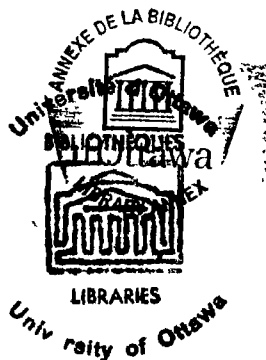


A CASE STUDY OF CANADIAN STUDENTS IN GRADUATE
PROGRAMMES OF BUSINESS ADMINISTRATION
AT U.S. UNIVERSITIES

by Douglas E. Angus

Thesis presented to the School of
Graduate Studies of the University
of Ottawa as partial fulfillment
of the requirements for the degree
of Master of Arts.



Faculty of Social Sciences,
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CHAPTER I

INTRODUCTION AND SUMMARY OF FINDINGS

In this introductory chapter there is a section on the objectives and scope of the study, succeeded by a discussion of the methodology and sources used in this research project. Following this, there is review of the main conclusions of previous studies. Next, a summary of the major findings of this study is presented. Finally, the debate and controversy surrounding the international migration of high level manpower, with H. G. Johnson, H. G. Grubel and A. D. Scott on the one hand, and B. Thomas, D. Patinkin, and K. E. Boulding on the other, are discussed.

1. Objectives and Scope of the Study

The main objectives of this study include a discussion of the controversy surrounding the subject of international migration of highly qualified manpower; a review of the conclusions of previous studies of the international migration of students in relation to this study; an investigation of the trends in the supply and demand for graduates of master and doctoral programmes of business administration over the period 1958 to 1972; an examination of characteristics of a 1968 sample of Canadian graduate

students in U.S. business administration programmes in terms of age, sex, country of birth, province of origin, degree(s) held, scholarships or fellowships held, highest degree expectations; an analysis of the reasons which make Canadian business students seek graduate training in the United States and the factors which motivate these students either to remain in the United States or to return to Canada upon completion of their studies; and finally, a discussion of the Canada Department of Manpower and Immigration's "Operation Retrieval" programme and the experiences the 1968 sample of students encountered with this programme.

Chapter II develops the supply of and demand for master- and doctoral-level business administrators in Canada over the period 1958 to 1972. The supply estimates incorporate graduates from Canadian universities, graduates returning from universities of other countries, and net immigration between Canada and other countries. While requirements for master graduates come from industry, government and teaching institutions, demand for doctoral graduates has primarily come from universities in Canada.

Chapter III is concerned with constructing a profile of characteristics for the master and doctoral students in U.S. programmes of business administration for the year 1968. It also examines the factors motivating

this sample of students to go to the United States in pursuit of graduate studies and either to remain in the United States or to return to Canada. Finally, this chapter discusses "Operation Retrieval", a programme of the Canadian Department of Manpower and Immigration, and the students' experiences with it.

The last chapter contains a summary of the findings and some recommendations arising from Chapters II and III of this study.

2. Methodology and Sources

The methodology used in this study is statistical, historical and analytical. Historical data will be analyzed to portray the supply and demand picture for graduate business administrators during the period 1958 to 1972. In this connection, particularly in estimating industry and government requirements for master graduates in business administration, reliance upon some econometric techniques, e.g., linear multiple regressions, will be necessary. Statistical evidence, usually in the form of tabulations, will be presented where required and if available from government, international and private agency sources presently in existence. Major sources for this study are the (a) "Survey of Canadian Students in Masters Programmes

of Business Administration at U.S. Universities", and
(b) "Survey of Canadian Students in Doctoral Programmes
of Business Administration at U.S. Universities", con-
ducted by Dr. Max von Zur-Muehlen during the Spring of
1968 when he was with the Economic Council of Canada.
The results of these surveys will be analyzed in an attempt
to provide answers to three main questions: (i) what
makes Canadian business students at the graduate level
go to the United States to study? (ii) what motivates
some of these students to remain in the United States
after their programmes are finished? and (iii) why do
some of the students decide to return to Canada upon com-
pletion of their studies?.

It is stressed that there will be reliance upon
some qualitative data and inference in the supply and demand
chapter of the study, since all of the necessary statistical
data are not available. In connection with the supply and
demand analysis, a conceptual framework for estimating the
demand for master graduates in business administration by
industry and government has been attempted.

The Surveys

In the fall of 1967, 52 U.S. universities were approached concerning the Canadian graduate students in Business Administration. The letter was addressed to the Foreign Student Advisor or to the Office of the Registrar requesting the number of Canadians which were enrolled in master and doctoral programmes in business administration during the academic year 1967-68. In addition, the university addresses of these graduate students in business administration were requested.

The list of the 52 selected institutions were derived from the Delta Sigma Pi Twentieth Biennial Survey of Universities Offering an Organized Curriculum in Commerce and Business Administration which listed the number and kind of business degrees granted by almost all the major U.S. universities. These data were supplemented by the information obtained through the Institute of International Education on the enrolment in business administration for 1966-67. Dr. Ronald M. Pavalko¹ had carried out, in

¹ Pavalko, Ronald M., "A Survey of Canadian Students in the United States", a paper prepared for the 1967 Canadian Political Science Association Conference on Statistics, Ottawa, June 1967. This paper was revised and published as "Talent Migration: Canadian Students in the United States", International Review of Education, Vol. 14, No. 3, 1968, pp. 300-322.

1964-65, a survey of Canadian students in 21 U.S. institutions, and all of these universities were included in the sample of 52.

The 52 selected universities represented the major U.S. institutions offering graduate programmes in business administration. Enrolment at the master level in these 52 universities in 1966-67 accounted for 65 per cent of the total number of Canadians in master programmes at all U.S. universities (158/242), and in 1967-68 was about 60 per cent (179/302).² At the doctoral level, these 52 universities accounted for 55 of a total 61 (90 per cent) in 1966-67, and for all of the Canadian doctoral students studying in the United States in 1967-68.

During the Spring of 1968, two sets of questionnaires for Canadian master and doctoral students in business administration at U.S. universities were developed and tested. A number of questions were adapted from the Pavalko study to make the results comparable to his survey. Appendix B contains samples of the two questionnaires with their covering letters. A mailing list of 179 master

² See Appendix Table A.1 for graduate enrolment at the selected 52 universities.

students and 84 doctoral students was prepared, and the respective questionnaires were mailed in mid-May 1968 with an explanatory covering letter. A follow-up letter was sent in July 1968. The response was reasonably successful: 111 master students (62 per cent of those enrolled in the 52 selected universities) and 65 doctoral aspirants (77 per cent) completed the questionnaire. The total response rate was 67 per cent. A few questionnaires were returned due to faulty or incomplete addresses and very likely an additional number never reached some students.

3. Conclusions of Previous Studies on the International Migration of Students

In general, little has been done on the subject of student migration, particularly with respect to students in specific fields of study such as business administration. Of particular interest and relevance to this study of Canadian students in graduate programmes of business administration at U.S. universities are studies by Ronald M. Pavalko³, and Peter Y. Comay.⁴ The purpose of this section will be to highlight the main conclusions of these papers.

3 Ibid.

4 Comay, Peter Y., International Migration of Professional Manpower: The Canada-U.S. Case, unpublished Ph.D. thesis, Princeton University, May 1969; "The Benefits and Costs of Study Abroad and Migration", Canadian Journal of Economics, Vol. 3, No. 2, May 1970; "Influences on the Migration of Canadian Professionals", The Journal of Human Resources, Vol. 6, No. 3, Summer 1971.

In Chapter 3, which deals with the Canadian students in U.S. graduate business administration programmes, some of the conclusions and findings of the Pavalko and Comay studies are related to those which emerge from this study. For example, this thesis and Pavalko's study bear resemblance with respect to the factors determining selection of a U.S. university, and, also, to variables affecting students' decisions to remain in the United States upon completion of their studies.

Ronald M. Pavalko, from a sample of Canadian students at 21 U.S. universities and colleges in the 1964-65 academic year, attempted an investigation of factors related to the plans of these students to either return to Canada or remain in the United States upon completion of their studies. The sample, numbering 1,635, comprised undergraduate and graduate students by major field of study. The graduate students (835) were overrepresented; however, this was defended by Pavalko who suggested that this proportion "represents a greater educational 'investment', a higher level of skill and training, and a greater potential loss to the Canadian economy than would be the case for a representative sample of students".⁵

5 Pavalko, Ronald M., op. cit., p. 307.

The first question for which Pavalko endeavoured to find answers was why Canadian students go to the United States to attend school. His study found that Canadian graduate students went to the U.S. because of the greater availability of programmes in their particular field, the greater availability of financial aid, and the reputation of a particular school or department.⁶

With regard to the plans of Canadian students either to remain in the United States or to return to Canada upon completion of their studies, Pavalko found that the majority of graduate students (about 60 per cent) planned to return to Canada. Of those who had plans to remain in the United States, work-related reasons were the main factors affecting such a decision, i.e., better salaries, better research opportunities, and, generally, better work opportunities.⁷

Pavalko attempted to identify some factors related to student plans to remain in the United States and found that 'the length of time a student has been in the United States is the one variable most strongly related to his plans.'⁸ In addition, it was observed that "graduate students

6 Ibid, p. 309.

7 Ibid, p. 313.

8 Ibid, p. 321.

who see occupational opportunities as better in the United States are more likely to plan to remain (and), the longer a student has been in the United States the more likely he is to have an unfavourable view of opportunities in Canada."⁹

A doctoral dissertation by Peter Comay¹⁰ attempted to assess the importance of the various influences on the migration of Canadian professionals to the United States. Special attention was given to study abroad and emigration and to economic determinants of emigration. Comay's thesis utilized a sample of 6,825 Canadian professionals, surveyed during 1966, of whom 1,056 had emigrated to the United States for employment. A model of migration was constructed and tested using the survey data. The results were then used to assess the costs and benefits of Canadian emigration to the United States and Canadians studying in the United States.

Comay contends that "whether or not one accepts the position that emigration of the professional entails a net loss, it is clear that manpower planning must take account of migration. The production of such personnel entails significant lags of three to five years, and the readjustment costs in the interim are substantial. Government policies

9 Ibid, p. 321.

10 Comay, Peter Y., op. cit.. The interested reader is referred to this thesis for a complete discussion of the migration model. For purposes of this study, only the conclusions will be presented.

in the areas of higher education, student exchange, training abroad, etc., will differ depending on the expected level of emigration of professional manpower from that country. It becomes important, therefore, to understand the determinants of their movement".¹¹

The sample in Comay's study was analyzed to answer the following questions: (1) What variables affected the decision to emigrate to the United States at any time during the individual's career? (2) What variables affected the decision to emigrate in a particular year, namely the survey year 1966? (3) What variables affected the decision to return?

At any time during an individual's career, Comay found that "the single most important determinant of migration was graduate study in the United States, which raised the propensity to ever migrate by over 23 per cent".¹² The author was not surprised by these results since "many of the graduate students in the United States, especially at the doctorate level, plan to enter academic careers. During their training they become familiar with the U.S. academic

11 Comay, Peter Y., "Influences on the Migration of Canadian Professionals", op. cit., pp. 333-34.

12 Comay, Peter Y., unpublished doctoral dissertation, op. cit., p. 103.

market and develop references and contacts in the United States. The same holds for those that enter private industry. However, our findings are significant in light of the relative importance of Canadian graduate education in the United States. Of the total Canadian undergraduate body (excluding foreign students in Canada) in 1961-62, just over 3 per cent studied in the United States; the comparable figure for graduate students was 29 per cent...".¹³ When the degree level was examined, Comay learned that the highest degree holders were most likely to emigrate, and that "while salary differentials clearly explained some of the high migration propensity of this group, they remained more migration prone even when salaries were allowed for".¹⁴

With regard to the variables influencing the decisions to emigrate in 1966, it was observed that the most significant determinants (in descending order of importance) were graduate study in the United States, degree level, salary differentials, employment mobility, and age.¹⁵ Doctorate holders had the greatest tendency to emigrate followed, in turn, by masters graduates, while the lowest propensity to emigrate was displayed by holders of Bachelors

13 Ibid, pp. 62-63.

14 Ibid, p. 104.

15 Ibid, p. 80.

degrees. Of the demographic variables tested by Comay, i.e., age, marital status, and number of dependents, the most important explanatory variable was age.

The Canada-U.S. salary differential was examined empirically and it was found that it would take a very large change in salary differentials (\$2,000) to affect a change in migration probability (from 3 per cent to 2 per cent). Comay concluded that "even when taking into account the demand situation (in 1966), salary differentials played a statistically significant though secondary role in influencing migration. Which is not to say that economics is unimportant but that there are many non-economic factors that overshadow purely economic considerations".¹⁶

Comay's third question related to the determinants of return migration from the United States to Canada. The author found that "salaries in the educational sector in Canada were almost equal to those in the United States, even surpassing them in several years".¹⁷ This sector in Canada paid the highest salaries, while in the United States the industry sector was most rewarding. The government sector

16 Ibid, p. 93.

17 Ibid, p. 94.

was an intermediate case. Comay's findings indicate that the most likely to return were those in the government and education sectors, while those in industry were less likely to return.¹⁸ In addition, the probability of return decreased with the length of employment in the United States. "The propensity to return was highest after two to three years, suggesting that Canadians do use the United States as a training ground to acquire skills which they then bring back with them. Once a person stayed six to seven years, or even longer, he was significantly less likely to return."¹⁹ It was also found that doctoral holders were the most likely to migrate and the least likely to return.

4. Summary of Major Findings of this Study

Some of the main findings resulting from the study of Canadian students in graduate programmes of business administration at U.S. universities are as follows:

- up to, and including, the 1971-72 academic year, a total of 17 doctorates in business administration, commerce, accounting and industrial relations had been awarded in Canada;

18 Ibid, pp. 95-96.

19 Ibid, p. 99.

- doctoral graduates returning from U.S. universities during the period 1958-59 to 1971-72 have been estimated to number 36 in total;
- generally, the market situation for master graduates in business administration and commerce from 1958-59 to 1971-72 has been one of excess demand;
- for holders of doctoral degrees in business administration during this period there has been, on the whole, a significant supply shortage;
- master students surveyed pursued the graduate degree primarily to create business opportunities and to prepare for a career;
- over one-third of the doctoral students decided to pursue the Ph.D. degree only after completion of the master programme;
- master students chose to take graduate studies in the United States because of the perceived better general quality of the United States vis-a-vis the Canadian programme and also because of the prestige or reputation of the university and/or department;
- for doctoral students, the main reasons given for pursuing doctorates in the United States were the

- prestige/reputation of the university and/or department and/or particular professor, and the financial support being offered by the university;
- approximately two-thirds of both the master and doctoral students preferred to return to Canada;
 - two-thirds of the doctoral students and slightly more than one-half of the master group had actual plans to return;
 - of the master students remaining in the United States, the major factors affecting their decisions were the teaching opportunities and higher salaries;
 - while 'teaching opportunities' were given by the master group as a significant element in their decision to stay in the United States, none reported receiving an offer of a university teaching position in that country;
 - doctoral students stressed better research and teaching opportunities and higher salaries as the main reasons for intending to remain in the United States;
 - most offers of employment in the United States to the doctoral candidates came from universities for

teaching positions (90 per cent) while the majority of offers to the master students were from industry (about one-third) and consulting firms (25 per cent);

- offers of employment in Canada to the doctoral and master students were proportionately similar to those in the United States;
- almost 85 per cent of the master students reported a difference of between \$1,000 and \$5,000 in salary offers in favour of the United States;
- proportionately less of the doctoral candidates (about 60 per cent) reported differences of salary offers in the range \$1,000-\$5,000;
- some doctoral students (over 7 per cent) received a salary offer of less than \$10,000 in Canada in 1968;
- the most significant reasons motivating both groups of graduate students to return to Canada were a preference for Canadian society and culture, and family, relatives, or friends in Canada;
- for most of this select group of graduate students in 1967-68 the problem with Operation Retrieval was not that they had never heard of this programme, but that it had never heard of them;

- the introduction of a new programme by the Department of Manpower and Immigration called Canada Manpower: Services to Canadians Graduating Abroad appears to be an effort to improve communication, among other things, with Canadian students in foreign countries.

The main recommendations of this report are:

- increase the financial resources, i.e., operating grants, available to graduate-level business administration departments of Canadian universities;
- the financial support, e.g., fellowships, scholarships, available to business administration students in graduate programmes should be broadened;
- a more in-depth analysis of the supply and demand situations for graduate-level business administrators should be attempted than that which is being done presently.

5. Controversy Over the International Migration of High Level Manpower

In the early 1960s, the problem of the 'brain drain' occupied the central position in an economic debate in the U.S. and Canada between two main groups of economists.

The first one, of which Herbert G. Grubel, Anthony D. Scott, and Harry G. Johnson are the most prominent representatives, adheres to the classical free trade theory and is preoccupied with a better international resource allocation of high level manpower. For obvious reasons, this group is known as the 'Internationalists'.

The other group of economists, the 'Nationalists', is represented primarily by Brinley Thomas, Don Patinkin, and Kenneth E. Boulding. They take a more nationalistic approach to the migration of highly trained manpower in that human capital is considered as a potential factor of national economic growth which should not be lost through emigration. The adherents to the classical approach favour the 'free' international movement of highly skilled manpower, while the Nationalists, who are able to bring to light some of the deficiencies in the Internationalists' arguments, oppose it.

In this section, the internationalists' and the nationalists' positions relating to the migration of high level manpower will be discussed.

A. The "Internationalist" Approach

The position for the unhindered movement of high level manpower at the international level is given by

H. G. Grubel, A. D. Scott and H. G. Johnson.²⁰ The starting point for the internationalists is the concept that "a country is an association of individuals whose collective welfare its leaders seek to maximize"²¹ and that which the nation seeks to maximize is the income available to all of its inhabitants. Income refers to the sum of net income after taxation and the value of government services received in exchange for taxes.

In accordance with classical free trade theory, given purely competing market economies, any profit motivated movement of the factors of production is assumed to increase total world output, which would lead to an increase in total world welfare as well. The internationalist model

20 (a) Grubel, H. G., and Scott, A. D., "The International Flow of Human Capital", in Blaug, M. (ed.) Economics of Education 2, Penguin Books Ltd., England, 1968; "The Immigration of Scientists and Engineers to the United States, 1949-61", Journal of Political Economy, Vol. 74, No. 4, August 1966; "The Cost of U.S. College Student Exchange Programs", Journal of Human Resources, Vol. 1, No. 2, Fall 1966; "The Characteristics of Foreigners in the U.S. Economics Profession", American Economic Review, Vol. 57, No. 1, March 1967; "Determinants of Migration: The Highly Skilled", International Migration, Vol. 5, No. 2, 1967.

(b) Johnson, H. G., "The Economics of the 'Brain Drain': The Canadian Case", Minerva, Vol. 3, No. 3, Spring 1964; "An 'Internationalist' Model", in Adams, W. (ed.), The Brain Drain, Macmillan Co., New York, 1968, pp. 69-91.

21 Grubel and Scott, "The International Flow of Human Capital", op. cit., p. 243.

contends that free movement of high level manpower would lead to an increase in total world welfare whenever two conditions were met. The first of these conditions is that the migrant increases his own income, and the second is that the migrant does not impose additional social cost on those remaining behind.²² The first condition must automatically be fulfilled on the supposition that people migrate voluntarily if they expect to increase their income. Most of the Grubel and Scott discussion centres around the circumstances under which the second condition is valid.

Assuming free market economies where persons are paid according to their marginal productivity, emigration of a highly skilled person would have no adverse long-run welfare effects on those left behind, i.e., "the emigrant removes both his contribution to national output and the income that gives him a claim to this share, so that other incomes remain unchanged".²³ It is assumed that, since the number of people involved in the 'brain drain' is small, the effects of income redistribution through changes

22 Ibid, p. 243.

23 Ibid, p. 244.

in the marginal productivity of those remaining would be negligible. The Internationalists state that if any social cost is imposed by emigration on the people remaining behind, the reasons for such costs must be short-run adjustment costs or market failures.

The short-run adjustment costs of emigration are associated with underemployment, or in the extreme situation unemployment, of the labour remaining behind. The degree to which these costs are large or small depends on the short-run elasticity of substitution of other productive factors or skills for those that have emigrated, and on the time required to train a replacement. "Whether skilled people can be reproduced or not and how long it will take to reproduce them would depend on the nature of the skills, the educational system as well as on the effectiveness of the allocative price mechanism which will set the incentives for reproduction".²⁴ If the replacement time is long, as it is likely to be with highly qualified manpower, these costs may be significant.

²⁴ Weiermair, Klaus, "Economic Implications of the International Migration of High Level Manpower", York University Faculty of Administrative Studies, Reprint Series, No. 20, p. 9.

Of greater interest to Grubel and Scott, however, are the "long-run effects on welfare associated with failures of the free market to allocate resources efficiently".²⁵ There are two types of losses arising from market failures in regard to migration of high level manpower.

The first possible source of loss to the country of emigration stems from existing positive externalities by which the sending country benefited prior to migration and which loss probably would not be covered through the market. The social benefits such as free medical care for those unable to pay, which might be contained within the typical work of a doctor, and for which the market fails to compensate him, are lost only for the length of training time for the doctor's replacement. Hence, this type of loss from emigration actually "imposes only short-run frictional costs to society which disappear in the long run".²⁶ Again, however, the problem exists that it takes many years to educate a specialist physician, resulting in the possibility that social costs may be more than frictional.

