1.33	452	3.08	1.29	453	2.69	1.01	453	2.54	1.28
Male	336	1.99	0.89	339	2.33	1.36	339	3.40	1.24	339	2.56	0.94	339	2.44	1.18
Race/Ethnicity															
African Am.	97	2.00	1.02	97	2.05	1.29	97	2.93	1.44	97	2.47	0.96	97	2.29	1.15
Asian	85	2.14	0.92	87	2.08	1.27	87	2.91	1.19	87	2.69	0.97	87	2.61	1.22
Latino	79	2.09	0.99	79	1.96	1.20	78	2.99	1.31	78	2.57	0.99	78	2.35	1.25
White	481	1.88	0.83	481	2.34	1.37	481	3.38	1.22	481	2.69	1.00	481	2.56	1.26
Other	46	2.20	0.86	47	2.47	1.52	48	3.10	1.33	48	2.40	0.88	48	2.35	1.12
Campus															
Camden	91	2.01	0.88	91	2.54	1.44	91	3.45	1.27	91	2.67	0.89	91	2.56	1.16
Newark	163	2.25	1.02	163	2.39	1.46	162	3.27	1.41	163	2.60	0.91	163	2.59	1.21
New Bruns.	535	1.86	0.83	537	2.15	1.28	539	3.16	1.23	539	2.64	1.02	539	2.46	1.26
Class															
First-year	135	1.87	0.86	136	2.31	1.38	135	3.13	1.23	135	2.58	0.86	135	2.22	1.19
Second-year	219	2.00	0.87	219	1.98	1.25	219	3.15	1.17	219	2.55	0.95	219	2.39	1.23
Third-year	196	1.86	0.78	198	2.42	1.30	198	3.34	1.31	200	2.66	0.98	200	2.55	1.07
Fourth-year	237	2.05	0.98	237	2.30	1.42	237	3.23	1.37	237	2.73	1.08	237	2.70	1.37

More male students than female students indicated that their jobs provided money for school expenses (2.33 versus 2.18) and for personal use (3.40 versus 3.08). Minority students (i.e., African American, Asian, and Latino working students) indicated less need for money for school compared to students university-wide as well as white students (2.05, 2.08, and 1.96, respectively, versus 2.24 and 2.34, respectively) and less need for money for personal use (2.93, 2.91, and 2.99, respectively, versus 3.22 and 3.38, respectively). Asian and white students tended to see their employment as a factor in their personal development compared to students university-wide as well as African American and Latino students (2.69 versus 2.63, 2.47, and 2.57, respectively). First-year, second-year, African American, Latino, and "other" students all indicated that they see their present employment as having substantially less relevance for their development of work skills and gaining work experience than students university-wide (2.22, 2.39, 2.29, 2.35, and 2.35, respectively, versus 2.50). Asian and fourth-year students had substantially higher perceptions that their present job contributes to their development of work skills and gaining work experience than students university-wide (2.61 and 2.70, respectively, versus 2.50).

SUMMARY

Two-thirds of the respondents indicated that they were employed in some type of work for pay at the time that the *CSOS* was administered. Three out of ten of these students worked in jobs that were on-campus. The number of hours that students worked varied among the various student categories examined. On average, respondents university-wide worked 19 hours per week, with most of those hours occurring during the weekdays. African Americans, Camden and Newark students, and first-year students worked more hours per week compared to other students and the university-wide average; Asian and New Brunswick students worked the least number of hours per week compared to other students and the university-wide average.

Respondents had varied reasons for their employment. Some of the most cited reasons (i.e., cited by at least one-third of all respondents) for working included: obtaining money for social and recreational activities, having a feeling of independence, providing money for clothes, helping in personal growth and development, learning a technical skill, paying off loans and debts, and having a feeling of personal accomplishment.

Very few students felt that their employment was a major factor in preventing them from attending classes, studying, or attaining good grades. Most students indicated that they had flexible work schedules and that their present employer encouraged them to pursue their academic studies.

Comparison of students on a number of work-related scales revealed differences in why students work among student groups. For example: male students indicated that they needed to work for money at a higher rate than female students; minority students indicated less of a need to work for money for school and personal use than students university-wide; Asian and white students indicated that they see their employment as having more of a role in their personal development than students university-wide; and Asian and fourth-year students indicated that they saw their employment as contributing to their development of work skills and gaining of work experience more than students university-wide.

ENDNOTES, CHAPTER 7

[1] Reliability analyses on these five scales showed strong Cronbach alpha indices of .80 or higher for four of the five scales, indicating strong internal consistency among the items of the scale. The one exception, the money for school scale, had an alpha index of .73.

