

**“Undergraduates’ Expectations of Economic and Other Benefits of Higher
Education: A Case Study of Hong Kong”**

by

Andrew, Man Sing Yung

**A Thesis submitted in fulfilment of
the requirements for the degree of**

PhD

in

Institute of Education, University of London

November, 2002



Abstract

Hong Kong started a major expansion of its higher education system in 1989. By 1996, in less than a decade, the student enrolment rate had reached 18% of the relevant age group. Was there a justification for further expansion?

This thesis investigates the issue of the demand for higher education from the perspective of the students during the 1990s, a period of drastic political change and difficult economic conditions. It was an interesting time to explore students' perceptions of economic and other benefits of university education. The assumption was that if students possess positive views of returns from higher education, even in critical periods, their motive for investing in higher education is at least partly instrumental.

The findings of the study reveal that students were realistic and informed about the future graduate labour market. They were aware of the financial hardships incurred from the increase in their own share of the cost of higher education, the intensifying competition in the future graduate labour market resulting from education expansion, the possible impact the political changes and the economic downturn after 1997 might have on their future career conditions. Many foresaw and were ready to accept diminishing immediate economic returns upon graduation. Yet most of them still maintained a positive view of long term earnings and career development. Most of them understood that their investment in higher education was a prerequisite for a better future both in economic terms and in terms of life long personal development. All in all, the findings of this study provide evidence to support the instrumentalists' idea, not to exclude the academicians' though, an individual perceives participating in higher education as making investment for his/her future pecuniary returns and/or other benefits.

Acknowledgement

It is my pleasure to acknowledge all those who have contributed ideas and effort into this study. Indeed, this research has taken a long period of time to complete since it involves a great number of the students who have participated in the interview and the questionnaire survey. As much as I value each of their contributions, it is beyond possible to thank everyone for their kind assistance and professional support. What everyone has done proves to me that higher education exists for the betterment of human kind and I am glad to be able to research something with such positive humanitarian results.

It is important and worthwhile to note that it has been the most fortunate opportunity of my life to receive guidance from Professor Gareth Williams and Professor Ronald Barnett while working on this thesis. From their inspiring ideas and insight on the subject I have learned either directly from them during personal contact or while I read through their inspiring publications. Their work reminds me, from time to time, that the mission to pursue the wisdom of education is an important task for the betterment of human kind. Certainly, to supervise a student from such a far distance and to exercise so much tolerance of his mistakes throughout the years require great patience and they have by these performed an admirable role model for all education practitioners. A vote of thanks is also owed to Professor Andy Green, Dr. John Mace and Mr. John Preston for their helpful comments on the final draft.

This research would not have been the same had I not been given permission by Dr. Purcell and Dr. Pitcher of University of Warwick to adopt with modifications the questionnaire they used for the Students' Expectation Study conducted in the United Kingdom in 1995. I am grateful to them.

Much credit also goes to the kind assistance of the staff of the Department of Policy Studies and the Centre of Higher Education Studies, Institute of Education, University of London. I would have been lost without their help in arranging hostel places during my visits to London. I thank them also for their continued liaison work while I worked on the study in Hong Kong.

Much gratitude goes to my colleagues in the past years who have provided me with encouragement and part time work opportunities during this learning experience. They include Mrs. Ameila Turnbull, Director of National and International Education, Alberta Learning, Dr. Peter Chan, Dr. John Clark, Dr. Ramsey Koo, Professor Philip Moore and other supportive colleagues of the Hong Kong Institute of Education. Without their kind assistance it would not have been possible for me to overcome all of the challenges and difficulties I encountered.

Many heartfelt thanks are also given to Mr. James Dunlap, alumni of the University of Alberta, who took pains to read through some of the early drafts of the thesis.

Finally, the support from Helen, my wife and Kathryn, my daughter is much appreciated. They have tolerated my missing company and financial contributions to the family, all for the simple reason that Helen and I share the same belief in lifelong education. We know that the completion of this thesis is just the beginning of further research into the essence of higher education.

Table of Contents

ABSTRACT	2
ACKNOWLEDGEMENT	3
Introduction	12
1. The Debate over Higher Education Expansion in Hong Kong	14
2. Aim and Nature of the Study	17
3. Argument of the Thesis	18
4. The Research Questions	18
5. Delimitation	19
6. The Chapter Arrangements	20
 Chapter One Background	 23
1.0. Introduction	23
1.1. Development of Western-type Education in the Social and Cultural Context of Hong Kong	23
1.1.1. Development of Higher Education from 1912 to the early 1990s	30
1.1.2. The Return of Hong Kong's Sovereignty to China	33
1.2. The Profile of Hong Kong's Education System	35
1.3. Higher Education in Hong Kong	37
1.3.1. The Expansion	37
1.3.2. Student Finance	41
1.3.3. Graduate Labour Market	43
1.4. Final remarks	46
 Chapter Two Literature Review: Positive Relationship between Education, Productivity and Earnings: The Strength of Human Capital Theory	 48
2.0. Introduction	48
2.1. Students' Expectations of Higher Education as a Research Subject	48
2.2. Human Capital Theory	52
2.2.1. The Origin of Human Capital Theory	53
2.2.2. The Productivity-Augmenting Views	55
2.3. Age Earnings Profile	61
2.3.1. Education and Earnings	64
2.3.2. Ability and Earnings	66
2.3.3. College Major, Quality of Institutions, College Performance, and Earnings	68
2.3.4. Family Background and Earnings	70
2.4. Summary	74
 Chapter Three Literature Review: Benefits from Investment in Human Capital: Students' Expectations	 75
3.0. Introduction	75
3.1. The Economic Value of Higher Education to an Individual	76

3.2.	Rates of Return from Higher Education	80
3.3.	Students' Expectations from Higher Education: An Investors' Approach	84
3.4.	Benefits and Private Rates of Return from Higher Education — The Case of Hong Kong before Higher Education Expansion	86
3.5.	Factors Affecting Students' Expectations in the 1990s	89
3.6.	Related Studies on Students' Expectations: in Hong Kong and the United Kingdom in the 1990s	93
3.6.1.	Preparation of Students for Tertiary Education Report in Hong Kong in 1996	93
3.6.2.	Students' Expectations study by Purcell and Pitcher in the United Kingdom in 1996	101
Chapter Four	Research Methodology	105
4.0.	Introduction	105
4.1.	Aims and Scope of the Research	105
4.2.	Methodology: Combining a Qualitative Inquiry with a Quantitative Survey	108
4.3.	The Interview Survey	109
4.3.1.	The Researcher as the Instrument of Data Collection and Data Interpretation – the Issue of Neutrality	109
4.3.2.	An Open-ended Interview	110
4.3.3.	Reporting the Findings	112
4.3.4.	The Pilot Study of the Interview	113
4.3.5.	Sampling Selection and Profile of the Samples	116
4.3.6.	Description of the Interview	123
4.3.7.	The Interview Setting and Atmosphere	125
4.4.	The Questionnaire Survey	127
4.5.	Summary	130
Chapter Five	Report and Analysis of Data: Choice of Institutions and Programmes	131
5.0.	Introduction	131
5.1.	Classification of Students Under Study	131
5.2.	General Information about Education Opportunities and Expected Career Prospects of the Six Programmes Under Study	133
5.3.	Choice of Programmes	139
5.4.	Choice of Institutions	148
5.5.	Summary	153
Chapter Six	Report and Analysis of Data: Students' Perception on Increased Costs	155
6.0.	Introduction	155
6.1.	Students' Perception of Increasing Shares of the Education Costs	155
6.2.	Mode of Paying Education Expenses	156

6.3. Increasing Shares of Education Costs: Tuition fees – Did Expectations for Economic Benefits Change?	157
6.4. Increasing Shares of Education Costs: Student Loan Interest Rates – Did Expectations for Economic Benefits Change?	162
6.5. Concluding Remark	167
 Chapter Seven Report and Analysis of Data: Expectations of the Benefits of Higher Education	168
7.0. Introduction	168
7.1. Expectations of Economic Benefits	168
7.1.1. Expectations of Non Pecuniary Benefits	172
7.2. Awareness of the Increase in the Supply of Graduates by the Expansion in Higher Education and Problems likely to be Encountered in the Future Labour Market	173
7.3. Students' Expectations: their Relation with the Return of Hong Kong's Sovereignty to China	184
7.4. Expectations of Career Prospects in Relation to the Social and Political Situations of Hong Kong after July 1 st , 1997	185
7.5. Summary	195
 Chapter Eight Report and Analysis of Data: Questionnaire Survey	196
8.0. Introduction	196
8.1. Samples of the Respondents	196
8.2. Questionnaire Findings	200
8.2.1. Students' Motivation for Higher Education	201
8.3. Perceptions of Increasing Cost of Higher Education	209
8.4. Perceptions of the Graduate Labour Market	211
8.5. Perceptions of Employers' Expectations of Graduate	220
8.6. Aspirations for Career Development and Long Term Life Goals	225
8.7. Comments on the Graduate Labour Market Based on the Students' Perceptions of the Cost and Benefits of Higher Education	230
8.8. Summary of the Findings	237
8.9. Comparing Purcell and Pitcher's study in the United Kingdom (1996) with the present findings	238
 Chapter Nine Commentary and Conclusion	244
9.0. Introduction	244
9.1. Discussion of the Findings of the Two Surveys in Relation to the Four Research Questions	244
9.2. Critical Assessment on Research Methodology and Results	251
9.3. Concluding Comments	258
 BIBLIOGRAPHY	262
APPENDICES	288

List of Tables

Table 1	Education development in Hong Kong as expressed by the increase in the number of primary, secondary and degree granting institutions from 1841 to 2002	25
Table 2	Full-time student enrolment of UGC institutions in Hong Kong between 1991 - 1998	39
Table 3	Manpower balance, 2001	40
Table 4	Tuition fees in Hong Kong higher education, 1992-98	42
Table 5	Graduate Unemployment Rate of UGC funded institutions in 97-98	45
Table 6	The rates of return from university education in Hong Kong in the 70s and the 80s as calculated by Hong Kong researchers	87
Table 7	Student enrolment in UGC funded institutions, 1989-90 to 1995-96	90
Table 8	Graduate numbers from UGC funded institutions, 1989-90 to 1995-96	90
Table 9	Distribution of samples in different fields and different institutions	118
Table 10	Distribution of samples by code names in different fields and institutions	119
Table 11	Profiles of interviewed medical and law students	120
Table 12	Profiles of interviewed education and engineering students	121
Table 13	Profiles of interviewed journalism and arts and science students	123
Table 14	Similarities and differences of the issues covered by the two field works	128
Table 15	Classification of students under study	132
Table 16	Different types of pre-service Bachelor of Education Degrees in Hong Kong in 1997	136
Table 17	Factors that help students in deciding their choice of programme	139
Table 18	Factors that help students in deciding their choice of institutions	148
Table 19	Mode of paying education costs by the sampled students	156
Table 20	Opinions about the present student loan interest rate	163
Table 21	Opinions about the proposed new student loan interest rate	163
Table 22	Reasons behind the choice of first employment for all of the sampled students	169
Table 23	Students' awareness of the anticipated problems in the graduate labour market	174
Table 24	Expectations of future employment opportunities in relation to the social and political development of Hong Kong after July 1st 1997	185

Table 25	Availability of the six fields of study in the eight UGC funded institutions	200
Table 26	Pragmatic students by area of study	203
Table 27	Hedonistic students by area of study	203
Table 28	Fatalistic students by area of study	203
Table 29	Difference in students' pragmatic expectations (by area of study)	205
Table 30	Difference in response between gender on reasons for courses	206
Table 31	Difference in students' view on whether the possession of a degree is a requirement for obtaining the future job by subject	209
Table 32	Students' views regarding the graduate labour market	212
Table 33	Difference in students' responses regarding "There are few jobs available." by institutions and subject groups	214
Table 34	Difference in students' responses regarding "My studies have nothing to do with my career." by institutions and subject groups	215
Table 35	Difference in students' responses regarding "I expect a low economic return in the next few years but a higher return over the long run." by institutions and subject groups	216
Table 36	Difference in students' responses regarding "There is an oversupply of undergraduates." by institutions and subject groups	217
Table 37	Students' views about first employment opportunities and situation of their career at the time of their graduation	218
Table 38	Difference in students' responses regarding "I will take the job to broaden my experience and to develop more general skills" by institutions and subject groups	219
Table 39	Students' perceptions of the main attributes and skills sought by graduate employers, by area of study (traditional academic skills)	222
Table 40	Students' perceptions of the main attributes and skills sought by graduate employers, by area of study (personal development skills)	223
Table 41	Students' perceptions of the main attributes and skills sought by graduate employers, by area of study (enterprise or business skills)	224
Table 42	Expectations of career development in the next 5 years	225
Table 43	Differences of expectations of careers development by gender	227
Table 44	Expectations of career development by subject groups	228
Table 45	Students' long-term values	229
Table 46	Students' general personal value of life	229