25 Grubel and Scott, op. cit., p. 245.

26 Ibid, p. 245.

A second possible source of loss may stem from different income distribution effects resulting from different taxation in the emigration and immigration countries. It had been thought that emigration of high level manpower affects those left behind most significantly through changes in the cost of providing government services. With regard to education, "the average burden of financing ... falling on the emigrant's generation is not changed by his departure, because he takes along not only his contribution to tax revenue but also his children, on whom this share of revenue would have been spent".²⁷ In addition, Grubel and Scott assert that "the presumption is strong that the government can reduce many of the services it provides by nearly the same proportion by which tax revenues decline when a highly skilled person emigrates, changing the tax burden or income of the remaining people only marginally and certainly by much less than the gross reduction in tax revenues suggests".²⁸ However, the assertion that the government can reduce many of the services it provides has yet to be proven, and the burden of taxation probably increases for persons remaining behind when highly skilled people leave the country.

27 Ibid, p. 246.

28 Ibid, p. 246.

Thus, adherents to the private and social costs and returns approach usually arrive at the conclusion that "the migration of highly skilled people would guarantee the most efficient international resource allocation and that apart from a few exceptional cases of genuine externalities causing long-run welfare losses, only short-run frictional losses would occur which would be wiped out through the allocative price-mechanism".²⁹

Harry Johnson concurs with the Grubel and Scott analysis and concludes that "it is extremely unlikely that the migration of educated people among the advanced countries leads to a loss of world economic welfare, while the possibility of world loss from the migration of educated people from less developed to developed countries is highly questionable".³⁰ Even Johnson's endorsement does not alter the fact, however, that there are deficiencies in the Internationalists' arguments.

B. The "Nationalist" Approach

The most representative arguments for the Nationalists are given by Brinley Thomas, Don Patinkin

29 Weiermair, op. cit., p. 9.

30 Johnson, H. G., "An 'Internationalist' Model", op. cit., p. 86.

and Kenneth Boulding.³¹ This group is able to highlight some of the weaknesses contained in the Internationalists' reasoning.

Brinley Thomas is not entirely convinced with the Grubel-Scott treatment of short-run cost adjustments. It is argued by him that "since the most skilled personnel have a long period of gestation (three to six years of university training), the immediate adaptation of resources to the removal of highly skilled emigrants (retraining, for example) may entail considerable frictional losses (such as production losses, inferior replacements, and underutilization)".³² Moreover, if the emigrant is a key professional, e.g., leader of a research team, then the replacement must not only be as technically qualified but must also have "the quality of leadership which was a necessary condition of maximizing the value added by the team".³³ The cost of adjustment may be substantial if such individuals are scarce, i.e., the substitute may be inferior or a delay in finding

31 Thomas, Brinley, "The International Circulation of Human Capital", Minerva, Vol. 5, No. 4, Summer 1967; Patinkin, Don, "A 'Nationalist' Model", in Adams, W. (ed.), The Brain Drain, Macmillan Co., New York, 1968, pp. 92-108; Boulding, Kenneth E., "The 'National' Importance of Human Capital", in Adams, The Brain Drain, pp. 109-34.

32 Thomas, Brinley, op. cit., p. 490.

33 Ibid, pp. 490-91.

a replacement may result in emigration of other team members. Thomas contends that in the Grubel-Scott analysis the length of time needed to train a highly skilled professional appears negligible.³⁴

Burton Weisbrod, in a discussion of the Grubel-Scott analysis, also takes issue with their dismissal of the importance of short-run adjustment costs. It is suggested by him that "the short run may be long with respect to the lifetimes of the persons affected; and the short-run costs, including the costs of obtaining or training a replacement, may be large relative to the incomes of the residents, particularly if subnational units are considered".³⁵

Thomas also disputes the Internationalists' supposition that "publicly-financed education entails no debt to society. One has only to mention the fact that most professional emigrants are highly-paid people in the lower age-groups, whose departure reduces the tax revenue for the support of people on pensions".³⁶ Furthermore, the assertion that only few government services contain elements

34 Ibid, p. 491.

35 Weisbrod, Burton, "International Economics - Discussion", American Economic Review, Vol. 56, No. 2, May 1966, p. 279.

36 Thomas, Brinley, op. cit., p. 492.

of subsidy by the high-income groups is questioned, for "in countries such as the United Kingdom, the taxes which professional emigrants paid for public services are likely to be higher than the marginal cost of the services they consumed. The analysis seriously underestimates the effects via the redistribution of real income".³⁷

In addition, Burton Weisbrod takes issue with the Internationalists' second condition, which he feels is ambiguous in that "we do not know whether it is aggregate income of those left behind or each individual's income which must not be reduced".³⁸ If this condition were altered to read: "'the migrant's departure does not reduce the income of (any of) those remaining behind' (then)... emigration may be regarded as good"³⁹, and the ambiguity would be removed. Weisbrod regrets that Grubel and Scott dealt so lightly with the income redistributional effects since they are one of the possible economic consequences of a brain drain.

With respect to the short-run adjustment costs, Don Patinkin questions the logic of the liberals' argument.

37 Ibid, p. 492.

38 Weisbrod, Burton, op. cit., p. 278.

39 Ibid, p. 278.

"There are just not that many outstanding people around (to alleviate or offset the loss of outstanding people through emigration); hence the 'replacement period' can extend over many years".⁴⁰

An assumption which has been rejected by the Nationalists as being unrealistic was the belief in well-functioning purely competitive market economies. Patinkin argues that the international market for manpower resources is monopolistic reflecting "to a highly significant degree a demand for manpower generated by the nationalistic considerations of the U.S. government defense and space programs".⁴¹ This "nationalism", which Grubel-Scott-Johnson criticize, is defended by Patinkin who argues that "nation-states and economic progress have historically gone hand-in-hand. The emergence of nation states, in turn, has usually been accompanied by a widening of the market (whose positive influence on development is a basic proposition of economic doctrine) and by various policies designed to 'protect infant industries' (about whose influence differences of opinion exist)".⁴²

40 Patinkin, Don, op. cit., p. 103

41 Ibid, p. 106. Of course, for an exceptional individual such as Albert Einstein the market may be monopolistic.

42 Ibid, p. 104.

Concerning external economies and diseconomies, which Patinkin feels have not been analyzed properly by Grubel and Scott, consideration should be given to "the problems of the distribution of income; the product-mix generated by this distribution; the basic fact that tastes are not independent variables but themselves determined by society, and the economic system in particular; and external economies in the broader sense of the impact of a policy on the general nature of society".⁴³

Aside from Patinkin's theoretical refinement, Weiermair finds it difficult to accept that losses to the country of emigration should be negligible. He feels that although there is difficulty in measuring indirect effects of losing leadership or entrepreneurial capacities, the economic importance of this aspect should not be de-emphasized. It has been suggested by Weiermair that "one might develop the hypothesis that the emigration of highly skilled technocrats would not lead to a reproduction of skills as suggested by the free traders, but rather result in a take-over of key positions by politicians and the military establishment which usually would not possess the same type of skills".⁴⁴

43 Ibid, p. 100.

44 Ibid, p. 11. This would apply more particularly to underdeveloped and developing countries.

Kenneth Boulding has also shown serious reservation concerning the applicability of the Internationalists' arguments. Boulding contends that "the distribution of human capital may be a much more important factor in determining relative rates of economic development than the distribution or even redistribution of physical capital ... (and) ... that a society, a country or a region which is exporting skilled, trained adults with high learning potential is losing human capital and it is usually the case that societies which are receiving these people are gaining human capital and gaining potential for growth".⁴⁵ An excellent example of this in Canada would be the situation existing between the Atlantic provinces and Ontario.

It is evident, then, that the Nationalists do highlight some deficiencies in the Internationalists arguments. In summation, the Nationalists consider human capital as a potential factor of national economic growth "and although high calibre manpower may be misallocated from an international point of view in the short run, it is argued that temporary policies to avoid emigration would be of advantage for a longer term concept of economic growth. Policies which would have the effect of decreasing professional

45 Boulding, K. E., op. cit., pp. 112-13.

emigration combined with measures to promote the right environment for research and development in the country of emigration, would lay the basis for improved technology in the future which in turn should also result in a better competitive position to hire highly qualified personnel".⁴⁶

National boundaries exist politically, socially, and economically, and it is doubtful that an "ideal" situation in which there is unhindered movement of the factors of production would ever prevail. Hence, the imperfect world market for highly qualified manpower should be accepted as given and the models and policy should be structured accordingly.

46 Weiermair, Klaus, op. cit., p. 12.

CHAPTER II

SUPPLY OF AND DEMAND FOR GRADUATE-LEVEL
BUSINESS ADMINISTRATORS, 1958-1972

The purpose of this chapter is to examine the trends in the supply and demand for business administrators in Canada whose training has been achieved through university graduate programmes both in Canada and in the United States, during the academic years 1958-59 to 1971-72. The more detailed investigation of master and doctoral students studying business administration at U.S. universities during the 1967-68 academic year, based on the two surveys mentioned before, will be the subject of the following chapter.

1. The Supply of Graduate Business Administrators

The estimates utilized in the determination of the past supply of graduate business administrators is principally that used by J. Kushner et al¹ in their projections of supply of university graduates for 1970-71. The variables which they considered particularly relevant for determining total supply to the labour market are

(1) the number of graduates from Canadian universities;

1 Kushner, J., I. Masse, R. Blauer, and L. Soroka, The Market Situation for University Graduates, Canada, Department of Manpower and Immigration, Ottawa, 1971.

(2) graduates returning from universities of other countries, and (3) net immigration between Canada and other countries, mainly the United Kingdom and the United States.

A. Supply of Master Graduates in Business Administration

The primary source of supply of master graduates in business administration and commerce is the universities in Canada. The flow of master degrees awarded in business administration and commerce each year is obtainable from an annual publication of Statistics Canada. Table 2.1 shows that from 1958-59 to 1971-72, the number of earned master degrees in this discipline grew from 295 to 1,135, an average annual increase of 12 per cent over the fourteen year period under consideration. Over the period 1958-59 to 1964-65, the number of master degrees awarded increased by 77 per cent; from 1965-66 to 1971-72, the augmentation was 75 per cent. Although eleven of the total twenty M.B.A. programmes had been introduced during the latter seven years of the period, the rate of growth in the number of earned master degrees was not significantly different from that of the first seven years.²

² See Appendix Table A.2.

TABLE 2.1

MASTER GRADUATES IN BUSINESS ADMINISTRATION¹ FROM
CANADIAN UNIVERSITIES, 1958-59 to 1971-72

Year	Graduates	%Δ
1958-59	295	
1959-60	309	4.7
1960-61	352	13.9
1961-62	363	3.1
1962-63	436	20.1
1963-64	380	-12.8
1964-65	523	37.6
1965-66	648	23.9
1966-67	769	18.7
1967-68	839	9.1
1968-69	979	16.7
1969-70	971	-0.8
1970-71	1092	12.5
1971-72	1135	3.9
Average		11.6

¹ Includes accounting, commerce and industrial relations graduates.

Source: Statistics Canada, Education Division, Survey of Higher Education, Part II: Degrees, Staff and Summary, Cat. No. 81-211, annual publication, Information Canada, Ottawa.

From the annual figures for the number of graduates of master programmes in business administration, the number of these graduates who are not Canadian residents must be removed. The reason for removing these graduates from the supply of Canadian university students is straight forward. If the non-Canadian residents decide to stay in Canada, they would appear in the Canadian immigration statistics. Thus, by taking these data away from the totals for graduates from Canadian Universities, the possibility of double counting is removed, i.e., these individuals will not be enumerated both as Canadian and immigrant master graduates at the same time.

For the number of non-resident master graduates in business administration and commerce from Canadian universities, a ratio of 10 per cent is estimated to be reasonably accurate.³ This percentage ratio is applied to the data on graduates from Canadian universities for each year of the period 1958-59 to 1971-72 (see Table 2.4, column B).

3 Data from Statistics Canada, Education Division, University Student Expenditure and Income in Canada, 1961-62, Part I -- Non-Canadian Students and Part III -- Canadian Graduate Students Cat. Nos. 81-519 and 81-521, respectively, can be used to show that the portion of foreign graduate students in business and commerce was about 8 per cent in 1961-62 and 15 per cent in 1970-71. Unfortunately, these proportions relate to citizenship of graduate students, rather than their residence status. Since there is a difference between citizenship and residence status, it must be stressed that the ratio of 10 per cent used in this study applies to the latter concept, i.e., 10 % of graduate students are holders of student visas.

Another source of supply of master graduates in business administration and commerce is students returning from universities of other countries. Since the United States is the major country to which Canadian students go to pursue graduate studies in business, only returnees from the United States will be considered.⁴

Statistics on the number of graduate business administration and commerce degrees awarded to Canadians studying in the United States are unavailable in direct form. The only data which approximate this variable are the graduate enrolment figures for Canadian students pursuing graduate degrees in business administration at U.S. universities.⁵ However, in order to utilize this source of data, a number of adjustments had to be made, since the published statistics were not directly applicable, i.e., the graduate enrolment data are not broken out into master and doctoral categories.

The first step to be taken is to break down the total graduate enrolment data into master and doctoral groups. Based on the surveys of master and doctoral

4 The United Kingdom is a source of industrial relations and hospital administration graduates for the Canadian labour market, but the data in this respect are scarce.

5 Institute of International Education, Open Doors, New York, N.Y., published annually.

students in programmes of business administration,⁶ which are the major sources of data for this study, and unpublished information of the Department of Manpower and Immigration,⁷ it was decided to use a master-doctoral student ratio of 80/20.

The next procedure involved going from enrolment to degrees-awarded information. On average, most master programmes of business administration in the U.S. universities take eighteen to twenty-four months to complete. With this information, in addition to two simplifying assumptions, i.e., (a) all master students complete their programme,⁸ and (b) in 1958-59, half of the total enrolment were in their graduating year, an approximation of the number of Canadians graduating from U.S. business schools with master degrees may be achieved (Table 2.2).

Over the fourteen years under consideration, the proportion of master degrees awarded in the United States to those awarded in Canada (expressed as a percentage), in

6 See Chapter 3 and Appendix B.

7 Department of Manpower and Immigration, Manpower Utilization Branch, Operation Retrieval Unit.

8 Statistics Canada, Service Bulletin, "Student Withdrawals from Canadian Universities", Vol. 1 No. 6, Cat. 81-001, September 1972, shows that undergraduates had a drop-out rate of 7.4 per cent in September 1971. Unfortunately, for graduate-level students this analysis has not been done.

TABLE 2.2

ENROLMENT IN GRADUATE BUSINESS ADMINISTRATION
PROGRAMMES AND DEGREES AWARDED AT U.S.
UNIVERSITIES, MASTER LEVEL,
1958-59 to 1971-72

Year	Total	First Year	Degrees Awarded
1958-59	90	45	45
1959-60	90	53	45
1960-61	110	57	53
1961-62	117	60	57
1962-63	118	58	60
1963-64	138	80	58
1964-65	163	83	80
1965-66	183	100	83
1966-67	242	142	100
1967-68	302	160	142
1968-69	381	221	160
1969-70	391	170	221
1970-71	356	186	170
1971-72	288	102	186

Source: Institute of International Education, Open Doors, New York, N.Y., 1959 to 1972 inclusive, and estimates.

Table 2.3, fluctuated about the average of 15.6 per cent for the period. This would appear to indicate that, although the output of master graduates from Canadian universities has increased rather significantly (almost 300 per cent) since 1958-59, the proportion of Canadians going to U.S. graduate business schools (and earning degrees) has been, up to 1970-71, increasing similarly. In other words, the proportion of master degrees awarded in the United States to those awarded in Canada is, more-or-less, a constant.

Of the number of Canadians receiving master degrees in business administration and commerce at U.S. universities, a certain proportion will return to Canada to become part of the supply to the labour market. Another group of these master graduates will remain in the United States either to become a part of the U.S. labour market or to proceed to a doctoral degree at a U.S. university. For this study a return rate of 50 per cent has been utilized, following the Department of Manpower and Immigration's examination of the market situation for university graduates.⁹

9 Kushner, J., et al., op. cit., p. 1.

TABLE 2.3

CANADIAN MASTER GRADUATES IN BUSINESS ADMINISTRATION
 THOSE GRADUATING IN THE UNITED STATES AS
 A PROPORTION OF THOSE GRADUATING IN CANADA,
 1958-59 to 1971-72

Year	Proportion
	%
1958-59	15.3
1959-60	14.6
1960-61	15.1
1961-62	15.7
1962-63	13.8
1963-64	15.3
1964-65	15.3
1965-66	12.8
1966-67	13.0
1967-68	16.9
1968-69	16.2
1969-70	22.9
1970-71	15.5
1971-72	16.4
	—
Average	15.6

Source: Table 2.1 and Table 2.2.

With the preceding information the number of master graduates of Canadian citizenship may be determined. This is achieved by summing the graduates from Canadian universities, and the number of master graduates returning from U.S. universities in Table 2.4 (column D = columns A-B+C). This summation represents the estimated supply to the labour market of master graduates of Canadian origin during the fourteen-year period under consideration.

Before a final estimate of the supply to the labour market can be derived, two additional factors must be taken into consideration. The first of these is the possibility that a certain proportion of the master graduates are on educational leave from a permanent position and will be returning to the sponsoring organization upon completion of their studies. This proportion has been estimated to be approximately 10 per cent of total master graduates potentially available for the labour market.¹⁰ Since this group of graduates is not actively searching for a job, they will not be included as part of the supply estimates (see Table 2.4, column E).

¹⁰ In Chapter III, it is observed that 15 per cent of the master students in the 1967-68 survey were over 30 years of age. Of this group, 65 per cent (or 10 per cent of the total students) were on educational leave sponsored by their employers.

TABLE 2.4

ESTIMATED SUPPLY OF MASTER GRADUATES IN BUSINESS ADMINISTRATION
AND COMMERCE, CANADA, 1958-59 TO 1971-72

Year	A Graduates Canadian Universities	B Graduates Non-Canadian Origin	C Graduates Returning from U.S. universities	D Graduates Canadian Citizenship (A - B + C)	E Graduates Canadian ¹ Citizenship	F Graduates Canadian Universities Proceeding to Advanced Degree	G Estimated Supply to Labour Market (E - F)
1958-59	295	30	23	288	259	6	253
1959-60	309	31	23	301	271	6	265
1960-61	352	35	27	344	310	7	303
1961-62	363	36	29	356	320	8	312
1962-63	436	44	30	422	380	9	371
1963-64	380	38	29	371	334	8	326
1964-65	523	52	40	511	460	11	449
1965-66	648	65	42	625	562	14	548
1966-67	769	77	50	742	668	16	652
1967-68	839	84	71	826	743	18	725
1968-69	979	98	80	961	865	21	844
1969-70	971	97	111	985	886	20	866
1970-71	1092	109	85	1068	961	23	938
1971-72	1135	114	93	1114	1003	24	979

1 Excluding those on educational leave from a permanent job.

The other element for which an account must be taken is the likelihood that some Canadian graduates of universities in Canada will proceed to an advanced degree, and, hence, should not be considered part of the total supply, as far as the labour market is concerned. The percentage of these master graduates which may have decided to pursue further graduate studies at the doctoral level is assumed to be a constant 2.1 per cent for each year of the period 1958-59 to 1971-72.¹¹ The number of such individuals is estimated to have ranged from 6 in 1958-59 to 24 in 1971-72 (Table 2.4, column F).

Another possible factor which should be given consideration is net immigration. Unfortunately, data relating to net immigration are among the most difficult to ascertain, especially for graduate-level business administrators. Problems associated with the statistics include: (a) disaggregation is not fine enough to isolate business administration and commerce immigrants, especially with graduate education qualifications; and (b) emigration data are available only for Canadians emigrating to the United

¹¹ Kushner, J., et al., op. cit., p. 110. Since there existed in Canada only one established doctoral programme in business administration, it is quite likely that most of these persons went to the United States to realize their ambitions.

States. However, it was felt that the volume of net immigration at the master level was negligible, and, hence, a zero rate of net immigration was assumed.¹²

At this point the supply of master-level business administrators to the labour market for each year of the period 1958-59 to 1971-72 may be presented in complete perspective. From column G, Table 2.4, it may be observed that the potential supply has been estimated to have increased from 253 in 1958-59 to 979 in 1971-72.

B. Supply of Doctoral Graduates in Business Administration

Unlike the situation with the master graduates in business administration and commerce, the primary source of supply of doctoral graduates in Canada is not universities in this country, but is institutions of higher learning in the United States. Until 1968 only one Canadian university, namely, the University of Western Ontario, offered graduate studies leading to the doctoral degree in business administration.¹³ Up to, and including, the academic year 1971-72, a total of 17 doctorates in business administration

¹² Dr. Max von Zur-Muehlen, Research Co-ordinator, Statistics Canada, is the source of this information. This is a reasonable intuition which has to be accepted. It should be recognized that some Canadian graduates of previous years do return to Canada after having worked in the United States for a period of time. However, due to lack of data in this regard, there is no possibility of specifying the number of such individuals returning to Canada each year.

¹³ See Appendix Table A.2.

commerce, accounting and industrial relations had been awarded in Canada. Five additional Ph.D. programmes in business administration were created since 1968, (at Laval University, University of Montreal, University of Toronto, Waterloo University, and University of British Columbia), and it is reasonable to expect that graduates would not be forthcoming for about five years¹⁴ after the initiation of the programme, i.e., beginning in 1973.

The first step in the determination of the supply of doctorates in business administration and commerce is to decide on the number of such graduates that returned from universities in the United States. As was explained in the previous section, enrolment data for graduate students in U.S. business schools had to be broken out into master and doctorate categories. Based upon the master-doctoral student ratio of 80/20,¹⁵ the number of Canadian students in Ph.D. programmes at U.S. universities has ranged from 22 in 1958-59 to 73 in 1971-72 (Table 2.5).

