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CAREER PLANS AND ACADEMIC RECRUITMENT:
A STUDY OF GRADUATE STUDENTS.

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CAREER PLANS AND ACADEMIC RECRUITMENT:
A STUDY OF GRADUATE STUDENTS

Thesis submitted in partial fulfillment
of the requirements of the degree of
Master of Arts

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ABSTRACT

This thesis studies the occupational choices of graduate students with interest focussed on those planning an academic career.

Such factors as social-class background, ethnic and religious affiliations and parental education were examined to see the degree to which these influenced occupational choice.

The relationship between sexual roles and occupational choice was considered, and a comparison was made of the reasons given by men and by women for selecting a career.

The influences of both occupational values and perceptions of academic status and role on occupational choice were also studied.

It was found that middle-class students were more likely to choose an academic career, and that women were more likely to do so than men. The relationship between values, perceptions and occupational choice is a complex one, and although various patterns emerged, further research in this area is needed.

PART ONE

INTRODUCTION

CHAPTER ONE

INTRODUCTION

This study is concerned with the career preferences and plans of graduate students. From the perspective of occupational choice, students in graduate school can be thought of as falling into two main categories: those who are considering or planning an academic career, for which advanced training is a minimal requirement, and those who are looking forward to positions outside a university, for which graduate work is either necessary or advantageous.

The thesis is primarily concerned with the first of these and it tries, therefore, to identify some of the ways in which students, oriented to academic careers, differ from their fellow students with other occupational plans and expectations. More specifically, it develops and examines a number of hypotheses which relate occupational selection to three main types of attributes: the students' social and academic characteristics, the values which they bring to bear upon their occupational and work preferences, and their perceptions of the status and role of the university professor.

Existing studies of occupational choice are agreed on three points. Firstly, a decision about occupational goals confronts practically every individual at some time during his life. The acceptance, in our

society, of the Protestant ethic regarding the value of work ensures that even those who are not coerced by financial considerations are expected to undertake the obligations of an occupation. The importance of the decision to the individual varies, however, according to his sexual and marital statuses. It is of crucial significance to the male, but of lesser importance to the unmarried female, since it is presumed her active work life will be terminated at marriage, or at the birth of her first child. Some women may make the choice twice over, once at the beginning of their work life, and later, when they return to the work world after their children have reached a certain age, or after some family crisis, such as death or divorce.

Secondly, career choice is a very important decision to the individual, since the occupation chosen affects many diverse aspects of his life. Social and economic status, life chances, identity formation and the development of self-esteem are only some of the characteristics which are influenced by occupational choice.

The third point, on which there is also general agreement, is that occupational choice is not a single event, but a process extending over a period of time. It originates in the ascribed characteristics of an individual's family background and continues, influenced by other factors, until the final decision is made. Ginzberg suggests that the process is largely irreversible, since it is related to the chronological age and development of the individual. Final choice is

the result of a number of compromises among the various factors, such¹ as interest, capacity or opportunity, all of which affect this decision. The individual passes through three phases of decision making. The fantasy period, which extends from early childhood to puberty, is characterised primarily by the child's wish to be a part of the adult world. In early adolescence he passes into the tentative stage, when choices are already influenced by such factors as interests, capacities and values, but choice still has little relation to reality. During the third, or reality stage, the individual "recognizes he must work out a compromise between what he wants and the opportunities which are² available to him." This period of realistic choices is, in turn, divided into three stages, exploration, crystallization and specification. During the exploration stage the individual investigates career possibilities and working conditions and rewards. The crystallization stage is entered when the student has assessed both the negative and positive forces towards a particular career and, on the basis of these, has made his occupational choice. However, such crystallization commits the individual to a major area rather than to one particular type of job; for example, a student chooses history, "although he has not determined whether he

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1. Eli Ginzberg, Sol Ginsburg, Sidney Axelrad and John Herma, Occupational Choice, (New York: Columbia University Press, 1951).
 2. Ibid., p. 186.

will aim at college teaching or will eventually seek a position in government." ³ The third stage, that of specification, is the one with which the present study is concerned, the process of closure or the period of final commitment, and Ginzberg points out that even after several years of graduate study, the individual may still not have the "requisite knowledge, skill and experience to make the subtle distinctions ⁴ required for specification".

Although Ginzberg mentions values as contributing to occupational choice, he does not analyse their influence in any detail. For a more specific statement regarding the role of values, it is necessary to turn to Rosenberg's study of Cornell students. Here occupational choice is analysed, not in terms of chronologically ordered periods, but as a ⁵ process measured by "the progressive delimitations of alternatives". These delimitations can be classified into a number of categories. To begin with, an individual's position in the stratification system automatically eliminates a great number of positions from any serious consideration. Sexual, racial, religious and nationality factors make entrance either more difficult, or easier, for any given individual. The amount of knowledge about an occupation, its "social publicity", also affects decision, as do the "reality factors" - on the one hand, the individual's physical endowments, mental capacities and material

3. Ibid., p. 108

4. Ibid., p. 113.

5. Morris Rosenberg, Edward A. Suchman and Rose K. Goldsen, Occupations and Values, (Glencoe: The Free Press, 1957), p. 4.

resources; on the other, the availability of certain jobs.⁶ However, even when all these factors have been taken into consideration, there is still a substantial range of occupations open to any individual. Rosenberg suggests that the final choice is made in accordance with values, attitudes and personality needs. His work is directly relevant to the topic of this thesis, and several of the critical concepts and hypotheses of the present study are derived from, or based upon, it.

As mentioned previously, Rosenberg suggests that one of the delimiting alternatives is the "social publicity" of an occupation, i.e., the degree to which it is widely known in the society as a whole (or in certain sections) will affect the number of potential recruits. He does not, however, discuss in any detail the way in which an individual's perception of an occupation will affect his choice. The desirability of an occupation will depend partly, at least, on the individual's beliefs regarding its status, and such factors as salary, rate and means of promotion, the relationship with colleagues and the degree of expected competition.

This question of perception is particularly relevant when the student contemplating an academic career is the main topic of interest. On the one hand, it might be assumed that he is in an especially

6. Ibid., p. 5.

favourable position to obtain an accurate picture of the activities of academic life, since, as a student, he is already part of it. On the other hand, there may be structural and other sources of misperception which are related to his position in the university.

The question of professorial role may, in fact, be seen by students in a number of different ways, since there is some disagreement regarding primary role expectations amongst the faculty members themselves. Knapp has pointed out that the college teacher in the United States has characteristically had three functions: teaching, research and character⁷ development. In recent years, there has been a relative decline in the importance of the third function, and a tendency for a separation of the teaching and research functions.

It is this increasing separation of teaching and research, and uncertainty regarding their relative importance, which has created much recent discussion in academic circles, and which may be an important factor influencing the occupational choice of the graduate student. The academic profession is unique in several ways: the formal requirements for entry are undefined, the neophyte is not necessarily trained for the publicly recognised function of teaching, and he may be hired to fulfil one function while his tenure and promotion may depend on the other.

7. Robert H. Knapp, "Changing Functions of the College Professor", The American College, ed. Nevitt Sanford (New York: Wiley, 1962), pp. 290-311.

These conditions have resulted in a situation where:

. . . . there is a great deal of confusion in American universities with regard to the role of the professor in his institution and profession The foremost element in this confusion is uncertainty about the relative importance accorded to the two fundamental academic activities, teaching and research.⁸

If this confusion exists amongst full-fledged, accepted members of the academic profession, it seems likely that there may be considerable difference of opinion about the academic role among graduate students, and that occupational choice may be influenced by, or may reflect, the students' perception of this role.

Another aspect of academic life may also affect occupational choice. Becker and Carper⁹ studied graduate students in three departments, physiology, engineering and philosophy, and postulated that students enter these departments for different reasons and that the experiences they undergo encourage, to a greater or lesser degree, the development of an identification with an occupation. Although Becker and Carper are primarily concerned with the various mechanisms by which commitment to an occupation is internalized, they point out that entry to a particular department, in itself, indicates some kind of positive or negative career choice. They found, for example, that many students in the physiology department were disappointed medical students, who at first regarded the

8. Theodore Caplow and Reece J. McGee, The Academic Marketplace, (New York: Science Editions, Inc., 1961), p. 81.

9. H. S. Becker and J. Carper, "The Development of Identification with an Occupation", American Journal of Sociology, LXI, January, 1956, pp. 289-298.

physiology course as a stop-gap measure. On the other hand, engineering students had already made an occupational choice, and graduate school was seen as a means to a particular occupational goal. Students entered the philosophy department as a means of avoiding an occupational commitment of any kind.

This suggests the possibility that entering a particular department is an indication of a greater or lesser commitment to an academic career. The student in engineering or public administration is less likely to be planning an academic career than the student of English, since the latter has a more limited opportunity to use his advanced knowledge and training outside the university.

As far as sexual differences are concerned, a National Science Foundation study found it necessary to analyse all data for men and women graduates separately, because "it became obvious during the analysis . . . that the two groups of graduates differ widely with respect to background, choice of fields of study, graduate study and occupational outcome."¹⁰

Davis reports that, regardless of academic performance, career field or marital status, women are much less likely to plan immediate graduate study. The explanation, he argues, appears to be related to lack of motivation, rather than to perceived financial or other external obstacles.¹¹

10. Two Years After the College Degree - Work and Further Study Patterns, National Science Foundation 63-26, Bureau of Social Research, Inc., (Washington, 1963).

11. James Davis, Great Aspirations, Vol. I: Career Decisions and Educational Plans during College, National Opinion Research Centre (Chicago: Aldine Publishing Co., 1964).

Beardslee and O'Dowd suggest that the particular career problems of college women can be discussed in terms of a number of issues.¹² Firstly, only a small proportion of girls who look forward to entering college are concerned with its academic possibilities.¹³ Secondly, although both men and women belong to a culture which attaches great importance to being gainfully employed, the college-educated woman is not prepared for independent work, and tends to find both satisfaction and easy entrance in fields where she plays a supporting role to the male - for example, nursing or secretarial work - or engages in voluntary activities. Thirdly, she acquires her primary status in the stratification system from her husband and his occupation, rather than from her own. For these reasons, it is suggested that women prepare for occupational positions which can be used as a stop-gap between graduation and marriage.

O'Dowd and Beardslee,¹⁴ in another study, found that only a small percentage of women undergraduates, even at private college, aspired

12. David Beardslee and Donald O'Dowd, "Students and the Occupational World", The American College, p. 606.
13. Elizabeth Douvan and Carol Kaye, "Motivational Factors in College Entrance", The American College, p. 207, found that 70% of freshman women at a major Midwestern university included in their objectives of academic life, "the happy encounter with the 'man for me'," or "the desire to meet boys and have lots of fun."
14. Donald O'Dowd and David Beardslee, College Student Images of a Selected Group of Professions and Occupations, U.S. Office of Education, Dept. of Health, Education and Welfare, Co-operative Research Project No. 562 (8142), April, 1960.

to high prestige professional occupations. Most of them expected to work in service oriented activities or subsidiary occupations.

These and other studies seem to suggest two general conclusions. On the one hand, women graduate students differ from men in many important ways which are directly relevant to their entry both into graduate school and into the work world.¹⁵ On the other, women graduates must, if only because of their academic status, be considered atypical of college women in general, at least on matters relating to their academic goals and career aspirations. A major concern of the thesis has therefore been the exploration of the similarities and differences between men and women on these points.

In addition to this general comparative approach, certain specific hypotheses have been developed relating women's career goals to other aspects of their socially defined sex roles. For example, there is an examination, in this study, of the proposition that, although the actual number of women in graduate school is very small, a higher proportion of women than men graduates are at least attracted to the prospect of college teaching. The main reason suggested for this choice is that women view a career of college teaching as one in which they can use their training and capabilities in ways which entail minimal conflict with their domestic

15. An alternative hypothesis is that the differences between men and women graduates found, for example, in the National Science Foundation study was affected by the concentration of women in particular fields of study - nursing, education, social work, etc.

roles (either present or future). The university is seen, not as a true bureaucracy with a clearly defined hierarchy of authority and explicit regulations regarding the time and place of work, but as an institution where the individual has a certain autonomy in these matters. Only the actual teaching activity must be carried on at the university, while much preparation and research may be undertaken at home.

Summary

This study attempts to discover those factors which influence the occupational choice of graduate students. Since particular interest is focussed on graduates who wish to undertake a university career, the dominant line of analysis is one which compares students who plan to become university professors, with those who look forward to careers in other fields. Various hypotheses derived from the general theory of occupational choice are tested. On the basis of previous research and discussion it was considered that the likelihood of a graduate student choosing an academic career is affected by the following:

- first, such social determinants as sex, class, religion and ethnicity
- second, certain academic characteristics, such as area of study
- third, certain aspects of the student's general value system
- fourth, his perception of the status, functions and role activities of the university professor.

An examination of the relationship between each of these variables and the student's occupational preferences is, therefore, the subject matter of this thesis.

CHAPTER TWO

METHODOLOGY

This study of the occupational plans of graduate students at Carleton University was undertaken for a number of reasons. Firstly, there has been very little research on the occupational choice of students at this advanced educational level. A number of studies of graduate schools and students have been carried out, but very few of them have dealt with the question of career aspirations. There have been descriptive statistical studies concerned with the academic institutions from which graduates are drawn,¹ and research has been focussed on the social characteristics of graduate students.² There have also been discussions of the functions and effects of graduate education on the rest of the university structure,³ but very rarely have questions been asked about the occupational goals of the student after he receives his advanced degree. Bernard Berelson has provided a valuable source book on graduate education in the United States;⁴ however, although he deals with the topic of occupations, he is more

1. See, for example, Robert H. Knapp and Joseph J. Greenbaum, The Younger American Scholar: His Collegiate Origins, (Middletown: University of Chicago Press, 1953).
2. George L. Gropper and Robert Fitzpatrick, Who Goes to Graduate School?, (Pittsburgh: American Institute for Research, 1959)
3. Oliver C. Carmichael, Graduate Education, (New York: Harper & Brothers, 1961).
4. Bernard Berelson, Graduate Education in the United States, (New York: McGraw Hill Book Co., 1960).

concerned with the "fit" between graduate school training and the demands of the society for researchers and teachers than with the factors which determine students' career choices. Secondly, although graduate students are similar to students in professional schools, regarding the educational level they have attained, the graduate is in a very different position. The medical student, whose commitment to a future career was made when he entered medical school, knows that, as long as he passes his examinations, he will become a doctor. On the other hand, the student can enter graduate school uncommitted to any particular profession or career. If, in fact, he does see his graduate education as the first step toward a university career, the achievement of a Master's degree, or even a Ph.D., is no guarantee that he will automatically gain a university appointment. All that can be said is that it is highly unlikely that he will be considered for such a career, unless he possesses at least one advanced degree. Since graduate students are different from other groups in the society, even those of the same age-group and similar educational qualifications, it seems pertinent to see whether research concerning graduates can be subsumed under the general theory of occupational choice, or whether it will result in any modification of propositions.

This study has therefore taken a number of hypotheses, derived from the theory of occupational choice, and attempted to test them by application to the particular case of graduate students.

From the practical viewpoint, the quantity and quality of students who wish to enter college teaching are likely to be matters of considerable

importance during the next few years, both to the society at large and to the universities themselves, if the forecast spectacular academic expansion is actually to take place. E. F. Sheffield has suggested that, if student-staff ratios at Canadian universities are to be maintained, the number of teaching and research staff required will have to increase from 7,450 in 1958 to 18,040 in 1970-71.⁵ To achieve this figure, a steadily rising net recruitment will be required each year, and this fact alone justifies an inquiry into the attributes and circumstances which may influence students, with the requisite intellectual and academic qualifications, to choose or reject a university career.

The research scheme for this study was originally designed to include the use of both questionnaire and interview schedules; the questionnaire was to be given to all graduate students, and a sample of the group was to be interviewed subsequently. The interview schedule would have included some questions related to topics in the questionnaire, in the hope of obtaining some elaboration and clarification of the answers received. In addition, the interview would have concentrated on two new areas: the quantity and quality of interaction between graduates and faculty, and among the students themselves, and certain applications of reference group theory to study the process of anticipatory socialization, particularly amongst those students who were

5. E. F. Sheffield, Staffing the Universities and Colleges of Canada, Canadian Universities Foundation. (Ottawa: 1959), p.17.

considering an academic career. Unfortunately, it was found that any sample, stratified according to the important social and academic characteristics, would result in such small numbers in most of the cells that little or no validity could be claimed for the results. It was therefore decided to limit the study to an investigation of those factors influencing occupational choice for which information could be obtained by a questionnaire.⁶

When the questionnaire was constructed it was tested on half a dozen English-speaking graduate students at Ottawa University and a similar number of individuals who had recently completed graduate training at other universities. As a result of their answers and comments, certain minor changes were made in the wording and layout of some of the questions.

At the beginning of April, 1964, when the academic year was still in progress, questionnaires were sent to the 245 individuals who had registered as graduate students of Carleton University in the autumn of 1963. The list was obtained from the office of the Dean of Graduate Studies, and included both part-time and full-time students. Further investigation revealed that twelve students had subsequently withdrawn. Another five could not be traced; apparently, they had moved and left no information regarding their new addresses with the Registrar, the Graduate Dean or their Department. There was, in fact, no evidence of

6. See Appendix for the questionnaire.

It will be noted that only the data directly relevant to the problem have been examined.

their continuing attendance at Carleton. The exclusion of these two groups, the official and unofficial withdrawals, reduced the number in the universe to 228.

Each student was sent a questionnaire accompanied by an explanatory letter, and a stamped, addressed envelope for return. If the questionnaire was not returned within two weeks, the respondent was telephoned. The response proved to be very satisfactory: over half (53%) of the forms were returned without any prompting, and approximately another 20% after the first phone call. Most students who were contacted explained that pressure of work (it was near the time for examinations) had prevented their completion of the questionnaire, and promised it for a later date, a promise which was usually kept. There were only three outright refusals. It was felt, however, that any student who had not returned it after approximately six weeks, during which three telephone calls were made, was either hostile to, or so disinterested in, the project that there was little point in taking any further steps. The number of returned questionnaires was 206, or 90.4% of the possible total.

TABLE 1

DISTRIBUTION OF RESPONDENTS BY ACADEMIC STATUS
TYPE OF DEGREE AND AREA OF STUDY

Area of Study	Full-time students			Part-time students			Total
	Master's	PhD.	Total	Master's	PhD.	Total	
	No.	No.	No.	No.	No.	No.	No.
Humanities	15	-	15	13	-	13	28
Canadian Studies	5	-	5	6	-	6	11
Social Sciences	24	-	24	16	-	16	40
Sciences	24	18	42	11	2	13	55
Public Administration	11	-	11	23	-	23	34
Engineering	8	-	8	30*	-	30	38
	87	18	105	99	2	101	206

*Including 5 students registered with the Faculty of Engineering, but studying for a M.Sc.

Table 1 gives a detailed breakdown of this group of graduate students, showing their distribution by academic status, i.e., full-time or part-time attendance, type of degree sought and field of study. The only information available concerning those who did not complete the questionnaire is their sex, their department, and their academic status. A comparison of respondents and non-respondents regarding these characteristics is made in Tables 2, 3 and 4.

TABLE 2

COMPARISON OF RESPONSE AND NON-RESPONSE BY SEX

Sex	Response		Non-response		Total	
	No.	%	No.	%	No.	%
Male	170	89.9	19	10.1	189	100.0
Female	36	92.3	3	7.7	39	100.0
Total	206	90.4	22	9.6	228	100.0

TABLE 3

COMPARISON OF RESPONSE AND NON-RESPONSE
BY AREA OF STUDY

Area of Study	Response		Non-response		Total	
	No.	%	No.	%	No.	%
Humanities	28	90.9	3	9.1	31	100.0
Canadian Studies	11	91.7	1	8.3	12	100.0
Social Sciences	40	90.9	4	9.1	44	100.0
Sciences	55	88.9	7	11.1	62	100.0
Public Administration	34	97.1	1	2.9	35	100.0
Engineering	38	90.5	4	9.5	42	100.0
Department unknown	-	-	2	-	2	-
Total	206	90.4	22	9.6	228	100.0

TABLE 4
COMPARISON OF RESPONSE AND NON-RESPONSE
BY ACADEMIC STATUS

Academic status	Response		Non-response		Total	
	No.	%	No.	%	No.	%
Full-time students	105	94.6	6	5.4	111	100.0
Part-time students	101	86.3	16	13.7	117	100.0
	206	90.4	22	9.6	228	100.0

Men were slightly more likely to ignore the questionnaire than women. The area of study appears to have very little effect on non-response, with the exception of Public Administration, where only one graduate out of thirty-five did not return the questionnaire.

Full-time and part-time students show the greatest difference in response rate, 14% of the latter did not complete the questionnaire, in comparison with 5% of the former. These figures can probably be explained by the fact that the combination of a full-time job, studying for an advanced degree and the possible demands of family life leaves very little time for other activities - in fact, respondents' comments on the telephone indicated that these were often the reasons for late return.

On the whole, the analysis of non-response suggests that those who did not complete the questionnaire are unlikely to be different in any important way from the respondents.

Before settling on the final composition of the group, preliminary analysis showed that 46 respondents described themselves as "Not a Canadian", when they were asked to identify themselves with a Canadian ethnic group.⁷ Investigation of application forms revealed that these could be divided into two main groups. Firstly, there was a small group of 16 students, who were immigrants to this country, but apparently not Canadian citizens. Many of them appeared to have lived in Canada for some years, and certainly did not come here only to receive graduate training; most of them hold, or held jobs and were coming to Carleton because they lived in Ottawa. Since these students appeared to be a part of the society, and differed from other Canadian students only on the point of their nationality, it was decided that they should be included with the other respondents. Secondly, there were 30 students who had come to Canada from another country in order to acquire a graduate degree and who planned to leave as soon as this objective had been achieved. Since much of the study is concerned with elements of the culture, such as values, beliefs and perceptions, which might not be shared by students from other societies, it was decided to omit this group of temporary members of Canadian society.⁸

This reduced the population to 176 students. Since three of these did not answer the question regarding occupational plans, they also had

7. Question 28, Appendix.

8. It would have been preferable to remove any foreign students from the population before analysing non-response. Unfortunately this was not possible, since the necessary information by which to identify them came from the questionnaire itself.

to be omitted. The hypotheses were, therefore, tested with data obtained from a group of 173 students.