List of Figures

Figure 1	Profile of Hong Kong Education System in 1999	36
Figure 2	Distribution of Full-time undergraduates between subject areas in the UGC-funded institutions (1997-98)	41
Figure 3	Economic Growth rate of Hong Kong, 1969-2000	45
Figure 4	Age-earnings profile, by level of education, Urban India, 1960	62
Figure 5	Costs and Benefits of human capital investment in higher education	77
Figure 6	Education and earnings of women aged 30-44, 1995	78
Figure 7	Education and earnings of men aged 30-44, 1995	79
Figure 8	Mean Advanced level examination results of applicants (score)	96
Figure 9	Places offered by the different programmes of the UGC institutions in relation to students' Advanced Level Examination results	97
Figure 10	Distribution of students' first choice for the fields of study (%)	98
Figure 11	Distribution of students' first choice for the seven UGC institutions	99
Figure 12	Places offered by the UGC institutions in relation to students' Advanced Level Examination results	100
Figure 13	Distribution of respondents by area of study	197
Figure 14	Gender of the respondents	197
Figure 15	Age distribution of the respondents	198
Figure 16	Distribution of respondents by institutions	199
Figure 17	Main reasons for choice of courses and programmes	202
Figure 18	Students' views on whether the possession of a degree is a requirement for obtaining the future job	207
Figure 19	Students opinions on current tuition fees	209
Figure 20	Distribution of students by type of student loan	210
Figure 21	Distribution of students by means to repay debt	211
Figure 22	Areas of competence 1: traditional academic skills	222
Figure 23	Areas of competence 2: personal development skills	223
Figure 24	Areas of competence 3: enterprise or business skills	224

ABBREVIATIONS

EMB	Education and Manpower Bureau, Hong Kong Government
UGC	University Grants Committee
HKU	The University of Hong Kong
CUHK	The Chinese University of Hong Kong
HKUST	The Hong Kong University of Science and Technology
HKBU	The Hong Kong Baptist University
PUHK	The Hong Kong Polytechnic University
HKCityU	The Hong Kong City University
LC	Lingnan College
LU	Lingnan University
HKIEd	The Hong Kong Institute of Education
HKOU	The Hong Kong Open University
APA	Academy of Performance Arts
VTC	Vocational Training Council
JUPAS	Joint University Programmes Admission Scheme
SFAA	Student Financial Assistance Agency
SAR	Special Administrative Region
POSTE	Preparation of Students for Tertiary Education Final Report
HKEA	Hong Kong Examination Authority
HKAL	Hong Kong Advanced Level Examination
HKCE	Hong Kong Certificate Examination
OECD	Organisation for Economic Co-operation and Development

Introduction

The thesis sets out to understand the expectations of undergraduate students in terms of what they seek to gain from higher education. The subjects of this study are Hong Kong undergraduate students during the late 1990s—the prime time of higher education expansion.

Higher education is a major activity of modern society. It carries out missions, both instrumental and epistemological, in a fast-changing global knowledge-based society. For the instrumentalists, the prime mission of universities is to create wealth and enhance economic competitiveness (e.g. Gray, 1999:5; Florida and Cohen, 1999:604-607). Academicians, on the other hand, regard the university as a place for the pursuit of truth and objective knowledge as well as research, a neutral and open forum for debate, a cradle for the development of students' critical abilities, autonomy and character (Barnett, 1990:8-9; 2000:53), and for the nurture and perpetuation of longer term cultural traditions (Williams, 1996a:56).

Higher education is a form of human capital investment because it confers benefits on individuals, enterprises, and societies. These are economic benefits and accrue in the form of additional earnings, productivity, or economic growth. According to human capital theorists such as Schultz (1961; 1963:39-42), Becker (1964), Blaug (1970; 1990), Woodhall (1970; 1998), Psacharopoulos (1985; 1995; 2000), Williams (1974; 1981; 1999; 2001), and other education economists, education contributes directly to the growth of national income by improving the skills, productive capacities, faster rate of innovation, and the creation of social capital for an individual and the society (OECD, 2001b).

Higher education can also give rise to a wide range of non-economic benefits, which can be categorised as first, greater social cohesion and second, higher quality of life, such as better health, better family and parenting, better care for the ageing and the underprivileged

people, better citizenship and participation, better leisure and lifestyle and lifelong learning attitude (OECD, 1999a:53; 2001a:7-8; McMahon, 1999; Wider Benefits of Learning Team, 2000:9-35; Preston and Plewis, 2001). Thus, the university exists to promote not only economic but also, personal and social advancement by means of human capital investment.

In recent decades, changing labour markets and social conditions have led to a clear demand for more education in many OECD countries. Tertiary level qualifications, which were originally designed for an elite minority of the work force, are now considered necessary for a high proportion of jobs (OECD, 1999a:18). This demand is not restricted to individual access, personal development, and acquisition of marketable qualifications. It is also for the advancement of knowledge, the development of competence, and the renewal of culture. Societies and their individual members share an ambition to advance, to develop, and to achieve (OECD, 1998b:19; UNESCO, 1998). As a result, mass higher education systems have emerged as a basic national need for many free market economies (Trow, 1974, Scott, 1995:9; 1998:124-126; Altbach, 1999:15-37; Blunkett, 2000).

Hong Kong adopted a human capital investment approach during the higher education expansion of the 1990s. According to the Education Commission Report Number 5 (1992:9), investment in higher education would “ensure the greatest possible return, in the form of school leavers who can play a full part in Hong Kong’s further social and economic progress”. The UGC (1996c:28) also pointed out that the government’s education strategy since 1989 was to provide sufficient places at schools and tertiary level for young people of the relevant age groups to fulfil their educational potential and ensure that the education provided was of good quality and was consistent with the changing requirements of the economy. In short, the government’s policy on higher education aims to enhance the productivity of the population for further economic and social developments.

1. The debate over higher education expansion in Hong Kong

By 2000, a decade after the initial announcement of higher education expansion, the number of degree-granting institutions funded by the University Grants Committee has grown from two to eight. In addition to an Open University, there was a total enrolment of more than 45,942 full time students or 18 percent of the relevant age group (UGC, 1998; 1999).

Since the beginning and during the process of the expansion, there has been public debate over its usefulness. Those who support the expansion see the micro effect of the expansion as provision of more higher education opportunities for individuals who expect raising of their future income and increasing lifetime earnings. This effect on the individuals will in turn produce an accumulating effect on the Hong Kong's economy as a whole.

Those against the expansion assert that there is apprehension as to whether or not there are sufficient numbers of high standard students to enter tertiary institutions and sufficient qualified staff to fill the large number of teaching vacancies in tertiary institutions (Shive, 1992:229-230). They also have concern over the possibility of creating graduate unemployment because there may be too many graduates competing for too few jobs (Lee and Lam, 1994:42-43; Wong, 1995:301-302; 1997:356). Coupled with the increasing cost of higher education, expansion might have more adverse than beneficial economic effects especially for those who come from less affluent families. These views cast a rather pessimistic tone on the productivity effect of higher education, not to mention the increase in individual income. It short-sightedly confines its argument on one of the possible immediate results of education expansion, a very negative one indeed, without regard for the long term effects education expansion could produce. It casts doubt on the usefulness of human capital theory, particularly in times of economic downturn, and echoes the so called "sheepskin argument" or the screening and signalling hypotheses by

various writers, such as Berg (1970); Thurow (1970); Jencks et. al. (1972); Arrow (1974); Spence (1973); Stiglitz (1975), who criticised mass higher education in the United States in the 70s. They cast doubt on the idea that economic benefits are the direct result of education and training. Accordingly, there seems to be a risk that the further expansion of learning opportunities would simply increase the supply of credentials, and thus produce only limited private and social returns.

As the debate continues in Hong Kong, there is yet no substantial evidence to indicate that higher education expansion since the 1990s is creating more harm than benefits, and few, if any, are calling for a rollback of the expansion. Rather, many query why the expansion should stop at 18 percent of the relevant age group instead of going on to widen access still further to allow for an even higher participation (Yung,, 1999; Cheng, 2002).

The demand for higher education throughout the 1990s has increased: from 1991 to 1998, enrolment in degree programmes increased from 29,199 to 45,942; an increase of 57% (UGC, 1998). Yet, many more students have sought study opportunities overseas. Why is there such a strong demand for higher education? Will it be sustained in the next decade or beyond? Evidence is needed to explain the strong demand for education expansion and to decide whether further expansion in the future can be justified, and this thesis looks for such evidence from the undergraduate students. Undergraduate students are one of the users of higher education, and one may postulate that they make the decision to invest or not to invest in higher education based on an intuitive cost and benefit analysis. So the gist of the matter is whether or not the individuals really believe that higher education will raise their future income and increase their lifetime earnings and whether they hope for other broader term benefit than these economic ones.

During the era of elitist higher education before the expansion, the private and social returns on the student's investment in higher education

was high. According to local researchers, the private rate of return ranged from slightly over 15% in the early 1980s to slightly below 25% in the 1990s (Yip, 1981; Kwok, 1984; Wong, K.F., 1992). As for social rate of return, the highest calculation was over 12% in 1982 (Hung, 1982) and the lowest was just above 5% in 1992 (Wong, 1992). (For more details, refer to Table 6 of Chapter 3.) There was a common view among parents and students that the main function of university education was to act as a gateway to a professional career, a means for obtaining high economic returns. How much of these convictions have been sustained in the era of mass higher education?

During the process of higher education expansion, three issues directly related to students' expectations emerged. First, the government substantially increased tuition fees; from an 8.2 percent cost-recovery rate to 18 percent. Second, political uncertainties arose due to the sovereignty return in 1997. Third, an economic downturn followed the Asian Financial Crisis. What impact did these issues have on students' perception of the economic and other benefits of higher education?

Assuming that students expect economic returns upon graduation, are they aware of what kinds of skill or area of competence, apart from knowledge of their specific field of study, that future employers will look for as main attributes indicating their usefulness for their jobs or careers? For all the questions raised above, are there any differences in the replies between students in vocational and non-vocational programmes? Finally, and most important of all, in analysing students' expectations of higher education, could it be concluded that students take an investment or instrumentalist view in pursuing higher education, for a long term enhancement of economic or other benefits, for both individuals and the territory as a whole?

2. Aim and Nature of the Study

This thesis aims to find out to what extent the students' expectations match realistically with the Government's postulate of human capital theory, which is the chief officially declared motive of higher education expansion in Hong Kong. It intends to find justification, from students' perspective, to support the decision to expand and, hopefully, to undertake further expansion.

Given the diversity of higher education students, it is also important to understand how students of different ability groups and subject areas perceive the benefits of higher education, along with the constraints placed on them by both financial uncertainties and their future prospects.

The study is exploratory in nature. Since Hong Kong has never experienced mass higher education before, neither the policy makers, the public, the institutional administrators, professors, nor students have firm ideas about the outcome of the policy. This study intends to give all the stakeholders in higher education a better understanding of the demands, profiles, and insights of the students, as well as how undergraduate students perceive the benefits of higher education.

There has not yet been a study similar to the present study in Hong Kong. In particular, no one has ever compared the perceptions of undergraduates before and after 1997, a period when sovereignty changed hands and when the future of Hong Kong seemed uncertain. No one has done a similar investigation in a period of serious economic hardship as in the late 1990s. So, this students' expectation study is conducted in a rather unique and unusual political and economic framework.

3. Argument of the thesis

A growth in enrolment in UGC funded institutions of 57 percent between 1991 and 2000 occurred because Hong Kong students enrolled in higher education based on a positive view of economic and other benefits despite the difficulties then in evidence. These difficulties were higher direct costs, lower perceived returns from higher education due to an increased supply of graduate labour, political transition and economic crisis in 1997, and a far from promising economic environment in 1998-2000. This behaviour reflects their instrumentalist perception that higher education is a worthwhile personal investment that leads to future pecuniary and non-pecuniary benefits.

4. The Research Questions

With these concerns in mind, the thesis attempts to answer the following four research questions, with the last one being the core question:

1. How has the emergence of mass higher education affected students' perception of its economic benefits?
2. How did the anticipation of bearing an increased share of cost affect students' perception of the economic benefits of higher education?
3. Did students maintain the same expectation for economic benefits immediately before and after Hong Kong returned to Chinese sovereignty?
4. How far are students instrumentally motivated in their choice of investing in higher education?

The rationale of arranging these questions in this sequence is based on the sequence which concerns over the related issues emerged through the process of higher education expansion since the early 1990s. It is believed that students were first alarmed by the anticipation of an enlarged graduate labour market. Then they felt the burden of the increased share of the costs. And when 1997 approached, they worried what effects the political change would bring to the socio-economic future of the territory. They had to worry as this had a direct bearing on their future employment prospects. It is surely interesting to explore whether students' opinions on the benefits of higher education were affected by these factors. It is hoped that through researches on these issues, certain conclusions could be drawn on the motivations behind our students' decisions on investing in higher education.