In order to determine the number of those Canadian students enrolled in doctorate programmes in the United States who would graduate in each year of the period

¹⁴ Muehlen, Max von Zur-, Business Education and Faculty at Canadian Universities, Economic Council of Canada, Ottawa, 1971, p. 169.

¹⁵ See page 38 where this proportion was observed.

TABLE 2.5

ENROLMENT IN GRADUATE BUSINESS ADMINISTRATION
PROGRAMMES AND DEGREES AWARDED AT U.S.
UNIVERSITIES, DOCTORAL LEVEL,
1958-59 TO 1971-72

Year	Total	First Year	Second Year	Third Year	Fourth Year	Degrees Awarded
1958-59	22	5	5	5	5	2
1959-60	24	4	5	5	5	5
1960-61	27	8	4	5	5	5
1961-62	29	7	8	4	5	5
1962-63	29	5	7	8	4	5
1963-64	35	11	5	7	8	4
1964-65	41	10	11	5	7	8
1965-66	46	13	10	11	5	7
1966-67	61	22	13	10	11	5
1967-68	84	28	22	13	10	11
1968-69	95	22	28	22	13	10
1969-70	98	13	22	28	22	13
1970-71	89	4	13	22	28	22
1971-72	73	6	4	13	22	28

Source: Institute of International Education, Open Doors,
New York, N.Y., 1958 to 1972, and estimates.

1958-59 to 1971-72, a more intricate estimating procedure has to be followed than in the case of the master graduates. Three assumptions are critical to the derivation of Ph.D. graduates in business administration: (a) it takes, on the average, five years to fulfill the requirements for the doctorate; (b) all doctoral students complete their programmes of study¹⁶; and (c) of the 22 students enrolled in 1958-59, 5 were in each of the first, second, third and fourth years, and 2 were graduating.

The above assumptions enable the number of doctoral graduates to be estimated with logical consistency from one year to the next. For example, given the enrolment figures by first, second, third, fourth and graduating years, in 1958-59, the distribution of the Ph.D. candidates in 1959-60 can be found by subtracting the sum of the first, second, third and fourth year students in 1958-59 from the total enrolments in 1959-60, resulting in a figure for first year students in the latter year. The second, third, fourth and graduating year students are simply the first through fourth year people of the 1958-59 session. This procedure is followed in Table 2.5, for each year of the period 1958-59 to 1971-72.

¹⁶ See footnote 8, Statistics Canada, "Student Withdrawals from Canadian Universities", op. cit..

A certain proportion of the Canadians receiving doctorates in business administration at U.S. universities returned to Canada, while others took employment in the United States. Again following the Department of Manpower and Immigration,¹⁷ an overall return rate of 50 per cent has been assumed. The number of doctoral graduates returning to Canada is estimated to have increased from 1 to 14 over the period 1958-59 to 1971-72 (Table 2.7).

The total number of Ph.D. graduates in business administration of Canadian citizenship entering the labour market will not differ too significantly from the data estimated strictly for returnees to Canada from the United States. In fact, only for the years 1964-65 and 1966-67 to 1971-72 inclusive was there a difference, amounting to between one and six graduates, in the two sets of figures (see Table 2.7, columns B and C).

A final source of supply to the labour market of doctoral graduates in business administration is immigrants from other countries. Official immigration statistics, in this case, are of no assistance. Thus, another method of arriving at net immigration statistics had to be utilized.

¹⁷ Kushner, J., et al., op. cit., p. 1. As an average for the period 1958-59 to 1971-72, the return rate of 50 per cent is reasonable.

The facilitating assumption taken is that business administration departments of Canadian universities are the only source of employment for holders of doctorates in business administration (or closely related disciplines) in Canada.

In order to calculate the net inflow of Ph.D.'s in business administration from other countries, the number of business faculty holding doctorates had to be determined. The proportion of the university business faculty with Ph.D.'s for the period 1958-59 to 1971-72 has been taken as 14 per cent for 1958-59 to 1962-63, 17 per cent from 1963-64 to 1966-67, 30.7 per cent in 1967-68, and 31.4 per cent for the last four.¹⁸ Of the faculty having doctoral qualifications, it has been further established that 20 per cent are non-Canadians.¹⁹ Hence, the numerical inflow of foreign doctorates is estimated to have risen from 4 in 1958-59 to 55 in 1971-72 (Table 2.6).

From the data on foreign inflow of faculty with doctoral qualifications, and the supposition that there was no significant emigration of similarly qualified personnel from Canada in each year of the period under consideration, the figures for immigration may be derived. In this case, the inflow of foreign faculty statistics represent total net immigration in Table 2.7, column D.

¹⁸ Muehlen, Max von Zur-, Business Education and Faculty at Canadian Universities, op. cit., pp. 60, 64, 66.

¹⁹ Ibid, p. 41.

TABLE 2.6

ESTIMATES OF NON-CANADIAN UNIVERSITY BUSINESS FACULTY
HOLDING DOCTORAL DEGREES, 1958-59 TO 1971-72

Year	Total Faculty	Faculty with Doctorates	
		Total	Non-Canadian
1958-59	135	19	4
1959-60	143*	20	4
1960-61	152	21	4
1961-62	175*	25	5
1962-63	198*	28	6
1963-64	222	38	8
1964-65	265*	45	9
1965-66	309	53	11
1966-67	388*	66	13
1967-68	469	144	29
1968-69	640	201	40
1969-70	764	240	48
1970-71	829	260	52
1971-72	870 ¹	273	55

* Interpolated data.

¹ Estimate.

Source: Muehlen, Max von-Zur, Business Education and Faculty at Canadian Universities, Economic Council of Canada, Ottawa, 1971, Tables 2-3 and 2-4; Education Division, Statistics Canada, Salaries and Qualifications of Teachers in Universities and Colleges 1970-71, Cat. No. 81-203, Information Canada, Ottawa; and estimates for other years.

TABLE 2.7

ESTIMATED SUPPLY OF DOCTORAL GRADUATES IN BUSINESS ADMINISTRATION

CANADA, 1958-59 TO 1971-72

Year	A Graduates from Canadian Universities	B Graduates Returning from U.S. Universities 50% Return Rate	C Graduates of Canadian Citizenship (A + B)	D Immigration	E Graduates on Educational Leave	F Estimated Supply to Labour Market (C + D - E)
1958-59	-	1	1	4	1	4
1959-60	-	2	2	4	1	5
1960-61	-	2	2	4	1	5
1961-62	-	2	2	5	1	6
1962-63	-	2	2	6	2	6
1963-64	-	2	2	8	2	8
1964-65	1	4	5	9	2	12
1965-66	-	3	3	11	3	11
1966-67	3	2	5	13	3	15
1967-68	1	5	6	29	7	28
1968-69	1	5	6	40	10	36
1969-70	1	6	7	48	12	43
1970-71	4	11	15	52	13	54
1971-72	6	14	20	55	14	61

Prior to arriving at an estimate of the supply of doctoral graduates in business administration to the labour market, the proportion of these graduates who are on educational leave from a permanent position should be excluded. These individuals, in column E, Table 2.7, are considered to represent 25 per cent²⁰ of the doctoral graduates returning from the U.S..

The supply of doctoral graduates in business administration to the labour market for the years 1958-59 to 1971-72 may now be pieced together. Subtracting the graduates on educational leave, who would have returned to their previous full-time positions, from the sum of graduates of Canadian citizenship and the inflow of immigrants, i.e., columns C + D - E, results in the supply estimates. Hence, over the fourteen-year period under consideration, the annual supply of doctoral graduates has increased from 4 to 61 (Table 2.7, column F).

2. The Demand for Graduate Business Administrators

The demand picture for graduate-level business administrators in Canada for the period 1958-59 to 1971-72 is obscure. To date, there has been no detailed examination

20 It is shown in Chapter III that 25 per cent of the doctoral students in the 1967-68 survey were on educational leave from a permanent job.

of the total demand situation for this particular group of graduates. Any studies which have been done usually attempt to project demand based on surveys which cover only a portion of the universe. For example, a study by the Economic Council of Canada estimated that for the period 1969 to 1974 "the demand for new master of business administration graduates among the survey companies (32 in total) is expected to grow at over 8 per cent per year in 1969-74" and there is a "6.9 per cent growth in demand anticipated for new doctoral graduates".²¹ Another example of demand estimates based on sample surveys is reports published on a regular basis by the Department of Manpower and Immigration,²² the purpose of which is to portray demand conditions for new university graduates by discipline and degree level.

In trying to estimate the overall demand situation for business administrators, there are various difficulties associated with the sample survey method. It is practically impossible to arrive at a total demand picture from data

21 Keys, B.A., F.G. Thompson, M. Heath, Meeting Managerial Manpower Needs, Economic Council of Canada, Ottawa, February 1971, p. 37.

22 Canada, Department of Manpower and Immigration, (a) New University Graduates: Supply and Demand; (b) University Career Outlook; (c) Requirements and Average Starting Salaries: University Graduates; (d) Starting Salaries for University Graduates, 1959 to 1966, are examples of their reports.

based on sample surveys which are not representative of the universe (as with the Keys study). Other problems inherent in the sample survey method of estimating requirements for university graduates are: (i) firms actually using longer term forecasting of personnel requisites, which is in itself a recent development, are relatively small in number (for example, in 1969 "66 of the 163 respondents reported that their long-range planning programs included a forecast of future personnel needs"²³); (ii) if some firms in the sample do not provide answers, the sampling process becomes inadequate; (iii) errors may arise in replies due to faulty or subjective interpretations of the survey questions; (iv) technological changes could distort expected requirements; and (v) errors may occur because of the failure to distinguish between gross and net requirements.²⁴

Since the information upon which to estimate total demand for graduate business administrators is either incomplete, sketchy, inconsistent, or a combination of all these characteristics, resort had to be made to a methodology which would produce reasonably accurate demand

23 Keys, B.A., et al., op. cit., p. 3.

24 Mehmet, Ozay, Methods of Forecasting Manpower Requirements, a study prepared for the Ontario Department of Labour and the Centre for Industrial Relations University of Toronto, 1965, pp. 31-32.

data. The primary methodological source of the demand for master graduates in business administration is the Department of Manpower and Immigration's study of the market situation for Canadian university graduates,²⁵ while for doctoral demand this source is supplemented with a recent paper by a previous staff member of the Economic Council of Canada concerning the Ph.D. market situation in Canada.²⁶

A. Demand for Master Graduates in Business Administration

In broad terms, demand for master graduates in business administration comes from industry, government and post-secondary teaching institutions. Of these three main sectors, private industry's requirements for master graduates would be expected to be strong. However, to date, there have been no detailed studies of total industry demand for business administration graduates at the master level.²⁷ Because of the lack of data, the method of

25 Kushner, J., et al., op. cit..

26 Muehlen, Max von Zur-, "The Ph.D. Dilemma in Canada: A Case Study", in Ostry, S. (ed.), Canadian Higher Education in the Seventies, Economic Council of Canada, Cat. No. EC22-1772, Ottawa, 1972, pp. 75-131.

27 For example, the Conference Board in Canada, a non-profit research organization for the private sector, is unaware of studies done on industry requirements for master graduates in business administration.

estimating past demand adopted in this study is to express industry and government requirements as a function of the real dollar change in Gross National Product (GNP)²⁸ and the supply of master graduates to the labour market, both lagged one year.

The equation expressing the demand for master-level business administrators is:

$$\text{MBA} = -0.26 + 0.29 \Delta\text{GNPK}_{-1} + 1.03 \text{MBA}_{-1}$$

(0.63) (1.88)** (15.50)*

$$\bar{R}^2 = 0.963 \quad \text{S.E.E} = 0.45 \quad \text{D.W.} = 2.59$$

No. of observations = 14

where MBA = master-level business administrators
 ΔGNPK = change in Gross National Product,
 expressed in constant (1961) dollars
 -1 = lag of one year

Student t-values are enclosed in brackets under the coefficients. * and ** imply significance at the 1 per cent and 10 per cent levels of confidence, respectively.

The results of the estimating equation infer that a 1 unit change in ΔGNPK_{-1} and a 1 unit change in MBA_{-1} generate a 0.29 unit change and a 1.03 unit change, respectively, in the demand for master-level business administrators by industry and government.

28 This is derived from Kushner, J., et al.,
op. cit., pp. 18-19.

Employment of master-level business administrators in time t , then, is comprised of the demand resulting from changes in GNP and MBA in time $t-1$ and the level of master graduates in business administrators in period $t-1$.

From Table 2.8, industry and government demand for master graduates in business administration is observed to vary from a low of 310 in 1958-59 to 1238 in 1971-72.

Demand for master graduates in business administration and commerce is expressed, also, by faculties of business administration and commerce in Canadian universities. "For undergraduate teaching, a number of Canadian universities accept professors holding an M.B.A. degree ... as being terminally qualified".²⁹ Determination of faculty demand required consideration of two factors, namely, the net additional faculty hired from one academic year to the next because of expansion and the annual replacement rate because of the attrition rate. Since the number of business faculty in Canadian universities for the period 1958-59 to 1971-72 is available, the net additional faculty required each year is the difference between one year and the next.

²⁹ Business Education and Faculty at Canadian Universities, *op. cit.*, p. 63. Also, since the supply of doctorates in business administration was not large enough to fill the requirements for faculty by university business departments, the master graduates were, by necessity, substituted for the Ph.D.'s.

TABLE 2.8

ESTIMATED REQUIREMENTS FOR MASTER GRADUATES IN
 .BUSINESS ADMINISTRATION AND COMMERCE BY
 .INDUSTRY AND GOVERNMENT, CANADA,
 1958-59 TO 1971-72

Year	Industry and Government Demand		
	A Based on change in Δ GNPK in time t-1	B Based on change in MBA in time t-1	D Total in time t (A + B)
1958-59	58	252	310
1959-60	73	261	334
1960-61	77	273	350
1961-62	88	312	400
1962-63	90	321	411
1963-64	108	382	490
1964-65	95	336	431
1965-66	130	462	592
1966-67	159	564	723
1967-68	189	672	861
1968-69	210	747	957
1969-70	245	869	1114
1970-71	251	892	1143
1971-72	272	966	1238

Source: Appendix C.

The net annual additional faculty hired has increased from 8 in 1958-59 to 171 in 1967-68, dropping back to 41 in 1971-72 (Table 2.9). Included in these figures are the annual replacements due to death, retirement, and mobility (inter-industry). The number of faculty required for annual replacement (assumed to be 4.0 per cent from 1958-59 to 1963-64 and 2.5 per cent for the remaining seven years) is shown separately on the same table.³⁰

Of the total additional faculty that were required, which in this case is the net additional faculty that were hired from one year to the next, the demand for individuals holding master degrees in business administration and commerce may be estimated. Because Ph.D.'s in business administration were not readily available from 1958-59 to 1962-63, it is assumed that 86 per cent of the total additional faculty hired each year represented demand for master graduates in business administration and commerce, for the years 1963-64, to 1970-71, this proportion is 83 per cent, in 1967-68 it is 69.3 per cent, and for the final four years it is 68.6 per cent.³¹

³⁰ The 4.0 per cent rate is taken from Kushner, J, et al., op.cit., p. 2, while the 2.5 per cent rate is used to reflect lower death and retirement rates for the young business faculty (see p. 68 of this study).

³¹ In effect, demand for master graduates here is a residual derived from the difference between total faculty requirements and faculty with doctorates (see the following section).

TABLE 2.9

ESTIMATED FACULTY DEMAND FOR MASTER GRADUATES
IN BUSINESS ADMINISTRATION AND COMMERCE,
CANADA, 1958-59 TO 1971-72

Year	Business Faculty	Net Additional Faculty Hired	Annual Replacement ¹	Demand for Master Graduates
1958-59	135	8	5	7
1959-60	143	9	6	8
1960-61	152	23	6	20
1961-62	175	23	7	20
1962-63	198	24	8	21
1963-64	222	43	9	36
1964-65	265	43	7	36
1965-66	308	80	8	66
1966-67	388	81	10	67
1967-68	469	171	12	119
1968-69	640	124	16	85
1969-70	764	124	19	85
1970-71	829	65	21	45
1971-72	870 ²	41	22	28

1 The rate is 4.0 per cent annually from 1958-59 to 1963-64 and 2.5 per cent annually from 1964-65 to 1969-70.

2 Estimate.

Source: Table 2.6

The lower demand for master graduates during the latter 1960s reflects the fact that the number of faculty members with a doctorate increased significantly and that the academic community had more readily accepted business education at the university level. Hence, being held in higher esteem, the business faculties would be trying to increase their prestige mainly through improving the quality of their faculty. The faculty demand for master graduates has increased numerically from 7 in 1958-59 to a peak of 119 in 1967-68, dropping to 28 in 1971-72 (Table 2.9).

A recent source of demand for master graduates in business administration is the demand for faculty by Canadian vocational and technical community colleges. It is too early to determine quantitatively what this demand was at the end of the 1960s.³² Most of these colleges offer one- to three-year business diploma programmes, and "indications are that these programmes are gaining in popularity, and the rate of growth in business enrolment in these institutions is surpassing the university business enrolment projections. The demand for faculty is growing correspondingly -- approximately 650 faculty members were teaching business subjects in community colleges in 1968-69. A

³² That is, at the time of writing this study, data were not readily available. However, this should not preclude an attempt at estimating this demand in future.

proportion of these faculty are recent M.B.A. graduates, and the future demand for M.B.A.'s in community colleges is rising rapidly".³³

With the data presently available the total demand picture for master graduates in Canada may be pieced together. Summing the demand for master graduates in business administration and commerce estimated for industry and government, and university business faculties indicates that total demand has fluctuated from between 317 in 1958-59 to 1266 in 1971-72 (Table 2.10). The years from 1966-67 to 1971-72 were the period when demand was strongest.

A frequently used proxy for the demand for a particular group of professional workers is the mean starting salary. Comparing average monthly starting salaries of new master graduates in business administration and commerce with master graduates in other selected disciplines reveal that remuneration to the business graduate has exceeded that of graduates in arts and science disciplines since 1965 (Table 2.11). The differential in starting salaries is greatest between business administration

³³ Business Education and Faculty at Canadian Universities, op. cit., p. 23.

TABLE 2.10

DEMAND FOR MASTER GRADUATES IN BUSINESS
ADMINISTRATION AND COMMERCE,
CANADA, 1958-59 TO 1971-72

Year	Industry and Government	University Business Faculty	Total Demand
1958-59	310	7	317
1959-60	334	8	342
1960-61	350	20	370
1961-62	400	20	420
1962-63	411	21	432
1963-64	490	36	526
1964-65	431	36	467
1965-66	592	66	658
1966-67	723	67	790
1967-68	861	119	980
1968-69	957	85	1042
1969-70	1114	85	1199
1970-71	1143	45	1188
1971-72	1238	28	1266

Source: Table 2.8 and Table 2.9.

TABLE 2.11

MEAN MONTHLY STARTING SALARIES FOR MASTER GRADUATES IN
BUSINESS ADMINISTRATION, ARTS AND SCIENCE
(ALL FIELDS), 1962 TO 1972

Year	A	B	A>B %	C	A>C %	Percentage Change, Annual		
	Business Admini- stration \$	Arts \$		Science \$		Business Admini- stration	Arts	Science
1962	450	460		477				
1963	451	462		490		-	-	2.7
1964	450	460		496		-	-	1.2
1965	550	497	10.7	513	7.2	22.2	8.0	3.4
1966	579	545	6.2	569	1.8	5.3	9.7	10.9
1967	675	610	10.7	640	5.5	16.6	11.9	12.5
1968	715	635	12.6	575	5.9	4.1	4.1	5.5
1969	835	665	25.6	705	18.4	16.8	4.7	4.4
1970	825	680	21.3	750	10.0	-1.2	2.3	6.4
1971	851	685	24.2	761	11.8	3.2	0.7	1.5
1972	871	790	10.3	758	14.9	2.4	15.3	-0.4

65

Source: Department of Manpower and Immigration, Professional and Technical Occupations Section, Series A, Vol. 1, Starting Salaries for University Graduates, 1959 to 1966 for the years 1962-65; University Career Outlook, for the years 1966-70; Requirements and Average Starting Salaries: University Graduates, for 1971-72.

and science, having grown from 7.2 per cent in 1965 to 14.9 per cent in 1972, than between business administration and arts graduates, where the gap was 10.7 per cent in 1965 and 10.3 per cent in 1972. Over the ten-year period, 1962-72, mean monthly starting salaries for master graduates in business administration have risen 93.6 per cent, while the rates for arts and science graduates have climbed 71.7 per cent and 58.9 per cent, respectively.

Comparing the data of Tables 2.10 and 2.11 it is observed that the increases in mean monthly starting salaries for master graduates in business administration and commerce from 1964 onward, and the requirements for these graduates express, reasonably well, the same trend. Starting rates of pay were strong and rising for every year of the period 1965 to 1972, except for 1970, while, demand as expressed by the absolute numbers was strong during each year of this period.

B. Demand for Doctoral Graduates in Business Administration

The only major source of demand for doctoral graduates in business administration in Canada are business administration faculties of Canadian universities.³⁴

³⁴ This does not exclude the fact that doctorates could be used in government and consulting. However, it is difficult to determine demand in these areas.

Historically, this demand would appear to have been rather negligible. For instance, in 1956-57 the percentage of business school faculty holding doctoral degrees was 14 per cent, while faculty in the pure social sciences with doctoral qualifications was 51 per cent.³⁵ While the proportion of faculty with doctorates in business administration increased substantially to 23 per cent, compared with the increase in the pure social sciences to 53 per cent, the ratio of business faculty with doctoral qualifications in 1967-68 was relatively low.