CHAPTER EIGHT:
FACTORS INFLUENCING ACADEMIC ACHIEVEMENT AND STUDENT SATISFACTION

INTRODUCTION

The *Continuing Student Opinion Survey* provides valuable information about undergraduates at Rutgers. Basic descriptive information of respondents was obtained through the *CSOS* and, as presented in previous chapters of this report, insights were gained into student goals, activities, utilization and evaluation of Rutgers services, faculty contact, and employment. These data were also enlisted to help in understanding differences in college outcomes among Rutgers undergraduates. The present chapter reports on results of an analysis of the *CSOS* data that investigated the relationship between both academic achievement and student satisfaction with factors that previous research has identified as contributing to differences in these two student outcomes.

BACKGROUND

The prevailing approach to understanding differences in academic achievement and student satisfaction is grounded in the interactionist position of explaining undergraduate persistence. This theoretical perspective posits that students enter an institution with various social and academic traits, which when combined with their initial educational goal commitments, affect the nature of their interaction with other institutional actors such as faculty and other students. This interplay among student traits, goal commitments, and interaction with other institutional actors influences students' subsequent educational commitments and their integration into the academic and social contexts of their school, which in turn affects college outcomes such as students' commitment to graduate.[1] Academic achievement and student satisfaction are considered as being both influenced by this dynamic process as well as influencing student persistence and other outcomes of college.[2]

Another research tradition with regard to academic achievement and student satisfaction has investigated the relationship between these two college outcomes. Various factors are seen as contributing to the academic achievement of students and their satisfaction, while the relationship between these two variables is often presented as complex and reciprocal.[3] Regardless of the exact nature of the relationship between these two college outcomes, the critical point of this work in the present context is its identification of factors that influence both academic achievement and student satisfaction.

Although the examination of factors that influence academic achievement and student satisfaction is important in its own right, this examination is especially critical now given the expanding need for institutions of higher education to demonstrate accountability to individuals and groups external to the university. Graduation rates have increasingly become the preferred measure of demonstrating institutional accountability, at least in the context of academic performance, though other measures of student performance such as grades, satisfaction levels, and various assessment outcomes have also emerged as important indicators of institutional accountability.[4] Thus it is incumbent on institutions to maintain and enhance students' academic achievement and satisfaction, not only because of an institution's responsibility to its own educational mission, but because the successful performance and high satisfaction of its students demonstrates to external agents that the institution is accountable. Knowledge of what influences these college outcomes can contribute to the development and implementation of institutional strategies for the maintenance and enhancement of academic achievement and satisfaction among students.

ANALYSIS

Dependent Variables

Results of an analysis of factors that influence academic achievement and student satisfaction at Rutgers from data collected by the *CSOS* are presented here. Although these two college outcomes are closely related, as recent work investigating the interactive influence of each factor on the other has indicated, each nevertheless is a distinct outcome of college, and are approached as much in the present analysis.

Cumulative Grade Point Average (GPA). Perhaps the single most used variable for studying academic achievement is the cumulative grade point average of students. It is generally considered as the best indicator of a student's academic adjustment to his or her college or university and often taken as the best predictor of a student's graduation and future educational attainment.[5] The cumulative grade point average (GPA) of respondents during the 1995-96 academic year was used in the reported analysis as the indicator for academic achievement. Because students who entered the university for the first time during the 1995-96 academic year did not have a grade point average at the time the *CSOS* was administered, estimating the influence of factors on first-year GPA was not done and was excluded from this analysis.

Student Satisfaction. As Bean and Bradley (1986) and Pike (1991) have noted, interest in student satisfaction emerged during the late 1960s and early 1970s as a direct result of the unrest that was prevalent

on America's college campuses at that time.[6] Although this work had more to do with establishing levels of satisfaction rather than investigating the causes of satisfaction among undergraduates, work in this area did contribute to more recent efforts relating student satisfaction with student performance and persistence.[7]

In the present analysis, this variable was measured as a summated scale of the positive evaluations of Rutgers' services listed in Table 4.4 by *CSOS* respondents.

Independent Variables

Seven sets of variables were included in this analysis. Each set was conceptualized as being a substantively distinct group of factors influencing the dependent variables. Descriptions of these sets follow. Univariate statistics and zero-order correlations for these variables are listed in Appendix D.

Social Background. These variables included gender (1=female, 0=male), a set of dummy-coded variables for race/ethnicity (African American, Asian, Latino, white, with the "other" category serving as the referent for these dichotomous variables), and two variables measuring parental educational achievement that were asked on the *CSOS*: father's and mother's educational level (1=eighth grade or less, 2=high school, 3=some college, 4=college graduate, and 5=graduate or professional school).