5. Delimitation

This study examines student expectations and aspirations of higher education in a period of higher education expansion. The emphasis is not on what higher education is about, what policies are, or how the policies are made, but on what students want to gain from mass higher education. It works only from the user side rather than concentrating on how the policy makers work and what education providers intend to achieve. Thus, it is in a sense an evaluation of higher education by undergraduate students. It focuses on students' perceptions of what and how much they will gain (economic and other benefits) based on a cost and benefit analysis. As such, the study confines to an analysis of private returns to education, not social returns at large.

Given the limitation of resources, the study does not intend to evaluate the entire student population. It focuses merely on students from six subject areas, vocational and non-vocational, from eight degree

granting University Grants Committee funded institutions. The choice of sampling will be explained in Chapter 4.

6. The Chapter Arrangements

This thesis consists of an introduction and nine chapters. The introduction briefly accounts for the reason why this thesis was written. Referring first to the debate over the pros and cons of higher education expansion in Hong Kong, it draws attention to the need to look for more justification for expansion from the students' points of view. Having described the aim and nature of the study, it then sets the main argument of the whole thesis and raises four research questions which the thesis attempts to answer. It is followed by a delimitation of the study.

Chapter one is a description of the background of the present study. The first part begins with an introduction of the development of western-type education in the social and cultural context of Hong Kong. Then, it revisits how higher education expansion in Hong Kong, based on manpower forecasts, evolved. Then it introduces the degree granting institutions and the distribution of students by institution after the expansion. The second part provides an overview of the research context. This section highlights two cost-related issues and one benefit-related issue of major concern to students: increases in tuition fees and the student loan interest rate, worries over possible graduate unemployment aggravated by the uncertain political and economic future of Hong Kong before and after the return of sovereignty to China in 1997 and the impact of the Asian Economic Crisis since November, 1997.

Chapter two reviews previous literature. It begins with a review of the increasing need for undergraduate students' expectation study and why students' experience in higher education becomes an important research subject. It is followed by the review of the development and core argument of human capital theory, the theory underpinned in the present study. The

discussion specifically focuses on the relationship between higher education, productivity, and earnings. The review uses age-earning profiles, the earnings function and several major independent variables of the earnings function to highlight evidences that education appears to be one of the chief influences on productivity and differential earnings.

Chapter three reviews why an individual might decide to invest in higher education. Then it considers rate of return studies, with its main emphasis on private rate of return. It is followed by reiterating students' expectations from higher education in general while more attention is paid to Hong Kong students' expectations before its higher education expansion. Some factors that might possibly affect Hong Kong students' expectations in the 1990s are then pointed out to explain why this study has to be done. Finally, it refers to two related studies on students' expectations from higher education, in Hong Kong and the United Kingdom respectively, to give insights on how and why the present study is conducted.

Chapter four first outlines the theoretical framework and the scope and aims of the research. It is followed by an introduction to the methodology used in the thesis. It explains why a decision is made to combine a qualitative inquiry with a quantitative survey and then some points related to the interview study, including the sampling profile and description of the study, and the questionnaire survey are discussed.

Chapter five through Chapter seven report and analyse the findings of the first piece of field work conducted in June, 1997, and provide an explanation of how and to what extent undergraduates' expectations are related to their choice of institutions and programmes (chapter six), increasing direct costs of higher education (chapter seven), anticipated economic returns (chapter eight), and political uncertainties before 1997. The findings of these chapters will give support on whether students' expectations are instrumentally related to pecuniary benefits of higher education.

Chapter eight reports and analyses the results of the second piece of

field work - conducted in March and April, 1999. Its structure resembles the previous three chapters; except that it extends further to explore more on the students' views on expectations of employers and students' long term goals and values in careers and life. The added parts serve to reveal students' view on non-pecuniary benefits of higher education.

Chapter nine is the conclusion of the thesis. It begins with an analysis of the two pieces of field work in relation to the four research questions raised in the introduction. It is followed by a critical assessment of the methodology and results. A final conclusion, which restates the main argument of the thesis, ends the chapter.

CHAPTER ONE

Background

1.0. Introduction

This thesis sets out to use Hong Kong as a case study, to examine whether undergraduate students have maintained the same positive expectations of benefits from higher education as their predecessors did before higher education expansion in the early 1990s. This chapter provides background information for basic understanding of the issue under study. It begins with a brief account of the social and cultural context of Hong Kong which is essential for understanding the importance of education, especially higher education, in the perspective of the Chinese community. It then describes the general profile of Hong Kong's education system, highlighting the competitive nature towards the upper end of the system. Thirdly, there is a brief account of the various factors that made up the demand for and the basic rationale behind the policy of higher education expansion in the 1990s, followed by the reason for officially freezing the expansion in 1998. As expansion incurred additional costs, the chapter then looks into the policy of student financing of higher education before it describes the graduate labour market from 1995-1999 and how possibly political uncertainty and the Asian Economic Crisis could have affected students' perceptions of the value for investing in higher education.

1.1. Development of western-type education in the social and cultural context of Hong Kong

Hong Kong was established by the British as a port and base for trade in 1841 (Endacott, 1964:6). That date also marked the incorporation of Hong Kong and its development into the global

capitalist system (Bray, 1992:91-92). Geographically, the territory of Hong Kong comprises Hong Kong Island which was ceded to the British in 1841, Kowloon Peninsula which was added in 1860, and the New Territories which were leased for a 99-year period in 1898. It has a total land area of 404 square miles. Ninety-eight percent of the population are Chinese while the remaining two percent are expatriates from the United Kingdom and other countries (Postiglione, 1992:3-15).

The development of western-type education in the territory was closely related to the population growth and the social-economic needs of the territory in different periods of time (Table 1). Western missionaries¹, who had been active in China since the sixteenth century (Sweeting, 1990: 14-18; Bray 1992:92), played an important role in the introduction of Western-type education in the early days of British rule in Hong Kong. As the population increased in the early years, the government began to provide subsidies to the missionary schools in 1854. It also delegated administrative authority over these schools to an Education Committee represented by government officials and missionaries. Later, in 1862, the government established the first government school, the “Government Central School” (renamed as Queen’s College in 1894). These government ventures revealed a growing commitment to the economic and administrative development of the territory in the long run as they satisfied both the growing demand for educated manpower for the expanding international (entrepot) trade and the personnel requirements of the lower echelons of the civil

¹ A few Chinese village schools existed in Hong Kong in 1842, but these institutions imparted few skills beyond rudimentary literacy. Sweeting (1990:139-146) determined that the first formal Western-type school in Hong Kong was founded in 1841, by the Morrison Education Society in memory of the Robert Morrison, the first Protestant missionary who died in 1834. The population of Hong Kong in 1841 was 5,650. Although the school had only a small enrolment of 11 pupils, most of them continued their education in either Britain or the United States with the support of the church and eventually became influential figures in contemporary Chinese history. Among them were Dr. Yung Wang and Dr. Wong Foon. The former was the first Chinese to graduate from Yale University in the United States in 1854, whose later work had substantial influence on the modernisation of China, whereas the latter was the first Chinese medical doctor to graduate from the University of Edinburgh in the United Kingdom in 1857.

services sector. One could argue that the British policy of developing education in her colony was predominantly pragmatic in orientation.

Table 1: Education Development in Hong Kong as expressed by the increase in the number of primary, secondary and degree granting institutions from 1841 to 2002

Year	Population (Million)	Economy	No. of Schools (Primary and secondary)	Number of Degree Granting Institutions
1841	0.06	Trading	0	0
1887	0.3	Trading	47	0
1912	0.56	Trading	115	1
1941	1.6	Trading	210	1
1955	2.7	Trading, and Labour Intensive Economy	706	1
1965	3.7	Trading, Light Manufacturing Industry and Labour Intensive Economy	1,120	2
1970	3.9	Trading, Light Manufacturing Industry and Labour Intensive Economy	1,185	2
1975	4.4	Trading, Service and Light Manufacturing Industry	1,132	2
1980	4.6	Trading, Service and Light Manufacturing Industry	1,185	2
1985	5	Trading, Service and Technological based Industry	1,210	2
1990	5.5	Trading, Service and Technological based Industry	1,312	2
1995	6	Trading, Service and Technological based Economy	1,375	8
2002	6.8	Trading, Service, Technological based and knowledge based Economy	1,421	9

Source: Sweeting (1990); Crawford (1995); Education Department (2002)

The introduction of western values certainly exerted great impact on the Chinese people in the territory. Yet, deep-rooted as they were, the traditional Chinese culture and values prevailed and remained highly influential in determining their aspirations, value judgements and subsequent behaviour patterns. So there developed in Hong Kong a unique example of cultural convergence, a process of the East meeting the West. As Harris (1978:1) suggested, in the value system of the Hong Kong population, something of Chinese thought is to be found (including that of Confucius, Sun Yat-sen and Mao), but also perhaps Christ, Adam Smith, and Darwin.

There was indeed a great sense of pragmatism, as there still is now, in what the Chinese perceived as the value of education. It has always been valued as a means for social upward mobility by the Chinese, just as it has been by their counterparts in Western societies. This emphasis on the socio-economic value of education traces its origins in the advocacy and practices of the great Chinese scholar, teacher and philosopher, Confucius² (551-479 B.C.). Confucius' teachings emphasized the importance of fostering and empowering the mind of a gentleman, which included wisdom, benevolence, and courage; loyalty and forgiveness; faithfulness, filial piety, love, righteousness and virtue. He also stressed that education was the foundation of good administration and advocated that only those who did well at school should be entitled to enter the ranks of officialdom. He himself demonstrated that a scholar inhabiting a grass hut could, through education, move his way up to become a respected official in the country. He spent much of his life-time educating pupils from different origins and social classes with the objective of nurturing not only fine gentlemen

² Nearly 2,500 years ago, when intrigue and vice were rampant in feudal China, Confucius taught principles of proper conduct and social relationships that embraced high ethical and moral standards. Confucius teachings and wisdom were standard scholarly education for the bureaucrats who administered the country. The Confucian tradition, which encompasses education, wisdom, and ethics, persists in China.

but also just and upright administrators. In those feudal days, education became one effective means for the commoners to make their way up the social echelon.

Since Confucius' time, the socio-economic value of education penetrated the minds of the Chinese and was transformed into a norm. Folk sayings and proverbs like "There are golden houses and beautiful maidens in books"; "Everything is low except studying" and "Diligence compensates for stupidity" have become well-known. The emergence of the civil service examination system³ during and after the Sui and the Tang dynasties (581- 904 A.D.) further enhanced the function of education in leading to upward social mobility and subsequent economic benefits based on meritocracy, rather than aristocracy. This explains why so many poor Chinese students were willing to spend "ten years by the cold window", working hard for a degree in the civil service examination and a prospective career path. In a nut shell, Chinese society traditionally honoured academic achievement and gave high social status to scholars or scholar-officials. It is therefore not surprising that we find in the Chinese population in Hong Kong a similar respect for education. But in the Hong Kong context, the highest stage of education is not to pass the civil service examination. It is to receive university education, which to the general public is the key to economic and social advancement.

The traditional Chinese perception of education only partly explains the contemporary Chinese thought of education. After all, after the introduction of western education in Hong Kong, the opportunities for students to learn Confucian thought became much less. In secondary schools of the 1990s till the present, only a few excerpts from Confucius' classical writings are retained in the Chinese subject curriculum. In

³ Landes (1998: 335-336) explains that those who represented the emperor and administered the country for him were chosen by competitive examination in Confucian letters and morals. These mandarin officials embodied the higher Chinese culture – its prestige, its wholeness and sublimity.

universities, apart from scholars and students of Chinese classical studies, there are only a very few Chinese study groups or cultural groups which keep alive academic researches into Confucianism. Hence, the cultural impact of Confucianism on Chinese students in Hong Kong in the 20th and 21st centuries should not be exaggerated.

It was the need to struggle for a social place in colonial Hong Kong that the local Chinese began to participate in 'western' education. While many locals in the early days of colonial rule rejected western education as an imposition of an alien culture, some possessed the wisdom to envisage an instrumental function in it. Western education appeared to be an efficient means to enable the Chinese to acquire the medium of communicating with the British, to learn and use the lingua franca so as to fill the ranks of civil service open to the non-British, to serve as "middle men (compradors)" between British trading companies and the Chinese ones locally or in the mainland. They gradually realized that western education benefited them economically and socially through interacting with the westerners. Some even became wealthy (eg. Sir Robert Ho Tung⁴) and others (eg. Mr. Wu Tingfang⁵), made their way up the political ladder and marked their names in Hong Kong history (Smith, 1985:139-171). They are good local examples to convince Hong Kong people that western education provided a practical hope of escaping from poverty and enhancing social mobility.

⁴ Sir Robert Ho Tung was one of the successful compradors and the richest men in Hong Kong before the Second World War. A Eurasian brought up in a traditional Chinese family, Sir Robert was educated in the Government Central School, which used English as the medium of instruction.