A number of factors serve to explain the reason for the relatively low proportion of business faculty holding doctorates. Max von Zur-Muehlen found that "university business education at most Canadian universities was neglected by the university administration"³⁶ and the academic community in general. In addition, there was considerable doubt as to whether faculty with doctoral qualifications were adequately prepared to be teaching business subjects. Rather, it was felt that those with accounting, law, or professional expertise backgrounds were more suitable than faculty with advanced academic

³⁵ Business Education and Faculty at Canadian Universities, op. cit., p. 59.

³⁶ Ibid.

training. A final factor may be the fact that "graduate training at the doctoral level as a preparation for the teaching of business subjects is a rather recent phenomenon"³⁷ in Canada.

The determination of doctoral requirements for the period 1958-59 to 1971-72 is based on the net additional faculty which were hired from one year to the next. Net additional faculty include the number required for annual replacement due to such things as death, retirement, and inter-industry mobility. For the first six years of the period under consideration the rate of annual replacement is set at 4.0 per cent and for the final half of the period this rate is assumed to be 2.5 per cent. The lower replacement rate from 1964-65 onward is designed to reflect the lower death and retirement rates for the young business faculty, as well as less mobility from university to industry. For example, in 1956-57 over 8 per cent of the business faculty were over 55 years, for both 1963-64 and 1967-68 the proportion was under 5 per cent and for 1970-71 it was just over 5 per cent.³⁸

³⁷ Ibid, p. 61.

³⁸ Ibid, p. 48, and Statistics Canada, Salaries and Qualifications of Teachers in Universities and Colleges, Cat. No. 81-203. Also implicit in this respect is the fact that with reduced demand for faculty due to budget restraints there is less mobility of university business faculty from university to industry, and vice-versa, in the latter 1960s and early 1970s.

While the demand for master graduates in university business faculties for the period 1958-59 to 1971-72 was the difference between total faculty requirements and faculty with doctorates, the doctoral requirements will be founded on a slightly different methodology. It appears likely that if the supply of Ph.D.'s in business administration had been available in sufficient numbers to meet the demand by universities, all new faculty appointments ceteris paribus would have occurred at the doctorate level. However, in the absence of an adequate supply of doctoral holders in business administration to match the demand, it has been observed, in the previous section, that master graduates in business subjects were by necessity substituted in their place.

It is reasonable, then, to postulate that ceteris paribus demand by university business faculties for doctorate holders in business administration would have climbed from 8 in 1958-59 to 171 in 1967-68, dropping to 41 in 1971-72, as observed in Table 2.12.

3. Reconciliation of Supply and Demand Estimates

The results of the previous sections are brought together in this section to portray the possible market situation which may have existed from 1958-59 to 1971-72

TABLE 2.12

ESTIMATED FACULTY DEMAND FOR DOCTORAL GRADUATES
IN BUSINESS ADMINISTRATION, CANADA,
1958-59 TO 1971-72

Year	Business Faculty	Net Additional Faculty Hired	Annual Replacement ¹	Demand for Doctoral Graduates
1958-59	135	8	5	8
1959-60	143	9	6	9
1960-61	152	23	6	23
1961-62	175	23	7	23
1962-63	198	24	8	24
1963-64	222	43	9	43
1964-65	265	43	7	43
1965-66	308	80	8	80
1966-67	388	81	10	81
1967-68	469	171	12	171
1968-69	640	124	16	124
1969-70	764	124	19	124
1970-71	829	65	21	65
1971-72	870 ²	41	22	41

1 The rate is 4.0 per cent annually from 1958-59 to 1963-64 and 2.5 per cent annually from 1964-65 to 1969-70.

2 Estimate

Source: Table 2.6

for graduate-level business administrators in Canada. While examining the market conditions for the master and doctoral graduates, the various assumptions, which were taken by necessity to arrive at the supply and demand estimates, should be kept in mind.

A. The Market for Master Graduates in Business Administration

The overall market situation for all holders of master degrees in business administration and commerce during the period 1958-59 to 1971-72 has been one of excess demand. Supply approached demand in 1962-63, 1964-65 to 1966-67. The proportion by which the demand has exceeded supply has ranged from 4.0 per cent in 1964-65 to 61.3 per cent in 1963-64, (Table 2.13).

B. The Market for Doctoral Graduates in Business Administration

The market situation for doctoral graduates in business administration from 1958-59 to 1971-72 is, on the whole, a situation of significant excess demand. In absolute terms, demand has exceeded supply by anywhere between 4 and 143 doctorates. Expressing the amount by which demand has exceeded supply in percentage terms, a range between 20.4 per cent and 627.3 per cent may be observed (Table 2.14). Supply approached demand in 1970-71, being short of demand by 20.4 per cent, and exceeded the requirements in 1971-72 by slightly less than one-third.

TABLE 2.13

THE MARKET SITUATION FOR MASTER GRADUATES IN
 BUSINESS ADMINISTRATION AND COMMERCE
 CANADA, 1958-59 TO 1971-72

Year	Supply	Demand	Excess Demand	Percentage that D>S
1958-59	253	317	64	25.3
1959-60	265	342	77	29.1
1960-61	303	370	67	22.1
1961-62	312	420	108	34.6
1962-63	371	432	61	16.4
1963-64	326	526	200	61.3
1964-65	449	467	18	4.0
1965-66	548	658	110	20.1
1966-67	652	790	138	21.2
1967-68	725	980	255	35.2
1968-69	844	1042	198	23.5
1969-70	866	1199	333	38.5
1970-71	938	1188	250	26.7
1971-72	979	1266	287	29.3

Source: Supply data are from Table 2.4.
 Demand data are from Table 2.10.

TABLE 2.14

THE MARKET SITUATION FOR DOCTORAL GRADUATES
IN BUSINESS ADMINISTRATION, CANADA,
1958-59 TO 1971-72

Year	Supply	Demand	Excess Demand	Percentage that D>S
1958-59	4	8	4	100.0
1959-60	5	9	4	80.0
1960-61	5	23	18	360.0
1961-62	6	23	17	283.0
1962-63	6	24	18	300.0
1963-64	8	43	35	437.5
1964-65	12	43	31	258.3
1965-66	11	80	69	627.3
1966-67	15	81	66	440.0
1967-68	28	171	143	510.7
1968-69	36	124	88	244.4
1969-70	43	124	81	188.4
1970-71	54	65	11	20.4
1971-72	61	41	-20	-32.8

Source: Supply data are from Table 2.7.
Demand data are from Table 2.12.

CHAPTER III

CANADIAN STUDENTS IN UNITED STATES GRADUATE
BUSINESS ADMINISTRATION PROGRAMMES

In the previous chapter the overall supply and demand of graduate-level administrators were considered for the period 1958 to 1972. It was pointed out that one of the sources of supply for the market in Canada was graduate business schools of U.S. universities, where a significant proportion of Canadians decide to pursue graduate studies. In fact, about 10 per cent of the total supply of master graduates to the labour market is estimated to be made up of Canadians returning to Canada. At the doctorate level it is known that Canadians returning from the United States account for a larger portion of the supply than do Canadians graduating from their own universities with a Ph.D. in business administration.

The purpose of this chapter is to examine that sector of Canadian master and doctoral students in business administration programmes of U.S. universities for the year 1968. Detailed information relating to this particular group of individuals emanates from the two mentioned surveys, "Survey of Canadian Students in Masters Programmes of Business Administration at U.S. Universities", and "Survey of

Canadian Students in Doctoral Programmes in Business Administration at U.S. Universities". From these surveys, a profile of the student characteristics is constructed, and factors motivating this group to go to the United States in pursuit of graduate studies and either to remain in the United States or to return to Canada are examined.

1. Profile of Master and Doctoral Students

The surveys of Canadian master and doctoral students at U.S. universities, taken during the Spring of 1968, resulted in a total response rate of approximately 67 per cent.¹ Of the total respondents to these surveys, 111 students were in the master programmes and 65 per cent were pursuing their doctorates. Most of the students gave Canada as their country of birth -- master 86.5 per cent and doctoral candidates 90.8 per cent, while an even higher proportion declared Canadian citizenship status -- master students 95.5 per cent and doctoral aspirants 100.0 per cent (Table 3.1).

1 Master + doctorate questionnaires expressed as a percentage of total enrolment of Canadian students in business administration programmes at U.S. universities, i.e., $(111 + 65/263) \times 100 = 67$ per cent. See Chapter I, Methodology and Sources, for a full discussion of the surveys and responses.

TABLE 3.1
CANADIAN GRADUATE STUDENTS IN BUSINESS
ADMINISTRATION, 1968, BY COUNTRY
OF BIRTH AND CITIZENSHIP STATUS

Country	Country of Birth		Citizenship Status	
	Master Students	Doctoral Students	Master Students	Doctoral Students
	#	#	#	#
Total	111	65	111	65
Canada	96	59	106	65
United States	2	1	2	--
Others	13	5	3	--

Source: Survey Questionnaires

When Canadian students in the United States are examined with regard to their province of permanent address, it is observed that about four-fifths of the total reported a permanent address in Canada (Table 3.2). Generally, the other students had their permanent home address in the United States. Within the group who called Canada "home", the distribution for master and doctoral students, by region, was relatively similar, with the greatest variation noted in the Western Provinces -- proportionately more master than

TABLE 3.2
CANADIAN GRADUATE STUDENTS IN BUSINESS
ADMINISTRATION, 1968, BY
PLACE OF RESIDENCE

Place of Residence	Master Students	Doctoral Students
	#	#
Canada	91	49
Atlantic Region	5	2
Quebec	29	16
Ontario	30	15
Prairie Region	18	8
British Columbia	9	8
United States	16	15
Others	4	1

Source: Survey Questionnaires.

doctoral students listed the Prairies as home, while more doctoral than master aspirants were from British Columbia (Table 3.3). A further comparison of this group of students to the distribution of the Canadian population as a whole by region shows that there was under-representation in the Atlantic region -- 5.0 per cent of the students vis-à-vis

9.6 per cent of total population, and Ontario, 32.2 per cent vis-à-vis 35.2 per cent, and over-representation in the other three regions (Table 3.3).

TABLE 3.3
CANADIAN GRADUATE STUDENTS IN BUSINESS
ADMINISTRATION, 1968, AND CANADIAN
POPULATION, BY REGION

Region	Canadian Graduate Students			Canadian Population ¹
	Total	Master	Doctoral	
	%	%	%	%
Canada	100.0	100.0	100.0	100.0
Atlantic	5.0	5.5	4.2	9.6
Quebec	32.2	31.9	32.6	28.5
Ontario	32.2	32.9	30.6	35.2
Prairies	18.5	19.8	16.3	16.6
British Columbia	12.1	9.9	16.3	9.7

1 Excludes the Yukon and Northwest Territories.

Source: Statistics Canada, Estimated Population of Canada by Province at June 1, 1969, Research Section, Census Division; and Survey Questionnaires.

Every one of the master students was male, while all but one of the doctoral candidates was a member of this sex (Table 3.4).

TABLE 3.4
CANADIAN GRADUATE STUDENTS IN BUSINESS
ADMINISTRATION, 1968, BY SEX

Sex	Master Students	Doctoral Students
	#	#
Male	111	64
Female	-	1

Source: Survey Questionnaires.

More than two-thirds of both master and doctoral students surveyed held either a Bachelor of Arts or a Bachelor of Commerce first degree. A proportionately greater percentage of doctoral to master students, namely 43.1 per cent vis-à-vis 34.3 per cent, had a B. Com. (Table 3.5). Not surprisingly, the distribution of these students by discipline of their first degree illustrates that more than one-half possessed business-oriented degrees (commerce, business administration, economics) (Table 3.6).

TABLE 3.5

CANADIAN GRADUATE STUDENTS IN BUSINESS
ADMINISTRATION, 1968, BY FIRST DEGREE HELD

Degree	Master Students	Doctoral Students
	#	#
B.A.	37	19
B.Com.	38	28
B.Sc.	21	13
B.Eng.	13	4
Others	2	1

Source: Survey Questionnaires

TABLE 3.6

CANADIAN GRADUATE STUDENTS IN BUSINESS
ADMINISTRATION, 1968, BY DISCIPLINE
OF FIRST DEGREE

Discipline	Master Students	Doctoral Students
	#	#
Commerce or Business Administration	39	29
Economics	21	7
Engineering	23	12
Social Sciences	8	3
Humanities	8	8
Natural Sciences	9	4
Others	1	-
No Reply	2	2

Source: Survey Questionnaires.

Another finding relevant to this examination is that a significant proportion of students with an engineering background, i.e., B. Eng., B.Sc. (Eng.), pursued graduate studies in business administration at both levels, 20.7 per cent of master and 18.4 per cent of doctoral students had engineering-oriented first degrees.

One-fifth of the master and one-quarter of the doctoral students were granted their first degrees from three well-known and established universities in Ontario, namely, 'Queen's, University of Toronto, and University of Western Ontario (Table 3.7). Institutions in Quebec (McGill, Loyola, Bishops, and Sir George Williams) and the Western provinces (universities of Manitoba, Saskatchewan, Alberta, Calgary, and British Columbia) accounted for 28.0 per cent and 25.2 per cent, respectively, of master students' first degrees, and 23.1 per cent and 32.3 per cent, respectively, of first degrees received by the doctoral aspirants.

Comparing the province where the first degree was granted and the province of home address for the master students, it is observed that one-third of the students giving Ontario as their home province received first degrees in other provinces or other countries (Table 3.8). The

TABLE 3.7
CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION,
1968, BY INSTITUTION OF FIRST DEGREE

Institution	Master Students	Doctoral Students
	#	#
Atlantic Provinces	5	2
Quebec	31	15
University of Western Ontario	4	4
Queen's	6	3
University of Toronto	13	9
Other Ontario Universities	3	3
Western Provinces	28	21
United States	17	2
Other	2	5
No Reply	2	1

Source: Survey Questionnaires.

TABLE 3.8

CANADIAN MASTER STUDENTS IN BUSINESS ADMINISTRATION, 1968, BY PROVINCE
OF PERMANENT ADDRESS AND INSTITUTION OF FIRST DEGREE

Province of Permanent Address	Institution of First Degree								Total	Rank ¹
	Atlantic	Que.	Ont.	Prairies	B.C.	U.S.A.	Other	No Reply		
Atlantic	5	-	-	-	-	-	-	-	5	1
Quebec	-	23	3	-	-	3	-	-	29	3
Ontario	-	3	20	1	1	3	2	-	30	5
Prairies	-	-	-	13	-	5	-	-	18	4
British Columbia	-	-	-	-	8	1	-	-	9	2
United States	-	5	3	3	1	4	-	-	16	-
Other	-	-	-	-	1	1	-	-	2	-
No Reply	-	-	-	-	-	-	-	2	2	-
TOTAL	5	31	26	17	11	17	2	2	111	

1 Ranking is done on the basis of the highest proportion of students obtaining their first degree in the province of their last home address.

Source: Survey Questionnaires.

greatest number of students from any one region receiving first degrees from the United States was in the Prairie provinces, while those students from the Atlantic region on the other hand, obtained first degrees in their province of last permanent address.

As would be expected, most master students did not hold a second degree. Of those who did, about 20 per cent, approximately 60 per cent were of the first professional category, e.g., C.A., LL.B., which normally comes after the completion of a Bachelors programme (Table 3.9). More than three-quarters of the doctoral students reported that they had second degrees. Of those having second degrees, some 48 per cent had M.B.A.'s, 12 per cent had M.Com.'s and 10 per cent and 4 per cent were in possession of M.Sc. and M.A. degrees, respectively.

Slightly fewer than two-thirds of the doctoral students received their second degrees in the period of years between 1965 and 1968 (Table 3.9). It would appear, then, that most of these students pursued doctoral studies shortly following the completion of their master programmes.

As was the situation with institutions from which doctoral students received first degrees (see Table 3.7), three known and established universities in Ontario (Queen's,

TABLE 3.9

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION, 1968,
BY SECOND DEGREE HELD AND YEAR AWARDED

Degr��	Master Students	Doctoral Students	Year Awarded	Master Students	Doctoral Students
	#	#		#	#
M.A.	-	2	1968	-	2
M.Sc.	3	5	1967	4	12
M.B.A.	-	24	1966	6	12
LL.B.	3	-	1965	4	14
C.A.	9	9	1964	-	3
B.A.	1	-	1961-63	4	9
B.Com.	1	-	1958-60	1	1
B.Sc.	1	2	Pre-1958	2	1
M.Com.	1	6	No Reply	90	11
Other	3	2			
No Reply	89	15			

Source: Survey Questionnaires.

University of Toronto, and University of Western Ontario) were the source of second degrees for one-quarter of the doctoral candidates (Table 3.10). An equally significant origin of second degrees is universities in the United States, 21.6 per cent. In addition, these data reflect upon the shortage of master programmes in business administration in Canada in the mid-1960s, in that, together, the Atlantic provinces, Quebec, and the Western provinces accounted for 17 per cent of the second degrees awarded to this group of doctoral students. In order that a doctoral student in our sample would be granted a master degree in business administration by 1968, the programme would have had to be in operation in the 1966-1967 academic year. At this point of time the Atlantic provinces had no master programme of business administration in existence; as a result, it is not surprising to note that none of the doctoral students received master degrees in business administration in this region. Further comparisons show that Quebec with two programmes in operation represented 12.3 per cent of second degrees awarded. Ontario with six programmes accounted for 33.9 per cent of second degrees, and the Western provinces had two programmes and 6.2 per cent of doctoral students with second degrees (Table 3.10).

TABLE 3.10

CANADIAN DOCTORAL STUDENTS IN BUSINESS ADMINISTRATION, 1968,
BY INSTITUTION OF SECOND DEGREE, AND MASTER PROGRAMMES
IN EXISTENCE AS OF 1966

Institution	Doctoral Students	Province	Master Programmes ¹
	#		#
Atlantic Provinces	-	Canada	10
McGill University	1	Atlantic	-
Other Quebec	7	Quebec	2
University of Western Ontario	10	Ontario	6
Queen's	1	Western	2
University of Toronto	6		
Other Ontario	5		
U.B.C.	2		
Other Western	2		
United States	17		
Other	1		
No Reply	13		

¹In existence at the beginning of the 1966-67 academic year.

Source: Table A.2 and Survey Questionnaires.

Of the doctoral students who reported having a second degree, 94 per cent had business-oriented disciplines, i.e., commerce, business administration, or economics (Table 3.11). While the doctoral students' first degrees were more business-oriented than others (55 per cent), in terms of disciplines, most of their second degrees were characteristically business in nature. Moreover, where almost 1 in 5 doctoral students had engineering-oriented first degrees (Table 3.6), only 2 per cent reported having this discipline in their second degrees.

TABLE 3.11

CANADIAN DOCTORAL STUDENTS IN BUSINESS ADMINISTRATION
1968, BY DISCIPLINE OF SECOND DEGREE

Discipline	Doctoral Students
	#
Total reporting	50
Commerce or Business Administration	44
Economics	3
Engineering	1
Social Sciences	-
Humanities	-
Natural Sciences	2
Other	-
No Reply	15

Source: Survey Questionnaires.

Of the graduate students in U.S. programmes of business administration in the year of this survey, a significantly higher proportion of doctoral students to master students responded in the affirmative to having held scholarships (Table 3.12).

TABLE 3.12

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION
1968, HOLDING SCHOLARSHIPS IN 1968

Scholarships	Master Students	Doctoral Students
	#	#
Holding Scholarships	25	38
Not Holding Scholarships	84	-
No Reply	2	27

Source: Survey Questionnaires

Over 90 per cent of master students in U.S. programmes of study, were in pursuit of M.B.A.'s, and slightly less than 30 per cent of the doctoral students expected to receive the D.B.A. (Table 3.13). The other doctoral candidates were seeking the traditional Ph.D. degrees and the other master students were seeking M.A.'s, M.S.'s, M.Sc.'s in business management. Most of the master aspirants expected to receive their degrees in 1968 and 1969, while the doctoral students anticipated being granted

TABLE 3.13

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION, 1968,
BY DEGREE SOUGHT AND ANTICIPATED DATE OF AWARD

Degree Sought	Master Students	Doctoral Students	Anticipated Date of Award	Master Students	Doctoral Students
	#	#		#	#
M.B.A.	102	-	1968	60	12
Other Masters	8	-	1969	48	32
Ph.D.	-	46	1970	2	17
D.B.A.	-	19	1971+	1	2
Others	1	-	No Reply	-	2

Source: Survey Questionnaires.

degrees in the range of years from 1968 to 1970, inclusive with a significant proportion (49.2 per cent) expecting to receive their doctorates in 1969 (Table 3.13).

The United States university most frequently cited by Canadian master students in business administration as the institution in which they were pursuing graduate studies was the Harvard University School of Business Administration (28.8 per cent), followed by the University of California (9.9 per cent), and Columbia University (8.1 per cent) (Table 3.14). Stanford, Michigan, and Pennsylvania universities had equal representation (4.5 per cent). At the doctoral level, Harvard University (20.0 per cent), the University of California (20.0 per cent) and the universities of Michigan (12.3 per cent), Illinois (10.8 per cent), and Chicago (9.2 per cent) lead the list of universities in the United States being attended by this particular group of Canadian students in 1968.