Academic Background. This indicator pertained to the academic performance of students before they entered the university. Composite SAT score was used to measure the influence of academic background on academic achievement and student satisfaction.

Goal Commitment and Academic Intention. Two variables were used to represent academic intention: intention to graduate from Rutgers (1=definitely intend to graduate from Rutgers, 0=not definitely certain of graduating from Rutgers) and educational expectation ten years from now (1=intend to obtain a masters degree or higher, 0=intend to receive a baccalaureate degree or lower). Four variables represented goal commitment, with each variable measuring the different set of goals asked on the *CSOS* (i.e., academic, career preparation and career improvement, social and cultural participation, and personal development and enrichment goals). The values of these variables ranged from zero to the number of goals listed on the *CSOS* under each goal category (e.g., the academic goals variable ranged from zero to nine). Also included with this set was the time students spent on schoolwork (time measured in hours per week).

Academic Integration. Three variables developed from the *CSOS* data on faculty contact were used in the analysis; these factors included faculty contact, perceptions of faculty contact, and faculty remoteness. All three factors were measured as averages of the item values within each category that

were included in the *CSOS*. Another measure of academic integration used in the analysis was number of hours doing academic work such as homework per week.

Social Integration. The social integration factor set included the total number of activities and total number of hours per week engaged in extracurricular activities. Whether the student lived on- or off-campus was also included in this factor set (1=on campus, 0=off campus).

Student Employment. Student employment was measured by two dichotomous variables: students who worked on campus compared to all other students, and students who did not work on campus compared to all other students. Students who did not work at all were used as the reference group for this set of dichotomous variables. Another dichotomous variable composed of students who worked for faculty compared to all other students was also included in this set of variables.

Class Level

From the above list of independent variables included in this analysis, one very important factor cited in the literature on college outcomes is missing. This factor is academic class level. Reviews of college outcomes have noted the importance of class level and the "reasonably consistent set of cognitive, attitudinal, value, and psychosocial changes" that occur in students during their years as undergraduates.[8] This work points to the fact that college outcomes are substantially different for different academic classes of undergraduates. Consequently, it was decided not only to include academic class in the regression model, but to perform separate analyses for each academic class for both dependent variables. (Results for the separate academic class levels are found in Appendix D.)

Results

Tables 8.1 through 8.4 present the results of hierarchical regressions of cumulative GPA and student satisfaction with various factors considered as influencing these dependent variables. This process involved entering each distinct set of factors into a regression model incrementally and hierarchically.[9] The order that each factor set was entered was determined by the logical priority dictated by previous research on the factors influencing academic achievement and student satisfaction. The first set of variables entered was the social background variables, which included gender, the set of dummy variables representing race/ethnicity, and father's and mother's educational attainment. This group of variables was followed by the factor sets of academic background, academic class level, goal commitment and academic intention, academic integration, social integration, and student employment.

Table 8.1 shows the amount of variance in cumulative GPA that is explained at each step of inclusion of the independent variables. When the social background variables are entered, 10 percent of the variance in cumulative GPA is explained. When composite SAT is entered into the regression model, the amount of variance in cumulative GPA that is explained grows to 23 percent, with the SAT variable uniquely explaining 13 percent of the total variance. Somewhat surprisingly, academic class level, the next variable entered into the regression model contributed little to the overall model's explanation of cumulative GPA's variance.[10] The goal commitment and academic intention variables contributed nine percent in explaining the variance in cumulative GPA, while academic and social integration factors combine to explain an additional 5 percent of cumulative GPA's total variance. Student employment appears to add very little to the model's overall explanation of the variation in cumulative GPA scores among undergraduates at Rutgers.

Table 8.2 presents the regression estimates of the final model explaining cumulative GPA. Significant effects were found for the following predictors of cumulative GPA: African American, Latino, white, composite SAT, intention to graduate, future academic degree plans, academic goals, career goals, hours per week doing academic work, total number of extracurricular activities, hours participating in extracurricular activities, campus residence, and work off-campus.[11] By far, the greatest unique influence on cumulative GPA is composite SAT score (Beta=.38), with career goals (Beta=-.16), white (Beta=-.16), hours doing academic work (Beta=.15), Latino (Beta=-.14), and African American (Beta=-.13) also having strong unique effects on cumulative GPA. The unique effect of hours doing academic work, not surprisingly, is in the positive direction (i.e., more hours doing academic work such as homework results in a higher cumulative GPA), while the unique effect of having more career goals is in the negative direction. This latter finding is interesting and possibly suggests that students who have career goals take a more