⁵ Pomerantz-Zhang (1992) described Wu Tingfang as an important figure in the political life of the late Qing and early Republic of China. He was a product of the British colonial venture in Asia. Born in Singapore and raised in Guangzhou and Hong Kong. Wu was educated in missionary schools before going abroad to Great Britain for professional legal training. He was an innovator in pioneering reforms in China's government and political system. He was the first Chinese to become a barrister, and then a Legislative Councillor, in Hong Kong.

Throughout the years from the 1950s to the early 1980s, when Hong Kong's labour intensive manufacturing industries and entrepot trade prospered, the general public were contented with its education development focussed mainly on primary and secondary levels (as shown in Table 1). The number of degree granting institutions in Hong Kong was few before the 1990s, despite the soaring growth of population. Up till 1991, there were only two universities. But by then Hong Kong was already transforming drastically from a labour intensive manufacturing to a service industry based economy. There was a growing need for locally educated administrators, managerial and other supervisory personnels to assume leading roles in the international banks and financial corporations stationing in the territory. As Hong Kong also aspired to develop a high technology based manufacturing sector, the need for the necessary manpower was urgently felt. So, the transformation of its economy has created the pressure for further development of higher education in the late 1990s.

The public understood the need to maintain an educated manpower to sustain Hong Kong's competitiveness, for if Hong Kong lost her competitive edge in technological innovation and international trade and finance, her economy would be affected and so would the people's livelihood. This was again basically a utilitarian perception.

To most students in Hong Kong, the classical perception of education and the western utilitarian approach are partners rather than contenders in moulding their perception and expectation of education. It is the desire to pave way for their future social and economic positions that motivates them to participate in education, especially higher education.

1.1.1. Development of Higher Education from 1912 to the early 1990s

A brief account of the development of degree granting institutions from its initial stage up till the period immediately before the drastic expansion in the 1990s is considered worthwhile in providing a background in understanding the slow pace of development in the earlier years as compared with the rapid growth in the previous decade. The University of Hong Kong was founded in 1912 by merging two new faculties with the College of Medicine⁶ founded in 1887. It was the first degree granting institution in the territory⁷. In its initial years, it consisted of the Faculties of Medicine, Engineering and Arts, enrolling about 300 students out of a total population of around half a million. According to the University Ordinance of Hong Kong, one of its prime functions was to produce graduates required by the economic needs of the community and China (Jennings and Logans, 1953). The University of Hong Kong shouldered this responsibility and witnessed Hong Kong's steady economic growth throughout the first half of the 20th century and survived the darkest period of the Japanese Occupation. After 1945, it continued to fulfil its role of producing elites for Hong

⁶ Patterson (1987) pointed out that the College of Medicine was founded by the joint efforts of the London Missionary Society; Dr. William Young, a Scots Canadian physician; Sir Ho Kai, who received Law and Medical education in Britain since the age of thirteen and later married to a British lady Alice Walkden in London; and Dr. Patrick Manson who had practised medicine in China before moving to Hong Kong. Sir Ho Kai was the most influential Chinese figure in public affairs at the turn of the century. The Kai Tak International Airport of Hong Kong (which closed in 1998) was named after him.

⁷ The establishment of the university increased British influence in China to counter the growing threat of the Japanese in the political and economic competition in the Far East. This idea was reflected by a group of British merchants in a Hong Kong newspaper, the China Mail. The University of Hong Kong was also seen as a way of developing the potential of the youth and a means to attract those Chinese who were eager to learn western knowledge. In sum, the prime functions of the University of Hong Kong were to keep a close relationship with China (University Ordinance of H.K., 1911), to fuse the culture of east and west, to produce graduates required by the economic needs of the community and China (Jennings and Logan, 1953), to act as a means to maintain British influence in the Far East, and to counter the threatening Japanese influences in the pre-war years.

Kong, who enjoyed great economic benefits as well as high social status. Demand for more university education opportunities began to be heard.

But the 1950s witnessed another difficult period of Hong Kong history in which drastic political change in mainland China greatly affected the territory. Millions of refugees, fearful of communist purges, crossed the border to seek refuge in Hong Kong. The sudden upsurge of population⁸ produced enormous pressure on the administration in the provision of housing, water supply, medical services and education⁹. As a result, it was not until the early 1960s that the Chinese University of Hong Kong was established to meet the increasingly high social demand for a second university, particularly one that used Chinese as a medium of instruction. However, university education in this period remained restricted to around one percent of the entire relevant age group.

The maintenance of elitist higher education could be explained in economic terms. There was obviously a social opportunity cost of education as the housing problem was in the 50s and 60s the most urgent of all social priorities (Mak, 1983). Besides, most of the financial resources available for education were given to primary and secondary education¹⁰ in the 60s and the 70s.

Following the establishment of the Chinese University of Hong Kong in 1963, the development of the higher education sector in Hong Kong was confined to the establishment of polytechnics and colleges in

⁸ Crawford (1995) pointed out that refugees from China fled to Hong Kong at an average rate of some 100,000 people each month.

⁹ Crawford (1995) pointed out that the balance of payments deficit for the 1946-47 financial year was expected to be at least HK\$116 million. Education had to compete with other social priorities for limited financial resources.

¹⁰ Crawford (1995) pointed out that the expansion of primary education began in 1954. By 1961 about 41,000 students entered secondary schools which pushed further expansion in secondary education. By the mid 60s, secondary education began its qualitative improvement. By 1971, total secondary enrolment in Hong Kong had reached 231,000. The percentage of F.5 students admitted into matriculation remained at 35%. Of the 7500 students who sat for the university entrance examination in 1969, 3700 passed but only 1351 were admitted to universities in 1970 owing to the shortages of places.

the sixties¹¹ and the seventies¹². This included the establishment of the Hong Kong Polytechnics (HKP) in 1972 and the City Polytechnics of Hong Kong (HKCP) in 1984. These institutions offered a wide variety of craft, technical and vocational courses in certificate and diploma programmes. They helped satisfy the manpower needs of Hong Kong during the period when the economy of Hong Kong began to take-off. The Hong Kong Polytechnics¹³ (HKP), the Hong Kong Baptist College¹⁴(HKBC) and the City Polytechnics of Hong Kong¹⁵ (HKCP) gained approval to offer a number of degree granting courses similar to those of C.N.A.A. (Council for National Academic Awards) degree courses in the United Kingdom from 1984 to 1986. Yet up till the mid-eighties, degree granting (university) places were still provided for less than 4% of the relevant age group. It was not until the 1990s that the higher education sector was expanded to cater for 18% of the relevant age group and degree granting institutions expanded from two to nine in number.

¹¹ This was a period of time when Hong Kong's economic base began the transformation from light manufacturing to technologically-based industry, for instance, from toy and garment making to manufacturing of transistor radios, watches, semi-conductors and the like.

¹² In this period, Hong Kong's economy began the transformation from a labour-intensive economy to a services and technology-based economy. The population in the early 70s was around 3.8 to 4 million.

¹³ The Hong Kong Polytechnic was established in 1972, taking over the campus of the former Hong Kong Technical College. It was the first Polytechnics in Hong Kong to provide Diploma courses in technical and vocational subjects. In 1983, after the assessment of the CNAA, HKP began to offer three-years degree programme for 10% of its students.

¹⁴ The Hong Kong Baptist College was founded by the United Hong Kong Christian Baptist Churches Association in 1956. It began as a private, four-year post secondary institutions with five teaching departments. In 1970, the institutions became the first institution to be recognized by the Hong Kong Government as an approved post-secondary college under the Post-Secondary College Ordinance. In 1981, after the assessment of the CNAA, it was given the right to grant British style honours degrees. It was included into UPGC in 1983 as an degree granting institution in Hong Kong.

¹⁵ The Hong Kong City Polytechnics was established in January, 1984, as the second Polytechnics in Hong Kong. At the beginning, it offered only sub-degree programmes. In 1986, after the assessment of CNAA, it began to offer degree programmes to around 27% of the student population.

1.1.2. The return of Hong Kong's sovereignty to China

Another significant aspect of the social context relevant to this thesis is the issue of the return of Hong Kong's sovereignty to China. The scheduled expiry of the lease of New Territories in 1997 was the chief factor that set the time table for the reversion of sovereignty over Hong Kong to the People's Republic of China on 1st July of that year. Although strictly speaking the lease applied only to the New Territories and not to Hong Kong Island or Kowloon Peninsula, it was clear to negotiators on both sides that the component parts could no longer be separated. Because of this, the whole of the territories of Hong Kong was returned to Chinese sovereignty, including the parts that had been ceded "in perpetuity". The arrangements for the changes of sovereignty were set out in a Sino-British Joint Declaration signed in 1984 (Postiglione, 1992:3-15)

The return of Hong Kong's sovereignty to China is a historical milestone in the history of Hong Kong. On 1st July, 1997, Hong Kong began the period of its administration by the Special Administrative Region Government under the "one country, two systems" principle. To the international community and to the people of Hong Kong, strict adherence to that principle was the warrant for maintenance of the political status quo and social order, which in turn would promise continuous economic development in the territory.

The thirteen-year lead time dating from the signing of the Sino-British Joint Declaration to the return of sovereignty was clouded by political rows between the Chinese and the British governments, with only limited participation of Hong Kong. These inevitably raised Hong Kong public's doubts about the guarantees for a stable political and economic transition as well as a high degree of autonomy as promised by the Basic Law. The Sino-British relationship at the time of the drafting of the Basic Law could be described as co-operative. It was Governor

Patten's constitutional proposals (1992) which aroused strong and furious reactions from the Chinese government and initiated open quarrels between the two governments. While Patten's proposals per se were far from radical by the standards of full democracy, it was its "wider implications: the British departure from the path of co-operation, the collaboration between the Hong Kong government and the democrats; the ascendancy of the Legislative Council and the weakening of the executive-led government" that made the Chinese government decide to set up "a second stove" (Lo, 1995:27-31). The second stove had the effect of amounting to a shadow government¹⁶ in the form of the Preliminary Working Committee and later, the Preparatory Committee (Lo, 1995:32). Then the less compromising stance which the British government took in the subsequent negotiations for constitutional development in Hong Kong resulted in the burial of the "through train" concept¹⁷. The National People's Congress Standing Committee adopted a resolution in 1994 on the termination of the terms of office of all the three tiers of representative assemblies (District Boards, Municipal Councils and Legislative Council) by 30 June 1997. This political tug of war between the existing and designated sovereign masters of Hong Kong certainly struck a heavy blow on the public confidence in the territory's political future.

One can also find other issues in non-political areas which help to explain the soaring anxiety of the people of Hong Kong prior to the sovereignty change in 1997. To name just a few: the slow and painful Sino-British negotiations over the new airport and Container Terminal Number.9 projects; the leading Chinese officials' criticisms on some

¹⁶ The Preliminary Working Committee had written the policy programme for the first SAR government, commented on many Hong Kong government policies of the day and drawn up time table for forming the first SAR government. The Preparatory Committee worked on forming the Selection Committee for the first SAR Chief Executive. Operating before July 1997, they were close to a shadow government.

¹⁷ The "through train" concept is that sitting members of the last Legislative Council under British rule to serve as members of the first legislature of Hong Kong SAR without new election.

recent amendments to laws of Hong Kong, such as the relaxation of the Public Order Ordinance in 1995; the negative comments made by Chinese officials on social welfare and infrastructure spending in Hong Kong, such as referring to social welfare spending as the destruction of the vehicle and the killing of the passengers. These issues underlined major public scepticism over the future of the territory's legal system and its socio-economic development. Higher education students, with little exception, would be seriously concerned and their perceptions of the benefits of education would likely be affected.

1.2. The Profile of Hong Kong's Education System

Hong Kong features universal elementary education, increasingly competitive intermediate education, and highly competitive higher education. To date, schooling is organised on a 6+3+2+2 system. This includes six years of primary education, three years of junior secondary education, two years of senior secondary education, and two years of sixth form education. The system is modelled after the system that was prevalent in England and Wales in the 1950s.