When master students are examined with regard to province of permanent address and awarding institution of the degree being sought, students from eastern and central Canada made up the major number of Canadians attending Harvard University (Table 3.15). Proportionately, the Atlantic provinces had the highest representation at the Harvard Business School in 1968. The Western provinces

TABLE 3.14

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION,
1968, BY AWARDING INSTITUTION OF DEGREE SOUGHT

Awarding Institution	Master Students	Doctoral Students
	#	#
Harvard University	32	13
University of California	11	13
University of Chicago	2	6
Univeristy of Michigan	5	8
Illinois	1	7
Indiana	-	3
Others	60	15

Source: Survey Questionnaires.

accounted for over one-half of the master students at the University of California in this survey. Two-thirds of the students attending Columbia University came from Ontario, Quebec, and the Atlantic provinces. These distributions may indicate that students would generally seek out a university in the proximity of their province of permanent address. However, a definite statement in this regard could not be made until a larger sample of students covering a longer time period was conducted.

TABLE 3.15

CANADIAN MASTER STUDENTS IN BUSINESS ADMINISTRATION, 1968,
BY AWARDING INSTITUTION OF DEGREE SOUGHT AND
PROVINCE OF PERMANENT ADDRESS

Awarding Institution	Province of Permanent Address							Total
	Atlantic	Que.	Ont.	Prairies	B.C.	U.S.A.	Others	
	#	#	#	#	#	#	#	#
Harvard	2	11	11	2	2	3	1	32
California	-	1	2	4	2	1	1	11
Chicago	-	1	1	-	-	-	-	2
Michigan	1	1	1	1	-	1	-	5
Stanford	-	-	3	-	2	-	-	5
Columbia	1	4	1	2	1	-	-	9
Pennsylvania	-	-	5	-	-	-	-	5
Others	1	11	6	9	2	11	2	42
TOTAL	5	29	30	18	9	16	4	111

Source: Survey Questionnaires.

According to replies by both the master and doctoral students, the four "big" fields of specialization are business administration or management, marketing, accounting, and finance, 73.0 per cent of master students and 76.9 per cent of doctoral students were majoring in one of these areas (Table 3.16). Behavioural sciences, where 1.8 per cent of master and 3.1 per cent of doctoral students were specializing, and industrial relations (3.6 per cent and 4.6 per cent, respectively), which are two areas of vital importance for modern business organizations, are under-represented by this sample of students in business administration.

TABLE 3.16

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION,
1968, BY FIELD OF SPECIALIZATION OF DEGREE SOUGHT

Field of Specialization	Master Students	Doctoral Students
	#	#
Management or Business Administration	28	24
Marketing	18	9
Accounting	2	9
Finance	33	8
Production	9	2
Behavioural Sciences	2	2
International Business	11	3
Industrial Relations	4	3
Economics	1	4
Other	3	1

Source: Survey Questionnaires.

Three of five master students expressed no particular interest in pursuing a degree higher than the M.B.A. which they were in the process of working towards (Table 3.17). Another 25 per cent revealed that they expected to pursue the Ph.D., following the completion of the master programme. Some 80 per cent of these same master students felt that expectations they had concerning their programmes of study, prior to beginning graduate studies in the United States, had been fulfilled (Table 3.17).

TABLE 3.17

HIGHEST DEGREE EXPECTATIONS OF CANADIAN MASTER
STUDENTS IN BUSINESS ADMINISTRATION, AND
SATISFACTION WITH DEGREE PROGRAMMES, 1968

Highest Degree Expectations	Distribution	Expectations Concerning Degree Programmes	Distribution
	#		#
M.B.A.	68	Fulfilled	89
D.B.A.	6	Unfulfilled	18
Ph.D.	27	No Reply	4
Other Masters	4		
Professional Qualifications	1		
Other	-		
No Reply	5		

Source: Survey Questionnaires.

Another point relating to the doctoral students in this survey is that 16, or 24.6 per cent, of them were on educational leave from a permanent position (Table 3.18). Of this number of leave, 15 replied that the organization from which leave was being taken was a university.

TABLE 3.18

DISTRIBUTION OF CANADIAN DOCTORAL STUDENTS IN
BUSINESS ADMINISTRATION ON EDUCATIONAL
LEAVE FROM A PERMANENT POSITION, 1968

Classification	Number	Organization	Number
On Educational Leave	16	University	15
		Industry	-
Not on Educational Leave	39	Government	-
		Other	-
No Reply	10	No Reply	50

Source: Survey Questionnaires.

Finally, over one-third of the doctoral students reported having had work experience either in industry or in an educational institution (Table 3.19). Slightly more than 6 per cent had any experience as a result of employment in government.

In summary, it is observed that the master student is typically a male Canadian citizen from either the province of Quebec or Ontario, is between the ages of 20 and 25,

TABLE 3.19

CANADIAN DOCTORAL STUDENTS IN BUSINESS ADMINISTRATION,
1968, YEARS OF WORK EXPERIENCE BY TYPE OF ORGANIZATION

Years	Previous Work Experience			
	Organization			
	Industry	Government	Education	Other
	#	#	#	#
1	6	-	6	2
2	3	2	7	3
3	2	-	3	3
4-6	3	1	6	-
7-10	4	1	-	1
10+	5	-	-	1
Other	1	-	-	-
No Reply	41	61	43	55

Source: Survey Questionnaires.

and is the holder of either a Bachelor of Commerce or Bachelor of Arts first degree which is oriented towards commerce, business administration or economics and which was obtained in 1966 or 1967. Further, the master student, more often than not, is granted that first degree in the province of permanent address. The representative master student in our sample is pursuing the master of Business Administration degree at Harvard University or the University of California, predominantly, and is specializing in either business administration, marketing, accounting, or

finance. The typical master student does not hold a scholarship. Finally, the M.B.A. degree probably represents the average student's highest degree sought.

Like the master student, the representative doctoral aspirant is a Canadian male from either Ontario or Quebec, and holds a business-oriented Bachelor of Commerce or Bachelor of Arts first degree. The doctoral student generally holds a master of Business Administration degree, granted sometime in the period 1965 through 1967. This second degree is likely obtained either in Ontario or in the United States. The doctoral student, generally the holder of a scholarship, pursues the doctorate degree at any one of five major universities, i.e., Harvard, California, Michigan, Illinois, or Chicago. Similar to the master student, the doctoral candidate is specializing in either business administration, marketing, accounting, or finance. It is further observed that the average doctoral student is not taking educational leave from an organization, nor is he likely to bring any substantial employment experience to his doctoral programme.²

2 Future researchers may wish to obtain information regarding mother tongue, since it is expected that the characteristics of and factors motivating English and French speaking students differ enough to command separate analysis. Because the small size of the sample in this survey would probably have biased the results, the question relating to mother tongue was not asked.

2. Factors Determining Selection of a U.S. University

In the previous section a profile of characteristics of master and doctoral students in business administration programmes of U.S. universities in 1968 was constructed from the two survey questionnaires.

This section will attempt to isolate from the results of the questionnaires factors which motivated the 1968 sample of master and doctoral students to pursue a graduate degree and which determined their choice of a university in the United States.

By and large the two most significant reasons given by master students for pursuing a graduate degree were pragmatic in nature, i.e., because of opportunities in business (36.1 per cent) and as a preparation for a career (27.0 per cent) (Table 3.20). Factors of less significance were for broader education and knowledge (9.0 per cent) and to attain expertise in a specialization (8.1 per cent).

For most of the doctoral students, the decision to pursue the doctorate is primarily their own (41.5 per cent) or, to a lesser degree, upon the advice of their university professors (27.7 per cent) (Table 3.21).

TABLE 3.20

CANADIAN MASTER STUDENTS IN BUSINESS ADMINISTRATION,
1968, REASONS CITED FOR PURSUING A GRADUATE DEGREE

Reason	Number
Opportunities in Business	40
Broader Education and Knowledge	10
Career Preparation	30
Expert in Specialization	9
Teaching	6
Research	-
Consulting	2
Other	11
No Reply	3

Source: Survey Questionnaires.

Over one-third (35.4 per cent) of the doctoral students in this sample made a decision with respect to their career plans -- in this case, to pursue the Ph.D. degree -- only after completion of the master programme. Some 15 per cent were decided after graduation from the undergraduate programme, while another 12 per cent had reached a resolution during their undergraduate years (Table 3.21).

TABLE 3.21

CANADIAN DOCTORAL STUDENTS IN BUSINESS ADMINISTRATION, 1968,
TIME AND SOURCE OF THE DECISION TO PURSUE A DOCTORAL DEGREE

Time of Decision	Number	Source of Decision	Number
By high school graduation	1	Own decision	27
At undergraduate level	8	High School teacher	-
After undergraduate graduation	10	University professor	18
After master degree	23	Parents	2
Other	12	Spouse	3
No reply	11	College friends	2
		Other	2
		No reply	11

Source: Survey Questionnaires.

Respondents to the survey of master students indicated that the major reason for pursuing a graduate degree in business administration at a U.S. university is the general better quality of the programmes vis-à-vis the Canadian counterpart: almost one-third (32.4 per cent) put forth this factor (Table 3.22). The next most significant factor taken into consideration was the prestige or reputation of the university and/or department at which a master programme in business administration was being offered (21.6 per cent). A desire to experience living in the United States (8.1 per cent) and dissatisfaction with Canadian programmes (7.2 per cent) were also noted to be of primary importance in selection of a university in the United States. Of those students indicating second or third factors to be considered in selecting an American university, the quality of the programmes, and a desire to experience U.S. living were again cited most frequently as significant reasons (Table 3.22).

It is interesting to note that only one-third of this sample of master students applied to a Canadian university for acceptance to a master programme in business administration (Table 3.23). Furthermore, of this proportion who did submit applications to Canadian programmes, more than three-quarters did so at one university, namely the University of Western Ontario, 77.8 per cent.

TABLE 3.22

CANADIAN MASTER STUDENTS IN BUSINESS ADMINISTRATION, 1968,
CRITERIA FOR SELECTION OF A UNITED STATES UNIVERSITY

Criteria	Ranking of Factors		
	1st	2nd	3rd
Prestige/Reputation of University/Department	24	15	1
Dissatisfaction with Canadian Programmes	8	7	2
Specialized Programme	3	5	2
Financing of Programme	6	7	1
General Quality of Programme	36	16	6
Desire to experience living in the United States	9	5	4
Structure of the Programme	3	4	-
Opportunities affiliated with this Programme	2	3	4
Necessity	1	-	-
Other	18	5	2
No Reply	1	44	89

Source: Survey Questionnaires.

TABLE 3.23
CANADIAN MASTER STUDENTS IN BUSINESS ADMINISTRATION, 1968,
APPLICATIONS TO A CANADIAN UNIVERSITY

Applications Made	Number	University to which Application Made	Number
Applications Made	37	Total Reporting	36
Applications Not Made	71	McGill	2
No Reply	3	Western Ontario	28
		Queen's	2
		Toronto	1
		Other Ontario	2
		U.B.C.	1
		No Reply	75

Source: Survey Questionnaires.

At the time these surveys were taken, 1967-68, only two M.B.A. programmes had the distinction of having been in operation for 10 years or more, one was at the University of British Columbia and the other was at the forementioned Ontario university (see Table A.2). Thus, with only two established programmes in operation in Canada, and 8 relatively new programmes in existence by this time, as well, it is not surprising to find that the proportion of students who did not apply to Canadian universities is roughly proportional to those who cited such factors as general quality of the U.S. programme, dissatisfaction with the Canadian programme and prestige of the U.S. university as the major primary criteria for selecting an American university. That is, approximately two-thirds of the master students did not apply to a Canadian university, and at the same time, slightly less than this proportion put forth one of the three previously noted reasons for selecting a U.S. university (Tables 3.22 and 3.23).

The most significant criterion for choosing a university in the United States, as reported by the sample of 65 doctoral students in 1968, was the prestige of the university and/or the reputation of the department, slightly less than one-half (44.6 per cent) of these students gave

this factor (Table 3.24). Of less significance were the reputation of a particular professor in the university (12.3 per cent cited this reason), the financial support being offered by the university (10.8 per cent), and the suggestion of a particular university professor (7.7 per cent). Among the second most important criteria for selecting a U.S. university, the prestige of the university and/or reputation of the department (32.3 per cent) was most frequently mentioned, followed by location of the university (12.3 per cent), the reputation of a particular professor and financial support offered by the institution (10.8 per cent each), and the advice by a university professor (9.2 per cent). Much the same pattern existed in the replies given with respect to the third most significant criteria considered in choosing an American university (Table 3.24).

It was observed in Table 3.24 that one of the main criteria for the doctoral students' choice of a university in the United States is the financial support being offered by the prospective university. Reinforcing, and perhaps even strengthening, the significance of this factor is the observations from Table 3.25 which show that fellowships represented the one major source of financial support for doctoral students pursuing their degrees (69.2 per cent). Other significant sources were savings, reported

TABLE 3.24

CANADIAN DOCTORAL STUDENTS IN BUSINESS ADMINISTRATION, 1968,
CRITERIA FOR CHOICE OF U.S. UNIVERSITY

Criteria	Ranking of Factors		
	1st	2nd	3rd
	#	#	#
Location of university	3	8	7
Low cost	-	2	1
Prestige of university/reputation of department	29	21	9
Reputation of particular man or men	8	7	2
Financial support offered by university	7	7	8
Recommendation of university professor	5	6	6
Recommendation of employer	1	-	1
Employment possibilities associated with study	-	2	5
Special programme of interest	5	4	3
Other	7	2	5
No reply	-	6	18

Source: Survey Questionnaires.

TABLE 3.25

CANADIAN DOCTORAL STUDENTS IN BUSINESS ADMINISTRATION, 1968,
SOURCES OF FINANCIAL SUPPORT FOR DEGREE PROGRAMME

Source	Those Responding			No Replies
	Proportion of Financial Support			
	Total	Less than Half	More than Half	
	#	#	#	#
Fellowships	45	20	25	20
Savings	32	28	4	33
Loans	23	20	3	42
Teaching	19	17	2	46
Salary	13	6	7	52
Other Part-time Work	11	8	3	54
Other	15	8	7	50

Source: Survey Questionnaires.

by 49.2 per cent of the doctoral students, and loans (35.4 per cent). Of those students who replied that fellowships were an integral source of financial support, it is further observed that these fellowships represent over one-half of their total financial base for most of the candidates. Although only 20 per cent of the students reported their salaries as a source of financial support, almost 54 per cent indicated that it was more than 50 per cent of their total financial foundation (Table 3.25).

Ronald Pavalko, in a paper³ published in 1968, showed that Canadian graduate students in 1964-65, generally cited similar reasons for pursuing graduate degrees in the United States as did the sample of Canadian students pursuing graduate business administration degrees in that country in 1968⁴. The reason most frequently mentioned by students in Pavalko's sample was the greater availability of a programme in the field in which they wished to study. That there existed a shortage of adequate graduate programmes in business administration has been pointed out previously; and the fact that the better quality of the U.S. programmes vis-à-vis Canadian programmes was regarded

3 Pavalko, Ronald M., op. cit., pp. 300-322.

4 Ibid, p. 309.

as the most important reason given by master students choosing to pursue graduate studies in the United States, coincide with the prime reason put forth by Pavalko's students. Two other factors which were significant in the responses of the graduate business administration students, financial aid and reputation of the university and/or department, were also the next most important reasons given by Pavalko's sample for going to the United States to study.

In Peter Comay's unpublished Ph.D. thesis⁵, it is shown also that "graduate students came for 'Scholastic Reasons' (29 per cent), and a combination of 'Scholastic and Financial Reasons' (24 per cent). All categories related to Financial and Scholastic Reasons accounted for 79 per cent of the graduate sample ..."⁶.

To summarize, the main reasons given by graduate business administration students for going to the United States to pursue graduate degrees were the quality (or the greater availability) of the programmes in the particular field or subject in which they were interested, the greater availability of financial aid, and the reputation/prestige of a university and/or department.

⁵ Comay, Peter Y., International Migration of Professional Manpower: The Canada-U.S. Case, op. cit..

⁶ Ibid, p. 17. Comay obtained these data from Economics and Research Branch, Canada Department of Labour, "Survey of Canadians Enrolled at American Universities and Colleges, 1962-63", Professional Manpower Bulletin, PM/4, February, 1964.

3. Canadian Students Intending to Remain in the United States

In the previous section, the factors which accounted for Canadian students going to the United States in pursuit of master and doctoral degrees were examined. In this part of the study, the variables affecting these students' decisions to remain in the United States upon completion of their programmes will be analyzed.

When this group of students was asked to state their residence preferences and actual plans, it was observed that approximately two-thirds of them expressed a preference to return to Canada (64.0 per cent master and 67.7 per cent doctoral students) (Table 3.26). Some 16 per cent of master students and 9 per cent of doctoral candidates wished to reside in the United States, while over 14 per cent of the master and 21 per cent of the doctoral aspirants gave no reply to this survey question.

A lower proportion of students, who revealed a preference to return to Canada, actually made plans to do so -- 56.8 per cent of master and 66.2 per cent of doctoral students had future plans of returning to Canada (Table 3.26). A significant increase was noted in the percentage of those students who were planning to remain in the United States -- 28.8 per cent of master students and 15.4 per cent of the doctoral aspirants.

TABLE 3.26

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION, 1968, REVEALED
PREFERENCES AND ACTUAL PLANS CONCERNING RESIDENCE OPTIONS

Residence Options	Master Students		Doctoral Students	
	Revealed Preference	Actual Plans	Revealed Preference	Actual Plans
	#	#	#	#
Return to Canada	71	63	44	43
Remain in the United States	18	32	6	10
Other	6	6	1	1
No Reply	16	10	14	11

Source: Survey Questionnaires.

It was pointed out in Section 1 of this chapter, which deals with the student characteristics, that 16 of the doctoral students reported being on educational leave from an organization, predominantly a university. In all likelihood, these individuals would have returned, upon completion of their programmes to the organization which sponsored their leave. Because of their particularly obvious obligation, they should be withdrawn from the "total" and "return to Canada" figures in Table 3.26, in order to present a less biased picture of preferences and plans of this group of doctoral candidates. When this adjustment is made the proportion of doctoral students preferring and planning to remain in the United States becomes 12.3 per cent and 20.4 per cent, respectively (Table 3.27).

TABLE 3.27

CANADIAN DOCTORAL STUDENTS IN BUSINESS ADMINISTRATION,
1968, ADJUSTED REVEALED PREFERENCES AND ACTUAL PLANS

Residence Options	Revealed Preference	Actual Plans
	#	#
Return to Canada	28	27
Remain in the United States	6	10
Other	1	1
No Reply	14	11

Source: Survey Questionnaires.

For the students who gave reasons for remaining in the United States upon completion of their degree programmes, the major influencing variables were better teaching and research opportunities, and expected higher salaries in the United States. The primary factors affecting the decision of the master students were the teaching opportunities (as responded to by 42.2 per cent of those reporting) and higher salaries (37.5 per cent) (Table 3.28). Of reasons which ranked second and third in importance, the perceived conservative attitude of Canadian management and/or universities was cited as a relatively significant item; it was the third most important factor of the second-ranking and the most significant of the third-ranking reasons, respectively, as indicated by the master students.

Of the most important reason for remaining in the United States, doctoral students classified factors such as better research opportunities (34.6 per cent), higher salaries (23.1 per cent), better teaching opportunities (19.2 per cent), and climate (15.4 per cent) as the most relevant (Table 3.28). Salaries (26.9 per cent) and research opportunities (19.2 per cent) were, again, the most significant factors categorized by the doctoral aspirants in their second reasons for staying in the United States, followed by teaching opportunities and working

TABLE 3.28

FACTORS INFLUENCING CANADIAN GRADUATE STUDENTS IN BUSINESS
ADMINISTRATION TO REMAIN IN THE UNITED STATES, 1968

Factors	Ranking of Reasons					
	Master Students			Doctoral Students		
	1st	2nd	3rd	1st	2nd	3rd
	#	#	#	#	#	#
Reporting	64	59	56	26	26	23
Not Reporting	47	52	55	39	39	42
High Salaries	24	16	7	6	7	3
Teaching Opportunities	27	23	4	5	3	3
Research Opportunities	1	2	5	9	5	3
Working Conditions	-	-	1	-	3	-
Climate	2	3	3	4	1	1
Family, Relatives, Friends	4	1	3	-	-	-
Cultural and Intellectual Activity	-	2	5	2	4	6
Canadian Management/University Overly Conservative	2	8	21	-	2	3
Reservations re French-English Tensions	-	-	2	-	1	2
Other	4	4	5	-	-	2

Source: Survey Questionnaires.

conditions (each 11.5 per cent), and the higher assessment of cultural and intellectual activity in the United States (15.4 per cent). This latter variable was the most important of the third-ranked reasons (26.1 per cent) for remaining in the United States. In the distribution of third most important reasons for not returning to Canada, it is noted further that equal stress was given to the higher salaries, better research and teaching opportunities, and the perceived conservative attitude of Canadian management and/or universities, with each accounting for 13.0 per cent of the students' choices of variables.

Both the master (82.9 per cent) and doctoral (53.8 per cent) students assessed that opportunities for advancement were generally better in the United States than in Canada (Table 3.29). While the master group felt that promotion opportunities in their own field were significantly better in the United States (73.0 per cent), the doctoral candidates (46.1 per cent) assessed their chances for promotion in their own specialty to be better in Canada. However, 40 per cent of this group did feel that the opportunity for success in their own field was greater in the United States.

TABLE 3.29
CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION, 1968,
ASSESSMENT OF OPPORTUNITIES FOR ADVANCEMENT
IN THE UNITED STATES AND CANADA

Assessment	Master Students		Doctoral Students	
	Generally	In Own Field	Generally	In Own Field
	#	#	#	#
Better in the United States	92	81	35	26
Better in Canada	12	18	20	30
Other	4	7	5	7
No Reply	3	5	5	2

Source: Survey Questionnaires.