Since the focus of this study is a comparison of students planning a university career with those who are looking forward to an occupation outside the university in government or industry, respondents have been divided into two groups. Throughout the thesis, respondents who wish to become faculty members have been called "academics", those who look for a career elsewhere have been called "non-academics". The two groups were identified by answers to the questions: "Do you have any definite plans for a career when you have completed your graduate studies?" "What field do you expect to enter?" or "Which would appeal to you most?" and "What specific position would you like to have when you receive your graduate degree?"⁹ It was found that 75 respondents could be identified as "academics", and 98 as "non-academics", and these have been compared in the subsequent chapters of this thesis.

9. Questions 13(a) and 15(a), Appendix.

CHAPTER THREE

THE GRADUATE STUDENT: SOME SOCIAL AND ACADEMIC CHARACTERISTICS

This chapter provides a brief answer to the question: "Who goes to graduate school?" This description is a background for the analysis which follows, and stresses those social and academic characteristics which are relevant to the study.

It is difficult to establish whether Carleton students are typical of a larger population. The graduate school itself, like any other institution, has certain idiosyncratic features, which may affect the composition of its student body. It has not been in existence for very long (the first M.A. was awarded in 1955, the first Ph.D. as late as 1960), and partly as a result of this, a considerably smaller number of departments offer courses leading to a degree at the doctoral than at the master's level, and there are relatively few Ph.D. students. Moreover, it gives no courses in such subjects as social work, education or nursing, and this may affect not only the academic characteristics of the graduate students, but also their social characteristics. For example, education and nursing are typically feminine fields and are also favoured as channels of social mobility.

An attempt was made to compare certain characteristics of the respondents with those of all Canadian graduate students by examining the figures

published by the Dominion Bureau of Statistics.¹ It was found, however, that much of the required information was not available, or was presented in such a way that few useful comparisons could be made. The description which follows, therefore, does not attempt to draw any detailed comparisons with any other population.

Only 19% of the graduates in the study are women. This small proportion is a reflection of a number of factors and attitudes in our society, and suggests that the selective process which causes a smaller percentage of women than men to enter university at the undergraduate level (33% of the entering class at Carleton in 1963 were women) continues throughout a woman's educational experience. The established pattern of sex statuses and roles still defines the woman's main role in terms of marriage and family, and this affects her attitude to higher education generally and to graduate work in particular. American studies² claim that few women undergraduates are motivated by academic goals, and if this is true of Canadian students, it will affect entry to graduate school in a number of ways. First, women who are not academically motivated as freshmen are less likely to acquire the necessary academic standing to enter graduate school. Secondly, if they come to college to become part of

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1. Dominion Bureau of Statistics, University Student Expenditure and Income in Canada, 1961-62, Part III - Canadian Graduate Students (Ottawa). See also Dominion Bureau of Statistics, Survey of Higher Education, Part I: Fall Enrolment in Universities and Colleges, 1962-63. (Ottawa).
 2. David C. Beardslee and Donald O'Dowd, "Students and the Occupational World", The American College, p. 606.

the "collegiate sub-culture",³ it is unlikely that they will regard graduate school as a suitable environment for the continuation of such activities.

Thirdly, if they have not found "the right man" after three years of university life, it seems probable that the search for the fulfillment of their traditional role will be continued in areas other than college!

The position in any occupational hierarchy which a woman can realistically hope to achieve, will also discourage her from graduate school. Caplow has pointed out that women are rarely appointed to authoritative positions in either bureaucratic organisations or even in the professions because "men accept women superiors with great reluctance."⁴ Therefore, as women are less likely to achieve the material and prestige rewards usually associated with higher educational qualifications, they will not be motivated to invest additional time and money in further education. When these factors are considered, it is not surprising that women form less than one fifth of the graduate student body.

The influence of socio-economic background on the level of education desired and achieved has been established in a number of studies.⁵ The

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3. Burton R. Clark, Educating the Expert Society, (San Francisco: Chandler Publishing Co., 1962), pp. 203-206.
 4. Theodore Caplow, The Sociology of Work (Minneapolis: University of Minnesota Press, 1954), p. 240.
 5. Joseph A. Kahl, "'Common Man' Boys", Education, Economy and Society, eds. A. H. Halsey, Jean Floud and C. Arnold Anderson, (Glencoe: The Free Press, 1961), pp. 348-366. See also Herbert H. Hyman, "The Value Systems of Different Classes: A Social Psychological Contribution to the Analysis of Stratification", Reinhardt Bendix and Seymour Lipset (eds.) Class, Status and Power, (Glencoe: The Free Press, 1963) pp. 426-442.

higher the socio-economic status of the parents, the more likely is it that the children will attend university. This reflects both the greater ability of the middle and upper classes to pay for prolonged training for their children, and the significance they attach to education, both as an intrinsic value and as a prerequisite for high income, high status occupations. In this study, the criterion used to measure the respondent's socio-economic background was the father's occupation. These occupations were then located on Blishen's 7-point scale, which is based on income and years of schooling.⁶ It was found that one-half of the graduates had fathers in Classes I or II (representing professional, senior managerial and higher clerical positions). This compares with 66% of the freshmen at Carleton in 1963,⁷ and suggests that socio-economic background may decrease in importance once a first degree has been obtained.

The difference may be attributed to several factors. First a relatively greater number of scholarships and fellowships is available from public sources (for example, Ontario Fellowships) for the academically successful candidate to graduate school. He may also be appointed as teaching or research assistant by the university. Secondly, graduate

6. Bernard Blishen, "The Construction and Use of an Occupational Class Scale", Canadian Society, eds. Bernard Blishen, Frank E. Jones, Kaspar D. Naegle and John Porter, (Toronto: Macmillan, 1961), pp. 477-485.

7. Carleton Student Study (unpublished), Carleton University.

school entrants are less likely to include those students who come to college simply because this is the accepted and approved action for their social class. Thirdly, the large number of older graduates at Carleton (25% of Carleton graduate students are over 35) helps to account for distribution of socio-economic backgrounds. Father's occupation will not be as direct an influence on graduate school attendance as it is at the undergraduate level. For the older student with a job, the intellectual or technical demands of his occupation, his own income level, and possibly the attitudes of his work peers toward further education will have greater influence on his decision to attend graduate school than his father's socio-economic status. It is interesting to note that the decrease in the proportion of graduate students who come from an upper or middle-class background is reversed when women graduates are examined separately. Nearly 80% of them come from Classes I and II, an increase over the 71% women undergraduates who come from these classes.⁸

It is not possible to describe the income distribution of the fathers of graduate students, since over 50% of the respondents refused to answer the question, did not know the amount, or found the question inapplicable because of the father's demise or absence. These responses also reflect the higher age level of the graduate students, as well as their probable increasing financial independence from their family of orientation.

8. Ibid.

In the preceding paragraphs, it has been tentatively suggested that the economic aspect of socio-economic class has less effect on the decision to attend graduate school than it does on enrolment at the undergraduate level. However, the dominant family values, which the individual has internalised, may have a more lasting influence than the financial factors themselves. Parents who have been to university are more likely to place high value on education and, in addition, to inculcate this attitude in their children. As it turns out, 24% of the respondents' fathers had graduated from college and a further 7% had received some university education. In comparison with this total figure of 31%, only 6.5% of men in the fathers' age group in Canada as a whole had attended college.⁹ It is interesting to note that 12% of the respondents are second generation graduate students, since their fathers hold a degree or diploma beyond the bachelor's degree. On the other hand, 25% of respondents' fathers had received only elementary education, and a further 21% had not graduated from high school, though they had attended for some period.

The proportion of college-educated mothers is also high; 10% had received some college education (in comparison with only 2% of women in

9. Edward F. Sheffield, "Staffing the Universities and Colleges of Canada", Canadian Universities Foundation (Ottawa: 1959) (mimeo.), Table 1.1, p. 9. The wide spread of respondents' ages makes it difficult to estimate parental age. However, the figure of 6.5% varies little between the years 1920-1945.

the mothers' age group in Canada as a whole),¹⁰ and a further 16% had received some training after high school. Only 22% of graduates' mothers had not continued beyond elementary school education.

Less than 10% of students in the graduate department at Carleton are registered for a Ph.D.; of the 90% working for a master's degree, more than one-third are taking qualifying courses. The percentage of students working for a doctorate at Carleton is probably smaller than at Canadian universities generally, but unfortunately no statistics were found to support this assumption, since the publication on Canadian graduate students by the Dominion Bureau of Statistics¹¹ does not distinguish between master's and doctoral candidates.

Forty-four percent of the graduates attend full-time, 56% are part-time students. The proportion of full to part-time graduates varies with the area of study. The finding of the National Science Foundation, that "only in the humanities and the arts did full-time graduates consistently dominate",¹² does not apply to Carleton. Two-thirds of students in the sciences attend full-time, there is a slightly larger proportion of full-time to part-time students in the social sciences, and the two groups are nearly equal in the humanities. Part-time students predominate, however, in public administration and engineering. It is expected that

10. Ibid. Between the years 1920-1945, women show an increasing enrollment from 1.3% to 2.6% of the total population of similar age.

11. Dominion Bureau of Statistics, Canadian Graduate Students.

12. National Science Foundation, Two Years After the College Degree, p. 4.

few students in these fields will consider an academic career; attendance at graduate school for this group is predominantly vocational in character, usually providing further training and higher qualifications for a chosen occupation.¹³ In the subsequent analysis, students in these two areas have been grouped together. Although the courses of study deal with very different subject matter, their predominantly vocational character makes these areas similar to each other, and different from other fields.

Over a third of the total number of graduate students are found in public administration and engineering, while roughly similar proportions of the total number are found in the several academic areas of study: 19% in the humanities, 20% in the social sciences and 24% in the sciences.

The preceding profile has provided a brief description of the graduate students in this study. Various social and academic characteristics were examined, such as sex, socio-economic status, parental education, department, degree sought, and part-time or full-time status, because of their probable influence on the career choices of graduate students.

13. The fact that Carleton offers graduate courses in the evening, a practice not followed by every Canadian university, contributes to the large number of part-time students. The federal Civil Service practice of reimbursing employees, who successfully complete university courses, probably adds to the demand for evening classes, and the large part-time attendance.

P A R T T W O

SOCIAL DETERMINANTS OF CAREER CHOICE

PART TWO

SOCIAL DETERMINANTS OF CAREER CHOICE

Rosenberg has pointed out that, although the student in American society is theoretically free to choose from some 40,000 occupations, this "range of occupational alternatives is delimited, first of all, by the student's statuses and roles"¹ - such factors as class, sex, race, religion and nationality. This section examines those social and academic factors which, previous research suggests, have some significant influence on career choice.

Factors such as sex, class background, field of study and academic status are not only related to occupational choice, but may also be related to one another, so that one of the aims of analysis is to isolate the influence of each variable as far as possible. This is complicated by the fact that, as Ginzberg suggests, occupational choice is a process over time.² Krech and Crutchfield have pointed out that when a developmental sequence is examined, it is essential:

.... to make a clear distinction between the immediate needs of the dynamic problem - how the needs and goals of a given individual at a given time in a given situation determine his behaviour - and the genetic problem - how these needs and goals and this situation have come into being in the course of the individual's development....³

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1. Morris Rosenberg, Occupations and Values, p.4.
 2. Eli Ginzberg, et al., Occupational Choice, p. 198.
 3. D. Krech and R. Crutchfield, Theory and Problems of Social Psychology, p. 33-34, as quoted in Herbert Hyman, Survey Design and Analysis, (Glencoe: The Free Press, 1955), p. 260.

The relevance of this statement to the present problem is evident. For example, one of the hypotheses tested was that a greater proportion of women, when compared with men, would choose an academic career, and this was found to be the case. It was also found that women tended to enter the humanities rather than the sciences or engineering, and that graduate students in the humanities were more likely to choose an academic occupation. It remains to be established, then, whether women choose a career, and enter graduate school to obtain the necessary qualifications, or whether they pick an academic area, which limits them to a particular occupation (or small group of occupations).

The problems of analysis are not, however, limited to the identification of temporal sequences and priorities. A given, independent variable may be part of a co-existing complex of factors, all of which affect the dependent variable, and the influence of one factor may be modified in some degree or direction by the presence of another. For example, the association between socio-economic background, minority group membership and occupational choice is examined in Chapter IV to discover whether the relationship between lower-class origins and occupational choice is affected by membership in a minority ethnic or religious group. Obviously neither of these independent variables is antecedent to the other, and the problem is one of isolating the influence of each, as well as of determining their combined influence, on occupational choice.

The developmental character of occupational choice has decided the order in which the relationships of the different variables is

examined. Chapters IV and V of this section of the thesis analyse the influence of such ascribed characteristics as sex, socio-economic background and ethnic or religious group membership on occupational choice, while Chapters VI and VII are concerned with values, attitudes and perceptions. The analysis has been presented in this order, since the latter group of variables may themselves be affected by the ascribed characteristics.

CHAPTER FOUR

CLASS AND CAREER CHOICE

Graduate students in the present study were divided into two groups - if the father's occupation fell into Blishen's Groups I to III, they were considered to be middle class or higher; if the father's occupation was included in Groups IV to VII, they were ranked as lower-middle or lower class.¹ There would, admittedly, have been certain advantages in making the break between Groups II and III, rather than between Groups III and IV, since the numbers in each category would then have been approximately equal. Second, it is true that many of the occupations listed in Group III can only be regarded as marginally middle class, e.g. railway conductor, locomotive engineer or radio operator. Third, Class III and the classes below it are all likely to have similar difficulties in meeting the financial expenses of university education for their children. However, the decision to include Group III in the middle class is justified by the fact that families in Group III are more likely to share the values of the group above them than those of the group below them. Hyman found that 62% of lower-middle classes reported their social class as one step higher than their economic class.² Reference group theory suggests that

1. Bernard R. Blishen, "The Construction and Use of an Occupational Class Scale", Canadian Society, pp. 477-485.
2. Herbert Hyman, "The Relation of the Reference Group to the Judgments of Status", Class, Status and Power, pp. 236-270.

those who aspire to membership in another group will adopt its values, even though they are not fully accepted as members of it.³ Therefore, although Class III members are perhaps only marginally middle class from the aspect of income level, they are likely to identify with the latter group and, therefore, to share its values and occupational aspirations. Moreover, the educational requirements for occupations in Class III are more similar to those in Class II than Class IV. Since education is one of the factors influencing an individual's values, people from Class III are more likely to share the values of the group above than below them. These considerations are particularly relevant to the present study, since the effect of values on occupational choice is an important aspect of the problem under examination.

The first proposition tested was that middle-class graduates would be more likely to choose an academic career than those from lower-class origins. One reason for this expectation was that, though both groups would be attracted to the position of college professor as a high-status occupation (it scores 85 in the evaluation of jobs and occupations in Canada),⁴ there is a better "fit" between middle-class attitudes to education and the method of recruitment to the academic profession. The middle classes are not only more likely to accept the general goals of

3. Robert K. Merton and Alice S. Kitt, "Contributions to the Theory of Reference Group Behaviour", Robert K. Merton and Paul L. Lazarsfeld (eds.), Continuities in Social Research (Glencoe: The Free Press, 1950) pp. 40-105.

4. Peter Pineo and John Porter; Public Evaluation of Occupations (unpublished) Carleton University.

higher education, but they are better able to afford the psychological and financial luxury of paying for a prolonged education for their children, with no specific occupational goal definitely in view. It has been suggested that entry into the academic profession is not the result of following a carefully planned pattern of career aspirations, but is "the end product of drift".⁵ On the other hand, Trow has pointed out that, even when lower-middle or lower-class parents encourage their children to go to college, "they perceive college education as purely instrumental, as an advanced vocational training".⁶ Table 5 shows the relationship between class background and career choice.

TABLE 5
CLASS AND CAREER CHOICE

Career Choice	N.A.	"Middle" Class	"Lower" Class	Total
Academic	11.1	54.0	25.5	43.4
Non-Academic	88.9	46.0	74.5	56.6
Total	100.0	100.0	100.0	100.0
Number	9	113	51	173

5. J. W. Gustad, "They March to a Different Drummer: Another Look at College Teachers, Educational Record, XL (July, 1959), pp. 204-211.

6. Martin Trow, "Recruitment to College Teaching", Education, Economy and Society, p. 607.

It can be seen that those students who come from a middle-class background are more than twice as likely to choose an academic career as those with lower-class origins. If students who gave no information about father's occupation are included in the lower-class group,⁷ the relationship between lower-class membership and career choice outside the university is strengthened, 77% of lower-class students choosing a non-academic occupation by comparison with 46% from the middle class.

The influence of class on career choice may in some cases be indirect, rather than direct, and related to the student's area of study. It has already been mentioned that lower-class families tend to view the college education of their children as a specifically vocational training. At Carleton, public administration and engineering are the more clearly vocational fields that are available for study and, as might be expected, they attract a relatively high proportion of lower-class students. As Table 6 indicates, only about half of the graduate students in these fields come from the middle class (among engineering students considered separately, the proportion drops to 44%), while three-quarters of the students in the humanities, social sciences and sciences have middle-class origins.

7. It is assumed that non-response to this question may itself indicate a lower-class background. Despite the emphasis on achievement in our society, value is still placed on high ascribed status, and a lower-class family background is often considered to be a social disadvantage, to be concealed rather than revealed. Unfortunately, this assumption regarding the social origins of non-respondents could not be verified, since graduates who did not answer the question on father's occupation also refused to answer the question on family income.

TABLE 6
CLASS BY TYPE OF EDUCATION

Class	Vocational*	Non-Vocational*
Middle class	53.4	77.4
Lower class	46.6	22.6
Total	100.0	100.0
Number	58	106

*A "vocational" education signifies that the graduate is studying in public administration or engineering. A "non-vocational" education indicates that the graduate is studying in the humanities, social sciences or sciences.

Correspondingly, the last two columns of Table 7 show that students in these vocational courses have a decided preference for non-academic careers. They are, in fact, twice as likely to choose an occupation outside a university as are students in non-vocational courses. Even if they have not already made a definite commitment to a non-academic career upon entry into graduate school, they apparently find fewer attractions, and probably fewer openings, in university careers than do students trained in other disciplines.

TABLE 7
CAREER CHOICE BY CLASS AND TYPE OF EDUCATION

Career Choice	Middle Class		Lower Class		Total	
	Non-vocational	Vocational	Non-vocational	Vocational	Non-vocational	Vocational
Academic	63.4	25.8	45.8	11.1	58.2	17.5
Non-academic	36.6	74.2	54.2	88.9	41.8	82.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	82	31	24	27	110	63

From the standpoint of class, it is clear that middle-class students feel freer to follow a more general education and are, therefore, in a position to choose among a greater number of occupations and spheres of work. However, the situation is apparently more complicated than that. While class is an important determinant of both field of study and career preference, the very choice of field for further training has an independent influence on career decisions. It can be seen from Table 7 that almost one-half of the lower-class graduate students in non-vocational fields hope to pursue academic careers and, moreover, that they are much more likely to do so than are middle-class students who are vocationally oriented. Class predisposes toward a vocational/non-vocational orientation, but the latter seems, in fact, to have an equivalent influence on the final career choice.

The possible weakness in the preceding line of analysis is its implicit assumption that the decision to enter a field of advanced training is, in some sense, prior to, or independent of, the selection of a specific career. It may, instead, be argued either that the reverse temporal order is, in fact, more likely or that the student makes a single decision consisting of two steps or stages. In the latter connection, vocationally oriented students may be seen as, in effect, removing themselves from the likelihood of recruitment to academic positions. However, the fact remains that one-sixth of these students were intending to pursue an academic career. Moreover, reference has already been made to the possibility that, in Gustad's words, entry into the academic profession is "the end product of drift".⁸ To the extent that that is true, the independent, yet class-linked, influence of field of study merits further investigation.

Along with the hypothesis that more students from a middle-class background will choose an academic career, it was also expected that those lower-class students who do choose an academic occupation would be more likely to come from an ethnic or religious minority group than from "charter group" origins. This hypothesis was based on the assumption that such students see the university as a social system

8. J. W. Gustad, "They March to a Different Drummer", p. 206.

through which they can achieve social mobility, unhindered by ethnic or religious affiliations. Most students view the academic world as one in which universalistic rather than particularistic standards prevail.⁹ This implies that an individual's suitability for recruitment to, and promotion in, a university is measured by the impersonal standards of scholarship rather than in terms of his membership in any particular racial, religious or ethnic group. Students may not be actively aware of the fact that "economic power is almost exclusively held by the English-speaking group of British origin, which makes up less than half of the general population",¹⁰ or the Hall study of the importance of recommendation in the medical profession.¹¹ Minority groups may, however, regard their class and ethnic or religious membership as a handicap in other occupational worlds, and may see a university, on the other hand, as the setting most favourable to the recognition and reward of talent.

In ethnic terms, the "charter group" was taken to include students who identified themselves on the questionnaire as English, Irish or Scots

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9. Talcott Parsons and Edward Shils, "Orientation and Origin of Action", Talcott Parsons and Edward Shils (eds.) Toward a General Theory of Action, (Cambridge: Harvard University Press, 1952). pp. 53-109. Universalism, in its cultural aspect, is defined as: "the normative pattern which obliges an actor in a given situation to be oriented towards objects in the light of general standards, rather than in the light of the objects' possession of properties (qualities or performances, classificatory or relational) which have a particular relation to the actor's own properties (traits or statuses)." p. 82.
 10. John Porter, "The Economic Elite and the Social Structure of Canada", Canadian Society, p. 493.
 11. Oswald Hall, "Stages of a Medical Career", American Journal of Sociology, LIII (March, 1948) pp. 327-336.

Canadian. Those who called themselves French, German, Italian, Jewish or Non-Canadians were classified as members of ethnic minority groups. However, sixty students, over a third of the total population, stated that they belonged to "no particular ethnic group".¹² Such respondents presumably regard themselves as fully integrated members of society, and refuse to consider themselves as "hyphenated Canadians". This attitude may arise from the fact that their families have been in Canada for so many generations that they no longer feel themselves attached in any way to any other society. On the other hand, this response may indicate that they are relatively recent immigrants who are, consciously or unwittingly, rejecting their country of origin and identifying with their new society.