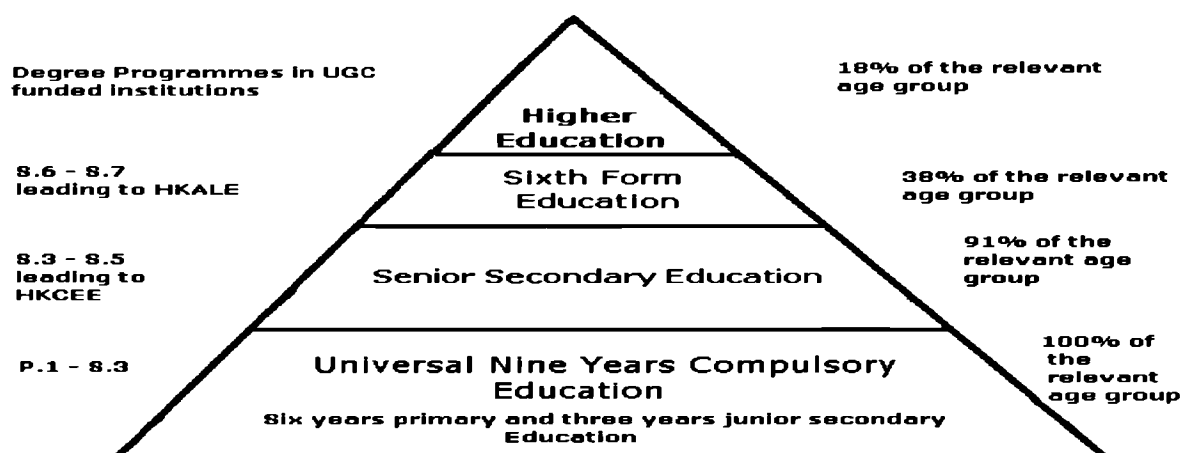
According to the Education Ordinance (1978)¹⁸, Hong Kong's children are required to start schooling at age six and remain in school until the age of fifteen or the end of secondary 3, whichever is earlier. After secondary 3, about 91% choose to stay in school for a further two years while the others choose to enter other technical or craft courses, or else opt to start working. The channel through which secondary 3 students gain access to secondary 4 is the Junior Secondary Education Assessment¹⁹ (JSEA), which is based largely on the students' internal

¹⁸ Section 74(1) of the Education Ordinance stipulates that a child is not attending primary or secondary school without any reasonable excuse.....the Director of Education serve upon a parent of the child an attendance order...Failure to comply with this order may lead to a fine of \$5,000 upon conviction and to imprisonment for 3 months for the parents.

¹⁹ The Board of Education (1997:97-99) stated that JSEA is a system of selection and allocation which aims at allocating subsidised school places to S3 leavers who wish to continue their

academic performance in secondary 3. The usual case is that students will stay in their own school if it has enough places to accommodate them. They follow curricular leading to the Hong Kong Certificate of Education Examination (HKCEE), which students will sit upon the completion of secondary 5. Only those who successfully achieve the required results²⁰ may enter the two-year, sixth form courses leading to the Hong Kong Advanced Level Examination (HKALE). In 1996, only 38% of students entered sixth form courses after secondary 5 (UGC, 1996c:1). Only half of the students who sit for the HKALE are eligible for degree programmes funded by the University Grants Committee (UGC).

Figure 1: Profile of Hong Kong Education System in 1999



education in either secondary schools or technical institutes. It was established in 1980/81. Participating schools are required to conduct internal assessment for their S3 pupils. Subjects for such assessments include, English, Chinese, Mathematics, Science subjects, Social subjects and Chinese History.

²⁰ The Education Department (1999) outlined that the minimum A-Level Entry requirement includes: (a) a student has attained a Grade E or above in 6 subjects, or Grade E or above in 5 subjects on no less than 8 points, in one sitting of the HKCEE; and (b) has attained a grade E or

Public examination (HKCEE and HKALE respectively) is the sole device for screening students for sixth form education and later higher education. It is academic in orientation with strong subject boundaries. It is only until recent years that more value has been placed on the non-academic performance²¹ of students in their secondary schooling. Hong Kong students are therefore very much aware of, and adapted to, the highly competitive nature of the local examination system. Before the 1990s, those who had successfully gained admission to first degree programmes were labelled as “elite” among their peers. After higher education expansion in the 1990s, competition has become less acute as the number of first degree places increased. But the fact is, competition remains. Like their predecessors, university students are still those who have successfully out-competed many others in successive public examinations. They think highly of themselves and they have high expectations of their higher education. Only now the “elite” forms a larger group among whom there may be diversity in abilities as well as in expectations.

1.3. Higher Education in Hong Kong

1.3.1. The Expansion

Higher education expanded rapidly from 1989 to 1994. Undergraduate enrolment leapt from 8% to 18% of the relevant age group in these five years. A number of factors contributed to this massive expansion of tertiary education. Firstly, as Hong Kong industry

above in both the Chinese language and the English language (Syllabus A or B) in HKCEE, but not necessary in one sitting.

²¹ In 1998, the JUPAS introduced the Principal Nomination Sub-Scheme to give credit to students with less impressive public examination results but very strong non academic attributes (in music, sports, community service, or leadership) for consideration of admission to first degree programmes. In the recent two years, some of the universities, such as the HKPU, have introduced their own self-nomination schemes which also give special credit to non-academic attributes.

and commerce moved from low-skilled, low-wage production towards more sophisticated markets and outputs, employers needed a better educated workforce. Secondly, there was a need to develop a strategy to meet the projected shortage of educated manpower for the growing economy and the spectacular out flow of professionals due to emigration (Education and Manpower Branch, 1991; 1992). Thirdly, there was an increasingly high social demand for higher education, particularly for degree courses (Wilson, 1989). The notion of a strong and positive link of academic qualifications with upward social mobility has long prevailed in Chinese society. It has led to parental pressures on children to exploit educational opportunities as much as possible (UGC, 1996c:16).

The Hong Kong Government, partly to meet these demands and partly to meet its own increasing requirement for well-qualified personnel in areas such as the civil service and health and education, introduced the expansion in 1989. It was based on a postulate of human capital theory: an investment in higher education would prepare the graduates for contributing to long term economic growth and the cultural and social well-being (EMB, 1991:2; Education Commission Report Number 5, 1992:9; UGC, 1996c:28) that provided the rationale behind the expansion.

The widening of participation opportunities in higher education was made possible basically by two measures. First, the number of places in existing institutions was increased. Second, various non-university tertiary education institutions, such as polytechnics, liberal arts college and teacher colleges were upgraded as the number of university and institute of education and undergraduate places was raised. Table 2 illustrates the full-time enrolment and growth rate of both old and new UGC-funded institutions between_1991-98, and the educational features of these institutions. The total growth rate of

enrolment in all UGC-funded institutions during the expansion was 57.3%.

Table 2: Full-Time Student Enrolment in UGC-Institutions in Hong Kong between 1991-1998

Institution (Founding year)	Enrolment in Degree Programmes in 1991	Enrolment in Degree Programmes in 1993	Enrolment in Degree Programmes in 1995	Enrolment in Degree Programmes in 1998	Enrolment growth rate between 1991-98 (%)	Educational features of institution	Year of receiving University status
HKU (1911)	6,869	8,286	8,981	9,216	34.1%	Academic excellence	1911
HKCU (1963)	8,022	8,952	10,075	9,457	17.8%	Academic excellence and preservation of Chinese culture	1963
HKPU (1972)	5,438	7,131	7,672	7,952	46.2%	Satisfying need for skilled and professional manpower	1994
HKCityU (1984)	4,741	6,025	6,849	7,308	54.1%	Professional education and practice, and applied research	1994
HKBU (1956)	3,342	3,807	4,092	4,134	23.6%	Christian principles in educating in academic achievement, professional competence and character development	1994
HKUST (1991)	590	3,097	5,139	5,649	857.4%	Academic excellence and research in high technology	1991
LU (1967)	152	852	1,893	2,106	1285.5%	Liberal education	1999
HKIEd (1994)	n.a.	n.a.	n.a.	120	n.a.	Teachers' education	n.a.
All UGC funded institutions	29,199	38,150	44,701	45,942	57.3%		

Source: Internet Homepage information of each of the institutions in Fall, 1996 and UGC Statistics (1998)
Figures on taught postgraduates and research postgraduates are not included in this table.

In late 1996, the UGC published a report entitled *Higher Education in Hong Kong*, which suggested that no further significant expansion of either undergraduate or postgraduate education was required, nor should there be any contraction until further updated population projections (UGC, 1996c:172). The report recommended that, for the triennium 1998-2001, the first year first degree intake at the UGC

institutions should be kept at 14,500 (UGC, 1996c:174). These recommendations were based on a 1994 manpower forecast which projected a surplus of graduate labour by 10% in 2001 (See Table 3). This projection, taken in conjunction with the report of a study on Preparation of Students for Tertiary Education (UGC, 1996b) (Refer to Chapter 3), led to a policy change which slowed the pace of expansion and shifted attention to efficiency and quality.

Table 3 : Manpower Balance, 2001

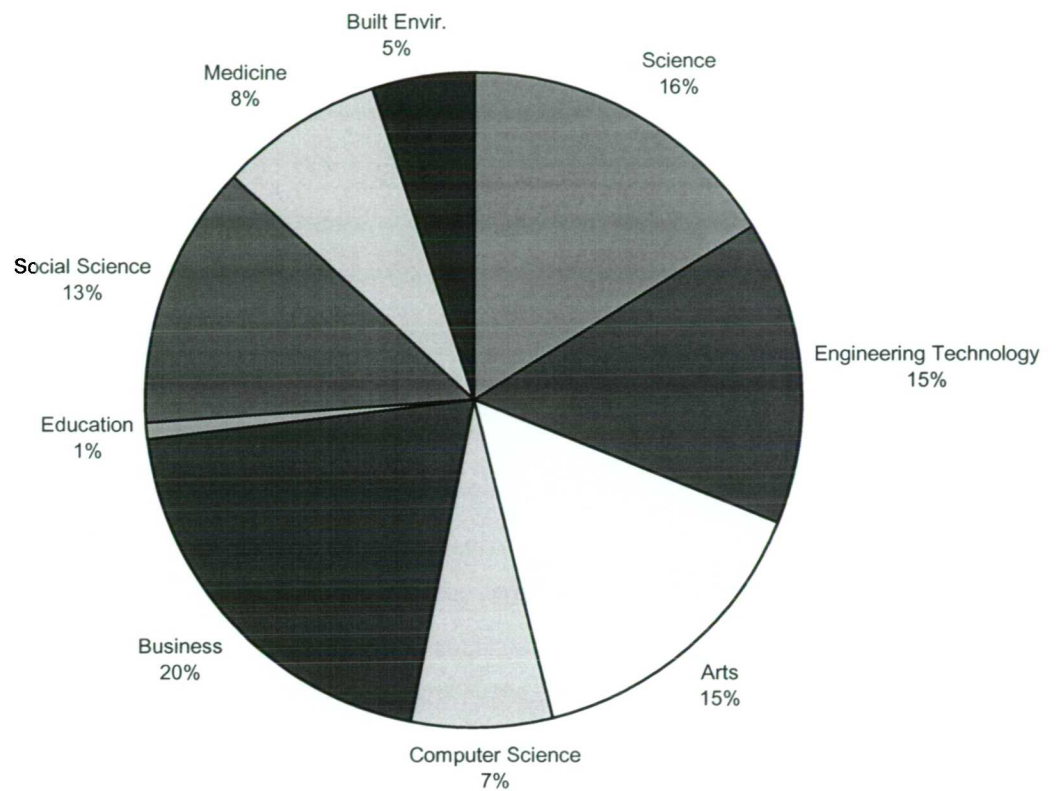
Educational Level	Supply	Requirements	Number of surplus (+) or shortages (-)	As % of Requirements
Sub-degree	180,200	173,400	+ 6,800	3.9
First degree and above	320,800	291,600	+29,200	+10.0
<i>First degree</i>	251,000	254,400	-3400	1.3
<i>Postgraduate</i>	69,800	37,200	+32,600	87.6

Source: Education and Manpower Branch (1994)

Hence, higher education in Hong Kong entered the consolidation stage. The Government accepted the UGC (1996c) recommendation and the expansion stopped. Any new enrolment in newly introduced degree programmes was based on a reallocation of places from other existing programmes. The provision of first year first degree places was strictly fixed at 14,500.

In 1997, there was a total of 45,492 students enrolling in a diversified range of full-time degree courses. Among them, 69 per cent of the students enrolled in vocational-related subjects including Medicine, Engineering and Technology, Business and Business-related studies, Social Sciences, Computer Sciences, Built Environment, and Education. 31 per cent enrolled in non vocational-related subjects including Arts and Sciences. Figure 2 illustrates the distribution of full-time undergraduates between subject areas in the UGC-funded institutions.

**Figure 2: Distribution of Full-time Undergraduates between Subject Areas
in the UGC funded institutions (1997-98)**



Source: University Grants Committee (1999:1)

1.3.2. Student Finance

The immediate implication of higher education expansion was an increasing cost for both the government and students. In 1997-98, education accounted for 24 per cent of total recurrent public expenditure and 4 per cent of the Gross National Product. It cost the taxpayers about HK\$30,000 million, 35 per cent of which was attributed to higher education. The annual unit cost per student in UGC degree programmes

was US\$29,487²² (UGC, 1999:20). To cope with the increasing cost created by the expansion, the government applied a user-pay strategy and increased tuition fees for undergraduates in mid-1991. The objective was to recover at least 18% of the cost of higher education²³ from tuition fees. This goal had been achieved by the academic year of 1997-98 (See Table 4).