The master students who were planning to remain in the United States were asked what conditions would they have to take into consideration before returning to Canada. Of the 50 students who stated necessary conditions, the most important consideration was that the opportunities for advancement (38.0 per cent) would have to be better, or at least equal, in Canada. A further 20 per cent of the students felt that the same perceived scope or challenge, to which they were accustomed in the United States, would have to be existing in Canada (Table 3.30). An additional 12 per cent stated that they would return to Canada under the circumstances of a transfer to an American subsidiary in Canada or if the move was paid by a business organization in Canada. Finally, if the opportunities for pay and fringe benefits were equally good in Canada as in the United States, another 10 per cent of the master students would consider returning to Canada.

In Pavalko's study it was pointed out that "nearly three-fourths of all students (who planned to remain in the United States) checked the rather global and all inclusive statement 'better opportunities for work in my field' which, judging from student comments, undoubtedly includes such things as prestige, advancement opportunities, salaries,

TABLE 3.30

CANADIAN MASTER STUDENTS IN BUSINESS ADMINISTRATION,
1968, NECESSARY CONDITIONS FOR A RETURN TO CANADA

Conditions	Distribution
	#
Reporting	50
Not Reporting	61
Opportunities for Advancement	19
Same Scope/Challenge	10
Transfer at Expense of Business	6
Opportunities for Pay and Benefits	5
Canadian Business Sheds its Conservatism	3
Racial Problems, Political Milieu	2
No Circumstances	-
Others	5

Source: Survey Questionnaires.

and research opportunities".⁷ These findings relate closely to those in this study of graduate students in business administration.

More than one-half of the master and doctoral students had discussed employment possibilities in the United States in 1968 (Table 3.31). Of those who had pursued interviews with U.S. firms, almost 60 per cent of the master students and slightly more than two-thirds of the doctoral candidates had engaged in between one and four such discussions.

⁷ Pavalko, Ronald M., op. cit., p. 310.

TABLE 3.31

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION, 1968,
 PROPORTION HAVING DISCUSSED EMPLOYMENT POSSIBILITIES IN
 THE UNITED STATES AND THE FREQUENCY OF SUCH DISCUSSIONS

Discussed Employment Possibilities	Master Students	Doctoral Students	Frequency of Discussions	Master Students	Doctoral Students
	#	#		#	#
Discussed	59	33	Reporting	52	32
Not Discussed	45	28	Not Reporting	59	33
No Reply	7	4	1	5	7
			2	14	7
			3-4	11	8
			5-7	8	5
			8-10	7	3
			10+	7	2

Source: Survey Questionnaires.

Proportionately more of the master (47.7 per cent) than doctoral (38.5 per cent) students reported salary offers in the United States. Of those respondents to this question on the survey questionnaire, master students (43.4 per cent) and doctoral candidates (52.0 per cent) alike indicated that a salary offer in the range of \$12,000 to \$14,000 was most frequently made in the United States (Table 3.32).

TABLE 3.32

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION,
1968, APPROXIMATE SALARY OFFERS IN THE UNITED STATES

Salary Offers	Master Students	Doctoral Students
	#	#
Reporting	53	25
Not Reporting	58	40
Less than \$10,000	6	-
\$10,000 - \$12,000	12	5
\$12,000 - \$14,000	23	13
\$14,000 - \$16,000	8	3
\$16,000 - \$18,000	4	4

Source: Survey Questionnaires.

With respect to the type of position offered the master and doctoral students in the United States in 1968, most offers to the latter came from universities for teaching positions (90.0 per cent of those responding), while the

majority of offers to the master aspirants came from consulting firms and industry with 25.0 per cent and 32.7 per cent, respectively (Table 3.33). It is interesting to note that while the master students indicated 'teaching opportunities' as a major factor influencing them to stay in the United States (see Table 3.28), not one of them reported being offered a university teaching position in this country.

At the same time, it may be observed that between 70 and 80 per cent of this sample of graduate students, who reported the number of employment offers they received in the United States, had between one and four such employment offers (Table 3.33). In addition, it is further noted that, relating closely to the expressed plans of the master and doctoral students (Table 3.26), a greater proportion of the former (18.9 per cent) than the latter (7.7 per cent) accepted a position in the United States (Table 3.34).

In summary, it would appear that work related causes, such as high salaries, teaching and research opportunities, account for a large proportion of the explicit reasons for intending to remain in the United States upon completion of their graduate programmes.

TABLE 3.33

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION, 1968, TYPE
AND FREQUENCY OF EMPLOYMENT OFFERS IN THE UNITED STATES

Type of Offer	Master Students	Doctoral Students	Number of Offers	Master Students	Doctoral Students
	#	#		#	#
Reporting	52	30	Reporting	44	22
Not Reporting	59	35	Not Reporting	67	43
University Teaching	-	27	1	11	7
Consulting	13	1	2	10	5
Industry	17	2	3	4	5
Research	3	-	4	7	1
Government	2	-	5	2	2
Other	19	-	6	4	-
			7	1	-
			8	1	1
			9	1	-
			10+	3	1

Source: Survey Questionnaires.

TABLE 3.34

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION,
1968, PROPORTION ACCEPTING POSITIONS IN THE UNITED STATES

Accepting	Master Students	Doctoral Students
	#	#
Accepting	21	5
Not Accepting	3	-
No Reply	87	60

Source: Survey Questionnaires.

4. Factors Motivating Students to Return to Canada

It was shown, above, that factors which tended to affect students' decisions to remain in the United States upon completion of their studies were high salaries, and the teaching and research opportunities in that country, all of which are pragmatic in nature. What, then, motivates the graduate business administration student to return to Canada? It is the purpose of this section to examine the underlying factors of this phenomenon.

More than one-half of the master students (55.0 per cent) and almost three-quarters of the doctoral candidates (73.9 per cent) reported that they had discussed employment possibilities in Canada (Table 3.35). The

TABLE 3.35

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION, 1968,
NUMBER HAVING DISCUSSED EMPLOYMENT POSSIBILITIES IN
CANADA, AND FREQUENCY OF SUCH DISCUSSIONS

Discussed Employment Possibilities	Master Students	Doctoral Students	Frequency of Discussions	Master Students	Doctoral Students
	#	#		#	#
Discussed	61	48	Reporting	58	47
Not Discussed	41	14	Not Reporting	53	18
No Reply	9	3	1	19	10
			2	8	17
			3-4	7	15
			5-7	9	4
			8-10	4	1
			10+	11	-

Source: Survey Questionnaires.

proportions of master students having discussed employment possibilities in both Canada and the United States were relatively close (see Table 3.31), while proportionately more doctoral aspirants discussed employment possibilities in Canada than in the United States. This similarity in the master students employment interviews continued into the number of such discussion which occurred -- 58.7 per cent of them had between one and four discussions. Almost 90 per cent of the doctoral students had between one and four such employment discussions (Table 3.35).

The majority of master students were offered consulting (25.5 per cent) and industry positions (35.3 per cent) in Canada, while nine of ten doctoral candidates were offered teaching positions in Canadian universities (Table 3.36). Almost 90 per cent of the master and doctoral students who reported the number of employment offers they received in Canada, had between one and four such offers.

Generally, salaries offered to this group of master and doctoral students from Canadian sources were lower than offers from the United States. One-half of the master students who responded to this survey question indicated that the approximate salary offered was less than \$10,000. Another 34.6 per cent were offered a salary in the range of \$10,000 to \$12,000 (Table 3.37). Comparing

TABLE 3.36

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION, 1968,
TYPE AND FREQUENCY OF EMPLOYMENT OFFERS IN CANADA

Type of Offer	Master Students	Doctoral Students	Number of Offers	Master Students	Doctoral Students
	#	#		#	#
Reporting	51	43	Reporting	40	27
Not Reporting	60	22	Not Reporting	71	38
University Teaching	1	39	1	14	7
Consulting	13	-	2	12	6
Industry	18	3	3	3	6
Research	-	-	4	6	5
Government	3	1	5	2	2
Other	16	-	6	3	1
			7+	-	-

Source: Survey Questionnaires.

these salary data with those from Table 3.32, it may be observed that, with almost 50 per cent of the reporting master students being offered a salary in the range of \$12,000 - \$14,000 in the United States, Canadian offers in 1968 were considerably lower than those in the United States. In other words, while 77.3 per cent of the salary offers in the United States were in the range of \$10,000 to \$14,000, some 94 per cent of the offers in Canada fell in this range.⁸

TABLE 3.37

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION,
1968, APPROXIMATE SALARY OFFERS IN CANADA

Salary Offers	Master Students	Doctoral Students
	#	#
Reporting	52	39
Not Reporting	59	26
Less than \$10,000	26	3
\$10,000 - \$12,000	18	11
\$12,000 - \$14,000	5	21
\$14,000 - \$16,000	3	2
\$16,000 - \$18,000	-	1
\$18,000 - \$20,000	-	-
\$20,000+	-	1

Source: Survey Questionnaires.

- 8 Future researchers might wish to examine the salaries of faculty in business administration departments of Canadian universities for purposes of trying to identify suspected differentials between Canadian and non-Canadians and analysing the economic ramifications resulting from such variations. An indirect way of obtaining the required data may be to approach the various professional associations

While salary offers to master students appeared to be significantly lower in Canada than in the United States, offers to the doctoral students in this sample in 1968 were closer. For instance, 53.8 per cent of this group were offered between \$12,000 and \$14,000 in Canada compared with 52.0 per cent in the United States (Tables 3.32 and 3.37). However, some doctoral candidates received a salary offer of less than \$10,000 in Canada (7.7 per cent), while none reported an offer of this nature in the United States.

Of the total number of master students reporting differences in salaries offered between the United States and Canada (39), 84.5 per cent reported a difference of between \$1,000 and \$5,000 in favour of the United States (Table 3.38). Fewer, in proportionate terms, of the doctoral aspirants (60.9 per cent) reported differences of salary offers in this range. Moreover, more than one-fifth of this group found Canadian salary offers to be in excess of those in the United States, and a further 13.1 per cent reported no appreciable difference in salary offers as between the two countries.

A greater proportion of doctoral students (35.4 per cent) than master candidates (21.6 per cent) accepted positions in Canada in 1968 (Table 3.39). The difference in these proportions resembles the differences in those planning to return to Canada (see Table 3.26).

TABLE 3.38
CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION,
1968, DIFFERENCES IN SALARY OFFERS BETWEEN
CANADA AND THE UNITED STATES

Salary Offer Differentials	Master Students	Doctoral Students
	#	#
Reporting	39	23
Not Reporting	72	42
U.S. offers exceed Canadian by:		
\$1 - \$1,000	2	1
\$1,000 - \$3,000	23	10
\$3,000 - \$5,000	10	4
\$5,000+	2	-
Canadian offers exceed U.S. offers	2	5
No difference	-	3

Source: Survey Questionnaires.

TABLE 3.39
CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION,
1968, PROPORTION ACCEPTING POSITIONS IN CANADA

Accepting Positions in Canada	Master Students	Doctoral Students
	#	#
Accepting	24	23
Not Accepting	1	-
No Reply	86	42

Source: Survey Questionnaires.

It would appear that, generally, high salaries would not be the major reason for these graduate students to return to Canada. In fact, when the reasons given for wishing to return to Canada by the master and doctoral students are analyzed, it is observed that high salaries did not enter into the picture for the master candidates and were barely negligible for the doctoral students (Table 3.40). The most significant factors motivating these graduate students to return to Canada were a preference for Canadian society and culture, 45.1 per cent for doctoral and 41.2 per cent for master candidates, and family, relatives, or friends in Canada, 27.4 per cent and 29.4 per cent, respectively. Reservations concerning U.S. draft policies had some effect on the master students.

Thus, unlike the situation with the master and doctoral students who intend to remain in the United States, where the motivating factors to do so are work related, those students who plan to return to Canada do so for apparently personal and/or social reasons, but not for work related factors.

TABLE 3.40

FACTORS INFLUENCING CANADIAN GRADUATE STUDENTS IN BUSINESS

ADMINISTRATION TO RETURN TO CANADA, 1968

Factors	Ranking of Reasons					
	Master Students			Doctoral Students		
	1st	2nd	3rd	1st	2nd	3rd
	#	#	#	#	#	#
Reporting	68	56	39	51	45	33
Not Reporting	43	55	72	14	20	32
High Salaries	-	-	-	3	1	1
Teaching Opportunities	6	-	5	5	7	3
Research Opportunities	-	-	-	-	1	1
Work Climate	-	2	-	1	6	3
Family, Relatives, Friends	20	19	6	14	10	7
Reservations re U.S. Racial Tensions	-	3	3	-	5	5
Reservations re U.S. Draft Policies	6	12	10	2	4	2
Preference for Canadian Society and Culture	28	13	9	23	11	8
Other	8	7	6	3	-	3

Source: Survey Questionnaires.

5. Canada's "Operation Retrieval" Programme

Operation Retrieval is a programme administered by the Department of Manpower and Immigration to ensure that Canadian students studying abroad have the opportunity to be as actively considered for vacant positions as those studying in Canada and that Canadian employers are alerted to the availability of this source of highly qualified manpower.

In 1964, the Association of Universities and Colleges of Canada originated Operation Retrieval in an effort to combat the evident drain of highly qualified manpower resulting from the failure of Canadian post-graduates studying abroad to return home upon completion of their studies. The association's particular concern was the problem of staffing Canadian universities and colleges and from 1964 to 1966, it organized team visits to meet Canadian students at prominent U.S. university graduate schools for this purpose.

In 1966, the Department of Manpower and Immigration, at the request of the Association of Universities and Colleges of Canada, assumed responsibility for the programme's administration. Operation Retrieval has since been carried out in co-operation with the Association of Universities and

Colleges of Canada, the Public Service of Canada, the Department of External Affairs, Canadian University Service Overseas, the Association of Canadian Medical Colleges and selected universities in the United States and Europe.

Operation Retrieval, in the latter part of 1972, was terminated, and, effective September 1, 1972, a new programme was introduced called "Canada Manpower: Services to Canadians Graduating Abroad". Canadian students graduating abroad will now mail their applications for employment to Manpower's five regional offices, i.e., Halifax, Montreal, Toronto, Winnipeg, and Vancouver. Employers will deal directly with local Manpower centres instead of headquarters in Ottawa.

Since this section is based upon the survey of Canadian students in graduate business administration programmes at U.S. universities in the 1967-68 academic year, the significance of Operation Retrieval, as it existed for this group of students, shall be discussed in this section of the chapter.

"Operation Retrieval was mounted on the view that society gains from educational investment through higher productivity, and that it loses when a Canadian

who embodies this investment migrates abroad. Operation Retrieval's prime purpose, therefore, (was) to encourage Canadian students studying abroad to return to Canada to apply their talent and knowledge to Canadian jobs"⁹.

This programme of the Federal Government was designed to encourage Canadian students studying abroad to return to Canada upon completion of their programmes of studies at foreign universities. This was to be accomplished by keeping these students informed about developments and career opportunities at home, and by ensuring that they were actively considered for vacant positions as they would have been if they had been studying in Canada.

The Manpower and Immigration Department, in an effort to inform and to encourage Canadian students abroad, undertook to provide these students with (a) information about the labour market and job opportunities in Canada, (b) copies of the Canada Careers Directory, (c) a comprehensive listing of Canadian organizations and employers, and (d) information forms which were used in compiling weekly lists of students available for employers.

⁹ Jenness, R.A., "Operation Retrieval Preliminary Evaluation", Planning and Evaluation Branch, Canada Department of Manpower and Immigration, Ottawa, June 20, 1967, p. 1. It should be noted that, as well as forfeiting the educational investment embodied in the individual who emigrates, we lose all social investment in this person.

The 1967-68 sample of graduate students in business administration at U.S. universities in this study reported, on the whole (64.9 per cent of the master and 75.4 per cent of the doctoral students), of having heard of the Operation Retrieval programme (Table 3.41). However, 62.2 per cent of the master students and 67.7 per cent of the doctoral students found that this programme was not helpful to them in obtaining employment in Canada. In fact, only fewer than 10 per cent of either group of students found Operation Retrieval to be of any assistance (Table 3.41).

By breaking out the proportions of students who found Operation Retrieval helpful or not helpful into degrees of criticism with respect to this programme, it is observed that of the master students who found it not helpful (62.2 per cent), 18.0 per cent were extremely critical of, 31.6 per cent were critical of, and 12.6 per cent were ambivalent to Operation Retrieval (Table 3.42). Of the doctoral candidates not finding the programme helpful, 15.4 per cent, 38.4 per cent and 13.9 per cent were extremely critical of, critical of, and ambivalent to, respectively, Operation Retrieval.

TABLE 3.41

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION, 1968,
 THOSE HAVING HEARD OF OPERATION RETRIEVAL
 AND HAVING FOUND IT HELPFUL

Heard of Operation Retrieval	Master Students	Doctoral Students	Found it Helpful	Master Students	Doctoral Students
	#	#		#	#
Heard	72	49	Helpful	8	3
Not Heard	35	15	Not Helpful	69	44
No Reply	4	1	No Reply	34	18

Source: Survey Questionnaires.

TABLE 3.42

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION,
1968, DEGREE OF CRITICISM RELATING TO OPERATION RETRIEVAL

Degree of Criticism	Master Students	Doctoral Students
	#	#
Extremely critical	20	10
Critical	35	25
Ambivalent	14	9
Favourable	6	3
Extremely favourable	2	-
No reply	34	18

Source: Survey Questionnaires.

TABLE 3.43

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION
RECEIVING A CANADA CAREERS DIRECTORY IN 1967-68

Receiving a Canada Careers Directory	Master Students	Doctoral Students
	#	#
Receiving a Directory	42	21
Not Receiving a Directory	65	40
No Reply	4	4

Source: Survey Questionnaires.

In addition to observing that Operation Retrieval was not useful to the graduate-level business administration students in the 1967-68 sample in this study, another relevant finding concerning another of the functions of the Department of Manpower and Immigration emerges from the results of the questionnaire. In 1967-68, about three-fifths of this sample of graduate students, 58.6 per cent master and 61.5 per cent of doctoral aspirants, did not receive a copy of Canada Careers Directory (Table 3.43).

Both groups of graduate students in business administration in 1967-68 were asked for their suggestions concerning the functioning of the Operation Retrieval programme. Based on the answers, it appears that both the master and doctoral students were primarily dissatisfied with the "contact procedure" of the Canadian programme (Table 3.44). Both groups were in agreement again when they expressed the opinion that Operation Retrieval should "involve Canadian business more" -- this comment ranked fourth for both levels of students in the ordering of suggested improvements concerning Operation Retrieval (Table 3.44).

In addition to the previous two comments concerning Operation Retrieval, another common suggestion from both groups of students, a value judgement, was that an

TABLE 3.44

CANADIAN GRADUATE STUDENTS IN BUSINESS ADMINISTRATION,
1968, COMMENTS ON OPERATION RETRIEVAL

Comments	Master* Students	Doctoral* Students
	#	#
Contact procedure	16	11
Begin process earlier	12	-
Follow-up procedure	11	1
Involve Canadian business more	8	4
Continue programme as is	7	1
Quality of representatives	5	6
Question government involvement	3	-
Lack of data on Canadian opportunities	3	2
Inept administration	2	2
Process too impersonal	2	2
Is means of getting known	2	-
Help find summer employment	2	-
Is "flag-waving"	1	-
Emphasize more than Canadian material advantages only	1	3
Need better government-business- student communication	1	-
Set up a central file	1	-
Set up Canadian Clubs	1	-
Not useful for Ph.D.'s	N/A	1
Send local newspapers	-	2
Provide more money for students	-	10
No comment	39	21

*Some numbers appear more than once, due to the fact that some respondents made more than one comment.

Source: Survey Questionnaires.

improvement should be made in the quality of representatives sent around to the various campuses. This comment ranked third in order of importance to the doctoral students, and sixth for the master group (Table 3.44).

While this section is not intended as an evaluation of Operation Retrieval, it does point out some trends. For this select group of graduate students in 1967-68, the problem for most of the respondents was not that they had never heard of Operation Retrieval, but that Operation Retrieval had never heard of them. It would appear, then, that to increase the probability for success of this programme more improved methods of locating Canadian graduate students in business administration at foreign universities are prime prerequisites.¹⁰ It must be stressed, however, that at the time these students were surveyed (1968), Operation Retrieval was only in its second year of implementation by the Department of Manpower and Immigration. Through various evaluation surveys, this Department has become more aware of areas of improvement in this programme.

¹⁰ In addition to improving the contact procedure, other means of increasing information necessary for a more perfect labour market include: assist the students in other countries to find summer employment in Canada in order that potential contacts be established; provide more monetary assistance, e.g., something like "relocation grants"; attempt to improve government-business-student communication; provide more information on Canadian opportunities; begin the Operation Retrieval process earlier; and institute a follow-up procedure to assess the success of the programme, the results of which (if relatively satisfactory) could be included in the Operation Retrieval kits mailed to the students.

The process of securing employment, let alone suitable employment, in a relatively imperfect labour market, where knowledge on the part of both employer and prospective employee is limited, is difficult and often discouraging for Canadians in their own country. However, for the Canadian in a foreign country, especially the United States, where one quickly loses contact with the home country, the task of becoming employed in Canada is that much more onerous. Hence, the need for more complete knowledge is greater for the students in other countries, and, thus, the need for a far-reaching and timely functioning Operation Retrieval is considerable, not for reasons of "emotional" nationalism, but more importantly for the purpose of attempting to improve the operation of the labour market in Canada.