Table 8.1
Model Explaining Cumulative GPA

	R Square	Adjusted R Square	Change In R Square	Significance
Social Background	.096	.085	.029	.000
Academic Background	.221	.210	.125	.000
Academic Class Level	.233	.220	.011	.005
Goal Commitment and Academic Intention	.322	.303	.089	.000
Academic Integration	.352	.329	.030	.000
Social Integration	.371	.344	.019	.001
Student Employment	.383	.353	.012	.017

utilitarian approach to their education compared to students who are more academically driven, and that excelling in their studies as measured through high cumulative GPA scores is not as important than the degree itself for students who stress the importance of career goals. Additional analysis of these variables is needed, of course, before more definitive statements about this relationship can be made.

With regard to student satisfaction, Table 8.3 presents the variance that is explained by each set of variables entered hierarchically into the regression model and Table 8.4 consists of the final regression

Table 8.2
Predictive Effects on Cumulative GPA

Variables	B	Std. Error	Beta	Significance
Intercept	1.043	.234		.000
Social Background	-.139	.108	-.087	.201
Gender	.073	.045	.062	.106
African American	-.276	.126	-.130	.029
Asian	-.139	.108	-.087	.201
Latino	-.283	.120	-.141	.019
White	-.197	.099	-.163	.047
Mother's education	.009	.022	.018	.676
Father's education	-.006	.021	-.013	.770
Academic Background				
Composite SAT	.013	.001	.385	.000
Class Level	.003	.029	.004	.907
Goal Commitment and Academic Intention				
Intention to graduate	.196	.064	.123	.002
Educational expectations	.146	.055	.109	.008
Academic goals	.020	.012	.090	.038
Career goals	-.072	.018	-.159	.000
Social goals	-.029	.033	-.042	.376
Personal goals	-.034	.021	-.088	.092
Time spent on schoolwork	.006	.002	.147	.000
Academic Integration				
Frequency of faculty interaction	.036	.036	.050	.311
Perception of faculty interaction	.055	.034	.076	.100
Faculty remoteness	.018	.025	.028	.460
Social Integration				
Number of extracuriculars	.038	.016	.109	.019
Time spent in extracuriculars	-.011	.005	-.089	.034
Live on or off campus	-.116	.048	-.099	.016
Student Employment				
Work on campus	.047	.089	.036	.596
Work off campus	.148	.051	.124	.004
Work for a faculty member	.098	.094	.067	.297

* $p < .05$
** $p < .01$

estimates for these factors. The overall explanatory power of the student satisfaction model is less than the cumulative GPA model just described. Table 8.3 shows that the percent of variance explained by all factors in the satisfaction model was 14 percent (12 percent when adjusted for the size of the relationship and the ratio of observations to factors included in the model) compared to 38 percent (35% when adjusted) for the cumulative GPA model.

The factor sets were entered into the regression model for student satisfaction in the same manner as that followed for cumulative GPA. The social background variables accounted for five percent of the total variance of student satisfaction while the academic background factor of composite SAT made no contribution to the explanation of student satisfaction's variance. Academic class level showed a minimal contribution to explaining the variance in student satisfaction (< 1%). The remaining factor sets contributed to explaining the variance in student satisfaction in small but significant amounts. Goal commitment and academic intention factors contributed two percent in explaining the variance in student satisfaction, while academic integration factors contributed three percent, social integration factors contributed another two percent, and student employment contributed one percent.

The regression estimates for the final student satisfaction model are presented in Table 8.4. Significant individual effects for this model came from the following predictors: social background, goal commitment and academic intention, academic integration, and social integration. The racial/ethnic categories were especially influential in this model, with Asians (Beta=.24), whites (Beta=.23), Latinos (Beta=.16), and African Americans (Beta=.15) all having relatively strong and unique effects on student satisfaction. Gender also had a significant unique influence on student satisfaction (Beta=.12), as did intention to graduate (Beta=.10), hours doing academic work (Beta=.08), faculty remoteness (Beta=-.11), and number of extracurricular activities (Beta=.14).