Table 4 : Tuition Fees in Hong Kong Higher Education, 1992-98

	92 - 93	93 - 94	94 - 95	95 - 96	96 - 97	97 - 98
Degree courses	US\$1,487	US\$2,179	US\$3,077	US\$3,919	US\$4,788	US\$5,397
Rate of increase (%)	16	46.6	41.2	29.3	12.7	12.7
Cost-recovery rate (%)	8.2	10.5	13.5	16	17	18

Source: Education and Manpower Branch (1997)

* Exchange rate of US\$1 = HK\$7.8

As a result, parents and students had to pay much higher tuition fees than their predecessors did before the expansion. The biggest increment took place between 1992-93 and 1995-96, when annual tuition fees for degree courses went up from US\$1,487 to US\$3,919, making a real increase of 130% (165% nominal increase). In the three years after 1997-98, tuition fees increased more slowly; by 34% (40% nominal increase) (Ernst & Young, 1996). In 1998, the government froze tuition fees at their 97-98 levels due to the economic downturn after the Asian Economic Crisis in November, 1997.

²² It was compared with an average annual income of a fresh first degree graduate recruited in the civil service sector of around US\$26,153.

²³ Ernst & Young (1996) stated that by international standards, Hong Kong's unit education costs are relatively high. A major driver of tuition costs is the level of academic salaries which are tied to civil service salaries which in turn move with private sector salaries. This has resulted in a relatively rapid rise in tuition costs for students. Other factors include the increase in research expenditures, the implementation of common salary scales for staff primarily engaged in degree level work in the former polytechnics and colleges, the development of higher cost science and post-graduate courses, and new initiatives for improving the quality of education and language training. There have also been considerable start-up costs incurred in the tertiary expansion plan.

In line with the tuition fee increase, the Hong Kong Special Administrative Region²⁴ (HKSAR) Government adopted new strategies in the student loan system to provide financial assistance to enable students to cover their increased education costs in 1997. While retaining the existing means tested student loan with 2.5% interest (Local Student Finance Scheme), a non-means tested student loan scheme was introduced to all full-time students in UGC-funded programmes (Tung, 1997:97). The new scheme charged an annual interest rate of 1.5 % plus the current Risk-adjusted Civil Service Housing Loan Scheme (CSHLS)'s interest rate²⁵. In April, 1999, the CSHLS's interest rate was 6.75% and the total interest rate for non-means tested loans was 8.25%. Non means-tested loans were repayable in 40 quarterly instalments within ten years after graduation or termination of study. In this, the HKSAR Government has adopted the Ernst and Young Consultants' proposal (1996)²⁶ for providing student financial assistance on a self-funding basis, rather than a subsidy basis. It has confirmed the user pay principle adopted by the pre-1997 Hong Kong Government.

1.3.3. Graduate Labour Market

To everybody's disappointment, expansion was followed by undesirable effect of graduate unemployment by the mid 1990s, although the degree of seriousness should not be exaggerated. Before

²⁴ After the sovereignty transfer in June, 1997, the former Hong Kong Government was renamed as Hong Kong Special Administrative Region Government (HKSAR), under the arrangement of "One Country, Two Systems".

²⁵ The risk-adjusted Civil Service Housing Loan Scheme (CSHLS) interest rate is calculated based on the mean of the monthly average of the one year and two year yields of Hong Kong Monetary Exchange Fund Bills and Notes. The rate is revised every six months and fluctuates accordingly.

²⁶ Ernst and Young Management Consultants Ltd (1996) proposed the abolition of the grants and means-tested loan and replaced it with a non-means tested loan scheme for all students requesting financial assistance with no particular scrutiny.

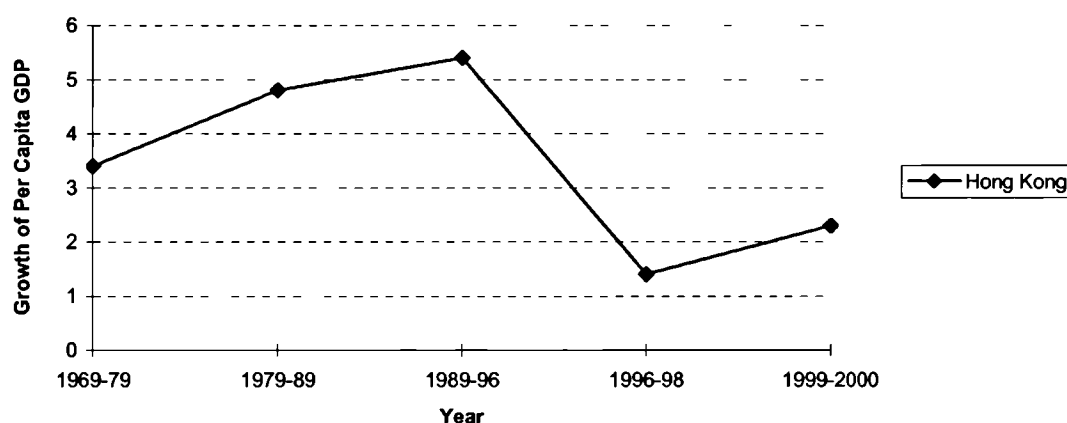
higher education expansion, there had always been a shortage of university graduates. Hence, graduates were always “courted” by employers sometimes even before they graduated. It was also very common that graduates were offered appointments by more than one employer; the graduates’ bargaining power for high pay and good working conditions was always strong. In 1995, the unemployment rate for first degree graduates in Hong Kong was 2.6%, while the general rate of unemployment was 3.5%.

While graduate unemployment was considerably lower than in most other developed economies, such as the United States and the United Kingdom (Court, 1995), competition in the graduate job market was indeed intensified. Competition in the labour market indicated that new graduates needed a longer lead time to find jobs and expansion was not the sole cause of this. Actually, had the economy been developing strongly, the increased number of university graduates could still have been accommodated comfortably. It was the unanticipated (at least in the early period of expansion) factor of increasing numbers of returning emigrants (UGC 1996c:114) and university graduates migrating from mainland China that made the situation alarming. These factors, coupled with the political and economic uncertainties produced by the hand-over of Hong Kong to China in 1997, inevitably created a sense of anxiety over students' employability upon graduation and a concern for the cost-effectiveness of their higher education.

In 1998, students’ anxiety was aggravated by the Asian Economic Crisis. Soon after the change in sovereignty in July, 1997 the economic turmoil in Asia began to adversely affect the economy of Hong Kong. The annual economic growth rate of Hong Kong dropped from 5% to -7% in 1998, with prices sliding to about half their 1997 peaks both in the stock market and the real estate market, and general unemployment rates surged up to 6.3% in the first quarter of 1999 (Hong Kong Census and Statistics Department, 2000:12); the worst figure recorded in the

past 30 years. Figure 3 presents the real economic growth rate of Hong Kong in the past three decades.

Figure 3: Economic Growth of Per Capita GDP Hong Kong, 1969-2000



Source: Hong Kong in Figures (2000:12)

As illustrated in Table 5, the average new graduate unemployment rate in 1997-98 was 8.5% (UGC Statistics, 1999). Among all the institutions, Lingnan College²⁷ - the liberal arts college - recorded the highest graduate unemployment²⁸ rate: 17.9%. The impact of such economic downturn on the already described student anxiety was apparently strong.

Table 5: Graduate unemployment rate of UGC funded institutions in 97-98

Institutions	HKU	CUHK	UST	BU	Poly U	City U	LC
97-98	7.5%	7.2%	5.4%	3%	6.9%	11.9%	17.9%

Source: UGC Statistics (1999)

²⁷ Lingnan College was upgraded to university status in 1999.

It is a supposition of this paper that as the labour market becomes more competitive and a higher proportion of the work force obtains degrees, what worries Hong Kong students is not so much the possibility of unemployment (after all, its seriousness in Hong Kong should not be overemphasised) as the concern whether what they have learned at university match what their future employers expect of them. As the employers have a greater pool of graduates to choose from, it is very likely that they will not just demand a qualification, but a sufficient branch of knowledge and skills that most suit the requirement of the positions that they want to fill. This certainly was not confined to subject-based knowledge and skills; there must also be some generic skills that the fast-changing global economy requires of each member of the global village (Bennett et. al, 2000:8-9). The point of interest here is whether students are aware of the importance of these elements, and are conscious to acquire them through their higher education.

1.4. Final Remarks

Higher education expansion in the 1990s has reduced the competition for admission to the higher education system in Hong Kong by creating more first degree places. It has transferred part of the responsibility of supporting higher education from the government's shoulder to the participating students' own shoulders. By applying a user-pay concept, the government increased the tuition fees of higher education. In producing student financial assistance, the government also made certain that the interest rate of the non-means tested loan scheme met the self-funding principle by requiring students to pay for at least 18% of the cost of their higher education. Ironically, it put students in a rather awkward situation in which they found themselves in a highly

²⁸ Graduate unemployment here refers to those graduates who failed to find employment within six months after graduation.

competitive labour market when Hong Kong experienced her historic change of sovereignty in 1997 and the dramatic economic downturn of the Asian Economic Crisis in 1998-99.

Though students enjoyed a greater access to higher education, yet they realised they have to shoulder at least part of the cost of education while anticipating a keener competition in the future labour market (more graduates would mean keener competition). What is critical is that the said anticipation was made against a background of political uncertainty and an adverse economic downturn in the aftermath of the political change when the future did not seem to be so promising. The focal point is how the students weighed the cost and benefit of their investment in higher education. If, despite the higher cost and apparently lower immediate economic benefits, students still seek higher education in even greater numbers than previously, this suggests that they expect higher education to provide good economic and other returns in the long term. In this sense, students display an instrumentalist behaviour when they invest in higher education to increase their future income and lifetime earnings.

CHAPTER TWO

Relationship between Education, Productivity and Earnings: Strengths and Weaknesses of Human Capital Theory

2.0. Introduction

This literature review consists of two main parts; each will be dealt with in a separate chapter, this one and the next. This chapter deals mainly with the choice of undergraduates as a research subject and the concept of human capital theory. It begins with an explanation on why students' expectations and experience in higher education has become an important research subject in higher education. This is followed by a review on the concept of human capital with much of the discussion specifically focused on the productivity-augmenting view and the correlation of education and earnings. Chapter Three will mainly focus on the implication of the undergraduates' perception of benefit of higher education.

The two chapters, though separate, are closely related with each other. Together, they provide the theoretical framework of the present study, that is, undergraduates, one of the important stakeholders of the higher education expansion policy and whose perspective should be a significant element that helps determine future higher education policy in Hong Kong, participate in higher education in the pursuit of higher future benefits.

2.1. Students' Expectations of Higher Education as a Research Subject

To begin with, it is necessary to explain why undergraduate students have become an increasingly popular research subject in higher education. The most notable result of higher education expansion is the increased participation of students. Around the world,

there is an over six-fold increase in student enrolment: from 13 million in 1960 to 82 million in 1995 (UNESCO, 1998:2; Sadlak, 1998:101; Altbach, 1999:15-37). In mass higher education, where university students come from all strata of society, the most striking phenomenon is the diversity of student motivations behind expectations of higher education (Purcel and Pitcher, 1996). Even the layman may expect to see an increasing trend of pragmatism in student participation in higher education compared with previous decades, when higher education remained the “privilege” of the more privileged classes. A large portion of students, especially those from the lower social strata, may find participation in higher education as a useful means to generate benefits in the future - higher salaries, more promising careers, and easier social mobility, benefits which their parents or grandparents had never even dreamt of.

As a matter of fact, higher education students’ attitudes, perceptions, and behaviours as affected by higher education expansion has become a focal research subject that received much attention in the 1990s among many developed nations, such as the United Kingdom. There, Bosworth and Ford (1984) studied the pattern of student demand for places. A notable finding is the importance of non-economic considerations, particularly the concern with personal satisfaction and development, among the other desires for entering higher education. Notwithstanding, occupational considerations still appear to exert considerable influence over students, since the most popular reason for deciding to choose a certain course of study is related to the course being central to the students’ career. More recently, the Dearing Report (1997:4) revealed that pragmatism is an important factor in students’ decisions to participate in higher education in the United Kingdom. According to the findings, students rated getting a job or qualifications for a job as one of the most important reasons for going to university, in addition to the development of new or existing skills such as



communication, team-work, planning, and using initiative as main objectives to achieve.

Since the early days of higher education expansion in the United Kingdom in the 1990s, two of the main concerns that students have are cost and graduate employment; both prove to have great influence on their perception of the benefits of higher education. Haselgrove (1994) highlighted the implication of higher education expansion on students' view of future employment opportunities. Studying the changing pattern of the student financial support system in the 90s, it reflected also the students' frustration at present eroded incomes because of reduced public financial subsidy, and increasing debt due to increasing living costs. The study clearly indicated that the path to reaping benefits, if any, from higher education is not an easy and promising one. There are hardships and worries to be experienced and the students are well aware of them. On the other hand, Purcell and Pitcher (1996) suggested, rather positively, that despite a widespread sense of insecurity and awareness of increased competition in the labour market, students still maintain high aspirations for a good career after graduation.