TABLE 8
ETHNICITY AND CAREER CHOICE

Career Choice	Charter Group	Minority Group	No ethnic group	Not a Canadian	No answer	Total
Academic	42.7	45.0	46.7	37.5	--	43.4
Non-academic	57.3	55.0	53.3	62.5	100.0	56.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	75	20	60	16	2	173

Table 8 shows the relationship between ethnic group and career choice. Non-Canadians are least likely to consider an academic career, while those

12. Question 28, Appendix.

who deny any identification with any particular ethnic group are most likely to choose the occupation of college professor. However, the differences among the categories (with the possible exception of the Non-Canadians) are very slight.

A similar analysis was undertaken regarding the relationship between religious identification and occupational choice. In this case, the so-called majority group consisted of all Protestant denominations - Lutheran, Baptist, Anglican, Presbyterian, United Church of Canada and Methodist (with the exception of Unitarian, which was included in "other"). The "minority group" included Catholic, Jewish and "other". Those who checked "no religion" were left as a separate category.

TABLE 9
RELIGION AND CAREER CHOICE

Career Choice	Protestant group	Minority groups	No religion	No answer	Total
Academic	50.0	31.6	40.5	33.3	43.4
Non-academic	50.0	68.4	59.5	66.6	56.6
Total	100.0	100.0	100.0	100.0	100.0
Number	90	38	42	3	173

Table 9 shows that Protestants are most likely to choose an academic career and that members of the minority religious groups are least likely to do so. However, the proposed hypothesis was not concerned with the relationship between minority group membership and academic choice. It stated that

the individual who comes from a lower-class family, and who is also a member of a minority group, is more likely to prefer an academic career than the lower-class member of the "charter group", because of his view of the university as a means to personal recognition and social mobility, unhindered by the obstacles which his ethnic or religious affiliation might pose in other careers. In order to test this proposition it is necessary to analyse the data in terms of both class and ethnicity (or religion), and the results are shown in Tables 10 and 11.

It was found that the data fail to support the hypothesis. In every category, the middle-class individual is more likely to choose an academic career than the lower-class student from the same ethnic or religious group. It is true, as shown in Table 10, that lower-class members of an ethnic minority group are more likely to choose an academic career than are any other lower-class groups, but the percentage difference in the comparison with the lower-class "charter group" is only slight and it rests upon a very small case base.

Similarly Table 11 shows that lower-class students, whatever their religious affiliation, are less likely to choose an academic career than any middle-class group. In this case, lower-class members of religious minorities are the least likely to consider an academic occupation; it is those lower-class persons who disclaim any religious affiliation who are most likely to be academically oriented.

TABLE 10

CAREER CHOICE BY CLASS AND ETHNICITY

Career Choice		Middle class					Lower class				
		Charter groups	Minority groups	No ethnic group	Not a Canadian	Total	Charter groups	Minority groups	No ethnic group	Not a Canadian	Total
Academic Non-academic	N.A.										
	--	48.0	50.0	63.9	45.5	54.0	28.6	33.3	20.0	25.0	25.5
	100.0	52.0	50.0	36.1	54.5	46.0	71.4	66.7	80.0	75.0	74.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2	50	14	36	11	113	21	6	20	4	51

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TABLE 11

CAREER CHOICE BY CLASS AND RELIGION

Career Choice	N.A.	Middle class				Lower class			
		Protestant groups	Minority groups	None	Total	Protestant groups	Minority groups	None	Total
Academic	100.0	58.7	45.8	48.0	54.0	27.3	14.3	33.3	25.5
Non-academic	--	41.3	54.2	52.0	46.0	72.7	85.7	66.7	74.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1	63	24	25	113	22	14	15	51

The data, therefore, do not support the proposition that the influence of class is significantly modified by ethnic and religious group membership; socio-economic background seems to be the more dominant influence on career choice.

The answers to a further question¹³ may give some indication why members of minority groups responded as they did. Students were requested to pick out and to rank the three characteristics which they thought would most help them to success in the occupation of their choice. The list presented to them included such universalistic characteristics as "devotion to work", "specialised knowledge or technique", "organising and administrative ability", as well as such particularistic characteristics as membership in a particular religious group, social class or ethnic group. A third set of characteristics, not directly related to group membership, referred to particular individual advantages, such as "knowing influential people",¹⁴ "having capital, or access to it" or "getting on well with people". In Table 12 the characteristics have been grouped into these three general categories, and the ranked choices analysed by occupational preference.

The most outstanding finding is that no student considered the parti-

13. Question 14, Appendix.

14. It would be entirely possible, perhaps even more appropriate, to consider this characteristic as a particularistic attribute. In the present context, however, it was regarded as a personal advantage, not necessarily implying membership in a particular group or class, but rather as a "social asset" (comparable to "financial assets"). In any case, the attribute was not mentioned at all as first choice, and only 6 times in the whole group of first three choices.

cularistic characteristics of membership in a group or class to be of any assistance in the pursuit of success; these traits were not selected by a single respondent, even as a third choice. Secondly, although the students were increasingly likely to pick the personal characteristics of "getting on well with people" and "knowing influential people" as they moved from first to third choice, most students concentrated all three of their choices within the general universalistic category.

The data fail to support the hypothesis regarding the modifying effect of minority group membership on the relationship between lower-class background and occupational choice. It was found, instead, that such membership is of relatively little (or, at least, of uncertain) influence and that all respondents seem to perceive all work worlds as governed by universalistic rather than particularistic norms.¹⁵

It is possible that the view of the university as a place where universalistic standards prevail may motivate a member of a minority group to become a university student. He not only hopes to be judged according to impersonal, academic standards, but he also desires to acquire a universally recognised qualification, a degree, by which he will be judged, rather than according to his group membership. However, this is not to say that he will necessarily choose an academic occupation; he may still seek a career in different areas. If he feels his academic qualifications will

15. A more direct test would have involved a comparison of minority group members with others regarding the importance they attach to universalistic and particularistic characteristics. However, the evidence on this more indirect test is so overwhelming, it seemed appropriate to make the point in this way.

TABLE 12
TYPE OF CHARACTERISTICS FOR CAREER SUCCESS BY CAREER CHOICE

Type of characteristic	First choice			Second choice			Third choice		
	Acad.	Non-acad.	Total	Acad.	Non-acad.	Total	Acad.	Non-acad.	Total
Universalistic	90.7	92.8	91.9	82.7	81.6	82.1	66.6	70.4	68.8
Particularistic	-	-	-	-	-	-	-	-	-
Personal	9.3	7.1	8.1	13.3	17.3	15.6	24.0	24.4	24.3
No answer	-	-	-	4.0	1.0	2.3	9.3	5.1	6.9
Total	100.0	100.0	100.0	100.0	99.9	100.0	99.9	99.9	100.0
Number	75	98	173	75	98	173	75	98	173

override any disadvantages created by his ethnic or religious affiliations, he may seek a position in government or large-scale industry. On the other hand, he may be attracted to a professional career or some other form of self-employment within his own group, in which case his degree may give him status, but is not needed to overcome the disadvantages of minority group membership.

A recent study of the factors affecting recruitment into the academic profession among Canadian undergraduates found that students who plan an academic career are "more likely than those who do not to come from families where one parent has had a university education, and much more likely to come from families where both parents have had a university education."¹⁶

The findings of the present study support this proposition that "second generation" university students are more likely to choose an academic career. Since the number of cases of university-educated parents, particularly mothers, is not large, those parents who had received "some university education" (i.e., had dropped out before earning their degrees) are included with those parents who had graduated. Table 13 shows the effect of university education of one or both parents on the career choice of the offspring. The proportion of students choosing an academic career increases in relation to the university attendance of one or both parents.

16. R. A. H. Robson, "Sociological Factors Affecting Recruitment into the Academic Profession". Paper presented to the Canadian Political Science Association Meeting (Vancouver: June 10, 1965), p. 9.

TABLE 13

CAREER CHOICE BY PARENTAL UNIVERSITY ATTENDANCE

Career Choice	Both parents attended	One parent attended *	Neither parent attended
Academic	78.6	59.5	36.8
Non-academic	21.4	40.5	63.2
Total	100.0	100.0	100.0
Number	14	42	106

Note: "No answers" were omitted.

*39 cases - father only attended university

3 cases - mother only attended university

There are only three cases of the mother having been to university, but not the father.¹⁷ It is, therefore, impossible to isolate the maternal role in encouraging the choice of an academic occupation, since the mother's influence cannot be separated from that of the university-educated father. It is only possible to say that having a college-educated mother reinforces the tendency for the student whose father has been to university to choose an academic career.

Table 14 shows the relationship between occupational choice, socio-economic background and father's education. A university-educated father will increase the probability that the middle-class student will choose an academic career, but it is impossible to compare him with the student of

17. Removing these university-educated mothers from the middle column of Table 13 makes virtually no difference to the distribution shown.

TABLE 14
CAREER CHOICE BY CLASS AND FATHER'S EDUCATION

Career Choice	No answer	Middle Class			Lower Class			Total		
		Univ.	Non-univ.	Total	Univ.	Non-univ.	Total	Univ.	Non-univ.	Total
Academic	-	66.0	45.9	54.0	-	27.7	25.5	64.7	38.0	45.1
Non-academic	100.0	34.0	54.1	46.0	100.0	72.3	74.5	35.3	62.0	54.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	5	50	61	111	1	47	48	51	108	164

Note: The bases in Tables 13 and 14 are different because those respondents who gave no answer to the question on socio-economic background are omitted from the latter table.

lower-class origins because there is only a single case of a lower-class father with a university education in the total population of this study. In a comparison of the two groups whose fathers did not attend college, middle-class membership increases the probability that the sons will choose an academic occupation. It is, in fact, possible to argue that education has about as much effect as class: among those choosing an academic career, there is approximately the same difference between the two middle-class groups (those with and without university-educated fathers) as there is between the two groups (middle and lower class) whose fathers lack a university education.

Summary

Middle-class students are more likely to choose an academic career than graduate students of lower-class origins. This relationship is maintained, irrespective of ethnic and religious group membership. Moreover, class affects career choice not only directly, but also somewhat more indirectly through the selection of an area of study; in some cases, therefore, it has its greatest effect before entry to graduate school.

Although the numbers are small, the data suggest that students whose parents are university educated are more likely to choose an academic career, particularly if both parents have attended university. It is, however, difficult to distinguish between the influences of socio-economic background and parental education.

CHAPTER FIVE

SEX ROLES AND CAREER CHOICE

Occupational studies agree that men and women are confronted with different kinds of problems when choosing a career. Rosenberg states that:

in the college community no factor is so important for one's occupational future as socially defined sex roles. In almost every aspect of occupational values and choices, men and women tend to differ radically to an overwhelming extent in the middle class white collar occupations, chiefly selected by college students, it is entirely a question of how American society defines the place of men and women in the occupational structure.¹

In addition to this social definition of occupational roles according to sex, there is also the fact that, as Ginzberg points out, college girls consider the future primarily in terms of marriage, and "because of this, they are not deeply concerned with an occupation".² A girl has less reason to worry about her career, because her social status is more likely to be derived from her husband than from her position in the work world. In fact, Parsons has suggested that strain will be introduced into the family structure if the wife holds a separate work status which carries prestige equal to, or higher than, that of her husband.³ Not only do women acquire status from their husbands, but they are also more likely to expect that their major life satisfactions will come from family

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1. Morris Rosenberg, Occupations and Values, p. 48.
 2. Eli Ginzberg, et al., Occupational Choice, p. 175.
 3. Talcott Parsons, Essays in Sociological Theory, Revised Edition (Glencoe: The Free Press, 1964) pp. 89-103.

relationships rather than from a career. Many women often regard an occupation as a stop-gap between college and marriage, and after marriage "many tend to assert their capabilities at establishing and confirming the position of the family unit",⁴ rather than developing their own careers in the work world.

These comments, and most of the studies from which they are derived, are concerned with college undergraduates, not graduate students. However, even at the graduate level, the National Science Foundation reported that occupational choice differs according to sex.⁵ In that study, women were found to be concentrated in a few faculties, such as education and nursing. The fact that Carleton offers no post-graduate education in these typically feminine areas ensures that women respondents in this study are not concentrated in particular vocational courses. A more meaningful comparison of the occupational goals of men and women graduate students in the more conventionally defined academic subjects is therefore possible.

It was hypothesised that women in graduate school are more likely than men to choose university teaching as an occupation, because it can be combined with present or future domestic roles with a minimum of strain. The woman graduate is aware that, as an academic, she would enjoy greater flexibility of hours, and a relative lack of routine which would permit greater adaptability to other activities and demands. For example, she

4. David Beardslee and Donald O'Dowd, "Students and the Occupational World," The American College, p. 606.

5. National Science Foundation, Two Years After the College Degree, p. 8.

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would not be expected to keep regular office hours and, if necessary, much of her work - preparation for courses, carrying out research, etc. - could be carried on at home. There are also a number of openings for part-time work in the university world (for example, as evening or sessional lecturer), a condition that is unusual in other fields, except for manual or low-status white-collar positions such as shop assistant. Working part-time has two advantages. First, women have time to meet domestic obligations without completely abandoning the work world. Second, just because the work is part-time, it is unlikely to introduce the competitive strain in the family envisaged by Parsons when both marital partners are pursuing equal-status full-time careers.⁶

Robson found that male students were more likely to choose the academic profession, and states that this is because women are "much less likely than men to regard themselves as capable of entering and succeeding in the academic world in terms of abilities".⁷ However, Robson's research was concerned with the undergraduate and not the graduate student. It is to be expected that women in graduate school will have fewer self-doubts regarding their ability to succeed in the academic world, since their admittance to graduate work is an indication that they have already achieved a certain degree of academic success.

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6. Although there has been no attempt to test the following aspect of the matter in the present study, it would be interesting to discover whether marriage is under less strain if a wife holds an academic post rather than an equivalent position elsewhere. It may be that such a position is seen by the husband and society as being part of the world of ideas, rather than the "real, hard world" of industry and government and, therefore, as creating less competitive threat.
 7. R.A.H. Robson, "Sociological Factors Affecting Recruitment into the Academic Profession", p. 7.

TABLE 15
CAREER CHOICE BY SEX

Career Choice	Men	Women	Total
Academic	38.6	63.6	43.4
Non-Academic	61.4	36.4	56.6
Total	100.0	100.0	100.0
Number	140	33	173

Table 15 appears to substantiate the hypothesis, for it shows that nearly twice as many women as men look forward to an academic career. However, since an examination of class background shows that all but two women students come from middle-class origins, it is possible that academic choice may reflect class membership rather than sex. Table 16 compares the career choices of men and women of similar class background and demonstrates that, even when they do have the same origins, a greater proportion of women choose an academic career.

TABLE 16
CAREER CHOICE OF MIDDLE CLASS STUDENTS BY SEX

Career Choice	Men	Women	Total
Academic	48.8	69.0	54.0
Non-Academic	51.2	31.0	46.0
Total	100.0	100.0	100.0
Number	84	29	113

Table 17 shows the distribution of men and women among the various fields of study. It is not surprising that more than twice as many women as men are registered in the humanities, since these are considered to be less strictly masculine subjects - the woman history teacher is a much more usual stereotype than the woman scientist or engineer. It does, however, raise the question whether women enter such study areas, having already decided to adopt an academic career, or whether they enter the humanities because these are accepted as the more feminine fields, and then find that occupational opportunities are more or less restricted to teaching, preferably at a university with its more favourable conditions of employment.

TABLE 17
STUDY AREAS BY SEX

Study Areas	Male %	Female %	Total %
Humanities	15.0	36.4	19.1
Social Sciences	17.9	30.3	20.2
Sciences	23.6	27.3	24.3
Engineering and Public Administration	43.6	6.1	36.4
Total	100.1	100.1	100.0
Number	140	33	173

Gustad suggests that, for both sexes, the field is chosen long before the occupation; "most typically, the decision about what to do with what one

has learned comes some years later".⁸ If this is the case, the high proportion of women in this study who choose an academic career reflects not only their socially defined sex roles as related to occupations, but also the intervening factor of the fields which they had been motivated or encouraged to study.

Robson found that the faculties least likely to have students interested in entering the academic profession are those with the greatest proportion of women.⁹ He does not, however, indicate whether he considers the reason for this to be the predominantly vocational character of these departments (he mentions nursing and home economics), or because women, per se, are less likely to have academic aspirations. If the latter is the case, then the figures in this study are at variance with his findings. However, if his statement refers to the vocational character of departments with a high proportion of women, then it supports the proposition that choice of department is, in some cases, an intervening variable between sex and occupational plans, in the same way that it was shown to influence the relationship between class and occupational choice in the previous chapter. In this case, sex, area of study and career choice can be seen as a developmental sequence.

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8. J. W. Gustad, "They March to a Different Drummer: Another Look at College Teachers", p. 206.
 9. R. A. H. Robson, "Sociological Factors Affecting Recruitment into the Academic Profession", p. 8.

TABLE 18
SEX BY AREA OF STUDY

Sex	Human- ities	Social Sciences	Sciences	Pub. Ad. and Eng.	Total
Men	66.7	68.6	78.6	96.8	80.9
Women	33.3	31.4	21.4	3.2	19.1
Total	100.0	100.0	100.0	100.0	100.0
Number	33	35	42	63	173

Table 18 is the obverse of Table 17 and shows the proportions of men and women in each field of study. Unlike some faculties studied by Robson, there are no academic fields at Carleton where women predominate. The primarily vocational departments of Public Administration and Engineering are those which show the smallest proportion of women.

Table 19 shows the relationship between occupational choice, sex and department.. Although the numbers in certain portions of the table are quite small, they at least suggest that women, whether in the humanities or sciences, are still more likely to choose an academic career than men in the same study areas, though the differences between the occupational choice of men and women in these areas is less than the percentages in the total column suggest. The gross relationship between sex and occupational choice is weighted by the fact that the areas of study with the greatest number of

TABLE 19
CAREER CHOICE BY FIELD OF STUDY AND SEX

Career Choice	Arts		Social Sciences		Sciences		P.A./Eng.		Total	
	M	F	M	F	M	F	M	F	M	F
Academic	72.7	90.9	50.0	36.4	51.5	66.7	14.7	50.0	38.6	63.6
Non-academic	27.3	9.1	50.0	63.6	48.5	33.3	85.3	50.0	61.4	36.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	22	11	24	11	33	9	61	2	140	33

students,- i.e., the fields of public administration and engineering - consist of male students who are not interested in an academic career.

Although women in the humanities and sciences are more likely to choose an academic career than men, this does not apply to women in the social sciences. This may result from the alternative occupational opportunities available to women who have specialised in subjects such as psychology and sociology. Non-academic careers in this general field are more interesting and more suitable to the special requirements of women than non-academic careers in other fields. Women students in the social sciences may, perhaps, look forward to positions such as social worker or school psychologist which, they believe, will also permit greater flexibility regarding hours and place of work. This does not invalidate the hypothesis; it merely suggests that there are fields, other than the university, in which women can combine occupational and domestic roles without too much difficulty.

The evidence, therefore, suggests that though the differences between men and women regarding occupational choice are partly a reflection of the area of study they have chosen, this is not the only influence. A woman in the humanities and sciences is still more likely to choose an academic career than her fellow student of the opposite sex.

It was assumed that men and women not only look forward to different occupations, but choose such positions for different reasons. The students were, therefore, asked to select "no more than" three reasons for their

choice, and the responses are analysed in Table 20.¹⁰

TABLE 20

REASONS FOR CHOOSING OCCUPATION BY CAREER CHOICE AND SEX

Type of Reason	Academic			Non-academic			Total		
	M	F	Total	M	F	Total	M	F	Total
No answer	33.3	38.1	34.7	38.0	36.1	37.8	36.2	37.4	36.4
Instrumental	22.2	14.3	20.0	32.2	16.7	30.6	28.3	15.2	25.8
Personal	13.6	12.7	13.3	10.5	16.7	10.9	11.7	13.1	11.9
Domestic	20.4	31.7	23.6	8.1	19.4	9.5	12.9	27.3	15.6
Other	8.6	3.2	7.1	7.8	11.1	8.2	8.1	7.1	7.9
None	1.8	-	1.3	3.5	-	3.1	2.9	-	2.3
Total	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9
Number	162	63	225	258	36	294	420	99	519

The motives for choosing an occupation were classified into three main categories: instrumental, personal and domestic. The instrumental reasons, defined by Robson as "instrumental in achieving other goals or objectives",¹¹ are those relating to such factors as prestige or salary. Although the items on the questionnaire were more concerned with material, rather than psychological, satisfactions, a number of respondents added to the list, using such

10. Question 14, Appendix

11. R. A. H. Robson, "Sociological Factors Affecting Recruitment into the Academic Profession", p. 10.

phrases as "personal satisfaction" and "interest in work", and these are described in the table as "personal reasons". The "domestic" category consists of the items "possibility of part-time work", "of doing some work at home", "of arranging holidays with your family", "a sympathetic attitude on the part of your superiors to the demands of family life", and "flexibility of hours". Students who specifically stated that none of the reasons presented was applicable, but did not offer any alternatives, have been entered in the table as "none". The "other" category consists of a variety of items, such as "the opportunity to go abroad" or "the possibility of adventure".¹²

Table 20 shows a comparison of the responses given by men and women, and by those who plan a university career contrasted with those who do not. The proportions of men and women selecting instrumental and domestic reasons vary, while very similar proportions of each sex, whether academically inclined or not, give personal reasons for choosing an occupation.

A comparison of the two sexes shows that men, irrespective of their occupational choice, are nearly twice as likely as women to choose a career for instrumental reasons. This is to be expected since, in our

12. Respondents were asked to give three reasons, but no ranking was required. The maximum number of possible responses is therefore 519. Many students gave less than the maximum, and the rate of non-response, therefore, appears to be very high. However, when the "no answers" were analysed, it was found that only 8.7% of respondents failed to give any reasons at all, while rather less than one-third gave only one. When the figures are broken down by sex, or by occupational choice, no regular pattern emerges. Non-academics are less likely to give more than one reason; men are more likely to give all three reasons, but are also more likely to give none at all.

society, a man's occupation is important, not only as the main indicator of socio-economic status, but also as a source of identity (both in his own eyes and in the eyes of others) and, in the case of high-prestige occupations, of ego satisfaction.¹³ A woman, on the other hand, expects to derive her socio-economic status, not from her occupation, but initially from her father's position, and then from that of her husband. It is only in the exceptional circumstances of a husband's early death, desertion or very long periods of unemployment that the woman will be the principal economic support of the family and therefore its most important source of socio-economic status. Women also expect to receive their principal psychological satisfactions from personal relationships and fulfillment of their traditional familial roles rather than from a position in the work world.