CHAPTER IV

SUMMARY OF FINDINGS AND RECOMMENDATIONS

First, a summary of the findings from Chapter II, pertaining to the overall demand for and supply of graduate level business administrators for 1958-59 to 1971-72, will be given. Chapter II was based on data from Statistics Canada, the Institute of International Education, and my estimates. Next, the findings of Chapter III, which are based on data taken from the surveys of Canadian students in masters and doctoral programmes of business administration at U.S. universities in the 1967-68 academic year, will be presented. Finally, recommendations will be offered.

1. Supply of and Demand for Graduate-Level Business Administrators

- A. Supply of Master Graduates in Business Administration

The number of master graduates in business administration from Canadian universities grew from 295 in 1958-59 to 1,135 in 1971-72. Between 1958-59 and 1971-72 the number of master degrees awarded increased by an annual average of 12 per cent.

It was estimated that the number of master graduates returning from U.S. universities varied from 23

in 1958-59 to 111 in 1969-70. These returning graduates in combination with those from Canadian universities, adjusted for graduates of non-Canadian residency, those on leave from a permanent job, and those proceeding to a doctoral degree, represent the overall supply of master graduates to the labour market. Between 1958-59 and 1971-72 this supply has been estimated to have increased from 253 to 979.

B. Supply of Doctoral Graduates in Business Administration

From the 1958-59 academic year to 1971-72, inclusive, a total of 17 doctorates in business administration, commerce, accounting, and industrial relations had been awarded by the universities in Canada. Doctoral graduates returning from U.S. universities over the same period have been estimated to number 36 in total. Net immigration has added from 4 in 1958-59 to 55 in 1971-72. The total supply of doctoral graduates to the labour market comprising graduates of Canadian citizenship and net immigration, adjusted for those on educational leave, has grown from 4 in 1958-59 annually to 61 in 1971-72.

C. Demand for Master Graduates in Business Administration

Demand for master graduates in business administration by industry and government has been expressed as a

function of the real dollar change in Gross National Product and the supply of master graduates to the labour market, both lagged one year. Industry and government requirements have been estimated to vary from a low of 310 in 1958-59 to 1238 in 1971-72.

University demand for master graduates has been estimated to increase from 7 in 1958-59 reaching a peak of 119 in 1967-68, then dropping to 28 in 1971-72. Recently, vocational and technical community colleges in Canada have expressed a demand for graduates in business administration at the master level. It is too early to attempt to quantify what their requirements may have been at the end of the 1960s.

Aggregate demand, including industry, government and universities, for the master graduates has fluctuated from between 317 in the 1958-59 academic year to 1,266 in 1971-72. From 1965-66 to 1971-72, except for 1970-71, demand was strong. The mean monthly starting salaries for master graduates in business administration were high and rising during the period 1965 to 1972, except for 1970.

D. Demand for Doctoral Graduates in Business Administration

The only source of demand for doctoral graduates in business administration in Canada are business administration faculties of Canadian universities. Requirements of university business faculties for holders of doctoral degrees in business administration has been estimated to have grown from 8 in the 1958-59 academic year to 171 in 1967-68, and declined to 41 in 1971-72.

E. The Market for Master Graduates in Business Administration

Generally, the market situation for master graduates in business administration and commerce from 1958-59 to 1971-72 has been one of excess demand.

F. The Market for Doctoral Graduates in Business Administration

The market situation for holders of doctoral degrees in business administration during the period 1958-59 to 1971-72 has been characterized by a deficiency in the supply.

2. Canadian Students in U.S. Graduate Business Administration Programmes

A. Characteristics of Master Students

The survey results show that the master students in 1967-68 were typically male Canadian citizens from either

the province of Ontario or Quebec, were between the ages of 20 and 25, and were the holders of either a Bachelor of Commerce or Bachelor of Arts first degrees which were oriented towards commerce, business administration or economics. These degrees had been obtained in 1966 or 1967 and in the students' home provinces.

Most of the master students in our sample were pursuing the Master of Business Administration degree at Harvard University or the University of California, and were specializing in either business administration, marketing, accounting, or finance. This degree represented the average student's highest degree sought. Finally, it was found that the typical master student did not hold a scholarship.

B. Characteristics of Doctoral Students

As was the situation with the master students the results of the survey show that the representative doctoral candidate was a male from either Ontario or Quebec and possessed a Bachelor of Commerce or business-oriented Bachelor of Arts first degree. The doctoral student received his first degree in the early 1960s, and held a Master of Business Administration degree granted sometime in the period 1965 through 1967. Predominantly, this second degree was obtained either in Ontario or in the United States.

The doctoral student, who was generally the holder of a scholarship, pursued the Ph.D. and/or D.B.A. degree predominantly at any one of five major universities, i.e., Harvard, California, Michigan, Illinois, or Chicago. Similar to the master students, the doctoral candidate was specializing in either business administration, marketing, accounting, or finance. It was further observed that the average doctoral student was not taking educational leave from an employer, nor was he likely to bring any substantial employment experience to his doctoral programme.

C. Factors Determining Selection of a U.S. University

Master students indicated that the two most significant reasons for pursuing a graduate degree were because of better opportunities in business (36.1 per cent of the 111 master students) and as career preparation (27.0 per cent).

For most of the doctoral students, the decision to pursue the doctorate was primarily their own (41.5 per cent of 65 doctoral candidates) and, to a lesser degree, upon the advice of their university professors (27.7 per cent). Over one-third of the doctoral students decided to pursue the Ph.D. degree only after completion of the master programme.

Almost one-third of the master students indicated that the major reason for pursuing a graduate degree in business administration at a U.S. university was the general better quality of the programme vis-à-vis the Canadian counterpart. The next most significant criterion for selection of a U.S. university, as reported by a further 21.6 per cent of the students, was the prestige or reputation of the university and/or department at which the master programme was being offered.

Of the 111 master students surveyed only one-third applied to a Canadian university for acceptance to a master programme in business administration. With only two established programmes of business administration in operation in Canada at the time the surveys were taken, namely, at the University of Western Ontario and the University of British Columbia, it was not surprising to find that the proportion of students who did not apply to Canadian universities was roughly proportional to those who cited such factors as general better quality of the U.S. programme, dissatisfaction with the Canadian programme and prestige of the U.S. university as the major criteria for selecting an American university.

For the doctoral students in 1968, slightly less than one-half indicated that the prestige of the university and/or the reputation of the department was the most significant criterion for choosing to go to a U.S. university. Also important determining factors were the reputation of a particular professor in the university (12.3 per cent cited this reason) and the financial support being offered by the university (10.8 per cent).

With respect to financial support, it was found that fellowships represented the major source of financial support for doctoral students pursuing their degrees (69.2 per cent). Moreover, it was learned that these fellowships represented over one-half of the total financial base for most of these students.

D. Canadian Students Intending to Remain in the United States

Approximately two-thirds of both the master and doctoral students expressed a preference to return to Canada. Two-thirds of the doctoral candidates actually made plans to return to Canada, while just over one-half of the master students had actual plans to return.

The major factors affecting the decision of the master students to remain in the United States upon completion of their degree programmes were the teaching opportunities (as responded to by 42.2 per cent of those reporting) and higher salaries (37.5 per cent).

Doctoral students indicated such factors as better research opportunities (34.6 per cent), higher salaries (23.1 per cent), better teaching opportunities (19.2 per cent), and climate (15.4 per cent) as the most significant reasons for intending to remain in the United States.

A greater proportion of master (82.9 per cent) than doctoral (53.8 per cent) students assessed that opportunities for advancement were better generally in the United States than in Canada. While the master group felt that promotion opportunities in their own field were significantly better in the United States (73.0 per cent), the doctoral students (46.1 per cent) assessed their chances for advancement to be better in Canada. This distribution reflects that fact that the master graduates are primarily industry-oriented and the doctorate holders are more inclined to the education sector. As Comay¹ has shown, the most likely to return are those in the government and education sectors, while those in industry are less likely to return.¹

¹ See Chapter I, Section 3, where this conclusion by Peter Comay is discussed more fully.

More than one-half of both the master and doctoral students had inquired about employment possibilities in the United States in 1968. Of those students who reported receiving a salary offer as a result of these employment inquiries, two-fifths of the master and one-half of the doctoral groups indicated being offered between \$12,000 and \$14,000 as a starting salary, in the survey year.

Most offers to the doctoral students came from universities for teaching positions (90.0 per cent of those reporting), while the majority of offers to the master students came from industry (almost one-third) and consulting firms (one-quarter). Of interest is the observation that while the master group indicated 'teaching opportunities' as a major factor affecting their decision to remain in the United States not one reported receiving an offer of a university teaching position in the United States.

E. Factors Motivating Students to Return to Canada

Slightly more than one-half of the master students and almost three-quarters of the doctoral group had inquired about employment possibilities in Canada. Almost 60 per cent of the former and 90 per cent of the latter entered into between one and four such employment discussions.

Most of the master students were offered consulting (25.5 per cent) and industry positions (35.3 per cent) in Canada, while 90 per cent of the doctoral candidates were offered teaching positions in Canadian universities.

One-half of the master students who reported a salary offer indicated that the approximate salary offered was less than \$10,000, and another 34.6 per cent received an offer between \$10,000 and \$12,000.

Over 50 per cent of the doctoral group were offered between \$12,000 and \$14,000 in Canada. While this proportion closely resembled that being offered in the United States, some doctoral candidates received an offer in Canada amounting to less than \$10,000. None of these students reported being offered a salary less than \$10,000 in the United States.

Wider divergencies in salary offers were found to exist for master students, as between Canada and the United States, than for the doctoral students. Almost 85 per cent of the master group reported a difference of between \$1,000 and \$5,000 in favour of the United States. Fewer of the doctoral candidates (60.9 per cent) reported differences of salary offers in this range.

Higher salaries in Canada did not at all influence the master students' decision to return to Canada, and were barely negligible for the doctoral candidates (5.9 per cent). In fact, the most significant factors motivating these graduate students to return to Canada were a preference for Canadian society and culture (45.1 per cent for doctoral students and 41.2 per cent for master students) and family, relatives, or friends in Canada, as reported by 27.4 per cent of the doctoral candidates and 29.4 per cent of the master students.

F. Canada's "Operation Retrieval" Programme

Operation Retrieval has been terminated. Effective September 1, 1972, a new programme called Canada Manpower: Services to Canadians Graduating Abroad was introduced in its place.

Instead of directing their correspondence to Manpower and Immigration headquarters in Ottawa, Canadian students graduating abroad will now mail their applications for employment to Manpower's five regional offices, i.e., Halifax, Montreal, Toronto, Winnipeg, and Vancouver.

For this select group of graduate students in 1967-68 the problem for most of the respondents was not that they had never heard of Operation Retrieval, but that Operation Retrieval had never heard of them. At the time these students

were surveyed, Operation Retrieval was only in its second year of implementation by the Manpower and Immigration Department. Through various evaluation surveys, this Department has become more aware of areas for improvement in this programme. The introduction of the new programme, Canada Manpower: Services to Canadians Graduating Abroad appears to be an effort in this direction.

3. Recommendations

The first recommendation of this study is that the provincial grant assistance for university operating expenses be re-allocated in such a way as to make more financial resources available to graduate business administration departments of Canadian universities.

Presently most of the operating funds, used to cover the daily operating expenses of a university, are obtained from provincial grants, of which about one-half are provided by the federal government. The rest of the university's operating income is made up of tuition fees, private and corporate donations, and research grants and contracts.²

² Association of Universities and Colleges of Canada, University Affairs, Ottawa, January 1973, p. 3.

A number of provinces, for example, Ontario, Manitoba and Alberta, which account for 50 per cent of both the master and doctoral programmes in business administration offered by Canadian universities, have developed operating grant formulae based on student enrolment as the method used to allocate operating funds to the provincially assisted universities. Students are weighted according to academic discipline and degree level.

This weighting system may make it advantageous for a university, in its efforts to maximize income received from provincial grants, to stress the M.A. over the M.B.A. programmes. In Ontario, for example, masters' level students in commerce and business administration are assigned a weight of 2, while masters' level students in the humanities, social sciences, mathematics, law, fine and applied arts, library science, physical and health education, and physical and occupational therapy have a weight of 3.³

³ Province of Ontario, Report of the Minister of University Affairs of Ontario 1967, Toronto, December 31, 1967, p. 10. The situation, with respect to commerce and business administration students is similar in Manitoba and Alberta: see, Province of Manitoba, The Annual Report of the Universities Grants Commission for the year ending March 31, 1972, Appendix "B", and Province of Alberta, Annual Report of the Alberta Universities Commission 1970-71, p. 46.

If the weighting system is adjusted in order that master students in business administration are assigned the same number of units as masters' level students in other disciplines, e.g., humanities and social sciences in Ontario, more financial resources might become available to graduate departments of business administration.

The second recommendation is that the financial support available to students in master and doctoral programmes of business administration in Canadian universities should be increased.

In 1971 there were a total number of 69 fellowships and scholarships available to students in Canadian graduate programmes of business administration, of which 14 were for doctoral students (Appendix Table A.5). The Province of Alberta made available 1,250 assistantships to students in most disciplines (including business administration), tenable at the University of Alberta. The universities of British Columbia, Manitoba, Windsor, Western Ontario, and McMaster provided a variable number of assistantships to students in most disciplines. It appears that there are few (if any) fellowships, scholarships, or assistantships available only to graduate-level business administration students in the Atlantic provinces, Laval University, Universities of Sherbrook

and Montreal, Sir George Williams University, Ottawa University, Waterloo and York Universities, University of Saskatchewan and Simon Fraser University. Although a number of fellowships, scholarships, and assistantships are available to students at McMaster, Queen's, Toronto, Western Ontario, and Windsor universities, the government of the Province of Ontario excludes the support of graduate-level business administration students in its Ontario Graduate Fellowship programme.⁴

The final recommendation of this study is that more in-depth analysis of the market conditions in Canada for graduate-level business administrators should be attempted than that which has been done to date.

As was pointed out in Chapter II, little has been done with respect to the supply and demand for graduates of master and doctoral programmes of business administration. Some studies⁵ have examined the supply and demand for university graduates in all disciplines in an attempt to project market conditions in the short-run future. Other researchers⁶

4 Muehlen, Max von Zur-, op. cit., p. 117.

5 Kushner, J., et al., op. cit., and Canada Department of Manpower and Immigration, New University Graduates: Supply and Demand, op. cit..

6 Muehlen, Max von Zur-, op. cit..

have tried projecting supply and demand for all highly qualified manpower by universities in Canada, five to ten years hence, while still others⁷ have estimated the demand for managers by Canadian industry in the medium-term future based on statistically inappropriate samples. However, these studies have not developed a rigorous model of the supply of and demand for graduate business administrators which could be used for projections and, ultimately, for policy making at the education, government, and private industry levels.

7 Keys, B.A., M. Heath, F. G. Thompson, op. cit.

APPENDIX A

TABLES

Canadian Graduate Students in Business Administration, 1966-67 and 1967-68, at Selected United States Universities

	1966-67			1967-68		
	Masters	Doctorates	Total	Masters	Doctorates	Total
1. Alabama, University of, Tuscaloosa, Ala.	-	-	-	-	-	-
2. Arizona, State University, Tempe, Ariz.	1	-	1	-	-	-
3. Arizona, University of, Tucson, Ariz.	-	-	-	-	-	-
4. Arkansas, University of, Fayetteville, Ark.	-	-	-	-	-	-
5. Boston University, Boston, Mass.	2	-	2	1	-	1
6. Brigham Young University, Provo, Utah	3	-	3	2	-	2
7. California, University of, Berkeley, Calif.	-	-	-	9	8	17
8. California, University of, Los Angeles, Calif.	4	2	6	5	9	14
9. Carnegie Tech, Pittsburgh, Pa.	-	-	-	3	3	6
10. Chicago, University of, Chicago, Ill.	6	5	11	3	8	11
11. Colorado, University of, Boulder, Colo.	-	-	-	-	-	-
12. Columbia University, New York, N.Y.	13	3	16	16	2	18
13. Cornell University, Ithaca, N.Y.	4	2	6	5	1	6
14. Dartmouth, Hanover, H.H.	1	-	1	-	-	-
15. Denver, University of, Denver, Colo.	2	-	2	2	-	2
16. Detroit, University of, Detroit, Mich.	4	-	4	6	-	6
17. George Washington University, Washington, D.C.	1	-	1	-	-	-
18. Harvard University, Boston, Mass.	50	12	62	40	11	51
19. Illinois, University of, Chicago, Ill.	-	-	-	-	-	-
20. Illinois, University of, Urbana, Ill.	-	-	-	2	6	8
21. Indiana University, Bloomington, Ind.	-	2	2	-	5	5
22. Iowa, University of, Iowa City, Iowa	-	-	-	-	-	-
23. Massachusetts Tech, Cambridge, Mass.	4	1	5	6	2	8
24. Michigan State University, East Lansing, Mich.	11	4	15	3	1	4
25. Michigan, University of, Ann Arbor, Mich.	10	7	17	11	10	21
26. Minnesota, University of, Minneapolis, Minn.	-	-	-	n.a.	n.a.	n.a.
27. Missouri, University of, Columbia, Mo.	-	-	-	-	-	-
28. Nebraska, University of, Lincoln, Nebraska	-	-	-	-	-	-
29. New York State, University of, Buffalo, N.Y.	3	-	3	2	-	2
30. New York University, New York, N.Y.	3	1	4	11	-	11
31. North Carolina, University of, Chapel Hill, N.C.	-	-	-	-	-	-
32. Northeastern University, Boston, Mass.	1	-	1	-	-	-
33. Northwestern University, Evanston, Ill.	1	2	3	-	2	2
34. Ohio State University, Columbus, Ohio	-	-	-	1	-	1
35. Ohio University, Athens, Ohio	-	-	-	-	-	-
36. Oregon, University of, Eugene, Oregon	5	-	5	6	1	7
37. Pennsylvania State University, University Park, Pa.	-	1	1	1	1	2
38. Pennsylvania, University of, Philadelphia, Pa.	8	4	12	13	5	18
39. Pittsburgh, University of, Pittsburgh, Pa.	-	-	-	-	-	-
40. Purdue University, West Lafayette, Ind.	-	-	-	1	-	1
41. Santa Clara, University of, Santa Clara, Calif.	-	-	-	-	-	-
42. Southern California, University of, Los Angeles, Calif.	1	-	1	-	-	-
43. Stanford University, Stanford, Calif.	9	3	12	7	2	9
44. Syracuse University, Syracuse, N.Y.	1	-	1	3	-	3
45. Texas, University of, Austin, Texas	-	-	-	1	-	1
46. Utah, University of, Salt Lake City, Utah	-	-	-	1	-	1
47. Washington State University, Pullman, Wash.	-	-	-	-	-	-
48. Washington University, St. Louis, Mo.	-	-	-	1	-	1
49. Washington, University of, Seattle, Wash.	3	5	8	10	6	16
50. Wayne State University, Detroit, Mich.	7	-	7	4	-	4
51. Wisconsin, University of, Madison, Wis.	-	1	1	3	1	4
52. Xavier University, Cincinnati, Ohio	-	-	-	-	-	-
	158	55	213	179	84	263

Source: (a) 1966-67 Data: Institute of International Education (New York)
 (b) 1967-68 Data: Correspondence with the 52 universities.

TABLE A.2

Canadian Universities with Graduate Programmes in
Business Administration, Commerce, Industrial Relations
and Management Science, by Region

<u>Region and University</u>	<u>Type of Degree</u>	<u>Year of Inauguration</u>
<u>Atlantic:</u>		
Dalhousie University	Master (Bus. Ad.)	1967
University of Moncton	Master (Bus. Ad., Comm.)	1968
<u>Quebec:</u>		
Laval University	Master (AA + Rel. Indus.)	1968
	Doctoral (AA + Rel. Indus.)	1968
University of Sherbrooke	Master (A. A.)	1966
University of Montreal	Master (AA + Indus. Rel.)	1969
(Ecole des hautes études commerciales - AA)	Doctoral (AA + Indus. Rel.)	1970
McGill University	Master (Bus. Ad. + Comm.)	1963
Sir George Williams University	Master (Bus. Ad.)	1968
<u>Ontario:</u>		
McMaster University	Master (Bus. Ad.)	1960
Ottawa University	Master (Mgmt. Sc.)	1971
Queen's University	Master (Bus. Ad.)	1964
University of Toronto	Master (Bus. Ad.)	1964
	Doctoral (Bus. Ad.)	1969
University of Western Ontario	Master (Bus. Ad.)	1949
	Doctoral (Bus. Ad.)	1960
University of Windsor	Master (Bus. Ad.)	1959
Waterloo University	Master (Mgmt. Sc.)	1970
	Doctoral (Mgmt. Sc.)	1970
York University	Master (Bus. Ad.)	1966
<u>Western Provinces:</u>		
University of Alberta	Master (Bus. Ad.)	1964
University of British Columbia	Master (Bus. Ad.)	1954
	Doctoral (Acct. Fin., Mktg. (Mgmt. Sc.))	1968
University of Manitoba	Master (Bus. Ad.)	1968
University of Saskatchewan (Saskatoon)	Master (Bus. Ad., Comm.)	1967
Simon Fraser University	Master (Bus. Ad., Comm.)	1968

Sources: Association of Universities and Colleges of Canada, University Handbook, 1971 and 1972, Ottawa; and Muehlen, Max von Zur-, Guide to Business Education Programs at Canadian Universities, Department of Industry, Trade and Commerce, Ottawa, 1970.