Table 8.3
Model Explaining Satisfaction

	R Square	Adjusted R Square	Change In R Square	Significance
Social Background	.050	.041	.009	.022
Academic Background	.050	.040	.000	.603
Academic Class Level	.056	.045	.006	.026
Goal Commitment and Academic Intention	.079	.061	.023	.004
Academic Integration	.111	.090	.032	.000
Social Integration	.132	.107	.020	.001
Student Employment	.143	.115	.012	.016

SUMMARY

Regression models of factors influencing academic achievement and student satisfaction were presented. Seven predictive sets of variables identified in the literature as important explanatory factors were used in the building of these two models. Academic achievement was measured by cumulative GPA and student satisfaction was measured by the number of university services that respondents to the *CSOS* rated positively. While the model explaining cumulative GPA proved to be the more statistically powerful, both models identified factors such as composite SAT, number of extracurricular activities, and intention

Table 8.4
Predictive Effects on Satisfaction

Variables	B	Std. Error	Beta	Significance
Intercept	9.95	1.544		.000
Social Background				
Gender	1.098	.318	.124	.001
African American	2.294	.839	.147	.006
Asian	2.743	.729	.242	.000
Latino	2.310	.809	.159	.004
White	2.018	.669	.228	.003
Mother's education	-.177	.159	-.048	.265
Father's education	-.258	.154	-.073	.093
Academic Background				
Composite SAT	-.019	.011	-.075	.070
Class Level	.067	.166	.017	.684
Goal Commitment and Academic Intention				
Intention to graduate	1.069	.412	.098	.010
Educational expectations	-.430	.378	-.043	.256
Academic goals	.037	.085	.018	.667
Career goals	.005	.131	.002	.967
Social goals	.066	.225	.013	.771
Personal goals	.123	.142	.042	.385
Time spent on schoolwork	.023	.011	.076	.037
Academic Integration				
Frequency of faculty interaction	.337	.260	.059	.196
Perception of faculty interaction	.099	.238	.018	.678
Faculty remoteness	-.526	.178	-.107	.003
Social Integration				
Number of extracurriculars	.387	.123	.140	.002
Time spent in extracurriculars	-.021	.040	-.021	.596
Live on or off campus	.290	.354	.033	.413
Student Employment				
Work on campus	.394	.631	.038	.532
Work off campus	-.393	.366	-.043	.283
Work for a faculty member	.736	.693	.062	.288

* $p < .05$
** $p < .01$

to graduate as having substantial effects in explaining differences among students with regard to academic achievement and student satisfaction.

ENDNOTES, CHAPTER 8

[1] Tinto (1975, 1993) provides the theoretical context for this approach. Research grounded in this perspective has shown academic achievement and student satisfaction to be directly related to student persistence. Examples include Aitken (1982), Bean (1980), Braxton and Brier (1989), Munro (1981), Pascarella and Chapman (1983), and Terenzini and Pascarella (1979).

[2] Student graduation is, of course, the most salient of these outcomes, but other research has adapted the interactionist perspective to explain differences in college outcomes among students that include occupational status attainment (Smart, 1986), students' critical thinking skills (Terenzini et al., 1995), and personal change (Terenzini and Wright, 1987).

[3] Bean and Bradley (1986), Pike (1990), Stage (1989), and Wince and Borden (1997).

[4] For example, in the State of New Jersey, all public institutions of higher education must produce accountability reports that not only contain information regarding retention and graduation, but various other data that include measures of academic achievement and levels of student satisfaction. Another indication of the importance of measures of academic achievement and student satisfaction can be found in the accreditation self-study process, where much information regarding student satisfaction and academic achievement is gathered and reported.

[5] Pascarella and Terenzini (1991: pp. 388-390).

[6] Betz, Starr, and Menne (1972).

[7] Another result of this early work on student satisfaction has been the inclusion of student satisfaction as a topic of concern in the areas of accountability, assessment, and total quality management (Hearn, 1985 and Sanders and Chan, 1996).

[8] Pascarella and Terenzini (1991, p. 563). Other reviews of the effect of college include Feldman and Newman (1969) and Bowen (1977).

[9] Although these factors lend themselves to a causal interpretation of their effect on academic achievement and student satisfaction, the present analysis is interested in estimating the unique and combined effects of the seven conceptual sets on the two college outcomes.

[10] Although the contribution of academic class level to explaining the variance in cumulative GPA is statistically significant, this is largely attributable to the relatively large sample size. As sample size increases, the likelihood that a statistically significant R Square change would be found also increases, even when the effect size of that change is negligible.

[11] The level of significance was $p<.05$.

[12] The zero order correlation coefficients are presented in Appendix D. The Beta represents the correlation between composite SAT and cumulative GPA when all other factors are controlled. Thus the difference of .06 between the Beta and the zero order correlation coefficient can be interpreted as the intervening effect of composite SAT between the model's social background variables and cumulative GPA.