As a consequence, women are freer to consider characteristics other than prestige or salary when choosing an occupation, but this freedom is counterbalanced by other factors. On the one hand, the virtual disappearance of the extended family has reduced the amount of help the working wife and mother can expect from relatives. On the other, the refusal of society to recognise the particular needs of the working mother is exemplified by the lack of creches and nursery schools, the

13. Fuller discussion of the meaning of occupational status to the individual, and a description of a number of relevant studies, are found in Anne Roe, The Psychology of Occupations, John Wiley & Sons, (New York: 1959), and David Beardslee and Donald O'Dowd, "Students and the Occupational World", in Nevitt Sanford, The American College, pp. 597-626.

denial of the right to charge domestic help against income tax, and the refusal by most of industry and government, as employers, to provide opportunities for part-time employment.

The differing rights and obligations of men and women in our society affects the importance each sex gives to particular aspects of an occupation. There is greater pressure on the man to be concerned with income, status and security, and on the woman to consider the demands made on her by present or potential domestic roles. It is not surprising, therefore, that women are more than twice as likely to give consideration to domestic factors when choosing an occupation, and that they select this group of reasons more frequently than any other.

A comparison of the response of those who plan an academic career with those who look forward to a position outside the university shows that the latter, irrespective of sex, are more likely to give instrumental reasons for choosing an occupation, while the academically oriented concentrate on domestic reasons. This suggests that some of the factors which attract a woman to university life, also operate in the case of the man, and to this extent, academic and non-academic men differ in their definitions of status, self-identification and ego-gratification.¹⁴

A breakdown of the data by both sex and career choice shows that academic women are most likely to give domestic reasons for their choice.

14. Although not directly related to this discussion, it is interesting to note that students' profile of a college professor is "predominantly a volatile feminine picture with an emphasis on intellect, sensitivity, and impulsiveness". David Beardslee and Donald O'Dowd, "Student and the Occupational World", Nevitt Sanford, The American College, p. 615.

followed by almost equal percentages of academic men and non-academic women, with a very much smaller proportion of non-academic men considering these reasons. Non-academic males are most likely to give instrumental reasons for choosing their occupation, and these are selected by decreasing proportions of academic males, non-academic women and academic women (though the difference between the two groups of females is small).

The findings with regard to instrumental reasons support the proposition that men differ from women in their motives for choosing an occupation. However, the pattern regarding the choice of domestic reasons is not so clear; almost as many academic men pick domestic reasons as instrumental, and this proportion is slightly higher than the proportion of non-academic females who select this category. An explanation may be found in a comparison of the items which make up the two categories. All the items included in the instrumental category are closely related to one another, and are very pertinent to the implications of occupational status for the male. On the other hand, the domestic category includes a far more heterogeneous group of items; although all were included specifically to appeal to the woman who hopes to combine domestic and work roles, some may be attractive to other groups as well, for example, "flexibility of hours" accounts for 64% of the domestic reasons chosen by the academic male. However, this category, although appealing to both men and women, will have a very different meaning and importance to each. To a woman, it may be a necessary condition of employment; to a man it is an additional attraction but is unrelated to

the central significance of an occupation, since it is only peripherally related to status.

It is interesting to note that, although men choose this item over all others in the domestic category added together, would-be women academics distribute their choices far more evenly among the five possible responses; "flexibility of hours" constitutes less than one-third of these reasons, and is closely followed by "part-time work" and "the possibility of working at home". These are items which are more specifically related to the woman's need to juggle the demands of her domestic and work roles.

Summary

The findings support the hypothesis that women are more likely than men to choose an academic career; the relationship holds even when social class and area of study are held constant. The apparent exception of social science graduates may be explained by the possibility that women students in this field will find non-academic occupations with advantageous conditions similar to those existing at the university. The proposition might, therefore, be restated as follows: "Women look for jobs, which offer the possibility of combining occupational and familial roles, and the university is one of a number of work areas where these conditions may be found."

Men and women give different reasons for choosing an occupation; men are more concerned with the instrumental aspects of a position, women with domestic reasons. In doing this, they reflect the different significance of occupational status and roles to each sex.

Although the data support the hypothesis, certain qualifications should be mentioned. First, the relative proportion of men and women choosing academic careers gives the impression that university faculties will be primarily feminine within the next decade. It must be emphasised that, although a higher proportion of women than men choose an academic career, the actual number of women concerned is very small: a relatively small number of women attend university and even fewer enter graduate school. It is only from the latter group that university teachers are drawn.

Second, it may be dangerous to attempt to generalise from data about women graduates at Carleton University to a wider population. It is possible that some idiosyncratic features of the university have affected the response. On the one hand, the data were collected two years ago when fewer departments offered a Ph.D. programme, or the opportunity for graduate work at all. The courses offered at the graduate level were in a narrow range of subjects, and therefore the comparison is not between the typical male and female graduates, but only between graduate students, of either sex, who are interested in these academic areas. Carleton offers a very extensive programme of evening and summer courses, with a consequent demand for part-time staff, and women graduates are well aware of these local opportunities to use their education. These opportunities do not always exist at other universities, although the increasing tendency to provide such summer and evening programmes may encourage more women to enter graduate work with a view to part-time university teaching.

CHAPTER SIX

OCCUPATIONAL VALUES

The previous chapters examined the relationship between socioeconomic status and sex, on the one hand, and occupational choice, on the other. This chapter tests the hypothesis that an individual's occupational values also influence his career plans.

Values are the concepts of the desirable and worthwhile, and occupational values provide the measure by which the individual assesses the meaning of work, its conditions, opportunities and rewards, particularly as they relate to his own experience and expectations. Rosenberg suggests that occupational values occupy a position of particular importance in the individual's value structure; to ask a student "what he wants out of his work to an important extent is to ask what he wants out of his life".¹

Two measures were used in this study to determine occupational values: a definition of success in life and the ranking of the requirements of an ideal job.² Most of the categories for the latter measure were taken from the Rosenberg questionnaire on occupational choice, though one or two items were added in order to compare students who see their future jobs in teaching with those who look to positions in research. This question on

1. Morris Rosenberg, Occupations and Values, p. 10.

2. Questions 19 and 20, Appendix

the requirements of the ideal job focussed the student's attention on the day-to-day conditions, opportunities, rewards and activities of the job he would prefer: if he were offered a position tomorrow, on what grounds would he accept or refuse it? The question on success in life attempted to discover the goals a student sets for himself: what are his occupational ambitions and aspirations?

Contrary to C. Wright Mills' view that the chief meaning of work for the modern white-collar worker lies in income, status and power,³ Rosenberg found that more students were interested in jobs which provide self-fulfillment and interpersonal satisfactions.⁴ In analysing "the requirements of an ideal job or career", he developed three categories of value orientations, each based on two value criteria.

First, an "extrinsic-reward oriented value complex" is based on the choice of "a chance to earn a good deal of money" or "to give me social status and prestige". In this case, work is viewed in instrumental terms, as a means of obtaining other rewards and satisfactions rather than as an end in itself.

Second, a "people-oriented value complex" depends on the choice of "the opportunity to work with people rather than things" or "the opportunity to be helpful to others". Students who select these values tend to view work "largely as an opportunity for obtaining the gratifications to be derived from interpersonal relations".

3. C. Wright Mills, White Collar, (New York: Oxford University Press, 1951) pp. 230-238.

4. Most of the theoretical background for this section, and the quotations, are derived from Morris Rosenberg, Occupations and Values, Chapter 2, pp. 10-24.

Third, a "self-expression-oriented value complex" is identified by the choice of the items "permit me to be creative and original" or "to use my special abilities and aptitudes", and emphasises the satisfactions inherent in the work itself.

Rosenberg found that the relationship between values and choice can operate in two ways, which interact with each other. On the one hand, people selecting a particular occupation hold certain value orientations which influence or determine their choice of career. Individuals planning to enter such fields as social work or medicine are, for example, more likely to have a people-oriented value complex; those contemplating careers in real estate or finance are more interested in the extrinsic rewards; students choosing architecture, journalism or drama emphasise the importance of creativity and self-expression. On the other hand, people "may choose a value because they consider it appropriate for the occupational status they expect to fill in the future", and they will, therefore, adopt the behaviour and attitudes considered suitable for the "future doctor" or "future engineer". Values and choices "tend to determine one another and both tend to change in the direction of greater mutual consistency".

Two comments must be made regarding Rosenberg's analysis. First, he examines the interrelation between occupations and values in great detail, but never seems to ask whether all persons perceive a certain occupation in identical terms and in what ways perception affects choice. It is certainly likely that students will have similar perceptions of many occupations and of the particular activities involved, so that all students

may "see" social work in terms of working with people. However, a medical career can be viewed as a career either in research or in general practice; a future engineering position can be seen in terms of building bridges or of selling or of administration. Since Rosenberg does not inquire about the students' perceptions of their career choice, it is uncertain whether the medical student, who indicates a self-expression-oriented complex (rather than the people-oriented value complex suggested by Rosenberg), is exhibiting psychological inconsistency; should he be looking forward to a career in pathology, there would be no lack of consistency between his value system and his occupational ambitions.

The role of perception can be examined in relation to both aspects of the interaction between values and choice described by Rosenberg. On the one hand, perception can be regarded as a factor antecedent to choice; a student chooses an occupation because he holds a certain value complex and because he has certain favourable perceptions of the position. His perception may or may not be accurate, but it precedes and influences his choice. On the other hand, the graduate may choose an occupation in accordance with his values, and the fact of his decision will direct his attention to those activities which he finds attractive. In this case, his perception is influenced by the fact of his choice and the function of perception can be regarded as "the avoidance of potential stress through avoidance of inconsistencies in

beliefs".⁵

Whether the relationship between values, perception and choice is of the first or second type, there is little doubt that perception must be examined when discussing career choice. It is particularly pertinent in considering the academic career, because of the general uncertainty regarding the main function and role of the university professor. This aspect will be examined in the following chapter, when some measures of the perception of academic status and role will be analysed.

The second comment on Rosenberg's work is that his three value complexes do not appear to be exclusive categories. There is a valid dichotomy between intrinsic and extrinsic value complexes - the view of work as a source of satisfaction in itself in comparison with the view of work as a means to an end, the achievement of extrinsic rewards. However, Rosenberg introduces the third category, "the people-oriented-value complex", when the interpersonal relations involved in the job are the source of greatest satisfaction. However, since these rewards are inherent in the occupation, this category should be included in the intrinsic value

5. Bernard Berelson, Paul F. Lazarsfeld and William N. McPhee, Voting: A Study of Opinion Formation in a Presidential Campaign, University of Chicago Press (Chicago, 1954), Chapter 10, pp. 215-233. This chapter describes the strain toward consistency, through selective perception, in the political process. In the case of the relationship among party affiliation, perception of candidate's statements and voting, the effect of selective perception is important to the individual in the sense of making action possible, but his decision regarding voting is unlikely to affect a very wide range of his statuses or roles. Unfortunately, this is not the case with occupational choice; if the individual's perception of an occupation is greatly different from reality, he may have an unpleasant shock when he finds himself committed to a career which involves unforeseen and disliked activities.

complex. The two main categories can then be analysed according to the kinds of extrinsic or intrinsic rewards which they offer. The extrinsic value complex can be examined according to the desired goals - status, income, security; the intrinsic value complex according to the particular aspects of the work activity which provide satisfaction. If this activity is working with people or being helpful to others, satisfaction is derived from personal interaction (Rosenberg's "people-oriented value complex"); if it is working with facts and ideas, then this indicates a knowledge or research-oriented complex; if freedom from supervision is highly rated, it could be regarded as an indicator of an independence value complex.

In the present study, the data were examined from the standpoint of three questions. Was the graduate student looking for intrinsic or extrinsic rewards from his future career? If, as seemed likely, he was more concerned with the former, did he expect to achieve his main work satisfaction through personal interaction, such as teaching students, or from the combination of intellectual activity and creativity related to research? Lastly, did the students who were planning a career at a university make a very different selection of job requirements than those who had made occupational choices outside a university?

Three items were added to Rosenberg's list in order to distinguish between students concerned with the communication of knowledge and those who looked forward to research. These items were "allow me to work with people rather than facts and ideas", "give me an opportunity to communicate ideas", and "allow me to work with facts and ideas rather than people".

Table 21 shows the ratings attached to the various listed requirements of an ideal job. The results indicate clearly that extrinsic rewards of an occupation have little appeal for the graduate students as a group, and that they are far more likely to be interested in the satisfactions to be gained from the work activity itself. For example, although a fifth of the students rate a "stable and secure future" highly, only 3% rank either security or social status and prestige as being of primary importance.

On the other hand, nearly 90% rate "the opportunity to use special abilities" as of high importance, and nearly three-quarters attach the same value to "the possibility of being creative and original". In fact, nearly two-thirds of the respondents indicate that these two items are the most important requirements of the ideal career. Sixty-four percent of graduate students choose these categories, which Rosenberg suggests indicate a "self-expression-oriented-value complex", in comparison with 37% of Rosenberg's sample of undergraduates. This difference in the percentages suggests that values act as a selective mechanism on the entry of students to graduate school as well as on occupational choice. The undergraduate who holds these values is more likely to continue his education, while the student who values extrinsic rewards is more likely to have entered the work world.

TABLE 21

REQUIREMENTS OF THE IDEAL JOB

Requirements of the ideal job	H-1	H	M	L	N.A.
Special abilities and aptitudes	43.9	89.0	9.8	-	1.2
Creativity and originality	20.8	71.1	23.1	2.3	3.5
Work with people rather than things	3.5	24.3	39.9	32.9	2.9
Work with people rather than facts/ideas	1.7	11.6	47.4	34.7	6.4
Opportunity to communicate ideas	8.1	60.7	31.2	4.0	4.0
Work with facts/ideas rather than people	-	3.9	44.5	38.1	3.5
Work with things rather than people	0.6	5.2	31.2	56.6	6.9
Freedom from supervision	5.2	14.5	42.8	8.7	4.0
Chance for leadership	3.5	30.6	45.7	17.9	5.8
Social status and prestige	0.6	5.8	43.9	48.0	2.3
Stable and secure future	2.3	21.4	48.6	26.0	4.0
Adventure	1.2	16.8	31.2	42.2	9.8
Number	173				

Note: Students first rated the items as High, Medium and Low and then ranked their High values. The H-1 column contains the items considered most important. All H-1's are included in the High column, so that H. M. L. and N.A. for each item equals 100%.

The column of most important choices does not add up to 100, because not all respondents rated all the items, and not all of them ranked their "highly important" choices.

The characteristic "allow me to work with facts and ideas" had been included in the list of requirements in an attempt to differentiate between students with particular career orientation related to research and teaching. First, it had been hoped, it would indicate the student who looked forward to a job which would give him an opportunity for research, whether at the university, in industry or in government. Second, it was thought it would differentiate between the academically-oriented student, who looked forward to teaching at the university, from his colleague, who hoped to devote most of his time to research. However, no student ranked this trait of working with facts and ideas as the most important, and only 4% rated it as one of the important requirements. It is impossible to say whether this relatively low evaluation of research is an accurate presentation of the students' views, or the result of unsatisfactory question formulation. If the former, it may reflect the small number of graduate students who, at the time of this research, were doctoral candidates; most of the graduates were, in fact, studying for a master's degree. As the student progresses towards the higher degree, he involves himself more deeply in the norms of the academic world and is more likely to accept the legitimacy and importance of research activity. Moreover, as a student, he is increasingly judged on the basis of his competence in research. Therefore, a higher proportion of Ph.D. candidates amongst the graduate students might result in greater emphasis on this job requirement.

TABLE 22

REQUIREMENTS OF THE IDEAL JOB BY CAREER CHOICE

Requirements of the ideal job	Academic		Non Academic	
	H-1	H	H-1	H
Special abilities and aptitudes	34.7	90.6	51.0	87.8
Creativity and originality	20.0	72.0	21.4	70.4
Work with people rather than things	6.7	34.7	1.0	16.3
Work with people rather than facts and ideas	2.7	14.7	1.0	9.2
Opportunity to communicate ideas	14.7	80.0	3.1	45.9
Work with facts/ideas rather than people	-	10.7	-	16.3
Work with things rather than people	-	5.3	1.0	5.1
Freedom from supervision	9.3	57.3	2.0	34.7
Chance for leadership	1.3	26.7	5.1	33.7
Social status and prestige	1.3	4.0	-	7.1
Stable and secure future	1.3	22.7	3.1	20.4
Adventure	-	18.7	2.0	15.3
Number	75		98	

Note: The H-1 column considers the items considered most important, and all H-1's are included in the H column. - for further explanation, see note at the bottom of Table 21.

When all the criteria of an intrinsic value complex are added together, it can be seen that over 85% of all students rank as most important the satisfactions to be derived from the work activity itself, rather than from its external rewards.

A comparison in Table 22 of academically oriented graduates with those who are planning a career outside the university shows that the two groups are almost equally likely to choose indicators of intrinsic values. Nearly 90% of would-be academics and over 85% of the non-academics rank one of these indicators as "most" important.

When the percentages in the column H-1 (most highly ranked requirement) are analysed by career choice, the greatest differences are found in those traits which are related to personal interaction and the communication of knowledge. Although the actual numbers are small, academics are nearly seven times as likely to want a job which will allow them to work with people rather than with things, nearly three times as likely to want to work with people rather than with facts, and nearly five times as likely to rank highest the job which provides an opportunity to communicate ideas.

Although they are nearly five times as likely as non-academics to give highest rating to "freedom from supervision", they are less likely to value "the chance to exercise leadership". Apparently the embryo lecturer wants neither to control others nor to be controlled himself. It seems probable that the graduate is aware that there is a tradition of freedom and independence in teaching. Although a university professor

may be requested, or directed, to teach certain courses, he can expect a high degree of freedom concerning the methods he uses, the material he teaches and the standards he applies. This freedom may vary from department to department, but academic traditions still emphasise the idea of a community of equals rather than a hierarchy of authority. In an increasingly bureaucratised work world, the university may be one of the few institutions where the requirement of freedom from supervision can be satisfied.

The same proportion of both groups thinks that the opportunity for creativity and originality is the most important requirement, but non-academics are more likely to choose the opportunity to use special abilities and aptitudes. Over half of them believe it is, in fact, the single most important characteristic, as compared with only one-third of the academics. However, both groups rate it highly in almost the same proportions, which suggests not so much a difference in general values but a difference in priorities. Although only speculation, it seems likely that the academics' emphasis on the importance of interpersonal relations and communication of ideas is linked with the smaller proportion of academics who choose "the opportunity to use special abilities". They rate the latter highly, but the former group of requirements pre-empts their first choice. In general, it can be observed that the ratio of disagreement between the two groups is greater in the H-1 than in the H column. This suggests some consensus regarding a general pattern of important values, but the decision on the most important requirement

crystallises the student's choice and emphasises the differences between the groups.

Robson found that:

. . . . when comparing students with favourable and unfavourable attitudes towards the academic profession, we found no large and consistent differences in the kind of characteristics they ideally want as a career There are some differences to be sure which are interesting in themselves, but they are not particularly substantial differences.⁶

It is difficult to relate this statement to the findings in the present study. Since Robson's paper was only a preliminary analysis, the list of requirements which he presented to the students is not given. It is, therefore, impossible to discover whether he included any characteristic regarding the communication of ideas. The findings in the present study certainly show very little difference in the students' emphasis on the importance of intrinsic rewards, whatever their occupational plans. However, when the individual items are compared, greater differences between the two groups can be seen, particularly in the importance attached to interpersonal relations and the communication of ideas.

It must be emphasised that only three characteristics were ranked as most important by more than 10% of the academics, and only two by more than 10% of the non-academics, so that most of the comparisons can be regarded only as interesting indicators for future research.

6. R. A. Robson, "Sociological Factors Affecting Recruitment in the Academic Profession", p. 20.

Previous studies, as already mentioned, have suggested that men and women graduates differ greatly in many important respects. This study has found that women are more likely to choose an academic career, and that they give different reasons for their choice of an occupation. It therefore appears important to ask whether men and women also differ in their values, and if so, how such differences are related to their occupational plans.

Table 23 gives the necessary data to examine the relationship between sex, values and occupational choice, and to determine whether any of the relationships shown in Table 22 are, in fact, spurious, and should be linked with sexual roles rather than career choice.

Before proceeding with any analysis, it is necessary to stress the relatively small number of women in the population, particularly of those planning a career outside the university.

The data in Table 23 indicate that job requirements can be divided into two groups. There are those which are more closely linked with occupational choice, such as: "communication of ideas" and "freedom from supervision". On the other hand, such job requirements as "status", "security" and the "opportunity to exercise leadership" are more closely related to sexual roles.

If the proportions of each group choosing either of the criteria of a self-expression-oriented complex are combined, it can be seen that non-academic students, irrespective of sex, are more likely to hold these values. However, when these requirements are examined separately, certain interesting differences appear.

The 'opportunity to use special abilities and aptitudes' is chosen by over half the non-academic males, and by only one-third of the academic males. There is a parallel, though much smaller difference, between non-academic and academic females. The relationship apparent in Table 22 between occupational intentions and the choice of this item is therefore maintained. On the other hand, women, whatever their occupational choice, are more likely than either academic or non-academic men to select the "opportunity to be creative and original".

These differences may be the result of two factors: the inter-relationship of sexual and occupational roles, and the lack of specificity in the wording of the two items. Although both phrases imply the development and use of an individual's potentialities, it is possible that the first phrase suggested to respondents the systematic use of certain skills and aptitudes within a formal framework, suitable to the highly organised world of business and government. Creativity and originality, on the other hand, carry with them the implication of breaking away from the accepted practices of thought or action. The questioning of institutionalised methods of work is not necessarily recognised or rewarded by those in authority and is, therefore, a luxury more easily afforded by women since occupational success is less important to them.

The choice of the values of personal interaction and communication is clearly related to occupational plans, since both men and women academics are more likely to choose them as the most important requirements, while they are virtually ignored by those looking forward to a career outside the university.