TABLE A.3

GROSS NATIONAL PRODUCT AND REAL DOLLAR CHANGE (CONSTANT
1961 DOLLARS), CANADA, ANNUALLY, 1958 to 1972

Year	GNP	Real \$Δ in GNP
	1961 \$(millions)	1961 \$(millions)
1958	36,098	-
1959	37,470	1,372
1960	38,553	1,083
1961	39,646	1,093
1962	42,349	2,703
1963	44,531	2,182
1964	47,519	2,988
1965	50,685	3,166
1966	54,207	3,522
1967	56,016	1,809
1968	59,292	3,276
1969	62,363	3,071
1970	63,941	1,578
1971	67,449	3,508
1972	71,157	3,708

Source: Statistics Canada, National Income and Expenditure Accounts, Information Canada, Ottawa.

TABLE A.4

POPULATION OF CANADA BY PROVINCE, JUNE 1, 1969

Province	Estimated Population ⁽¹⁾ ('000)
CANADA	21,015
Atlantic Provinces	2,001
Quebec	5,927
Ontario	7,306
Prairie Provinces	3,457
British Columbia	2,007

(1) Excludes the Yukon and Northwest Territories.

Source: Statistics Canada, Estimated Population of Canada by Province at June 1, 1969, Cat. 91-201, Research Section, Census Division, Ottawa, 1969.

TABLE A.5
FELLOWSHIPS, SCHOLARSHIPS, AND ASSISTANTSHIPS AVAILABLE TO STUDENTS IN
CANADIAN GRADUATE PROGRAMMES OF BUSINESS ADMINISTRATION, 1971

Source	Number of Fellowships, Scholarships, Assistantships Available									
	Universities Tenable at									
	British Columbia	Alberta	Manitoba	Windsor	Western Ontario	Toronto	McMaster	Queen's	McGill	Any
Private & Industry	6	-	-	2	15 ⁽¹⁾	3	2	1	5	35 ⁽²⁾
University and Provinces ⁽³⁾	V	1,250 ⁽⁴⁾	125,V ⁽⁵⁾	V	V	-	V	-	-	-

(1) 8 are specifically for doctoral students.

(2) 6 are specifically for doctoral students. Three sources, the Seagram Company (18 fellowships), the Society of Industrial Accountants (5), and the Xerox of Canada Ltd. (12), account for the total.

(3) These are open to students in most disciplines. In many cases the number awarded each year is not fixed; these are indicated by "V" (standing for variable number).

(4) Province of Alberta Assistantships.

(5) There are a variable number of University of Manitoba Research Assistantships intended to compensate for areas not covered by NRC and MRC fellowships.

Source: Statistics Canada, Awards for Graduate Study and Research, 1971, Information Canada, Ottawa, June 1972.

APPENDIX B

SURVEY QUESTIONNAIRES



THE UNIVERSITY OF MANITOBA

PROJECT "UNIVERSITY BUSINESS EDUCATION"

PLEASE REPLY TO:
PROFESSOR M. VON ZUR-MUEHLEN
c/o ECONOMIC COUNCIL OF CANADA
P.O. BOX 527, OTTAWA, CANADA

May 16, 1968.

Dear Sir:

In recent years Canadian companies have become more and more aware of the opportunities for Canadian MBA graduates who have obtained their degree in the United States. This development is encouraged and supported by the Federal Government of Canada through its "Operation Retrieval" programme. As you are undoubtedly aware, Canadian universities have at the same time expanded their MBA activities to the extent that in the Fall of this year there will be approximately twenty graduate programmes available in Business Administration.

We believe, therefore, that this is a suitable moment to address the enclosed questionnaire to you and 301 other Canadian MBA students presently studying at 51 American universities. Its immediate objective - apart from obtaining biographical data - is to gather information as to why you have selected an American institution, what you estimate your career expectations to be, and an assessment of your academic experiences.

We realize that the completion of such a questionnaire may prove burdensome, especially at this time of year. However, as students in research methodology, you will appreciate the importance of a high response rate in order that the information obtained should have validity. Indeed, we hope that this information will not only benefit you personally but also our Canadian academic institutions in their effort to justify and expand their graduate programmes. Needless to say, personal observations will be treated in the strictest confidence.

Should you have any questions, please contact me at the above indicated address.

Thanking you in advance for your co-operation.

Yours sincerely,

Max von Zur-Muehlen.

SURVEY OF CANADIAN STUDENTS IN MASTERS PROGRAMMES OF BUSINESS
ADMINISTRATION AT U.S. UNIVERSITIES

Your name: _____
 last name first name middle name(s)

Home address: Street _____ City _____ Province _____

Country _____ Present citizenship _____ Age at last
 of birth _____ status _____ birthday _____ Sex _____

Earned degree(s) and professional qualification			
DEGREE	YEAR OF AWARD	AWARDING INSTITUTION	DISCIPLINE OR MAJOR (e.g. economics or sociology)
business degree sought	anticipated date of award	awarding institution	field of specialization

Have your academic and/or professional expectations been fulfilled in your present graduate programme? (please elaborate)

Are there any additional areas -- apart from your field of specialization -- which you would have wished to emphasize? Yes ☐ No ☐ If yes, specify

What scholarship(s) or fellowship(s) do you presently hold? _____

What is the highest degree you hope to earn? _____

What was your motivation for working towards a graduate degree in business? _____

What were your main reasons for selecting a U.S. university? _____

Did you apply to a Canadian MEA programme? Yes ☐ No ☐

If yes, which university(ies)? _____

Check the statements below which best represents a) that which you would prefer to do and b) actually plan to do after you complete your graduate degree in the United States.

- | | |
|---|---|
| a) I <u>would prefer to</u> | b) I <u>actually plan to</u> |
| return to Canada ☐ | return to Canada ☐ |
| remain in the U.S. ☐ | remain in the U.S. ☐ |
| other (specify) _____ | other (specify) _____ |

If you indicated in any of the above replies that you might be remaining in the United States, check the statement(s) in the following list which best explain your motivation (please rank no more than three significant statements in numerical order).

- | | |
|---|---|
| ☐ better salaries | ☐ Cultural and intellectual activity is greater in the United States |
| ☐ better work opportunities in your field | ☐ Canadian management appears to be overly conservative |
| ☐ better research opportunities in your field | ☐ disinclination to cut already-established roots in the United States |
| ☐ better fringe benefits | ☐ reservations about French-English tensions in Canada |
| ☐ better climate | ☐ other _____ |
| ☐ family, relatives or close friends are in the U.S. | _____ |

If you indicated that you would be returning to Canada, please check the statement(s) in the following list which best explain your motivation (rank not more than three significant factors in numerical order).

- | | |
|--|--|
| ☐ better salaries | ☐ family, relatives or close friends are in Canada |
| ☐ better work opportunities in your field | ☐ reservations about U.S. racial tension |
| ☐ better research opportunities in your field | ☐ reservations about U.S. draft policies |
| ☐ better fringe benefits | ☐ preference for Canadian social and cultural environment |
| other (specify) _____ | _____ |

For most MBA positions in general, and for the particular occupation you plan to enter, do you think the opportunities for success (monetary, prestige, power, etc.) are better in Canada or in the United States?

OPPORTUNITIES FOR SUCCESS ARE:

	BETTER IN CANADA	BETTER IN THE U.S.	OTHER (specify)
For most positions	_____	_____	_____
For the occupation you plan to enter	_____	_____	_____

Have you discussed full-time employment possibilities with any U.S. employer?

Yes ☐ No ☐

If yes, how many? _____

Approximate salary range _____

Type of position(s) _____

Have you discussed full-time employment possibilities with any Canadian employer?

Yes ☐ No ☐

If yes, how many? _____

Approximate salary range _____

Type of position(s) _____

How many offers of employment did you receive?

from Canada _____

from the United States _____

Have you accepted a position with a

Canadian employer ☐

American employer ☐

Canada's Department of Manpower and Immigration, through its "Operation Retrieval" programme, has attempted to remain in contact with you.

1) have you heard of it?

Yes ☐ No ☐

2) how useful has it been for you personally in obtaining a position?

3) what suggestions do you have concerning its operation? _____

Have you obtained the 1967 edition of the CANADA CAREERS DIRECTORY? Yes ☐ No ☐

If you plan to remain in the U.S., under what conditions would you consider returning permanently to Canada? (specify) _____

What is your ultimate career objective? _____

If you have any further answers, comments or points to make please use a separate sheet of paper.

PLEASE RETURN THE QUESTIONNAIRE TO:

Professor Max von Zur-Muehlen,
c/o Economic Council of Canada,
P. O. Box 527,
Ottawa, Ontario.



THE UNIVERSITY OF MANITOBA

PROJECT "UNIVERSITY BUSINESS EDUCATION"

May 17, 1968

PLEASE REPLY TO:
PROFESSOR M. VON ZUR-MUEHLEN
c/o ECONOMIC COUNCIL OF CANADA
P.O. BOX 527, OTTAWA, CANADA

Dear Sir:

In recent years, Canadian universities have recognized the growing need for U.S.-trained Canadian doctorates in Business Administration. This recognition is encouraged and supported by the Federal Government of Canada through its "Operation Retrieval" programme. At the same time, a number of Canadian universities are considering offering their own doctoral programme in this field, to complement an already existing programme at the University of Western Ontario.

We believe, therefore, that this is a suitable moment to address the enclosed questionnaire to you and 75 other Canadian doctoral students presently studying at 19 American universities. The immediate objective of the questionnaire -- apart from obtaining biographical data -- is to gather information as to why you have selected your institution and to get your assessment of its doctoral programme.

We realize that the completion of such a questionnaire may prove burdensome, especially at this time of year. However, as a student in research methodology, you will appreciate the importance of a high response rate in order that the information received should have validity. Indeed, we hope that this information will not only benefit you personally but also our Canadian academic institutions. Needless to say, personal observations will be treated in the strictest confidence.

Should you have any questions, please contact me at the above-indicated address.

Thanking you in advance for your co-operation.

Yours sincerely,

Max von Zur-Muehlen

SURVEY OF CANADIAN STUDENTS IN DOCTORAL PROGRAMMES OF BUSINESS ADMINISTRATION
AT U.S. UNIVERSITIES

Your name: _____

last name	first name	middle name(s)
-----------	------------	----------------

Home address: Street_____City_____Province_____

Country of birth	Present citizenship status	Age at last birthday	Sex

Earned degree(s) and professional qualification			
DEGREE	YEAR OF AWARD	AWARDING INSTITUTION	DISCIPLINE OR MAJOR (e.g. economics or sociology)

residence requirements for the doctorate fully completed Yes ☐ No ☐

degree sought	anticipated date of award	awarding institution	field of major specialization

Pre-doctoral fellowships and scholarships

A. _____ Date _____

B. _____ Date _____

C. _____ Date _____

Specialized area of doctoral dissertation (if available) _____

Are there any additional areas in your doctoral work which you might have wished to emphasize?

Are you presently on leave from a university or other organization? Yes ☐ No ☐
If yes, please specify _____

Approximately when did you decide to obtain a doctorate?

by high school graduation ☐

at the undergraduate level ☐

after graduation ☐

after Masters degree ☐

other (specify) _____

Who influenced you to attend graduate school?

own decision ☐

high school teacher ☐

university professor ☐

parents ☐

spouse ☐

college friends ☐ other (specify)

People have different motives for seeking the doctorate. Please elaborate on your own motivation _____

As it turned out, how adequate was each of the following aspects of your undergraduate preparation for graduate study in business?

	satisfactory	unsatisfactory	can't say
foreign languages	☐	☐	☐
writing and organizing ability	☐	☐	☐
preparation in subject fields	☐	☐	☐
preparation in related fields	☐	☐	☐
general background of liberal education	☐	☐	☐
research ability	☐	☐	☐
ability to work on your own	☐	☐	☐
other (_____)	☐	☐	☐

How did you decide to go to the institution in which you are taking your doctorate? (Rank the three most significant factors in numerical order).

☐ location	☐ recommendation of university professor
☐ low cost	☐ recommended by employer
☐ prestige of institution	☐ employment possibilities associated with study there
☐ reputation of department	☐ special programme of interest to you
☐ reputation of particular man or two	☐ stayed on after undergraduate and graduate work there
☐ financial support from institution	
other (specify) _____	

How would you now rank the university in which you are taking your doctorate among other institutions in your field?

☐ first or second	☐ eleventh to fifteenth
☐ third to fifth	☐ lower
☐ sixth to tenth	☐ cannot say

How would you characterize the current state of university Business Administration in general -- its intellectual vigour, development, progress, etc.?

☐ very satisfactory	☐ adequate	☐ unable to say
☐ quite satisfactory	☐ unsatisfactory	

In your case, do you consider the amount of time spent obtaining your doctorate

☐ reasonable	☐ too long	☐ too short	☐ can't say
-------------------------------------	-----------------------------------	------------------------------------	------------------------------------

If it appears too long, what factor is contributing to the length? _____

If applicable, what did you do between your undergraduate and your doctoral work?

No. of Years

employment in industry	☐
employment in government	☐
educational employment	☐
other (specify) _____	☐

During your doctoral work, what percentage of financial support came from the following sources?

	<u>estimated percentage</u>
personal savings.....	_____
loans.....	_____
part-time salary from employer.	_____
fellowships, scholarships.....	_____
part-time teaching.....	_____
other part-time work.....	_____
other (_____).	_____
Total	100%

Did you apply to the University of Western Ontario? Yes ☐ No ☐

Check the statements below which best represents a) that which you would prefer to do and b) actually plan to do after you complete your doctorate in the United States

a) <u>I would prefer to</u>	b) <u>I actually plan to</u>
return to Canada ☐	return to Canada ☐
remain in the U.S. ☐	remain in the U.S. ☐
other (specify) _____	other (specify) _____

If you indicated in any of the above replies that you might be remaining in the United States, check the statement(s) in the following list which best explain your motivation (please rank no more than three significant factors in numerical order).

☐ higher salaries	☐ Cultural and intellectual activity is greater in the United States
☐ better teaching opportunities in your field	☐ Canadian universities appear to be overly conservative
☐ better research opportunities in your field	☐ disinclination to cut already-established roots in the United States
☐ better work climate	☐ reservations about French-English tensions in Canada
☐ better climate	other _____
☐ family, relatives or close friends are in the U.S.	_____

If you indicated that you would be returning to Canada, please check the statement(s) in the following list which best explain your motivation (rank not more than three significant factors in numerical order).

☐ higher salaries	☐ family, relatives or close friends are in Canada
☐ better teaching opportunities in your field	☐ reservations about U.S. racial tension
☐ better research opportunities in your field	☐ reservations about U.S. draft policies
☐ better work climate	☐ preference for Canadian social and cultural environment
other (specify) _____	_____

- 4 -

For most doctoral positions in general, and for your particular position, do you think the opportunities for advancement are better in Canada or in the United States?

OPPORTUNITIES FOR ADVANCEMENT ARE:

	BETTER IN CANADA	BETTER IN THE U.S.	OTHER (specify)
For most positions	_____	_____	_____
For your particular position	_____	_____	_____
Have you discussed full-time employment possibilities with any U.S. university or other employer?	Yes ☐ No ☐	Yes ☐ No ☐	
If yes, how many?	_____	_____	
Approximate salary range	_____	_____	
Type of position(s)	_____	_____	
How many offers of employment did you receive?			
from Canada	_____		
from the United States	_____		
		Have you accepted a position with a	
		Canadian employer	☐
		American employer	☐

Canada's Department of Manpower and Immigration, through its "Operation Retrieval" programme, has attempted to remain in contact with you.

(1) Have you heard of it?

Yes ☐ No ☐

(2) How helpful has it been for you personally?

(3) What suggestions do you have concerning its operation? _____

Have you obtained the 1967 edition of the CANADA CAREERS DIRECTORY? Yes ☐ No ☐

If you plan to remain in the U.S., under what conditions would you consider returning permanently to Canada? (specify) _____

What is your ultimate career objective? _____

If you have any further answers, comments or points to make, please use a separate sheet of paper.

PLEASE RETURN THE QUESTIONNAIRE TO:

Professor Max von Zur-Muehlen,
c/o Economic Council of Canada,
P.O. Box 527,

APPENDIX C

DERIVATION OF DEMAND BY INDUSTRY AND GOVERNMENT
FOR MASTER-LEVEL BUSINESS ADMINISTRATORS

The demand by industry and government in Canada for master graduates in business administration was expressed as a function of the lagged real dollar change in Gross National Product (GNP) and the flow of new business administrators who were hired in the previous period. In equation form this relationship appears as:

$$(1) \quad D_{MBA_t} = \alpha + \beta_1 S_{MBA_{t-1}} + \beta_2 \Delta GNP_{t-1}$$

where D_{MBA_t} = industry and government requirements for new master graduates in business administration at time t ;

$S_{MBA_{t-1}}$ = flow of new master graduates in business administration in time $t-1$;

ΔGNP_{t-1} = change in constant (1961) dollar Gross National Product in time $t-1$.

It was anticipated that the flow of new master graduates in business administration in time $t-1$ would show a strong positive relationship with the demand by industry and government for master graduates in business administration in time t . If S_{MBA_t} is greater than, equal to, or less than $S_{MBA_{t-1}}$ then D_{MBA_t} has increased, stayed at the same level, or declined with respect to $D_{MBA_{t-1}}$.

The real dollar change in GNP in time $t-1$ was expected to exhibit a relatively strong relationship with the demand for new master graduates in business administration in time t . If real GNP is on the upswing, aggregate demand for goods and services would be increasing. Once the upswing is expected to continue, demand for new factors of production, of which new master graduates in business administration are one, may be expected to rise, also.

Equation (1) was tested by ordinary least squares regression techniques. The results of the linear multiple regression are (student t -values are shown in brackets under the regression coefficients and * indicates significance at the 1 per cent level of certainty and ** shows significance at the 10 per cent level):

$$(2) \quad D_{MBA_t} = -0.26 + 1.03 S_{MBA_{t-1}} + 0.29 \Delta GNPK_{t-1}$$

$$(0.23) \quad (15.50)^* \quad (1.88)^{**}$$

$$\bar{R}^2 = 0.963 \quad S.E.E. = 0.45 \quad D.W. = 2.59$$

$$\text{No. of observations} = 14$$

The results of equation (2) illustrate that there is a strong positive relationship between government and industry demand for new master graduates in business administration and the change in real GNP and the flow of new master graduates, both in time $t-1$. The regression coefficients suggest that a 1 unit change in $GNPK_{-1}$ and a 1 unit change in $S_{MBA_{-1}}$ result in a 0.29 unit and a 1.03 unit change, respectively, in the demand for new master-level business administrators by industry and government. Table C-1 shows how the demand in period t is derived.

TABLE C.1

DERIVATION OF INDUSTRY AND GOVERNMENT DEMAND FOR NEW MASTER

GRADUATES IN BUSINESS ADMINISTRATION, 1958-1972

	Change in Demand Resulting from		Demand in Period t
	Change in (1)	Change in (2)	
	ΔGNPK	S	
	-1	MBA -1	
	(A)	(B)	(A + B)
1958-59	58	252	310
1959-60	73	261	334
1960-61	77	273	350
1961-62	88	312	400
1962-63	90	321	411
1963-64	108	382	490
1964-65	95	336	431
1965-66	130	462	592
1966-67	159	564	723
1967-68	189	672	861
1968-69	210	747	957
1969-70	245	869	1114
1970-71	251	892	1143
1971-72	272	966	1238

(1) Flow of new master graduates multiplied by 0.29.

(2) Flow of new master graduates multiplied by 1.03.

Source: Table 2.4 and Appendix Table A.3

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A CASE STUDY OF CANADIAN STUDENTS IN GRADUATE PROGRAMMES
OF BUSINESS ADMINISTRATION AT U.S. UNIVERSITIES

Résumé

The purpose of this study is to discuss the controversy surrounding the subject of international migration of highly qualified manpower; to review the conclusions of previous studies of the international migration of students; to investigate trends in the supply of and demand for graduates of master and doctoral programmes of business administration from 1958 to 1972; to examine the characteristics of a 1968 sample of Canadian graduate students in U.S. business administration programmes; to analyze factors which make Canadian business students seek graduate training in the United States and motivate them either to remain in the United States or to return to Canada upon completion of their studies; to discuss the Canada Department of Manpower and Immigration's "Operation Retrieval" programme; and to make some recommendations.

Some of the findings of this research project are:

- the supply of both doctoral and master graduates in business administration and commerce over the

period 1958-59 to 1971-72 has fallen short of the demand;

- master students took graduate studies in the United States because of the perceived better general quality of the United States vis-à-vis the Canadian programme and also because of the prestige or reputation of the university and/or department;
- doctoral students pursued graduate degrees in the United States because of the reputation or prestige of the university and/or department and/or particular professor, and the financial support being offered by the university;
- major factors affecting the decision of master students to remain in the United States were teaching opportunities and higher salaries;
- doctoral students gave better research and teaching opportunities and higher salaries as the main reasons for intending to remain in the United States;
- almost 85 per cent of the master students and 60 per cent of the doctoral candidates reported

a difference of between \$1,000 and \$5,000 in salary offers in favour of the United States;

- the most significant reasons motivating both groups of graduate students to return to Canada were a preference for Canadian society and culture, and family, relatives, or friends in Canada.

The main recommendations of this study are:

- increase the operating grants available to graduate-level business administration departments of Canadian universities;
- broaden the financial support available to business administration students in graduate programmes;
- attempt more in-depth analysis of the supply and demand situations for graduate-level business administrators.