[13] As Tinto (1993) has written, "Colleges are made up of both academic and social systems, each with its own characteristic formal and informal structure and set of student, staff, and faculty communities. The former, the academic, concerns itself almost entirely with the formal education of students. . . . The latter, the social system of the college, centers about the daily life and personal needs of the various members of the institutions, especially the students. . . . It also follows that integration or membership in either system need not imply comparable integration in the other."

[14] Tinto has advocated the saliency of emphasizing the academic side of retention efforts that enhance "the daily academic experiences of students in the classrooms and laboratories" (1996, p.3). He argues that how teaching and learning occur in academic settings requires restructuring, and has encouraged the creation of "learning communities." Essentially, learning communities involve groups of students taking the same courses together and interacting with each other in their learning of particular subjects.

[15] In Chapter 6 it was noted upper division students tended to have more contact with faculty, and that this contact tended to be related to students educational, career, and personal development plans.

CHAPTER NINE:
REVIEW OF FINDINGS

INTRODUCTION

The *Continuing Student Opinion Survey* was designed to obtain information from Rutgers undergraduates regarding their academic experiences and activities. The questionnaire contained various sections, with each designed to probe some aspect of undergraduate student life. This chapter summarizes many of the findings found in this report.

SURVEY DESCRIPTION

The *CSOS* was administered to a randomly selected sample of Rutgers undergraduates during the 1995-1996 academic year. The survey instrument was jointly designed by the Office of Institutional Research and Academic Planning and a graduate research methods course in Sociology. The random sample drawn from the population of Rutgers undergraduates included 3,000 students and was designed to ensure that an adequate number of Camden, Newark, and minority students were included in the study. The administration of the survey included four separate mailings[1] sent to students via the Rutgers' campus mail system.[2] A total of 1,320 usable surveys were returned and included in analysis described in this report. After adjusting for students who could not be reached, the response rate was slightly under 48 percent. Because students from the different regional campuses and students with different racial/ethnic identities were either under- or over-sampled, sample weights were calculated and applied to respondents in order to ensure that accurate and unbiased estimates of the Rutgers undergraduate population were obtained for analysis.

FINDINGS OF THE CONTINUING STUDENT OPINION SURVEY

Characteristics of the Respondents

Data obtained about the characteristics of the respondents reflected the diversity found in the undergraduate population at Rutgers. Respondents were: 56 percent female; 11 percent African American, 15 percent Asian, nine percent Latino, 57 percent white, and seven percent "other;" 29 percent over the age of 22; 73 percent from the New Brunswick campus, 17 percent from the Newark campus, and 10 percent from the Camden campus; and 24 percent first-year students, 26 percent second-year students, 25 percent

third-year students, and 25 percent fourth-year students. Respondents also had a mean grade point average of 2.92, a verbal SAT score of 490, and a mathematics SAT score of 560. These numbers were found to be quite similar to those for the entire Rutgers undergraduate population, though respondents did have a slightly higher percentage of females and second-year students compared to the population of Rutgers undergraduates.

A section of the CSOS asked respondents to provide additional demographic and academic characteristics beyond that contained in the registrar's student record database. Forty percent of respondents had mothers who had attained at least a college degree while 50 percent had fathers who earned a college degree or higher. Ninety percent of all respondents were never married, while eight percent were married at the time the CSOS was administered. A little over four out of ten respondents were Roman Catholics, 17 percent were Protestants from varying denominations, and six percent were Jewish. Seventeen percent of respondents indicated that they did not have a religious affiliation.

With regard to academic major, psychology was the most popular (9%), followed by biology, English, and accounting (each at 6%), and computer science (5%). At the time of survey, fifty-eight percent of students lived off-campus and commuted an average of 15 miles per week. Parents and other family members were noted by respondents as the main source of financial support for students, with students also relying on student loans and other financial aid.

STUDENT GOALS

The CSOS asked respondents to indicate their intention to graduate from Rutgers. Seventy-eight percent of respondents stated that they definitely planned to graduate from Rutgers, while another 16 percent stated that they would probably graduate from the university. Further analysis revealed that the percentage of respondents indicating their definite intention to graduate increased linearly among the four academic class levels, progressing from 67 percent of first-year students to 89 percent of fourth-year students.

Respondents also indicated high educational aspirations for their future. While 24 percent of all respondents indicated that the baccalaureate degree would be their highest level of educational attainment ten years from now, many students (42%) indicated that they planned to have a masters degree in ten years. Moreover, an additional 30 percent of respondents indicated that they expected to have a professional or doctoral degree in ten years.