The number of students choosing freedom from supervision as the most important requirement is too small to analyse by both sex and occupational choice. However, the proportions of students choosing this item as one of the important requirements support the view that the relationship between occupational choice and this value is maintained irrespective of sex. Within each sexual group, academics are approximately twice as likely as non-academics to select this item. The figures do, however, suggest that sexual roles may modify or support this relationship. Academic males are the most likely to choose this characteristic, nearly two-thirds of the group doing so. However, academic females, although selecting it twice as often as non-academic females, are still only half as likely to select it as their male colleagues. It may be that a certain acceptance of the general cultural attitude regarding the subordinate occupational status of women modifies the relationship between this value and their career plans.⁷

Non-academics are more likely to choose the "chance for leadership", either as the most important or as an important requirement, than academics (see Table 22), and this relationship is maintained when men and women are examined separately. However the differences (in the H column) between non-academic and academic within each sexual group are small, and are overshadowed by the greater difference in the choices made by men and women. No woman suggests that this is the most important job characteristic, and very few

7. David C. Beardslee and Donald D. O'Dowd, "Students and the Occupational World", p. 606, suggest, "she most easily finds her satisfaction in fields where she supports and often underwrites the male".

consider it as even one of the most important requirements. In each occupational group twice as many men as women select this as an important item. These figures reflect the norms relating to the dominance of the male in our society, particularly in the work world. Caplow suggests that one of the main themes in North American culture is:

. . . . that it is disgraceful for a man to be directly subordinated to a woman except in family or sexual relationships The refusal to be subordinate to women thus appears both as an assertion of essential masculinity, and as a compensation for a degree of continued subordination with the family.⁸

If this norm has been internalised by both sexes, it goes far to explain the differing attitudes to this requirement. Women may also be realistically aware that they have little chance of securing a position which permits the exercise of leadership.

The importance of such items as "status" and "security" does not appear to be related to occupational choice, but is much more closely linked with sex. Approximately twice as many men as women select these as important characteristics, and this relationship is not affected by career plans, presumably because of the particular importance of the occupational role to men, a subject which has been discussed elsewhere.

This section has examined the relationship between sex, occupational choice and the requirements of the ideal job, in order to discover whether the relationships between occupational choice and values shown in Table 22 are valid. It was found that some job requirements, notably "the opportunity to be creative and original", "to exercise leadership", "social status and

8. Theodore Caplow, Sociology of Work, p. 238.

prestige" and "stable and secure future" are more closely linked with sexual roles. On the other hand, the relationship between occupational choice and values is maintained in the case of "opportunity to use special abilities", "freedom from supervision" and of those items relating to the importance of the communication of ideas and personal interaction. The latter group represents approximately two-thirds of the most important job requirements chosen by graduate students.

So far, this chapter has been concerned with an examination of the values held by graduates, and a comparison of the values of non-academics of each sex with those of the academically-oriented students. However, it is also possible to ask what proportion of students, holding a particular set of values, will choose an academic rather than a non-academic career. Certain requirements of the ideal job were, therefore, used as independent variables, and their relationship to occupational choice was examined.

It was hypothesised that students who value the following job requirements highly would be more likely to consider a university career.

First, students who enjoy communicating ideas and look forward to working with people rather than things, facts or ideas will choose an academic occupation, because it is assumed they will be attracted by the teaching role of the professor.

Second, students who consider working with facts and ideas as important are more likely to choose an academic occupation, because it is assumed they will be attracted by the possibilities of research.

Third, a liking for freedom will encourage the student to choose a

university career, since there is a tradition of freedom from supervision in both laboratory and lecture room.

In addition, the career choices of those with a self-expression-oriented complex were also analysed since the opportunity to use special abilities and to be creative were the two characteristics chosen most frequently by the graduate students.

The results of this analysis are shown in Table 24. Over three-quarters of those who rank communication of ideas and personal interaction as most important choose an academic occupation and this career attracts the same proportion of those who rank freedom from supervision as the main requirement.

It is perhaps surprising that only a third of those who rate highly the characteristic of working with facts and ideas are planning a career within the university. This may be related to two factors. First, there are a great variety of alternative research positions available in government and industry (those in government are perhaps particularly apparent to students at Carleton since Ottawa is the home of a number of government research establishments). It is possible that students are aware that, in some fields of study at least, it is easier for a graduate with only a master's degree to obtain a responsible, well-paid research position outside the university rather than within it. Second, it may also, and once again, be a function of the preponderance of students at the master's level at Carleton.

TABLE 24
CAREER CHOICE BY IDEAL JOB REQUIREMENT

CAREER CHOICE	Communi- cation	Freedom	Research	Self- expression
Academic	78.3	77.8	33.3	36.6
Non-academic	21.7	22.2	66.7	63.4
Total	100.0	100.0	100.0	100.0
Number	23	9	24	112

Note: The figures for the ranking of different job requirements are taken from Table 22, Column H-1, with the exception of the characteristic, "working with facts and ideas rather than people". No student considered the latter to be "the most important", and the figures are therefore taken from Column H which classifies it as one of the important requirements (but not the most important).

Nearly two-thirds of students ranking the expressive values highest are also planning a career outside the university. An explanation for this may be found in Robson's statement that "the general impression seems to be that the job of university professor is, in most respects, pleasant, steady and safe, but not particularly challenging or exciting."⁹

The consistency between the values of the student, his occupational choice and his perception of the duties and activities of the university professor, whether accurate or not, is also supported by the large proportion of academically oriented students ranking communication of ideas highly. In the next chapter it will be shown that students believe

9. R.A.H. Robson: "Sociological Factors Affecting Recruitment into the Academic Profession", p. 33.

that the professor's teaching duties are most important and are those on which he spends most of his time.

The other measure of students' values was derived from their conceptions of success in life.¹⁰ Respondents were presented with a list of occupational goals, such as high income, high prestige, independence, creativity, and the transmission of, or contribution to, knowledge. On the assumption that a man who achieves any one of these goals can be regarded as successful, the students were asked to indicate which they considered to be the most successful. It had been postulated that academic students would be more likely to choose those categories concerned with the transmission of, or contribution to, knowledge, while non-academics would be more interested in other indices of success.

The data given in Table 25 show the responses of graduates as a group and also by occupational choice. An examination of the aggregate findings will be followed by a comparison of the two types of career orientations.

The item "enjoys his work, but has leisure time to pursue spare-time interests and hobbies" was included in the list to discover whether students necessarily define success in occupational terms. Ginzberg suggests that individuals can be divided into two major types of personalities, "work oriented" and "pleasure oriented":

. . . . a distinction based on emphasis. The difference lies in what the individual considers to be the centre of his life, the force which gives him direction, in other words, his dominant values.¹¹

10. Question 19, Appendix.

11. E. Ginzberg, et al., Occupational Choice, pp. 208-209.

TABLE 25
 "SUCCESS IN LIFE" BY CAREER CHOICE

The most successful man:	Academic	Non-academic	Total
Is President of a national corporation	1.3	9.2	5.8
Enjoys his work but has leisure time to pursue spare time interests and hobbies	28.0	36.7	32.9
Runs his own business	--	1.0	0.6
Is held in high public esteem	--	3.1	1.7
Transmits knowledge to other people, stimulates their ideas	24.0	5.1	13.3
Is creative in some artistic field	6.7	9.2	8.1
Makes at least \$20.000 a year	--	1.0	0.6
Makes a contribution to human knowledge	25.3	29.6	27.7
Is invited to serve on Royal Commissions	1.3	2.0	1.7
No answer	13.3	3.1	7.5
Total	99.9	100.0	99.9
Number	75	98	173

In the present study, a third of the students - in fact, the largest single group - define success in terms of the balance between work and leisure.

This response suggests that the values of the Protestant ethic, with its

emphasis on the definition of man's worth in terms of work and occupational success, is not unanimously accepted by graduate students.

It is only possible to speculate about the reasons for this, but a number of explanations may be considered. First, it may be a part of a general challenge to the values of achievement and success accepted in the society - a challenge which is apparent in other areas, such as the political movement of the "New Left". Second, it may be related to the students' membership in the university; the academic institution may never have accepted the Protestant ethic quite as wholeheartedly as the economic institutions. Third, the response may be a function of the students' present lack of involvement in the world of work. It would be interesting to discover whether similar responses would be received from those who have left university and have embarked on their work careers.

Graduates do not, apparently, regard independence, high prestige, public recognition or income as vital occupational goals, since each of the items related to these categories is chosen by fewer than 2% of the students. The item, "an invitation to serve on a Royal Commission" was included amongst the categories as an example of the public recognition of expertise in a particular field, or as an important contribution to society as a whole. The fact that it was chosen by very few students may indicate that they do not value such recognition or, alternatively, that they do not consider membership on a Royal Commission in this way.

Generally, the responses to this question reinforce the findings described in the last section, that graduates are far more likely to value the intrinsic rewards of an occupation, whether they are considering it in

terms of a possible job or of ultimate goals. Enjoyment of work, plus some leisure time, and the transmission of, or contribution to, knowledge are overwhelmingly chosen as indices of success, in preference to high income, powerful position or public esteem.

A comparison of academic and non-academic students shows that both groups consider a balance between work and leisure and the contribution to human knowledge as important goals. The item which, above all, distinguishes the academic from the non-academic is the definition of success in terms of the transmission of knowledge; a quarter of the academics choose this item, in comparison with only five percent of non-academics. There is also a certain fit between this response and the response regarding the requirements of the ideal job in the previous section. By both measures, the academic is likely to value the communication of knowledge more highly than the non-academic.

On reconsideration, the hypothesis which was tested can be divided into two statements. First, it was proposed that academically oriented students would be more likely to choose items relating to the transmission of knowledge, while non-academics would be more interested in other indices of success. This was, in fact, validated by the findings. Second, it was proposed that academic students would be more likely to choose those items relating to the contribution of knowledge, while non-academics would be more interested in other definitions of success. Although over a quarter of all students consider the man who makes a contribution to human knowledge as most successful, it was selected by rather more students who plan a career outside the university. If only those students who answered

this question are considered, the proportions of academics and non-academics choosing this item are almost exactly equal. Whichever figure is used, the data do not support the hypothesis that there is a positive relationship between academic aspirations and choice of this item.

The relationships (or lack of them) between occupational choice and definitions of success were also examined when the control attribute of sex had been introduced, and the relevant data are shown in Table 26.

TABLE 26
"SUCCESS IN LIFE" BY SEX AND CAREER CHOICE

Most Successful Man	Male			Female		
	Acad.	Non-acad.	Total	Acad.	Non-acad.	Total
President of a national corporation	1.9	8.1	5.7	-	16.7	6.1
Enjoys work but has spare time	33.3	40.7	37.9	14.3	8.3	12.1
Runs his own business	-	1.2	0.7	-	-	-
Is held in high public esteem	-	3.5	2.1	-	-	-
Transmits knowledge to others	25.9	4.7	12.9	19.0	8.3	15.2
Is creative in some artistic field	3.7	7.0	5.7	14.3	25.0	18.2
Makes at least \$20,000 p.a.	-	1.2	0.7	-	-	-
Contribution to human knowledge	18.5	27.9	24.3	42.9	41.7	42.4
Invited to serve on Royal Commission	1.9	2.3	2.1	-	-	-
No answer	14.8	3.5	7.9	9.6	-	6.1
Total	100.0	100.1	100.0	100.1	100.0	100.1
Number	54	86	140	21	12	33

The definition of success most clearly linked with career aspirations is the transmission of knowledge, and this relationship is maintained irrespective of sex; both academic men and women are considerably more likely to choose this goal than are those who expect to choose an occupation outside the university.

The larger proportion of non-academics who see success in terms of a balance between work and leisure is increased when only male students are examined, since non-academic men are most likely to choose this characteristic while non-academic women are the least likely to do so. Sexual roles are more closely related to this definition of success than is occupational choice. The masculine emphasis on a balance between work and leisure seems to conflict with the generally accepted view of occupation as a dominating status for men in our society.

Although non-academics are slightly more likely to emphasise "a contribution to human knowledge", this relationship is far less than the link between sex and choice of this item. Women, whatever their occupational plans, are much more likely to choose this definition of success. It had been considered possible that this difference between men and women might be attributable to the large numbers of men in public administration and engineering, vocational areas whose students might be more likely to choose more concrete and material goals. However, the highest percentage of male students choosing this characteristic came, in fact, from these very fields of study.

Although the importance of creativity does not appear to be linked with occupational choice, Table 26 shows that women are three times as likely as men to emphasise this definition of success, and that this is unaffected by occupational choice. It perhaps supports the traditional view in North American society that it is the function of women to encourage the fine arts and the "finer things of life", while men engage in more worldly economic activity.

Generally, it can be said that students' definition of success in life is related to their sexual roles rather than their career plans. The only important exception is that academics, whether men or women, are more likely to stress the importance of the communication of knowledge and the stimulation of ideas.

Summary

This chapter has examined two indicators of values: the choice of the requirements of the ideal job and a definition of success in life. Both of these measures were examined in terms of occupational choice and sex.

It was found that graduate students, as a group, emphasise the importance of rewards inherent in the occupation, rather than such extrinsic recompense as status or security. The main difference between academic and non-academic students is the former's emphasis on a job which would provide an opportunity for communication of ideas and personal interaction. This relationship is not upset by the introduction of sex as a control attribute, though some of the other requirements of the ideal job appear to be more

closely related to sex than to occupational choice. The latter items usually reflect the different significance of occupational status for men and for women.

The students' choice of definitions of success in life also strongly suggests that they value intrinsic rather than extrinsic rewards. Values measured by definitions of success are more closely linked with sex than with occupational choice. The principal exception to this general finding refers to those factors which relate to the communication of ideas.

If there is a strain towards consistency in values and perception, it is to be expected that students planning an academic career will perceive the professorial role as mainly concerned with teaching, and this subject is examined in the next chapter.

CHAPTER SEVEN

ACADEMIC STATUS AND ROLE

It has already been suggested that perception of occupations is an important factor in career choice, and this chapter therefore examines the graduates' perception of the university professor by means of some evaluative and cognitive measures. Students were questioned about their view of the activities of the university professor, and their evaluation of the qualities of a good professor. They were also asked about the various conditions and rewards of the career, and were requested to compare the position of professor with other occupations, such as senior civil servant or business executive, on a number of dimensions.

Examination of perception is particularly relevant when discussing the academic career, since the college teacher has a number of functions, which are manifest in different activities and contexts.¹ Knapp has pointed out that the college professor in the United States has characteristically had three functions. The research function is defined as "the task of extending and coordinating human knowledge",² and includes scientific research in the narrow sense as well as humanistic scholarship and the reinterpretation of learning. Second, there is the information

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1. Bernard Berelson, et al., Voting, p. 233. "The less ambiguous the objective situation, the more agreement in the perception between two sides." Presumably, the corollary of this, "the more ambiguous the objective situation, the less agreement" can be applied to the university career.
 2. Robert H. Knapp, "Changing Functions of the College Professor", The American College, p. 291.

function of transmitting formalised knowledge. Third, the character-developing function was particularly important in the 19th century when it was related to the inculcation of religious beliefs and has now developed into guidance and counselling with a concern for the total person of the student. In recent years, there has been considerable discussion concerning the complementary and conflicting functions of teaching and research. On the one hand, there is the view that research is a necessary stimulus to the academic, which does not conflict with his role as a teacher, but is, in fact, vital for the satisfactory fulfillment of that function. On the other hand, Edmond C. Day, when President of Cornell University, pointed out that:

. . . teaching and research may in a broad sense be complementary and mutually supporting functions, but they are clearly in the concrete day-to-day duties of the members of a university faculty,³ competing and mutually excluding interests

Whether or not strain is inherent in the academic role is not directly relevant to this study. The important question is whether graduates are aware of this multiplicity of functions and of the possibly competing claims on the professor's time and attention. Although an individual's perception of the day-to-day activities of an occupation may, or may not, be accurate, it must be assumed that it will affect his occupational choice.

The two main sources of his perception are the image prevalent in the culture and, when this is possible, his own observations of the occupation.

3. Quoted in F. C. Rosencrance, *The American College and its Teachers*, MacMillan, (New York: 1962), p. 210.

On the one hand, it might be considered that graduates are in a particularly favourable position to observe the activities of the professor; they have occupied the same buildings for a number of years, and have had more or less constant, though intermittent, interaction in both formal and informal groups. On the other, the student may generalise from his possibly idiosyncratic experience in one university, or one department of a university, to an image of the profession as a whole. In addition, his perception may be distorted by his subordinate status in the academic hierarchy or by the social distance which separates him from the faculty and which serves, among other things, to ensure that universalistic standards of judgment prevail.

The respondents in this study were, therefore, asked what they thought were the main activities of universities in general⁴ and the activities of the professor they knew best in particular.⁵ The latter question was designed to direct the respondent's attention to his more personal and more proximate observation of academic roles. In the following analysis, the former has been called the "general" view of professorial activities, the latter the "particular" view. The data obtained from these questions are shown on Tables 27 and 28.

Table 27 shows that graduate students overwhelmingly perceive teaching and preparation for courses as the activity on which the professor in general spends most of his time. Less than a quarter of the students choose any

4. Question 21(a), Appendix.

5. Question 21(b), Appendix.

other activity, and most of these select research or writing books. Unfortunately, response to this question may well have been biased by an error in its wording. It should have read "Looking at the job of a university professor" A further possible source of ambiguity lies in the fact that "job" can be interpreted normatively (what should he do?) or cognitively (what does he do?). However, the response to the question "Thinking of the professor you know best, how do you think he spends most of his time while he is working?" still shows teaching as the activity chosen by the greatest number of students, though the proportion decreases from 77% to 53%.

The shift in reference from the general to the particular is also accompanied by increases in the proportions mentioning research and administration, but more especially the latter (Table 28). This is probably because most of the professor's administrative activities must be carried on at the university, while research, particularly in some disciplines, can be undertaken away from college. The student is, therefore, more likely to observe the professor busy with administration rather than research. It is, perhaps, pertinent that the professor's room at the university is known as an office rather than as a study!

When comparing the responses of students with different occupational plans, the most striking finding is the general consensus among all graduates about the activities in which the professor spends most of his time. The same high proportions of each occupational group see teaching and preparation for courses as the principal activity of professors "in

TABLE 27

ACTIVITIES OF PROFESSORS "IN GENERAL" BY CAREER CHOICE

Activity	Academic %	Non-academic %	Total %
Administration	2.7	6.1	4.6
Teaching	76.0	77.6	76.9
Research	14.7	10.2	12.1
No answer	6.7	6.1	6.3
Total	100.1	100.0	99.9
Number	75	98	173

TABLE 28

ACTIVITIES OF "BEST KNOWN" PROFESSOR BY CAREER CHOICE

Activity	Academic %	Non-academic %	Total %
Administration	25.3	19.4	22.0
Teaching	50.7	54.1	52.6
Research	17.3	20.4	19.1
No answer	6.7	6.1	6.4
Total	100.0	100.0	100.1
Number	75	98	173

general". Of the remaining students in Table 27, a slightly larger percentage of academically oriented graduates are likely to choose research as the main activity, and rather more non-academic students choose administration or attendance at meetings.

The proportions of each occupational group who see teaching as the main activity decrease by similar amounts as students move from the general to the particular view of the professor. When the academic student shifts his attention from a general view of the college teacher to the professor he knows best, his view of the importance of research does not increase greatly, but there is a marked increase in the likelihood of such a student selecting administration as the main activity of the best known professor. It is possible that academically-oriented students are more closely involved with the faculty and, therefore, more aware of the time spent on administrative matters. On the other hand, those planning a university career may have internalised the cultural definition of the professor as teacher and researcher; the time the professor spends on administration may, therefore, come as a greater surprise, colouring their perception of the professor's principal activities.

Generally, therefore, occupational choice has little effect on students' perception of the professorial role. Tables 29 and 30 examine the relationship between the perception of professorial activities, sex and career choice to see whether this perception is affected by sexual identity.

Although the differences are not always large, there is some evidence that the male and female potential academics each see the professor's

activities in a somewhat different light. Table 29 shows that the would-be male academic is the least likely (in comparison with the other three groups) to view the professor's main activity as teaching, and the most likely to see it as research. On the other hand, the largest proportion of students who see teaching as the principal activity comes from the group of women who are planning a university career. This may be related to the fact that many women academics are studying the humanities, where research is likely to be a less public occupation than in the sciences, or even the social sciences. When attention is directed to the professor the student knows best, women academics are, once again, the most likely to choose teaching as the main activity.

Table 30 relating to the best known professor suggests that although women are more alike (than are members of the opposite sex with similar career plans) in their stress on teaching, in other respects the non-academic female is very unlike either her male counterpart or other women in graduate school.

Whether they are considering the activities of the professor "in general" or of the best known professor, the proportion of non-academic women seeing administration as the principal activity does not change, but a third of them - the biggest percentage of any group - regard research as the principal activity of the professor they know best. On the other hand the proportions of the other three groups choosing administration increase greatly as attention is directed from the general to the particular view.

TABLE 29

ACTIVITIES OF PROFESSORS "IN GENERAL" BY SEX AND CAREER CHOICE

Activity	Male			Female		
	Acad.	Non-acad.	Total	Acad.	Non-acad.	Total
Administration	3.7	5.8	5.0	-	8.3	3.0
Teaching	72.2	77.9	75.7	85.7	75.0	81.8
Research	16.7	10.5	12.9	9.5	8.3	9.1
No answer	7.4	5.8	6.4	4.7	8.3	6.1
Total	100.0	100.0	100.0	99.9	99.9	100.0
Number	54	86	140	21	12	33

TABLE 30

ACTIVITIES OF "BEST KNOWN" PROFESSOR BY SEX AND CAREER CHOICE

Activity	Male			Female		
	Acad.	Non-acad.	Total	Acad.	Non-acad.	Total
Administration	25.9	20.9	22.8	23.8	8.3	18.2
Teaching	46.3	53.5	50.7	61.9	58.3	60.6
Research	18.5	18.6	18.6	9.5	33.3	18.2
No answer	9.3	7.0	7.9	4.7	-	3.0
Total	100.0	100.0	100.0	99.9	99.9	100.0
Number	54	86	140	21	12	33

The foregoing discussion was concerned with students' perceptions of the professorial role. A further question was specifically designed to explore the students' concept of the "ideal" professor.⁶ R. H. Knapp has summarised some of the studies rating the characteristics of ideal professors, and has pointed out that "different segments of the population, to whom the college professor must in some degree answer, apparently expect different kinds of performances."⁷ Professors tend to rank themselves according to the research function, while students and administrators value the informational and character-developing functions. Two studies are relevant to this point. In 1946, Bogardus asked graduate students and alumni of thirty colleges and universities (most of whom were contemplating an academic career) to rate former teachers. The most highly ranked qualities were "thoroughness of knowledge in the subject taught", "familiarity with recent developments in the field", "logical and forthright presentation", and the "stimulation of discussion".⁸ Three personal attributes were also repeatedly mentioned, "fairness", "democratic attitudes" and "enthusiasm and humour". Despite the fact that these students were contemplating an academic career, no qualities relating to the research function were mentioned.