In Hong Kong, the higher education sector experienced its first stage of rapid expansion in the 1990s. The impact of this dramatic change is indeed great on the students, as well as on society. As in other countries, it not only enlarged the student population but also widened the range of social backgrounds from where the students came. Yet, research on higher education students remained minimal and most of it focused mainly on teaching and learning rather than on students' experiences and expectations. Relevant research on higher education students' experiences came rather late; when the University Grants Committee sponsored Jones and Kwan (1999) to make an evaluation of the student experience through the video interviewing of 43 undergraduates. These interviews revealed how students coped with the demands of higher education, what they wanted to gain from their

university study, the extent to which their hopes had been realised, the kind of difficulties encountered, and suggestions as to how their experiences might be made more productive.

What most interests the present study is the disclosure that most students' expectations were related to career preparation and personal development. The Jones and Kwan (1999) research also examined some de-motivators preventing students from achieving their expectations, one of which included expensive tuition fees. This study, to a certain extent, echoed the findings of similar studies in the United Kingdom mentioned above. However, the researchers also admitted that most of the samples concentrated only in one institution (29 out of 43 samples were undergraduates from the Hong Kong Polytechnic University and the remainders came from the other five UGC-funded institutions), and this created difficulties in generalising the findings with the entire body of higher education students in Hong Kong.

All of the researches that this section refers to use higher education students' expectations as its subject of study. Students' motives for and understanding on higher education can be summarised as follows:

1. Students attend university in order to obtain a qualification that will enable them to move into rewarding careers, a means to a life-long economic objective.
2. Students attend university to learn specific subject matter in order to grow intellectually and also to develop general competence.
3. Students attend university to foster general personal development and to develop interpersonal skills.
4. Students are aware that there may be various factors that affect the realisation of their expectations of higher education. Yet, many remain positive in their expectations.

2.2. Human Capital Theory

In a broad sense, the aforesaid undergraduates' motives for higher education are associated with human capital theory. According to Blaug (1976:829; 1980:225-226), the hard core of the human capital theory is a human capital investment undertaken by an individual on his own behalf. In making the decision, he/she does it, "not only for the sake of present enjoyments, but also in expectation of future pecuniary and non-pecuniary returns, the crux of the matter is precisely on whether a person (the decision maker) possesses a forward looking view for the justification of his/her present actions". In this context, students who decide to invest in higher education consider themselves as assets and expect that receiving higher education will help them to produce extra value so that eventually there will be benefits. These students are, in Mace's words, "trading off 'costs' of education for 'future' benefits" (Mace, 2000:18-19). This behaviour suggests that as rational individuals, students who believe that education will give them the capacity to gain returns after graduation, invest in it to make the highest possible return.

The concept of human capital has two major implications for the economics of education. The first implication, touched on in the last paragraph about motives for higher education, concerns how students make decisions on participating in further education. The second implication related but conceptually distinct, is that through education, people become more productive in the labour market and the value of education helps to explain economic growth – the productivity augmenting view.

The main theme of this research is to study undergraduates' expectations of economic and other benefits of higher education. This is basically related to the former implication on student motivation for higher education. But discussion on motivation would not be complete

without relating it to the question on how earnings tend to rise with the level of education. This latter phenomenon has been suggested by human capital theorists as being the result of students acquiring valuable productive attributes through education. Their logic is that since more education will lead to higher productivity of an individual, it would also raise his future earnings and eventually, lifelong earnings. As such, students perceive participation in further education as a tool to yield future utility (satisfaction or benefits). It is the productivity augmenting view that has been most vigorously attacked by critics.

After the following section that deals with the origins of human capital theory in brief, the productivity augmenting view will be discussed, in relation to its opposing views. The relationship between education and earnings, as compared with that between several other variables of earning functions and earnings will then be elaborated to explain why students perceive further education of investment value.

2.2.1. The Origin of Human Capital Theory

The origin of human capital theory can be traced back to Adam Smith's work. Writing in 1776, Smith considered that an educated man was a sort of expensive machine¹ which was as important as any other factor of production.² This suggests that education helps to increase the

¹ Smith (1776, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Book I, Pt.I, Ch X:203-204) stated that "When an expensive machine is erected, the extraordinary work to be performed by it before it is worn out, it must be expected, will replace the capital laid out upon it, with at least the ordinary profits. A man educated at the expense of much labour and time to any of those employment's which require extraordinary dexterity and skill, may be compared to one of those expensive machines. The work which he learns to perform, it must be expected, over and above the usual wages of common labour, will replace to him the whole expense of his education, with at least the ordinary profits of an equally valuable capital".

² Smith (1776, reprinted in 1952:340-3) believed that without ample education, the mass of working people would be so alienated from society that the principle of the "division of labour" would be threatened. He therefore proposed that public

productive capacity of workers in the same way as the purchase of new machinery or any other form of physical capital. In this sense, an educated person is a form of human capital, which can be defined in modern times as, “the knowledge, skills, competencies and other attributes embodied in individuals that are relevant to economic activity”. All of these constitute an intangible asset with the capacity to enhance or support productivity, innovation, and employability. Human capital may be augmented, may decline, or else may become redundant, and it is always formed through different influences and sources; an example being organised learning activity in the form of education and training (OECD, 1999a: 9; 2001:18).

Human capital theory entered the economics of mainstream education literature³ when Theodore Schultz delivered his inaugural address, “Investment in Human Capital”, to the American Economic Association in St. Louis on December 28, 1960 (Schultz, 1961:38-46). In his speech, Schultz dispelled the deep-seated moral and philosophical taboo of treating human beings as capital goods, established the link between economic growth and human capital, and analysed the different categories of human capital investments including (a) health, (b) on-the-job-training, (c) formal education, (d) study programmes for adults in agriculture, and (e) migration. Among other things, Schultz’s enlightening speech quoted below emphasised the productivity-augmenting effects of education, and the motives for human capital investment which later became the classic stance of human capital theory. He emphasised that “much of what we call

attention be given to the education of the poor in order to prevent the almost entire corruption and degeneracy of the great body of people”.

³ It is worth noting that in the U.K., works by Vaizey (1958; 1962) are early landmarks in the economics of education. Vaizey (1962:53) firmly believed that education is a chief factor of economic growth. Williams (1997) pointed out that the old economics of education was deeply rooted in the work done on human capital development at Chicago, and to a lesser extent at the London School of Economics during the late 1950s and early 1960s.

consumption constitutes investment in human capital in so far as these expenditures increase the value productivity of human effort (labour), they will yield a positive rate of return”

2.2.2. The Productivity-Augmenting Earnings View

At this point it is necessary to set delimitation for literature to be reviewed later. Since the present study is an expectations study of undergraduate students, the literature review hereafter will be confined to human capital investment in formal higher education and its relation to an individual's benefits.

The productivity-augmenting view suggests that education raises the productivity of graduates, and hence increases their lifetime earnings by imparting useful knowledge and the skills needed to be productive in work (Blaug, 1972). This implies that educated people earn more than uneducated people or, to be more exact in the context of the present research, degree holders earn more than those without a degree. This view has been challenged by critics who dispute the direct relationship between education and productivity, especially when there has never been enough field studies of the proof of the relationship. So far the agriculture sector provides the only evidence; suggesting that the educational effect of an individual on farming productivity enhancement and his earnings is positive (Lookheed et. al. 1980; Jamison and Lau, 1982; Wei et. al. 1999). Evidence shows that better-educated farmers can adopt innovations more readily than the less educated ones.

To the critics, these evidences do not suffice. They challenge the view that the higher earnings enjoyed by more educated people are more likely to come from other factors which might enhance their earnings. Among these critics, Berg (1970) concluded that education generally does not raise the productivity of workers. Rather schooling

is evidence of the ability to get along with others. Berg added that better educated employees are not generally more productive and in some cases are less productive than others, so education is not related to performance at all. Berg's findings based on "job analysis" in the United States also show that better educated employees are more likely to be dissatisfied with their jobs and will change jobs more often than less educated people—evidence that education may be primarily regarded as a matter of status by those who possess it. Thurow (1970) raise the point that in certain professions the credential of education simply serves as an admission ticket. He stated that "in a labour market based on job competition, the function of education is not to confer skill and therefore increased productivity and higher wages on the worker; it is rather to certify his 'trainability' and to confer upon him a certain status by virtue of this certification". Jencks et. al. (1972, 1979), Bourdieu (1973), and Fagerlind (1975) regarded the link between education and higher earnings is due much to strong social connection. Bowles and Ginitis (1976:299-279) claimed that education only made an indirect contribution to productivity. They claimed, "What is important to employers about education is that it socialises for docile and efficient adaptation to work in bureaucratic and industrial hierarchies". Accordingly, education is wasteful as it has an effect on the distribution of income only. These views cast doubt on the relationship between education and earnings.

The screening hypotheses further argue that while there is no proof that education does improve productivity by imparting the necessary knowledge and skills, it is more possible that education is a filter to screen people who are already more productive (Arrow, 1973) and/or screening (Spence, 1973) or signalling (Stiglitz, 1975) device to enable employers to identify people with a certain "superior innate ability", or a positive attitude that the employers are willing to pay higher for. Groot and Hartog (1995:34-35) summarised the screening

and signalling hypotheses' assumptions: Individuals differ in productivity, productivity is fully person specific and not affected by schooling; more schooling entails more costs, schooling costs are lower for the more productive; individuals know their productivity, firms do not (asymmetrical information); educational qualifications can be observed without cost. Firms cannot observe an individuals' productivity, so instead they use schooling as a qualification for hiring decisions and for setting individual wages. Firms assume that individuals with more schooling are more productive. Since they can observe total output for the entire workforce, firms can use this as probabilistic information to check whether this assumption is correct in the aggregate.

With a proper wage structure, schooling will be worthwhile for a high productivity individual, but not for low-productivity individuals: offered wages are identical but schooling costs are higher for low productivity individuals. The wage gained from schooling should be sufficient for high-productivity and low cost individuals and insufficient for low productivity and high cost individuals. Thus, schooling may effectively separate high productivity and low productivity individuals, and the firm's belief regarding the relation between schooling and productivity may be upheld by individual decisions. Finally, individuals make rational decisions on schooling, just as in human capital theory. Interpreted in this way, the value of education is reduced to a signalling device which helps to place the right person in the right job, as well as a means for the already better off to get the best jobs. Indeed, the screening and signalling hypotheses provide a label for a classic information problem in the labour market.

The productivity-augmenting view of education has remained a point of controversy for years because of the difficulty of finding direct evidence to prove it. Indeed, productivity is difficult to measure: some economists use wages to measure marginal productivity. Marginal

productivity equals wages, as they put it. The higher one's marginal productivity is expected to be, the higher one's wages will become. For an employer, his employees' productivity has a direct bearing on his own revenue. He is only willing to pay for those who are able to help generate marginal revenue: that is, those whom he believes to be high in productivity especially in a condition of a competitive labour market.

At this point, the validity of the screening model is put to test. Among all the defenders of human capital theory, Psacharopoulos (1979) identified two versions of the screening hypothesis - the weak and the strong. The "weak" version of the screening hypothesis refers to the practice of employers paying higher starting wages to more educated workers because they lack information about their potential productivity. The "strong" version refers to the continued payment of higher wages to the more educated, even after employers have had an opportunity to evaluate their job performance.

Psacharopoulos acknowledged the possible existence of the weak version. He opined that the "weak" version of the screening theory was valid, as research did show that employers depended on educational qualifications to select employees and offered a higher starting salary to the higher-educated candidates. Yet he argued against the strong version, for it would be irrational for employers to continue to pay high salaries to poorly-performing employees (even highly-educated ones). Along the same line of thought, recent empirical analyses in the 1990s on "weak" and "strong" versions of the screening hypothesis by Altonji and Pierret (1996) also reflected how quickly employers learn about the true productivity of workers, and then adjust their relative wages accordingly. Altonji and Pierret's work suggested that increased information about an individual's productivity that employers acquire by observing them on the job confirms the expected relationship between productivity and education levels. They stated that over time the "signalling component" of educational qualifications

account for a relatively small part of the wage differential associated with education. Likewise, Brown and Sessions' (1999) study of the Italian labour market which features high rates of unemployment and low rates of educational attainment also supported the weak but not the strong screening version. Recent research by Reenen and Sianesi (2001:27) on the returns to education also pointed out that there is compelling evidence that human capital increases productivity, suggesting that education really is productivity enhancing rather than just a device that individuals use to signal their level of ability to the employers.

Another inherent weakness of the screening and signalling arguments is that it virtually implies that ability and drive are innate capacities that require no development, only discovery. It ignores the whole area of professional and vocational education which does impart specific skills that cannot be acquired except by formal preparation (Blaug, 1972; 1990). Moreover, the two arguments also cannot stand the test in the context of higher education expansion. When the supply of graduate labour is in abundance, the over reliance of employers on credential to distinguish "the educated ones" may diminish. Williams (1999: 152) observed that "mass higher education reduces the effectiveness of higher education as a screen or selection mechanism". Yet, so far, there still is not any other social selection mechanism that can perform the same efficient selection function as the educational system (Blaug, 1990:11).