The CSOS listed a wide array of goal statements and asked respondents to indicate whether each goal was important to them and whether they had achieved or were in the process of achieving each goal. These goal statements fell into four fundamental categories: academic, career preparation and career improvement, social and cultural participation, and personal development and enrichment. The academic goals that received the highest proportion of students indicating their importance included obtaining a degree (76%), increasing knowledge in an academic field (73%), and improving the ability for critical thinking (63%). A widely selected career preparation and career improvement goal was to improve knowledge and/or competency in work-related areas (68% of respondents indicated that this was an important goal). Neither of the two social and cultural participation goals were selected by a majority of the respondents as important goals. Four of the five personal development and enrichment goals[3] listed were selected by slight majorities of respondents, while the personal goal of seeking to improve one's ability to get along with others was selected by four out of ten respondents.

Although many of the goal statements were selected by a majority of respondents as important goals to achieve, only four of the 20 goal statements were selected by a majority of respondents as goals that they had achieved or were in the process of achieving. These four goals included: to improve one's ability for critical thinking (an academic goal), to increase one's knowledge in an academic field (an academic goal), to meet people and make friends (a social and cultural participation goal), and to improve one's ability to get along with others (a personal development and enrichment goal).

The individual goal statements were collapsed into four major categories in order to compare the responses across gender, racial/ethnic, class level, and regional campus student categories. This analysis revealed that the career preparation and career improvement goals were cited at a higher rate of importance by respondents university-wide and within the various groupings of students than any of the other three goal categories. Social and cultural participation goals were found to consistently receive the lowest rate of importance among the four goal categories university-wide and within each student group. Student groups varied in the importance they gave to each of the four goal categories. For example, first-year students gave the most importance to academic goals while Newark students gave the lowest importance to these goals.

With regard to the achievement of goals, not surprisingly, fourth-year students achieved goals at a higher rate compared to all other student groups, while Newark students had the lowest rate among the student groups. Although the career-preparation and career-improvement goals were cited the most frequently as important by respondents, these goals had the lowest rate of achievement by respondents university-wide and within each student group. Similar to the selection of the importance of goals, student groups varied in the rate of achieving a particular goal set.

Assessment of Rutgers Academic Experiences and Student Services

Rutgers was consistently given positive evaluations by undergraduates participating in the CSOS. Seventy-four percent of respondents rated their academic experience at the university as positive (i.e., "excellent" or "good"), while only three percent of respondents gave a "poor" rating. Moreover, fourth-year students gave a more favorable rating to their academic experience at Rutgers than students from lower class levels. These students also had the largest proportion of respondents who gave the university an "excellent" rating (19%).

The CSOS asked undergraduates about their satisfaction with various student services. Approval ratings of various Rutgers services were relatively high; the only service to receive a distinctly low satisfaction rating was parking services, with only 28 percent of respondents indicating satisfaction with this university service. CSOS respondents indicated high levels of awareness of many student services provided by the university. Of the twenty-nine services listed in the CSOS (Table 4.2), 24 of them were known to at least 80 percent of the respondents. There were wide variations in students' use of services at the university, with services aimed for specific student groups being the least utilized.

Few differences in the utilization of student services were found across the various student groups considered in this report. This was not the case, however, when satisfaction with these services was examined. Although there were services with consistent satisfaction ratings across categories of students (e.g., academic advising, computer services, class scheduling, and student employment), other services such as campus security and first-year student orientation received differential ratings from various student groups.

Extracurricular and General Activities

Fifty-five percent of respondents declared that they participated in some extracurricular activity. Male respondents had a higher rate of participation than female respondents (58% vs. 52%), Asian students (64%) indicated higher participation than students from other racial/ethnic categories, New Brunswick students had higher participation than students from Camden and Newark (62% vs. 38% and 34%, respectively), and fourth-year students (62%) had the highest participation compared to students from the lower academic class levels. Overall, 33 percent of respondents participated in at least one extracurricular activity.

Respondents were also asked to give the approximate time they spent on particular types of activities during the week. Sixty percent of students averaged between 11 and 20 hours each week attending classes, and 35 percent averaged this same amount of time studying. Various activities were grouped into six specific types (i.e., school, work, sports/exercise, extracurricular, household, and commuting), and comparisons in the allocation of time to these activities were made across student groups. Substantial differences were found among respondents across regional campuses and class levels. For example, New Brunswick students spend more time engaged in school-related activities than Camden or Newark students (30 hours vs. 24 hours and 27 hours, respectively) and more time engaged in extracurricular activities (20 hours vs. 15 hours for students from the other two regional campuses). Also, fourth-year students spend substantially more time than first-year students working for pay or performing volunteer work during an average week (19 hours vs. 11 hours).