6. Question 22, Appendix.

7. R. H. Knapp, "Changing Functions of the College Professor", The American College, p. 306.

8. E. S. Bogardus, "Behavior Patterns of College Teachers", Sociology and Social Research XXX 1946, pp. 484-499. Quoted Ibid. p. 305.

In 1954, Guthrie asked both students and faculty to rate "the effectiveness of college teachers".⁹ Although there was some agreement in the ratings given by the two groups, the faculty tended to emphasise scholarly achievement, while undergraduates mentioned specific personal and teaching qualities. Graduate students were more likely than undergraduates to rank intellectual and scholarly characteristics. It is also interesting to note that Guthrie found little relationship between faculty ratings for "teaching effectiveness and the research productivity of the professor in question",¹⁰ a finding which supports the view expressed by Jacques Barzun and others, that there is no necessary link between research ability and teaching competence.¹¹

In the light of these studies, graduate students were asked to rank the qualities which characterise a good university professor. Their first three choices are shown in Table 31. The items presented to the students can be related to Knapp's three functions. The first two, "ability in research" and "intensive knowledge", can be taken as indicators of the research function; the third and fourth items, "broad knowledge" and "ability to teach" represent the teaching function; and the next three are aspects of the character development function. The last two are of a different order from Knapp's functions, since they are concerned with the professor's co-operation with colleagues and his administrative abilities.

9. E. R. Guthrie, "The evaluation of teaching: a progress report", University of Washington Press, (Seattle, 1954). Quoted Ibid

10. Ibid.

11. Jacques Barzun, Teacher in America, Atlantic-Little Brown, (Boston, 1945). Particularly Chapter XIV, "The Ph.D. Octopus", pp. 195-208.

TABLE 31

THREE MOST HIGHLY RANKED CHARACTERISTICS OF GOOD PROFESSOR
BY CAREER CHOICE

Qualities of a good professor	Academic			Non-academic			Total		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Ability in research	4.2	8.3	19.2	1.0	10.2	10.2	2.4	9.4	14.0
Intensive knowledge of particular area	11.1	11.1	22.0	1.0	14.3	22.4	5.3	12.9	22.2
Broad knowledge of his field	13.9	54.2	16.4	9.2	45.9	21.4	11.2	49.4	19.3
Ability to teach and communicate ideas	65.3	12.5	9.6	82.6	12.2	3.1	75.3	12.4	5.8
Friendly to students	2.8	1.4	4.1	2.0	1.0	6.1	2.4	1.2	5.3
Fair to students	- -	4.2	16.4	1.0	10.2	18.4	0.6	7.6	17.5
Prepared to help students, even in personal problems	1.4	5.6	6.9	2.0	4.1	7.1	1.8	4.7	7.0
Co-operates well with his colleagues	- -	- -	2.7	- -	- -	4.1	- -	- -	3.5
Administrative abili- ties	- -	- -	- -	- -	- -	4.1	- -	- -	2.3
No answer	1.4	2.8	2.7	1.0	2.0	3.1	1.1	2.4	2.9
Total	100.0	100.0	100.0	99.8	99.9	100.0	100.1	100.0	99.8
Number	72*	72*	73*	98	98	98	170	170	171

*Three respondents did not rank their answers. These were omitted, which reduced the total of academics to 72 in the first two columns and 73 in the third. One of the three did not give any third ranking and, therefore, was included in the "No answer" category in the third column.

Again, the most striking fact is the emphasis on teaching. Three-quarters of all students consider the most important quality to be the "ability to teach", while half of them rank "broad knowledge in his field" (a characteristic which, though not synonymous with teaching, is closely related to it) as the second most important quality.

It is interesting to note that students, whether viewed as an aggregate or grouped by occupational choice, show a similar pattern of response. In every case, by far the greatest proportion ranks "ability to teach" as the most important characteristic, "broad knowledge of his field" as the second most important, and "intensive knowledge of a particular area" as the third. In each group, percentages diminish as the students move from first to third rankings; that is, graduates, whether divided by career orientation or not, exhibit greater homogeneity of choice regarding the most important quality, but show less agreement as they move on to consider the second- or third-ranking characteristics.

If only the choices of the most important quality are compared by career plans, it can be seen that the items related to either the teaching or to the research functions are chosen by over 90% of each group. The professor is not expected to take any great personal interest in his students, and his administrative abilities and capacities for amiable interaction with his colleagues are virtually ignored. Not only are the strictly academic demands of the professorial role emphasised at the expense of other characteristics, but the graduate student is most likely to see the "good" professor as an individual with ability to teach and communicate ideas and with broad knowledge in his field. This emphasis on the teaching

function suggests that the graduate still identifies primarily with the student group; he has a number of academic barriers to surmount, comprehensive exams to pass and a thesis to write. From his point of view, the important question is how much help and support the professor can provide to enable him to overcome these hurdles.

On the other hand, if graduate school provides not only a formal education, but also socializes the academically-oriented student regarding the values and norms of the academic world, he is more likely to be aware that faculty members tend to evaluate this role in terms of research rather than teaching. To the extent that he identifies with these norms, he will be unlike his fellow student who is looking forward to a career outside the university. The figures in Table 31 support this view - though teaching items are chosen by most of the graduates, whatever their occupational plans, 15% of the academic students choose a research item as compared to only 2% of non-academics.

Since socialization is a process over time it would be interesting to compare the responses of masters and doctoral students, and also of faculty members. If their orders of priorities were found to be different, it would be interesting to discover the level of training, or stage in the academic career, when changes of opinion are most likely to occur.

Table 32 shows the most highly ranked quality of the "good" professor in terms of sex and career choice. The quality which is overwhelmingly chosen by all groups is again the ability to teach.

TABLE 32

FIRST RANKED QUALITY OF GOOD PROFESSOR BY SEX AND CAREER CHOICE

Qualities of good professor	Male			Female		
	Acad.	Non-acad.	Total	Acad.	Non-acad.	Total
Ability in research	3.8	1.2	2.2	5.0	-	3.1
Intensive knowledge of particular area	13.5	-	5.1	5.0	8.3	6.3
Broad knowledge of his field	9.6	9.3	9.4	25.0	8.3	18.8
Ability to teach and communicate ideas	67.3	82.6	76.8	60.0	83.3	68.6
Friendly to students	3.8	2.3	2.8	-	-	-
Fair to students	-	1.2	0.7	-	-	-
Prepared to help students, even in personal problems	-	2.3	1.4	5.0	-	3.1
Co-operates well with colleagues	-	-	-	-	-	-
Administrative abilities	-	-	-	-	-	-
No answer	1.9	1.2	1.4	-	-	-
Total	99.9	100.1	99.8	100.0	99.9	99.9
Number	52*	86	138	20*	12	32

*Three respondents did not rank their answers and were therefore omitted.

However, the academically-oriented student, whether male or female, is rather less likely to mention this characteristic as being of first importance than the student who is planning a career outside the university. The academic male is more likely to choose intensive knowledge as the most important quality, while a quarter of the academic females choose broad knowledge, an item more closely related to teaching.

These figures may reflect the fact that no women students are doctoral candidates, and therefore that at this level of their education they are still more interested in a broader approach to their subject than in an intensive investigation of a particular area. Moreover, though both men and women are looking for success in their university careers, the two groups may attach rather different meanings to this term. A man is more likely to think of success in specifically career terms (for example, the eventual appointment as full professor), and believes that such a goal can only be achieved by proven ability in research. He is therefore more likely to value the professor whose intensive knowledge of a particular area may help him to embark on this career. On the other hand, success to the woman may have the very much more limited meaning of appointment to a position where she can follow both familial and occupational roles. She therefore ranks highly the professor with a broad knowledge of his field, since she believes it will help her to obtain a part- or full-time position teaching introductory courses, acting as a teaching or research assistant, or a combination of similar roles.

The data in Table 32 therefore suggest that differences in the evaluation of the good professor are influenced not only by occupational but also by sexual roles.

The previous question asked the student to estimate the qualities of a good professor, the characteristics which it is desirable for him to possess. Respondents were also requested to make a factual assessment of the college teacher's status and role, by judging the truth or falsity of a number of statements about his rewards, obligations and working conditions.¹²

O'Dowd and Beardslee have shown that students have "complex, differentiated and very interesting beliefs about specific occupations",¹³ and suggest that there is substantial agreement about the properties associated with each occupation. Amongst the characteristics attributed to the college professor, undergraduates stressed intellectual competence, but saw him as unlikely to receive material rewards, "not well-to-do and lacking in opportunity for advancement".¹⁴ Although O'Dowd and Beardslee examined the occupational images held by undergraduates, Table 33 indicates that the images held by Carleton graduate students are very similar, at least with regard to monetary rewards and promotion. Graduates, whether contemplating a career in university teaching or not, can scarcely be said to have many optimistic illusions about certain aspects of the academic world. Over three-quarters of them consider it unlikely that university professors earn more than \$12,000 a year, and an even higher percentage see little opportunity for quick promotion. They are not misled by the

12. Question 23, Appendix.

13. David O'Dowd and Donald Beardslee, College Student Images of a Selected Group of Professions and Occupations, Co-operative Research Project No. 562 (8142), Dept. of Health, Education and Welfare, Washington, 1960, p. 26.

14. Ibid., p. 35.

TABLE 33

STATEMENTS ABOUT THE UNIVERSITY PROFESSOR BY CAREER CHOICE

				Academic	Non-academic	Total group
				%	%	%
1. Earns more than \$12,000	:	True		13.3	17.3	15.6
		False		78.6	76.5	77.5
		D.K.		8.0	6.1	6.9
		Total		99.9	99.9	100.0
2. Finds colleagues co-operative	:	True		64.0	69.4	67.0
		False		30.7	26.5	28.3
		D.K.		5.3	4.1	4.6
		Total		100.0	100.0	99.9
3. Quick promotion	:	True		6.7	9.2	8.1
		False		84.0	84.7	84.4
		D.K.		9.3	6.1	7.5
		Total		100.0	100.0	100.0
4. More than six weeks' vacation	:	True		25.3	45.9	37.0
		False		68.0	47.9	56.6
		D.K.		6.7	6.1	6.4
		Total		100.0	99.9	100.0
5. Works more than 35 hours per week	:	True		85.3	88.7	87.3
	:	False		8.0	9.2	8.7
		D.K.		6.7	2.0	4.0
		Total		100.0	99.9	100.0
6. Research needed for promotion	:	True		68.0	61.2	64.2
		False		28.0	33.7	31.2
		D.K.		4.0	5.0	4.6
		Total		100.0	99.9	100.0
7. Teaching ability needed for promotion	:	True		33.3	35.7	34.7
	:	False		61.3	61.2	61.3
		D.K.		5.3	3.1	4.0
		Total		99.9	100.0	100.0
Number				75	98	173

seemingly short academic year, only a little over a third thinking that the professor enjoys an annual summer leave of more than six weeks, and nearly 90% believing that he works more than 35 hours a week.¹⁵ In fact, the item, "likely to find colleagues co-operative" is the only favourable statement about the academic profession which is regarded as true by over 40% of the graduates.

In general, though the differences are very small, the individual planning to enter college teaching is slightly more likely to have a pessimistic view of the conditions and rewards of the occupation. However, it has already been demonstrated in the previous chapter, that students are generally more interested in the intrinsic rewards of the work activity itself than in any extrinsic compensations. Since this is the case, it is not surprising that academically oriented students appear undiscouraged by relatively unfavourable perceptions regarding salary, work load and promotional expectations in the academic profession.

Two statements were included in this question to discover whether graduates saw teaching or research ability as the main requirement for promotion. There has been considerable and increasing discussion, in both the sociological and popular literature,¹⁶ regarding the importance of research and publication as the only, or the most important, means to tenure

15. The accuracy of the students' perception is supported by a study of faculty members in the College of Education at the Ohio State University, which found that faculty members worked an average of 58 hours a week, most worked on Sundays, and all worked consistently at night. W. W. Charters, "How much do college professors work?", Journal of Higher Education, 1942, Vol. VI, pp. 298-301.

16. See for example: Jacques Barzun, Teacher in America, Bernard Berelson, Graduate Education in the United States and Theodore Caplow and Reece McGee, The Academic Marketplace.

and promotion in the academic profession. Although this emphasis on research has often been deplored, it is considered to be one of the facts of academic life. The question was whether graduates, particularly those who had chosen an academic career, were aware of this. Nearly two-thirds of the students consider research and publication as prerequisites for promotion, and only a third think that this is true of marked teaching ability. Academically oriented students are rather more likely to emphasise the importance of research.

The duality of the academic role, and the ambivalence with which its two main functions are regarded, can be illustrated by the answers to questions regarding teaching and research in this study. Students are far more likely to choose communication of ideas as the important requirement for the ideal job than working with facts and ideas (see page 80). They believe that professors spend more time on teaching and the preparation of courses than on any other activity, or combination of activities (see page 102). Three-quarters of them think that the ability to teach and communicate ideas is the important quality of a good professor, and a further ten percent see broad knowledge of the field as the most important (see page 110). All these findings indicate that the graduate student, whether he has chosen an academic career or not, considers teaching to be the most important of the three academic functions. However, when the students are asked to indicate whether research and publication or teaching ability is more likely to be a prerequisite for promotion, two-thirds of them suggest that research is necessary, and only one-third choose teaching.

Teaching criteria may be important characteristics of the ideal job, may be the most important quality of the good professor, and may, in fact, be the main activity of the academic, but career rewards are seen as being offered on the basis of research rather than teaching.

Although there is a high level of agreement amongst graduate students, irrespective of their occupational choice, on the relative importance of teaching and research, those graduates who have chosen an academic career are slightly more likely to emphasise the research criteria of the different measures: as the important quality of a good professor, as the principal activity of the university teacher in general (though not of the best known professor), and as a requirement for quick promotion. The differences between the two groups are too small to permit a more decisive statement, but they suggest that the academically oriented student may perceive the role of the professor in slightly different terms from those of the student who has chosen another occupation. A more detailed study of a much larger population of graduate students, including a high proportion of doctoral candidates, is necessary to see whether these differences do exist and whether the academic student is more likely to be aware of the emphasis on the research function in the academic culture.

The previous section made two points: there are only small differences in the perceptions of the academic role, irrespective of the occupational plans of the student, and what small differences there are indicate that the non-academic student has a slightly more favourable view of the academic career. Table 34 makes it possible to investigate whether greater differences emerge when students are divided by sex as well as occupational choice.

TABLE 34

STATEMENTS ABOUT THE UNIVERSITY PROFESSOR BY SEX AND CAREER CHOICE

				Male			Female		
				Acad.	Non-acad.	Total	Acad.	Non-acad.	Total
				%	%	%	%	%	%
1. Earns more than \$12,000	: True			16.7	18.6	17.9	4.8	8.3	6.1
	: False			77.8	76.8	77.0	81.0	75.0	78.8
	: D.K.			5.5	4.7	5.0	14.3	16.6	15.2
	Total			100.0	100.1	99.9	100.1	99.9	100.0
2. Finds colleagues co-operative	: True			64.8	68.6	67.1	61.9	75.0	66.7
	: False			31.5	30.3	30.7	28.6	16.7	24.2
	: D.K.			3.6	1.2	2.1	9.5	8.3	9.1
	Total			99.9	100.1	99.9	100.0	100.0	100.0
3. Quick promotion	: True			5.5	7.0	6.4	9.5	25.0	15.2
	: False			88.9	89.5	89.3	71.4	50.0	63.6
	: D.K.			5.5	3.5	4.3	19.1	25.0	21.2
	Total			99.9	100.0	100.0	100.0	100.0	100.0
4. More than six weeks' vacation	: True			25.9	46.5	38.6	23.8	41.7	30.3
	: False			70.4	48.8	57.1	61.9	41.7	54.5
	: D.K.			3.7	4.7	4.3	14.3	16.6	15.2
	Total			100.0	100.0	100.0	100.0	100.0	100.0
5. Works more than 35 hours per week	: True			85.2	88.4	87.1	85.7	91.7	87.9
	: False			9.3	10.5	10.0	4.8	-	3.0
	: D.K.			5.5	1.2	2.9	9.5	8.3	9.1
	Total			100.0	99.9	100.0	100.0	100.0	100.0
6. Research needed for promotion	: True			63.0	60.5	61.4	81.0	66.7	75.8
	: False			37.0	34.9	35.7	4.8	25.0	12.1
	: D.K.			-	4.7	2.9	14.3	8.3	12.1
	Total			100.0	100.1	100.0	100.1	100.0	100.0
7. Teaching ability needed for promotion	: True			31.5	34.9	33.6	38.1	41.7	39.4
	: False			64.8	64.0	64.3	52.4	41.7	48.5
	: D.K.			3.6	1.2	2.1	9.5	16.7	12.1
	Total			99.9	100.1	100.0	100.0	100.1	100.0
Number				54	86	140	21	12	33

Before examining the distribution of choices for the individual items, it should be pointed out that women, whether they are planning a university career or not, are more likely to say that they do not know whether a statement is true or false. Although a higher percentage of women answering "don't know" is a characteristic of many survey findings, it is possible that in this case, it is related to the general proposition that occupational status is less important to the woman, and that she is, therefore, less interested in, and less perceptive of, the conditions of any occupation, even the one she has chosen.

Generally, in the case of men, the similarity of perception on the part of academic and non-academic students remains unchanged. In fact, if anything, it is even more clearly marked. On the other hand, the differences between the perceptions of academically and non-academically oriented women are sometimes substantial. They are certainly greater than the differences between the similar groups of men, as well as between the two groups of students taken as a whole, i.e., irrespective of sex.

In the following items, the academically-oriented female is more like her male colleagues than like other women students with different occupational plans. She shares with the academic male the belief that the university professor has co-operative colleagues, is not likely to have six weeks' yearly leave and will work at least 35 hours a week.

The tendency, observed in Table 33, for academics to have a less favourable view of the professor's working conditions is maintained, and frequently increased when academic and non-academic women students are compared. Non-academic women are more likely to think that the professor

earns more than \$12,000 a year, will have co-operative colleagues, will enjoy quick promotion, and will have six weeks' vacation. However, it has already been mentioned that the less favourable view of the academic student will not necessarily discourage him from an academic career, since students in general are not interested in extrinsic rewards. This statement is even more likely to apply to a woman, since occupation does not have the same significance to her in relation to status and style of life. In fact, her reasons for choosing a position emphasise the importance of an occupation which will not cause too much strain for her in her familial roles.

The item on which there was the greatest disagreement between academically and non-academically oriented students was the matter of annual leave, and this difference is maintained within the sexual groups. Men and women academics are more likely to think the professor does not have yearly leave of more than six weeks than either the male or female non-academic. Possibly, the academically-oriented student is more likely to apply for, and obtain a summer job at the university, and is therefore more vividly aware that the professor's working year does not end with Convocation.

The final measure of the students' perception of the university professor is derived from a question asking students to consider five occupations of a similar level, but situated in different institutional orders, such as the economy or the polity.¹⁷ These positions are: senior civil servant, scientist in industry, government scientist (e.g., at the National Research Council), senior business executive and professor. More specifically, the students were

17. Question 18, Appendix.

asked to compare these occupations regarding salary, vacation time, work load, pleasant working environment, independence, public regard and influence, security and contentment with career choice. The question was designed to direct the students' attention to positions of a similar type and range to the professor. There is very little point in asking the student whether he thinks the professor receives a high salary, unless there is some indication whether this figure is to be compared with the remuneration of a truck driver or the vice-president of a national corporation. The other positions were chosen because they required a similar level of education and because it was considered they would have similar scores on an occupational scale.¹⁸

A disadvantage of this form of comparison is that it presented the respondent with a complex table for completion, and 16 students ignored it entirely, thereby reducing the response to 157 students.¹⁹

The scores run from 1, favourable or high, to 5, which indicates that the student considers the professor to be working under the most unfavourable conditions when compared with other occupations. It must be remembered that

18. It was found, for example, that college professor, scientist, government scientist and head of a department in a (U.S.) state government (which might be considered as an equivalent position to a senior civil servant in the Canadian Federal Service) all score 87 to 89 on the North-Hatt scale. However, it was later discovered that similar, though not identical, positions were ranked rather differently on the unpublished Pineo-Porter scale, and range from 85 for university professor to 69 for administrative officer in the Federal Civil Service.

19. This non-response can be broken down as follows: 9.4% were men, 9.9% women; 10.7% were planning an academic career, 8.2% had chosen an occupation outside the university. The "no answer" category in the tables does not include these students, but consists of those respondents who answered most of the questions, but did not complete one particular category.

giving an occupation a high rank on a certain dimension is not the same as saying that the individual will be attracted to it as a career. An individual may see that the position of business executive carries a higher salary than other occupations. Nevertheless that may not affect his aspiration and decisions if he wants his work to yield him independence or the rewards of personal interaction.

Table 35 shows that, although students have a generally favourable view of the professor in comparison with the other occupations, no distinctive pattern of response emerges. Students are agreed that the professor works in the most pleasant environment and that he has most vacation time. (Although a previous table established that students do not think the professor has an annual leave of more than six weeks they do think he has a longer holiday than incumbents of these other positions.) No student thinks the professor will receive the highest salary, and over a third think he will receive the lowest. There is, however, less agreement regarding his relative position on other measures, such as his influence on public events or daily work load.

Though no consistent pattern of differences emerges between the rankings of students proposing to take an academic position and those who are planning to work elsewhere, there are differences on individual items. Academically oriented students are more likely to think that the professor will be "his own boss", will be pleased with his career choice and his working environment, and that he will have a longer vacation than people in other occupations. Non-academically oriented students are more likely to consider that the professor is in a favourable position regarding his daily work load, his job security,

TABLE 35

RANKING OF PROFESSORIAL POSITION BY CAREER CHOICE

		Acad.	Non-acad.	Total
		%	%	%
1) Highest salary:	Rank 1	-	-	-
	2	1.5	8.9	5.7
	3	23.9	24.4	24.2
	4	31.3	34.4	33.1
	5	43.3	31.1	36.3
	No answer	-	1.1	0.6
	Total	100.0	99.9	99.9
2) Most vacation time:	Rank 1	83.6	76.7	79.6
	2	6.0	4.4	5.1
	3	3.0	7.8	5.7
	4	-	3.3	1.9
	5	6.0	4.4	5.0
	No answer	1.5	3.3	2.5
	Total	100.1	99.9	99.8
3) Works fewest hours daily:	Rank 1	11.9	20.0	16.6
	2	10.5	23.3	17.8
	3	22.4	25.6	24.2
	4	31.4	12.2	20.4
	5	9.0	8.9	8.9
	No answer	14.9	10.0	12.1
	Total	100.1	100.0	100.0
4) Most pleasant environment:	Rank 1	80.6	70.0	74.5
	2	14.9	11.1	12.7
	3	1.5	8.9	5.7
	4	-	2.2	2.5
	5	-	4.4	1.3
	No answer	3.0	3.3	3.2
	Total	100.0	99.9	99.9
Number		67	90	157

(continued on p. 125)

		Acad.	Non-acad.	Total
		%	%	%
5) Most "his own boss":	Rank 1	67.2	45.6	54.8
	2	25.4	33.3	29.9
	3	7.5	14.4	11.5
	4	-	3.3	1.9
	5	-	2.2	1.3
	No answer	-	1.1	0.6
	Total	100.1	99.9	100.0
6) Most highly regarded by: the public :	Rank 1	40.3	41.1	40.8
	2	23.9	34.4	29.9
	3	20.9	10.0	14.6
	4	11.9	13.3	12.7
	5	1.5	-	0.6
	No answer	1.5	1.1	1.3
	Total	100.0	99.9	99.9
7) Most able to influence: public events :	Rank 1	11.9	17.8	15.3
	2	19.4	37.8	29.9
	3	34.3	25.6	29.3
	4	16.4	7.8	11.5
	5	10.5	6.7	8.3
	No answer	7.5	4.4	5.7
	Total	100.0	100.1	100.0
8) Greatest job security:	Rank 1	14.9	17.8	16.6
	2	17.9	14.4	15.9
	3	46.3	56.7	52.2
	4	7.5	11.1	9.5
	5	9.0	-	3.8
	No answer	4.5	-	1.9
	Total	100.1	100.0	99.9
9) Most pleased with career choice:	Rank 1	58.2	47.8	52.2
	2	10.5	21.1	16.6
	3	9.0	5.6	7.0
	4	4.5	7.8	6.4
	5	-	2.2	1.3
	No answer	17.9	15.6	16.6
	Total	100.1	100.1	100.1
Number		67	90	157

his influence over public events, the regard in which he is held by the public (on the basis of the percentages choosing both first and second ranks) and his salary.²⁰

These figures indicate that the non-academic ranks the position of professor favourably regarding extrinsic rewards, while the academic tends to see him as receiving higher intrinsic compensations. As previously indicated, students do not value extrinsic rewards, and therefore the academic's more unfavourable view of the professor's position related to job security, salary and influence on public affairs is not likely to discourage him from choosing such a career. Similarly, longer working hours will not necessarily deter him, since he is seeking rewards from the actual work activity itself. On the other hand, the academic student gives a slightly more favourable ranking to such conditions and rewards of the professorial role (e.g. "most his own boss"), which an examination of his values has shown he hopes to find in a job.

Table 36 shows the masculine and feminine views of the professor's position in comparison with other occupations, and also compares perception by both sex and occupational choice. The first and second rankings, and the fourth and fifth have been combined because of the few women in the study.

20. Although no student expects the professor to receive the highest salary, the non-academic has a generally more optimistic view of the professorial salary, according to the percentages ranking him second or third.

TABLE 36

RANKING OF PROFESSORIAL POSITION BY SEX AND CAREER CHOICE

		Male			Female		
		Acad.	Non-acad.	Total	Acad.	Non-acad.	Total
1) Highest salary:	Rank 1/2	2.1	8.9	6.3	-	9.1	3.3
	3	27.1	26.6	26.8	15.8	9.1	13.3
	4/5	70.8	63.3	66.2	84.2	81.8	83.4
	No answer	-	1.3	0.8	-	-	-
	Total	100.0	100.1	100.1	100.0	100.0	100.0
2) Most vacation time:	Rank 1/2	87.5	83.6	85.0	94.7	63.6	83.3
	3	4.2	8.9	7.1	-	-	-
	4/5	6.2	5.1	5.5	5.3	27.3	13.4
	No answer	2.1	2.5	2.4	-	9.1	3.3
	Total	100.0	100.1	100.0	100.0	100.0	100.0
3) Works fewest hours:	Rank 1/2	20.8	43.0	34.6	26.3	45.5	33.3
	3	25.0	27.9	26.8	15.8	9.1	13.3
	4/5	41.6	21.5	29.2	36.8	18.2	30.0
	No answer	12.5	7.6	9.4	21.1	27.3	23.3
	Total	99.9	100.0	100.0	100.1	100.1	99.9
4) Most pleasant : environment:	Rank 1/2	93.7	82.3	86.6	100.0	72.7	90.0
	3	2.1	10.1	7.1	-	-	-
	4/5	-	5.1	3.2	-	18.2	6.7
	No answer	4.2	2.5	3.1	-	9.1	3.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0
5) Most "his own boss":	Rank 1/2	89.6	79.8	83.5	100.0	72.7	90.0
	3	10.4	15.2	13.4	-	9.1	3.3
	4/5	-	3.8	2.4	-	18.2	6.6
	No answer	-	1.3	0.8	-	-	-
	Total	100.0	100.1	100.1	100.0	100.0	99.9
Number		48	79	127	19	11	30

(continued on p. 128)

		Male			Female		
		Acad.	Non-acad.	Total	Acad.	Non-acad.	Total
6) Highest public regard: Rank	1/2	66.7	73.4	70.8	57.9	90.9	70.0
	3	20.8	10.1	14.2	21.1	9.1	16.7
	4/5	10.4	15.2	13.4	21.1	-	13.3
	No answer	2.1	1.3	1.6	-	-	-
	Total	100.0	100.0	100.0	100.1	100.0	100.0
7) Most influential: Rank	1/2	37.5	58.2	50.3	15.8	36.3	23.3
	3	29.2	25.3	26.8	47.4	27.3	40.0
	4/5	27.1	13.9	18.9	26.3	18.2	23.4
	No answer	6.2	2.5	3.9	10.5	18.2	13.3
	Total	100.0	99.9	99.9	100.0	100.0	100.0
8) Greatest job: Rank	1/2	31.2	31.7	31.5	36.8	36.4	36.7
	3	47.9	57.0	53.5	42.1	54.5	46.7
	4/5	14.6	11.4	12.5	21.1	9.1	16.7
	No answer	6.2	-	2.4	-	-	-
	Total	99.9	100.1	99.9	100.0	100.0	100.1
9) Most pleased with: Rank	1/2	70.8	68.4	66.6	63.2	72.7	68.8
	3	6.2	6.3	10.0	15.8	-	7.0
	4/5	6.2	10.1	3.3	-	9.1	7.7
	No answer	16.7	15.2	20.0	21.1	18.2	16.6
	Total	99.9	100.0	99.9	100.1	100.0	100.1
Number		48	79	127	19	11	30

When comparing the rankings of each sex, there appears to be very little difference between men and women. Women are more likely to think the professor will work in a pleasant environment, be his own boss and have greatest job security, but the differences between the opinions of men and women on

these items are not large. The most important difference is that twice the number of men consider that the professor will be influential in public affairs.

From Table 35 it was established that non-academic students had a more favourable view of the professor's position with regard to such extrinsic rewards as the daily work load, public regard and salary, and generally this relationship has been maintained, whether the students are male or female. In the same way, academic males and females are more likely than their non-academic counterparts to think the professor is in a favourable position with regard to vacation time, working in a pleasant environment, being his own boss and being pleased with his career choice. On one item, occupational choice is less important than sexual roles; although the percentage difference is not great, both academic and non-academic males are less likely to think that the professor ranks highly regarding job security than academic or non-academic women.

One pattern which does seem to emerge is that there is a greater polarisation of rankings between academic and non-academic women than between academic and non-academic men. In some cases, the academic female has a far more favourable view of the professor's ranking than any other group, for example, regarding vacation time, pleasant environment and being one's own boss. In these cases, the proportion of non-academic females ranking the professor highly is less than either of the male groups. In other cases, notably public regard and pleased with career choice, a higher proportion of non-academic women gives a high ranking to the professor than either the academic or non-academic males or the academic females. Therefore, it appears that in the case of women, there is a

closer association between career choice and perceptions of the academic role than is to be found in the case of men.

Summary

This chapter has examined the students' perceptions of the university professor by means of four measures. Generally students see the professor as a teacher, and consider that ability in this role is the criterion for the good professor, even though his promotion is more likely to require research ability. The rewards he receives are seen as inherent in the occupation itself rather than derived from such extrinsic factors as high status or income.

Students who are planning an academic career are slightly more likely to perceive research as the principal activity, as a criterion for evaluation of the good professor, and as a means of promotion. At the same time, the measure of agreement among students with different occupational plans is far greater than the area of disagreement (although again, this may be partly attributable to the relatively small number of Ph.D. students at Carleton University). Within this broad consensus, students who look forward to an academic career emphasise the satisfactions inherent in the occupation itself, and are even less likely than the non-academic to see the professor as receiving great extrinsic rewards for his work. However, this is not likely to discourage the academically oriented student from his career choice, since he has already indicated that he values intrinsic, rather than extrinsic, rewards.

When perception is related to both occupational choice and sex, there is some indication that academic women emphasise the criteria for teaching, while academic men select research. Men, whatever their occupational choice, are more likely to hold similar views regarding working conditions, (when these are judged by themselves or in comparison with other occupations) than women, whose perceptions differ more according to their career choice.

A far greater population would have to be studied and far more careful questioning and detailed analysis are needed in order to determine more clearly the exact relationships among students' values, their rankings of the professorial role on various dimensions and career choice, but this study suggests that there is a certain "fit" among these three factors. Although the relationship between values, perceptions and choice is complex, neither values nor perceptions should be ignored when career choice is studied.

PART THREE

CONCLUSIONS

CHAPTER EIGHT

CONCLUSIONS

This study set out to examine the career preferences of graduate students with particular emphasis on those planning to enter the academic profession. The findings were derived from data collected by means of a questionnaire administered to graduate students at Carleton University in the Spring of 1964. Several hypotheses were developed which related occupational choice to a number of variables, including sex, class, religion, ethnicity, area of study, occupational values, and students' perceptions of the status, functions and role of the university professor.

One of the findings which emerged from the study was that students from middle-class origins were twice as likely to choose an academic career as those from a lower-class background. However, this statement must be qualified in two ways. First, class is not only a determinant of career preference, but also influences the field of study which the student enters. The lower-class student is more likely than the middle-class student to enter such vocational areas as public administration and engineering, and the decision to study such subjects tends to direct him into a non-academic career. The middle-class student, on the other hand, is more likely to study in the non-vocational fields of the humanities, the social sciences or the sciences. He has greater freedom of career choice, not only because he is less committed

to a particular occupation by his area of study, but also because there are more academic positions available relative to the number of qualified candidates. It, therefore, appears that class has both an indirect, and a direct, effect on career choice. Moreover, the field of study may also have a separate and direct influence on choice of occupation.

The second qualification regarding the influence of class arises from the fact that the class origin of the student is determined by an occupational scale, based in part on years of schooling. It is therefore extremely difficult to isolate the separate effects of class and university education on occupational choice. However, it was found that students whose parents are university educated are more likely to choose an academic career. When neither parent attended university, only one-third of the students were academically oriented; when one parent had attended, almost two-thirds of them were; and when both parents had been to college, over three-quarters of the students chose an academic career.

It had been considered that students from a lower-class background who were also members of a religious or ethnic minority group would be more likely to choose an academic career. However the validity of the proposition remains, at best, uncertain. The hypothesis that these students are attracted to a university because they see it as one institution where universalistic standards prevail could not be established, since all students seem to see all work worlds in these terms.

Another proposition tested was that more women graduate students than men would choose an academic career, because they see the

the university as a place where they can use their abilities and training with a minimum of conflict with their traditional feminine roles. It was found that approximately two-thirds of such women students were, in fact, planning to enter the academic profession in comparison with just over a third of the men students. The attitudes, values and perceptions of women academics lent support to the belief that they are, in fact, influenced in their career choice by their sexual role. This conclusion is discussed more fully later in this chapter.

Academic students, like graduates choosing careers outside the university, consider the satisfactions derived from the work activity itself to be more important than any external rewards, such as status or security. They also share with non-academics the belief that teaching is the principal activity of a university professor, and that ability in this area is the best measure of his worth.

Where academics differ markedly from their non-academic fellows is, however, in their requirement that the ideal job should provide an opportunity for the communication of ideas and personal interaction. They are, moreover, far more likely to equate success in life with the transmission of knowledge and the stimulation of ideas.

A further difference between the two groups is that the academics are more strongly inclined to believe that, in comparison with other occupations of similar status, a university career offers greater opportunity to "be one's own boss". That this may be an aspect of the professorial life which attracts academic students is suggested by the fact that they are

also more likely to consider freedom from supervision as an important requirement of their ideal job.

In a number of respects all graduate students were found to share certain occupational values and perceptions. Whether or not they had chosen an academic career, most of them described their ideal job as one which would provide them with an opportunity to use their special abilities and aptitudes and would permit them to be creative and original. Very few of them considered security or social status to be an important job requirement. An overwhelming majority believed that such universalistic characteristics as devotion to work, intelligence, ability and knowledge are the most important characteristics for career success, and they agreed unanimously that such particularistic traits as membership in a social class or religious or ethnic group were unimportant.

In several respects, some of which have already been noted, graduate students, regardless of career choice, also had similar perceptions of the academic's status and role. They perceived him as unlikely to make a high income or to obtain quick promotion, and as working comparatively long hours but enjoying relatively long holidays. As compared with individuals in other occupations the professor is seen as following his career in a pleasant working environment. The fact that some graduate students had chosen an academic career and some had not presumably indicates that these shared values and perceptions are not relevant to the question of occupational choice, or possibly that the items used were poorly worded for eliciting the kind of discriminatory data required.

Another area which was explored in some detail was the relationship between sex and occupational choice. In some aspects of the inquiry, it was apparent that sex was closely associated with values, perceptions and occupational choice. Women graduate students were more likely than men to choose an academic career and to do so for different reasons. While men gave such instrumental reasons as salary, financial security or prestige for choosing an occupation, women in general were much more likely to give domestic reasons (e.g., possibility of part-time work, flexibility of hours and possibility of doing some work at home). Moreover these domestic reasons were given most frequently by women intending to take up an academic career. This suggests that women choose academic work, partly at least, because it enables them to combine work and family life with relative ease.

In most respects when academics differed from non-academics, sex did not appear to modify these differences; for example men and women academics both emphasised the importance of the communication of ideas as a requirement of the ideal job. When men and women appeared to have different attitudes, academic men and women were more alike than non-academic men and women.- as for example in the belief that success in life consists of a judicious balance between work and leisure time.

This study took a number of hypotheses derived from the theory of occupational choice and attempted to test them by application to the particular case of graduate students. As the summary indicates, a number of these propositions were supported by the data, but the findings also suggest some areas for future research.

The data regarding the effect of social class supported the view that occupational choice is a process over time, since it was found that socio-economic origins affected both career choice and entry to a particular area of study; moreover, the latter factor itself influenced occupational plans. However, little is known regarding the time when the career decision of students is crystallised, and an interesting area for further study would be an inquiry into the plans of third and fourth year undergraduates. The focus of such a study would be those students who planned to enter graduate school. Students may embark on graduate work for a number of reasons. On the one hand, they may see it as a further and necessary training for a chosen occupation, e.g., teaching at the university or research in industry. In this case, an occupational decision has already been made prior to graduate school entry. On the other hand, they may be primarily motivated by interest in a particular subject (or may even see graduate school as a means of postponing occupational choice of any kind). If so, an occupational decision will presumably be made some time during their graduate training. Trow has suggested that the time of decision has an important bearing on the quality of academic recruits; the student who makes an early commitment to university teaching and who regards college education as a vocational training is unlike "our better college teachers, who come to it later in their development through their commitment to their field of study."¹

1. Martin Trow, "Recruitment to College Teaching", Education, Economy and Society, p. 606.

Although other research had suggested that women graduates were less likely than men to choose an academic career, this study found that this was not so. Women did, however, tend to give different reasons for their choice of an occupation (whether within the university or outside), and this suggests that although women may choose the same occupation as men, its significance is defined in different terms. A man's choice of an occupation probably implies a long-term commitment to a career, and he will consider final goals as well as present working conditions. A woman is less likely to consider more remote rewards since there is less certainty regarding her occupational future, and she is more likely to regard her work as an interesting adjunct to other important roles. If this is the case, her perception of the desirable and undesirable attributes of an occupation will differ from those of men, and the role model with which she will identify may also be different.

There appeared to be some uncertainty in this study regarding the value of the research function of the academic role and, as already suggested, this may be related to the few Ph.D. students at Carleton. Future research might compare the attitudes of masters' and doctoral candidates to see whether different evaluations of research exist. Moreover, a study of faculty members might discover whether their attitudes differ from the other two groups, and if so, when changes of opinion occur.

Previous theory regarding the importance of values in occupational choice was supported by the findings, but it is probable that a self-administered questionnaire is not the most efficient instrument for obtaining information in this area. An interview where rapport could be established,

sensitive areas probed or imprecise answers clarified would possibly shed more light on students' values and perceptions.

Moreover, such a technique would offer a better opportunity to explore a topic which had originally been included in this study, but abandoned when it was discovered that interviews were not feasible. Although there have been a number of studies concerned with the process of socialization in medical school² there has been no similar research regarding graduate school, and there are important differences between the medical and graduate student. Graduate students lack an explicit common goal (such as the achievement of the status of doctor) since they may, or may not, be planning an academic career. There is little close interaction between students, particularly between those from different departments or faculties, many of whom do not know each other. It would be interesting to discover whether, in these circumstances, common values or norms are acquired during the time they are at graduate school. In particular, it would be relevant to study the effects of experience as a teaching or research assistant in acquainting the student with the academic role. Although the manifest function of such employment may be to augment the student's income, the latent function may well be that of anticipatory socialization.

It is, of course, questionable, how far it is possible to generalise from the results of this study to the larger graduate student population. Carleton's graduate school has a number of idiosyncratic

2. For example, H. S. Becker, B. Gear, E. C. Hughes and A. L. Straus, (Eds.). Boys in White, Student Culture at Medical School, Chicago: University of Chicago Press, 1961.

features. A relatively high proportion of its students are already in employment. Carleton does not, moreover, offer advanced degrees in certain subjects (education, nursing, social work, librarianship) which tend to attract vocationally-oriented women, and it does offer courses in public administration which tend to attract vocationally-oriented men. In some respects, then, both the men and women graduate students at Carleton are different from their counterparts elsewhere.

Certainly a more useful study would be achieved if a larger population from across Canada were examined, and graduate students were grouped by both sex and non-vocational/vocational areas of study, since these dimensions appear to be highly relevant to the problem of academic recruitment.

A P P E N D I X

Q U E S T I O N N A I R E

SURVEY OF GRADUATE STUDENTS AT CARLETON

Name _____
(Surname - PLEASE PRINT) (FULL given name)

1(a). As a graduate student, are you registered for?

- 1 ☐ M.A. - qualifying year
- 2 ☐ M.A. - other (e.g., first or second year)
- 3 ☐ M.Sc. - qualifying year
- 4 ☐ M.Sc. - other (e.g., first or second year)
- 5 ☐ M.Eng.
- 6 ☐ Ph.D.
- 7 ☐ Other _____
(be specific)

1(b). If you are registered for a Master's degree: After you have obtained this degree, do you plan to study for a Ph.D.?

- 1 ☐ Master's degree will be final degree
- 2 ☐ Will register for a Ph.D.
- 3 ☐ Not sure yet
- 4 ☐ Not applicable

2. Are you enrolled as a full-time or part-time student?

- 1 ☐ Full-time student
- 2 ☐ Part-time student

3. With which department at Carleton are you registered?

1 ☐ Canadian Studies	1 ☐ Biology
2 ☐ Economics	2 ☐ Chemistry
3 ☐ English	3 ☐ Geology
4 ☐ French	4 ☐ Mathematics
5 ☐ History	5 ☐ Physics
6 ☐ Political Science	6 ☐ Engineering
7 ☐ Psychology	
8 ☐ Sociology	
9 ☐ Public Administration	

4. When do you expect to receive your degree?

- 1 ☐ May 1964
- 2 ☐ October 1964
- 3 ☐ May 1965
- 4 ☐ October 1965
- 5 ☐ Other _____
(be specific)

5 How many years have you been a graduate student - either part-time or full-time - at Carleton or elsewhere?

- 1 ☐ Part-time _____ years
- 2 ☐ Full-time _____ years

6(a). When did you receive your first degree?

- 1 ☐ 1955
- 2 ☐ 1956
- 3 ☐ 1957
- 4 ☐ 1958
- 5 ☐ 1959
- 6 ☐ 1960
- 7 ☐ 1961
- 8 ☐ 1962
- 9 ☐ 1963
- 0 ☐ other _____
(be specific)

6(b). What degree was it?

- 1 ☐ B.A. Honours
- 2 ☐ B.A. Pass or general
- 3 ☐ B.Sc. Honours
- 4 ☐ B.Sc. Pass or general
- 5 ☐ B.Eng.
- 6 ☐ B.J.
- 7 ☐ other _____
(be specific)

6(c). In what field or discipline did you take your first degree?
Was it

- 1 ☐ same as at present?
- 2 ☐ different from present _____
(be specific)

6(d). From which university did you receive your first degree?

University _____

7. Do you have any other degrees? If so, please state degree, and year received.

Degree _____ Year received _____

8. What other university(ies) have you attended?

As an undergraduate: 1 _____ (GIVE NAME)

2 _____ (GIVE NAME)

3 _____ (GIVE NAME)

As a graduate student: 1 _____ (GIVE NAME)

2 _____ (GIVE NAME)

3 _____ (GIVE NAME)

Attended no other university _____

9. Did you start graduate work immediately after receiving your first degree?

1 ☐ Yes

2 ☐ No

IF "YES": (OTHER STUDENTS ANSWER QUESTION 10):

9(a). What made you decide to go on to graduate school?