Faculty Contact

One of the features of the CSOS that sets it apart from other student surveys undertaken by the Office of Institutional Research and Academic Planning is the detailed information regarding student-faculty contact and student employment that the survey instrument was designed to obtain. With regard to faculty contact, respondents were asked to give information on the frequency of their contact with faculty, their perception of faculty, and the importance for faculty to have shared characteristics with students. Of the 11 types of faculty-student contact listed in Table 6.1, only "discussion of class-related issues" and "talked with a faculty member at the end of class" had more than 20 percent of respondents indicating that they had "very much" or "much" of this type of contact with faculty members. The majority of respondents indicated that they had only "very little" or "some"contact with faculty of the type characterized by the other nine statements listed in Table 6.1.

Although respondents indicated that they had relatively minimal contact with faculty, the majority of respondents nevertheless felt that faculty did not discourage contact, were not difficult to contact, and did understand student concerns. Most respondents felt that it was not important for faculty to share a similar interests and/or identity, except when the interest was intellectual in nature. Sixty-one percent of respondents felt that it was at least of "some" importance that faculty share intellectual interests, while a majority of respondents felt that it was not important for faculty and students to share: extracurricular interests; similar skills in language other than English; and racial, cultural/ethnic, gender, or religious identity.

The construction of five scales from the items listed in Table 6.1 allowed for the comparison of various aspects of faculty contact across the student categories of gender, race/ethnicity, class level, and regional campus. Administration of the CSOS revealed that: female students had a higher frequency of contact compared to male students; white students had the most frequent contact with and the most positive perception of faculty compared to students from other racial/ethnic backgrounds; African American students saw faculty as more remote than other racial/ethnic groups; among the three regional campuses, Camden students had the most frequent and most positive perceptions of faculty; and, not surprisingly, fourth-year students had the most frequent contact with faculty among the four class levels of students, while first-year students had the least.

STUDENT EMPLOYMENT

Responses by students to questions regarding their employment revealed that 20 percent of all respondents indicated that they had obtained an internship, an externship, or coop work experience during their studies at Rutgers. Sixty-six percent of all respondents indicated that they were working at the time the CSOS was administered, with 20 percent of the respondents indicating that they had more than one job. Of the respondents who worked, 30 percent worked on-campus and 22 percent were employed by faculty members. On average, working respondents earned approximately $175 for working about 19 hours per week. Among racial/ethnic categories of respondents, African American students worked the most during the week (22 hours) while Asian students worked the least (16 hours per week).

Over one-third of the working respondents indicated that they relied heavily on the income they earned from their employment for a variety of reasons including: having money for social and recreational activities; feeling independent; and having money for clothes. Nearly two-thirds of respondents who worked did not feel that their employment interfered with their attendance at classes, and twenty percent indicated that work interfered only "a little" with attending classes. Sixty percent of respondents believed that their work interfered with their studying " a little" or "some," and 46 percent of respondents felt the same with regard to work interfering with their getting good grades.

FACTORS INFLUENCING ACADEMIC ACHIEVEMENT AND STUDENT SATISFACTION

Data from the CSOS provided the basis for building statistical models that sought to explain differences among respondents in academic achievement and student satisfaction. Academic achievement was measured by students' cumulative GPA and student satisfaction was represented by a summated score

based on student responses that evaluated their satisfaction with various student services provided by the university. These models were created through hierarchical multivariate regression and included seven sets of explanatory factors that previous research had identified as influencing these dependent variables. The model explaining variation in cumulative GPA had the better fit of the two models presented, with academic background, which was measured by composite SAT scores having a relatively strong unique effect.

ENDNOTES, CHAPTER 9

[1] The mailings included an original mailing consisting of a questionnaire, a cover letter from Professor Hansell, the instructor of the graduate research methods course, and a self-addressed return envelope; a mailing of a postcard thanking respondents who returned their questionnaire, while reminding those students who did not return their questionnaire to do so as promptly as possible; and two follow-up mailings, which included another copy of the questionnaire, a revised letter from Professor Hansell, and a self-addressed return envelope. The latter mailings were only sent to those sampled students who did not yet return their questionnaire.

[2] For students who were known not to have a Rutgers PO mail box (e.g., Rutgers-Newark students living off-campus), the mailing of a questionnaire also included a self-addressed, stamped envelope for the return of the questionnaire via the U.S. postal service.

[3] These statements included the goals of improving self-confidence, improving leadership skills, enriching one's daily life, and becoming more independent, self-reliant, and adaptable.

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