(INSTRUCTIONS: INSERT A 1 BESIDE THE MOST IMPORTANT REASON. IF MORE THAN ONE REASON APPLIES, ENTER A 2 BESIDE THE NEXT MOST IMPORTANT REASON, AND A 3 BESIDE THE THIRD MOST IMPORTANT REASON. DO NOT CHECK MORE THAN THREE REASONS).

1 ☐ I had always expected to go

2 ☐ High grades obtained as an undergraduate

3 ☐ Necessary for the job I wanted to do

4 ☐ Several of my friends were going to graduate school

5 ☐ Member(s) of the faculty urged me to go

6 ☐ I wanted to learn more about a particular subject

7 ☐ My family expected me to go to graduate school

8 ☐ I enjoyed being a student

9 ☐ other _____

(be specific)

IF YOU ANSWERED "NO" TO QUESTION 9:

10(a). What was the reason for this delay?

- 1 ___ Had to earn sufficient money to finance my way through
graduate school
- 2 ___ got married
- 3 ___ had child/children
- 4 ___ had to give financial aid to relatives
- 5 ___ did not want to go to graduate school at that time
- 6 ___ my own ill-health
- 7 ___ illness of someone in my family
- 8 ___ unsure of what I wanted to do
- 9 ___ did not want to refuse offer of job
- 0 ___ other _____

(be specific)

10(b). What did you do in the interval - and for how long - between receiving your undergraduate degree and coming to graduate school?

10(c). What made you decide to come to graduate school now?

(INSTRUCTIONS: INSERT A 1 BESIDE THE MOST IMPORTANT REASON.
IF MORE THAN ONE REASON APPLIES, ENTER A 2 BESIDE THE NEXT MOST
IMPORTANT REASON, AND A 3 BESIDE THE THIRD MOST IMPORTANT REASON.
DO NOT CHECK MORE THAN THREE REASONS.)

- 1 ___ I had always expected to go
- 2 ___ Needed a higher degree for promotion in my job
- 3 ___ Needed a higher degree in order to change my job
- 4 ___ Now had sufficient money from earnings, scholarship, etc.
- 5 ___ I wanted to learn more about a particular subject
- 6 ___ Lessening of domestic obligations now permit me to go
- 7 ___ My family expected me to go to graduate school
- 8 ___ Employer offered to subsidise all or part of my expenses
- 9 ___ Decided I would like to be a student again
- 0 ___ other _____

(be specific)

ALL STUDENTS WILL ANSWER THE FOLLOWING QUESTIONS.

11(a). Did you at any time consider entering professional school (for training in law, medicine, etc.), rather than graduate school?

1 ☐ Yes

2 ☐ No

11(b). How seriously did you think about entering professional school?

1 ☐ Very seriously

2 ☐ Quite seriously

3 ☐ Not seriously at all ('only a passing thought')

4 ☐ Not applicable

11(c). What made you chose to go to graduate school?

(INSTRUCTIONS: INSERT A 1 BESIDE THE MOST IMPORTANT REASON. IF MORE THAN ONE REASON APPLIES, ENTER A 2 BESIDE THE NEXT MOST IMPORTANT REASON, AND A 3 BESIDE THE THIRD MOST IMPORTANT REASON. DO NOT CHECK MORE THAN THREE REASONS).

1 ☐ Thought graduate school would give me the necessary training for a particular occupation

2 ☐ Decided I did not want to become a lawyer, doctor, etc.

3 ☐ Training period in professional school is too long

4 ☐ Did not want to commit myself to a particular occupation

5 ☐ Wanted to go in for research

6 ☐ Professional school was too expensive

7 ☐ Wanted to become a university teacher

8 ☐ Became very interested in a particular subject - e.g., English, Political Science, Biology

9 ☐ Undergraduate grades not good enough for professional school

0 ☐ other _____

(be specific)

12. Students in graduate school undertake various activities. Here is a list of some of them. Please mark any in which you participate, or have participated, while a graduate student:

1 ☐ Teaching duties

2 ☐ Laboratory supervision

3 ☐ Research for your thesis

4 ☐ Research as part of a group of students

5 ☐ Being a research assistant to a member of the faculty

6 ☐ Being an officer of a student club/newspaper

7 ☐ Attending lectures, seminars, tutorials

8 ☐ Working in the laboratory under supervision

9 ☐ Working in the laboratory by yourself

0 ☐ other _____

(be specific)

13(a). Do you have any definite plans for a career when you have completed your graduate studies?

1 ☐ Yes

2 ☐ No

IF "YES": What field do you expect to enter?
(INSTRUCTIONS: CHECK ONE ONLY):

1 ☐ Government

2 ☐ Academic

3 ☐ Industry and/or business

4 ☐ other _____

(be specific)

IF "NO": Which would appeal to you the most at present?
(INSTRUCTIONS: CHECK ONE ONLY):

1 ☐ Government

2 ☐ Academic

3 ☐ Industry and/or business

4 ☐ other _____

(be specific)

13(b). If you enter the occupational field checked above, how do you think you will spend most of your working time?

During the first three years: (INSTRUCTIONS: CHECK ONE ONLY):

1 ☐ In administration

2 ☐ In teaching

3 ☐ In research

4 ☐ other _____

(be specific)

Later in your career: (INSTRUCTIONS: CHECK ONE ONLY):

1 ☐ In administration

2 ☐ In teaching

3 ☐ In research

4 ☐ other _____

(be specific)

14. When you think of the characteristics which will help you to success in the field you have chosen, which three of the following would you say are the most important? (INSTRUCTIONS: INSERT A 1 BESIDE THE MOST IMPORTANT, A 2 BESIDE THE NEXT MOST IMPORTANT, AND A 3 BESIDE THE THIRD MOST IMPORTANT).

- 1 ☐ Devotion to work
- 2 ☐ Knowing influential people
- 3 ☐ High degree of intelligence
- 4 ☐ Having capital, or access to it
- 5 ☐ Belonging to a particular religious group
- 6 ☐ Organising and administrative ability
- 7 ☐ Belonging to any particular Canadian ethnic group
- 8 ☐ Having specialised knowledge or technique
- 9 ☐ Getting on well with people
- 0 ☐ Good grounding in basic theory
- X ☐ Belonging to any particular social class

- 15(a). What specific position would you like to have when you receive your graduate degree? For example, would you like to be a social worker, a design engineer, a college teacher, a school psychologist, etc.? (INSTRUCTIONS: PLEASE GIVE YOUR FIRST CHOICE, AND - IF YOU HAVE ONE - YOUR SECOND CHOICE BELOW).

1. First choice: _____
2. Second choice: _____

- 15(b). Why would you choose these occupations? (INSTRUCTIONS: CHECK NO MORE THAN THREE REASONS WHICH WOULD INFLUENCE YOU MOST IN CHOOSING SUCH POSITIONS)

	First Choice	Second Choice
1. Salary range	_____	_____
2. Possibility of part-time work	_____	_____
3. Flexibility of hours	_____	_____
4. High prestige	_____	_____
5. Possibility of doing some work at home	_____	_____
6. High job security	_____	_____
7. Possibility of arranging holidays with your family	_____	_____
8. Good pension plan	_____	_____
9. Sympathetic attitude on part of your 'superiors' to the demands of family life	_____	_____
0. Possibility of being sent abroad 'on the job'	_____	_____
X. Chance of speedy promotion	_____	_____
Y. Possibility of adventure	_____	_____

16. What aspects of graduate life do you think are going to be most useful to you in the future occupation you have chosen?

(INSTRUCTIONS: DO NOT CHECK MORE THAN THREE):

- ☐ 1 Teaching duties
☐ 2 Laboratory supervision
☐ 3 Research work undertaken mainly on my own
☐ 4 Research experience as part of a group of students
☐ 5 Research experience as assistant to a member of the faculty
☐ 6 Being an officer of a student club, working on the student newspaper
☐ 7 Attendance at lectures, seminars, tutorials
☐ 8 Working in the laboratory under supervision
☐ 9 Working in the laboratory by myself
☐ 0 The recommendation to an occupational position by a member of the faculty
☒ other _____

(be specific)

☐ Y None

(INSTRUCTIONS: IF YOU HAVE CHECKED MORE THAN ONE ITEM ON THE ABOVE LIST, PLEASE INDICATE THE SINGLE MOST USEFUL ASPECT BY CIRCLING THE RELEVANT NUMBER BELOW):

1 2 3 4 5 6 7 8 9 0 X

17. Which aspects of graduate life do you most enjoy? (INSTRUCTIONS: DO NOT CHECK MORE THAN THREE):

- ☐ 1 Teaching duties
☐ 2 Laboratory supervision
☐ 3 Research work undertaken mainly on my own
☐ 4 Research experience as part of a group of students
☐ 5 Research experience as assistant to a member of the faculty
☐ 6 Being an officer of a student club, working on the student newspaper
☐ 7 Attendance at lectures, seminars, tutorials
☐ 8 Working in the laboratory under supervision
☐ 9 Working in the laboratory by myself
☐ 0 other _____

(be specific)

☒ X None

(INSTRUCTIONS: IF YOU HAVE CHECKED MORE THAN ONE ITEM ON THE ABOVE LIST, PLEASE INDICATE THE SINGLE MOST ENJOYABLE ASPECT BY CIRCLING THE RELEVANT NUMBER BELOW):

1 2 3 4 5 6 7 8 9 0

18. Here is a list of possible occupations:

Senior Civil Servant
 Government scientist (e.g., in National Research Council)
 University professor
 Senior business executive
 Scientist in industry

Which of these do you think:

- a. can look forward to the highest salary?
- b. has the most vacation time during the year?
- c. works the fewest hours on an average day?
- d. has the most pleasant environment in which to work?
- e. is the most able to 'be his own boss'?
- f. is most highly regarded by the public at large?
- g. is most able to influence public events?
- h. has the greatest job security?
- i. in your opinion, is most likely to be pleased he took up this career?

(INSTRUCTIONS: RANK EACH OCCUPATION FROM MOST TO LEAST ON A 1-5 SCALE BELOW: FOR EXAMPLE: Suppose one of the categories was "had the largest expense account". You think that:

the senior business executive would have the largest
 the industrial scientist would have the second largest
 the civil servant would have the third largest
 the government scientist would have the fourth largest
 the university professor would have the smallest,

You would therefore fill in the table like this:

	<u>Civil Servant</u>	<u>Government Scientist</u>	<u>University Professor</u>	<u>Business Executive</u>	<u>Industrial Scientist</u>
Largest Expense Account	3	4	5	1	2

NOW, GO AHEAD AND RANK EACH OCCUPATION ACCORDING TO THE CATEGORIES GIVEN AT THE BEGINNING OF THE QUESTION:

	<u>Civil Servant</u>	<u>Government Scientist</u>	<u>University Professor</u>	<u>Business Executive</u>	<u>Industrial Scientist</u>
Highest salary					
Most vacation time					
Works fewest hours daily					
Most pleasant environment					
Most 'his own boss'					
Most highly regarded by public					
Most able to influence public events					
Greatest job security					
Most pleased with career choice					

19. Success in life can mean different things to different people. When you read the following list, consider who you think is most successful, and who you think is least successful.

(INSTRUCTIONS: FIRST: INSERT (A) AGAINST THE MAN YOU THINK MOST SUCCESSFUL and (B) AGAINST THE MAN YOU CONSIDER SECOND MOST SUCCESSFUL. THEN: CONSIDER WHICH MAN YOU CONSIDER LEAST SUCCESSFUL AND CHECK WITH (Z).

A man who:

- 1___ is President of a national corporation
- 2___ enjoys his work, but has leisure time to pursue his spare time interests and hobbies
- 3___ runs his own business
- 4___ is held in high public esteem
- 5___ transmits knowledge to other people, stimulates their ideas
- 6___ is creative in some artistic field
- 7___ makes at least \$20,000 a year
- 8___ makes a contribution to human knowledge
- 9___ is invited to serve on Royal Commissions

- 20(a). When they report their opinions about an ideal job or career, students say it will have to satisfy certain requirements. Some of them are listed below:

(INSTRUCTIONS: AS YOU READ THE LIST, CONSIDER TO WHAT EXTENT A JOB OR CAREER WOULD HAVE TO SATISFY EACH OF THESE REQUIREMENTS BEFORE YOU WOULD CONSIDER IT IDEAL. INDICATE YOUR OPINION BY CIRCLING:

H (high) FOR THE REQUIREMENTS YOU CONSIDER HIGHLY IMPORTANT
M (medium) FOR THOSE OF MEDIUM IMPORTANCE
L (low) FOR THE REQUIREMENTS YOU CONSIDER OF LITTLE OR NO IMPORTANCE, IRRELEVANT OR EVEN DISTASTEFUL TO YOU.)

The ideal job for me would have to:

	<u>High</u>	<u>Medium</u>	<u>Low</u>
1. Provide me with an opportunity to use my special abilities and aptitudes	H	M	L
2. permit me to be creative and original	H	M	L
3. allow me to work with facts and ideas, rather than with people	H	M	L
4. give me social status and prestige	H	M	L
5. enable me to look forward to a stable, secure future	H	M	L
6. give me an opportunity to work with people rather than with things	H	M	L
7. leave me relatively free of supervision by others	H	M	L
8. give me a chance to exercise leadership	H	M	L
9. give me an opportunity to work with things rather than with people	H	M	L
0. provide me with adventure	H	M	L
X. give me an opportunity to communicate knowledge and ideas to others	H	M	L
Y. give me an opportunity to work with people, rather than with facts and ideas	H	M	L

(INSTRUCTIONS: NOW, GO BACK OVER THE LIST AND RANK THE ONES YOU RATED 'HIGH' BY WRITING NEXT TO EACH H:

- 1 FOR THE MOST IMPORTANT
2 FOR THE SECOND MOST IMPORTANT

AND SO ON, FOR ALL THE H's ON YOUR LIST. DO NOT RANK THE M's and L's.

- 20(b). Do you think the job or career you have selected as your life work will satisfy most of the requirements you have marked H in the first part of this question? some of them? or only a few?

- 1 ___ will satisfy most of them
2 ___ will satisfy some of them
3 ___ will satisfy few of them
4 ___ will satisfy none of them

- 21(a). Looking at the job of a university teacher, how do you think he spends most of his working time? (INSTRUCTIONS: RANK BY INSERTING A 1 BESIDE THE ACTIVITY HE SPENDS MOST TIME ON, 2 BESIDE THE ACTIVITY HE SPENDS THE NEXT AMOUNT OF TIME ON, AND SO ON, UNTIL YOU HAVE RANKED THEM ALL):

- 1 ☐ administration
- 2 ☐ at meetings about curriculum, regulations, etc.
- 3 ☐ preparing courses he is giving
- 4 ☐ teaching and advising students
- 5 ☐ doing research
- 6 ☐ writing books, articles, etc., for publication
- 7 ☐ other _____

(be specific)

- 21(b). Thinking of the professor you know best, how do you think he spends most of his time while he is working? INSTRUCTIONS: RANK BY INSERTING A 1 BESIDE THE ACTIVITY HE SPENDS MOST TIME ON, 2 BESIDE THE ACTIVITY HE SPENDS THE NEXT AMOUNT OF TIME ON, AND SO ON, UNTIL YOU HAVE RANKED THEM ALL)"

- 1 ☐ administration
- 2 ☐ at meetings about curriculum, regulations, etc.
- 3 ☐ preparing courses he is giving
- 4 ☐ teaching and advising students
- 5 ☐ doing research
- 6 ☐ writing books, articles, etc., for publication
- 7 ☐ other _____

(be specific)

22. In your opinion, which of the following qualities characterises a good university professor? (INSTRUCTIONS: PLACE 1 AGAINST THE QUALITY YOU CONSIDER MOST IMPORTANT, 2 AGAINST THE NEXT MOST IMPORTANT, AND SO ON, UNTIL YOU HAVE RANKED THEM ALL):

- 1 ☐ ability in research
- 2 ☐ is friendly towards his students
- 3 ☐ ability to teach and communicate ideas
- 4 ☐ broad knowledge of his field
- 5 ☐ co-operates well with his academic colleagues
- 6 ☐ has administrative abilities
- 7 ☐ intensive knowledge of a particular area in his discipline
- 8 ☐ expects his students to work hard, but is fair in his estimate of their work and ability
- 9 ☐ is willing to help his students in any way he can, even in their personal problems
- 0 ☐ _____

(be specific)

23. Still looking at the position of the university teacher, do you think the following statements are True or False?

INSTRUCTIONS: CIRCLE T IF YOU THINK THE STATEMENT IS TRUE,
F IF YOU THINK IT IS FALSE):

	True	False
A university teacher:		
1. is likely to earn more than \$12,000 a year	T	F
2. is likely to find his academic colleagues co-operative	T	F
3. will be quickly promoted to higher positions in the university	T	F
4. can usually take annual summer leave of <u>more</u> <u>than six weeks</u>	T	F
5. has to do a great deal of research and publish books and/or articles in order to be considered for promotion	T	F
6. works more than 35 hours in the average week	T	F
7. has to show marked teaching ability in order to be considered for promotion	T	F

TO FINISH, I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT YOURSELF AND YOUR BACKGROUND, IN ORDER TO COMPARE HOW DIFFERENT KINDS OF STUDENTS ANSWER THE QUESTIONS ASKED IN THIS STUDY.

24. How long have you been at Carleton?

- 1 ☐ one year
- 2) ☐ two years
- 3 ☐ three years
- 4 ☐ four years
- 5 ☐ five years
- 6 ☐ six years
- 7 ☐ more than six years

25. Have you had at any time, or do you now hold, a full-time job (i.e., not part-time or summer employment)?

1 ☐ Yes
2 ☐ No

IF "YES": what is/was it? _____

Do you still hold a full-time job?

1 ☐ Yes
2 ☐ No

Will you remain in/return to this occupational field, after you receive your degree?

1 ☐ Yes
2 ☐ No

26. What was the first language you learned when you were a child?

1 ☐ English	1 ☐ Swedish
2 ☐ French	2 ☐ Ukrainian
3 ☐ Chinese	3 ☐ Yiddish
4 ☐ Danish	4 ☐ Russian
5 ☐ Finnish	5 ☐ Slovak
6 ☐ German	6 ☐ Polish
7 ☐ Italian	7 ☐ Other _____
8 ☐ Magyar	(be specific)
9 ☐ Norwegian	

27. Religious affiliation:

1 ☐ Roman Catholic
2 ☐ Jewish
3 ☐ Lutheran
4 ☐ Baptist
5 ☐ Anglican
6 ☐ Presbyterian
7 ☐ United Church of Canada
8 ☐ Other Protestant denomination _____
(be specific)
9 ☐ Other _____
(be specific)
0 ☐ None

28. Among the following Canadian ethnic groups, indicate the one to which you think of yourself as belonging:

1 ☐ Irish Canadian
 2 ☐ Scottish Canadian
 3 ☐ English Canadian
 4 ☐ French Canadian
 5 ☐ German Canadian
 6 ☐ Italian Canadian
 7 ☐ Jewish Canadian
 8 ☐ Other ethnic Canadian
 9 ☐ No particular ethnic group
 0 ☐ Not a Canadian

29. What is (or was) your father's occupation? (INSTRUCTIONS: PLEASE DESCRIBE YOUR FATHER'S OCCUPATION IN DETAIL IN THE SPACES BELOW. If he is a foreman, a manager or a supervisor, give the approximate number of people he is in charge of; if he owns his own business, give the approximate number he employs. Do not use general terms such as sales, teacher, clerk, tailor. BE SPECIFIC - e.g., history teacher in high school, life insurance salesman, etc.)

30. About how much was your father's total income, before taxes, last year, as far as you know?

1 ☐ Less than \$2,000
 2 ☐ \$ 2,000 - \$ 3,999
 3 ☐ \$ 4,000 - \$ 5,999
 4 ☐ \$ 6,000 - \$ 7,999
 5 ☐ \$ 8,000 - \$ 9,999
 6 ☐ \$10,000 - \$13,999
 7 ☐ \$14,000 - \$19,999
 8 ☐ \$20,000 - \$29,999
 9 ☐ \$30,000 or more
 0 ☐ Not applicable - father absent or deceased
 X ☒ Do not know (ONLY use if absolutely no idea)

31. To what social class do you think of your family as belonging?
(INSTRUCTIONS: GUESS IF YOU ARE NOT SURE):

1 ☐ Upper class
2 ☐ Upper-middle class
3 ☐ Middle-middle class
4 ☐ Lower-middle class
5 ☐ Working class
6 ☐ Lower class

32. What was the last grade or level of education attained by your father?

1 ☐ Elementary school
2 ☐ Some high school
3 ☐ Finished high school
4 ☐ Diploma or certificate after high school
5 ☐ Some college or university
6 ☐ Bachelor's degree
7 ☐ Master's degree
8 ☐ Doctor's degree (M.D., Ph.D., D.D.S., etc.)
9 ☐ Diploma or certificate after university degree
0 ☐ Other _____

(be specific)

33. What was the last grade or level of education attained by your mother?

1 ☐ Elementary school
2 ☐ Some high school
3 ☐ Finished high school
4 ☐ Diploma or certificate after high school
5 ☐ Some college or university
6 ☐ Bachelor's degree
7 ☐ Master's degree
8 ☐ Doctor's degree (M.D., Ph.D., D.D.S., etc.)
9 ☐ Diploma or certificate after university degree
0 ☐ Other _____

(be specific)

34. Sex:

1 ☐ Male
2 ☐ Female

HERE ARE SOME QUESTIONS FOR WOMEN STUDENTS ONLY

35. Are you?

- 1___ Single and unattached
- 2___ Engaged, pinned or otherwise 'going steady'
- 3___ Married
- 4___ Separated
- 5___ Divorced
- 6___ Widowed

36. If you are married, separated, divorced or widowed, do you have any children?

- 1___ Yes
- 2___ No
- 3___ Not applicable

IF "YES": Please state how many, and age of each one:

<u>Number</u>	<u>Ages</u>
1___	
2___	
3___	
4___	
5___	
6___	
7___	
more than 7___	

37. Are you expecting to get married in the near future?

- 1___ Within 6 months
- 2___ After 6 months but within 12 months
- 3___ After 12 months
- 4___ No definite plan when getting married
- 5___ Not planning to get married at all at the moment

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