Hence, it is possible to present the argument in this way. The reason why employers do continue to prefer educated employees (as shown by the fact that they are ready to pay more to university graduates than to secondary leavers), as Woodhall (1998:222) puts it, "is that not only does the possession of an educational qualification indicate that an individual has certain abilities, aptitudes and attitudes, but the educational process helps to shape and develop those attributes".

This “employer-oriented” approach presents a strong argument for the validity of the productivity-augmenting view of human capital theory. It is believed that the argument becomes stronger when one considers it in the context of higher education expansion. As the labour market becomes more competitive, the choice for the employers increases. As such, they are not just picking out the more educated but they are picking from a larger pool of the more educated. So, they are not just looking for a qualification, but traits which really indicates the employees’ productivity. The ‘traits’ are qualities or values which higher education confers to the graduates.

The present study is confident of the suggestion that since employers are conscious about the productivity of the employees, their preference for more educated employees (who are higher paid than those with less education) and their decision to continue to hire them indicate their belief or trust that higher education contributes to higher productivity. As for what contribute the higher productivity, they may not necessarily be specific skills but attributes that make educated employees, in Blaug’s (1972:96) words, “more achievement-motivated, more self reliant, act with greater initiative in problem solving situations, adapt themselves more easily to changing circumstances, assume supervisory responsibilities more quickly, and benefit more from work experience and on-the-job training”. Blaug’s observation that employers “pay educated employees more not only when they hire them but they go on to paying them more throughout their working life” assured the economic value of education in enhancing productivity of an individual.

Indeed, if the productivity-augmenting view of human capital theory was not convincing, it would not have received wide recognition and influenced so many nations’ decision to invest in education as a means to improve the quality of the individual worker while attaining the goal of national development (UNESCO, 1998:2-4; OECD,

1999a:7-12; World Bank Report, 1999; Gray, 1999:18:33; Reenen and Sianesi, 2001:28).

2.3. Age Earnings Profiles

Continued growth in demand for higher education world-wide as well as in Hong Kong explains the strength of the argument that more education would increase lifetime earnings. Knowing that employers prefer employees with more education, it is natural that students believe that more education will bring higher earnings, not only in the immediate future, but over their entire lives. This relationship can be illustrated by the age-earnings profile of an individual at different levels of education.

Traditionally economists describe the relationship between earnings and schooling by the use of so-called “age earning profiles”. Traditional age-earning profiles are simple relations which demonstrate how the structure of earnings of individuals is distributed across age and level of education. Blaug (1970: 23-27) and Psacharopoulos and Woodhall (1985:38-42) observed that throughout the world, both in developed and developing countries, the average lifetime earnings of educated workers are higher than the average earnings of illiterate workers, or those with lower levels of education. The typical characteristics of these age-earnings profiles are:

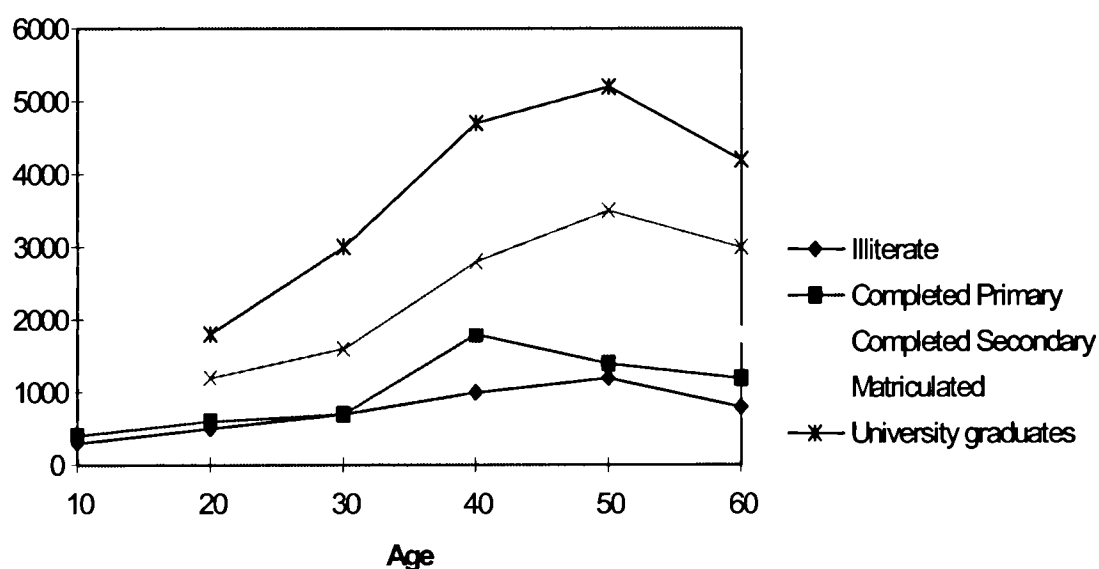
1. Earnings are highly correlated with education; at every age the highly educated earn more than workers with less education, and there is no crossing of profiles.
2. Earnings rise with age to a single peak and then flatten or fall until retirement age.
3. The profiles are steeper for higher-educated individuals than those with less education.

4. The higher the level of education, the later the age at which earnings reach their peak.

When comparing age-earnings profiles between university graduates and workers with secondary school education, in most circumstances university graduates tend to have higher extra lifetime earnings than the secondary school leavers. Figure 4 illustrates an example of the age earning profiles, by level of education, in urban India in 1960.

Figure 4: Age-earnings profiles, by level of Education, Urban India, 1960

Rupees per year



Source: Psacharopoulos and Woodhall (1985: 39)

Subsequent evidence in the 1990s from different parts of the world reviewed a similar pattern of the age-earnings profile as described by Blaug (1970) and Psacharopoulos and Woodhall (1985). These studies included Kugler and Psacharopoulos (1989) who used data from the Buenos Aires Household Survey on earnings and education, Gomez-Castellanos and Psacharopoulos (1990) who used data from the

1987 Household Survey on earnings education in Ecuador, Weisberg (1995) who studied the returns to education in Israel between 1974-1983, Alba-Ramirez and San Degundo (1995) who estimated the returns to education in Spain. All these studies confirmed a similar trend of age earnings profile by different levels of education. That is, the one with more education earns more. Similarly, in the United Kingdom, Belfield, et. al (1997) surveyed 18,000 graduates of two academic years - 1985 and 1990 - from over 40 institutions and found that, on average, graduates earned much more than the general population and significantly more than those with only Advanced Level qualifications. Furthermore, OECD (1999a:57) also reported that those with less than upper secondary attainment tend to earn between 10% and 40% less than those who complete upper secondary school. At the same time, university education brings a higher premium: the gap in earnings between tertiary and upper secondary graduates is greater than the gap between those with or without upper secondary education.

These age-earnings profiles illustrate the marginal productivity theory, which argues that wages are determined according to the worker's marginal contribution to the revenues of the firm; implying that more productive workers will be paid more, all other things being equal. This strongly supports the employees' or would-be employees' perception mentioned earlier; that people with higher education on average earn more wages (hence have higher lifetime earnings) than those who have less education. This theory may be less true in countries where earnings differentials are strongly influenced by institutional factors such as bargaining and minimum wage provision (OECD, 1999a:28). On the whole it reflects a notion of "the more you learn, the more you earn" (Blair, 1995). This should have a strong bearing on students' decision to pursue on higher education.

2.3.1. Education and Earnings

The age-earnings profiles help verify that people with higher education generally earn more wages and hence have higher lifetime earnings. Yet, the reasons for this relationship still remain unclear. Nonetheless, questions like “How much earnings is due to education?” “Is education the sole attribute to lifetime earnings?”, “Are there other factors that might affect one’s lifetime earnings?”, “Would differences between ability, socio-economic environment or even life chances cause differences in the earnings of those with more education and those with less?” have been raised. Indeed, economists are aware that earnings are not entirely related to schooling. Denison (1962) was the first to test the relative importance of higher education in contributing to one’s earnings, and his finding is the so called “two-thirds assumption”, that is, 60% to 67% of the earnings differential between high school graduates and university graduates resulted from the effect of higher education alone. This is an acknowledgement that other factors also play their parts in contributing to one’s earnings. However, Denison’s study by using the cross-tabulations data on salary, education, IQ and father’s socio-economic status to calculate the “alpha” (α)⁴ is considered to be less effective than the regression analysis method for the measurement of a number of variables and their relationship simultaneously.

Hence, economists have composed a mathematical expression called “earnings function” to measure (by regression analysis method) the correlation of different variables on the earnings of an individual:

⁴ Woodhall (1995:26) defines “alpha” (α) represents the proportion of the extra earning of the educated, which is assumed to be due to education.

Earning (Y) = F (year of schooling, age, IQ, family background, life chance, race, experience, ability, motivation, religion, marital status, region of birth and current residence, quality of education received, health status, and other relevant variables).

To elaborate, the dependent variable in the earnings function is often the labour income and the common independent variables are classified into the following groups:

Personal Characteristics

Mostly not subject to choice: Sex, age, genetic ability (if available), family background, motivation.

Mostly subject to choice: Occupation, marital status, number of children, weeks worked, human capital (year of schooling, quality of schools, Achievement, migration, health, and on-the-job training,).

Environmental and Institutional

Geographic locality, economic sector, Unionisation monopoly, monopsony, discrimination.

(Adapted from Figure 1 in Psacharopoulos, 1987)

The reliability of the estimation of earnings function depends largely on the availability of data. Except for the data on income, data on most of the other variables mentioned above is difficult to collect. Data on innate ability, before any form of formal or informal education is added, is almost impossible to amass. The effect of family background can be quantified by factors such as parents' education, occupation, or income, but other factors such as parental affection or pressure are difficult to measure, even if data is available.

The limitation in constructing this data makes the calculation of the earnings function difficult. Despite this, economists still make attempts to estimate the contribution of these variables. In the following sections, a review on the estimation of the effects of ability, quality of education, and family background on earnings will be made.

2.3.2. Ability and Earnings

Among the many independent variables, ability is always considered to have significant influence on one's earning capacity other than education. Ability is defined as the power to do something. In fact, ability and education are always closely related. Psychologists share a consensus that (early) education could be important in determining one's (later) cognitive ability (Bruner, 1977; Goleman, 1995) and the development of multiple intelligence⁵ (Gardner, 1983). In the United Kingdom, Blundell et.al. (1997:68) reported that pupils who show high ability at a young age at school are more likely to become graduates than others. In places like Hong Kong, where the education system features keen competition in examination, ability also determines one's educational opportunity. Those who manage to squeeze through the bottleneck of the public examination and gain access to higher education are found to be higher-ability students (UGC, 1995:115-117). Hence, it is necessary to adjust the observed earnings differential of educated people in order to allow for analysis on the effect of ability.

Over the years, there were many studies on how ability may affect earnings, but the findings have not been too convincing. For example, Taubman and Wales (1974) concluded that in high school and above levels, (mathematical) ability is a more important determinant of income distribution than education. But, later they admitted that "the bias in the

⁵ According to Gardner (1983)'s multiple intelligence theory, he identified seven types of intelligence. They are linguistic, logic-mathematical, spatial, musical, bodily kinesthetic, inter-personal, and intra-personal intelligence.

education coefficients due to omitting IQ will in general be very small". Looking at the same issue, Psacharopoulos (1975) conducted a survey of 16 individual studies on ability and earnings and discovered; first, the alpha coefficient is not a fixed index but varies according to different levels of schooling; and second, the influence of ability plus other factors on earnings differentials is only about 25% to 30%. By applying earnings function and regression analysis, Psacharopoulos found that the average value of the coefficient is about 0.77. In other words, schooling is the single most powerful determinant of earning differentials.

On the basis of the observation that ability influences both earnings and years of schooling acquired by a person, a new estimate which describes all the interactions among years of schooling, human capital acquired in school, ability, and earnings was done by Knight and Sabot (1990) in Kenya and Tanzania. Knight and Sabot specified a three-equation model which considers year of schooling as a function of the parents' level of schooling, the probability of being at school at age 14, and the reasoning ability of the individual. Cognitive achievement is described as a function of reasoning ability, year of schooling, and two dummies for urban birth and attendance of public school. Finally, earnings are described as a function of year of schooling, reasoning ability, cognitive achievement, and a linear and quadratic term in years of experience. The result of this study seems to confirm that the reduced form estimation of the model (i.e., the classical Mincerian earnings function with ability among the explanatory variables) overestimates the contribution of education to earnings. In their view: "in neither Kenya nor Tanzania are the estimate return to experience affected by introduction of variables that measure (cognitive) achievement and reasoning ability. By contrast, the premium to secondary education declines by nearly two-thirds in both countries, and in Tanzania it is no longer significantly different than zero. In neither country is the influence of ability on earning large or significant. By contrast, in both countries the coefficient on

achievement score is positive, significant, and large in relation to the coefficient on ability score”.

Thus, despite the complexity of the approach, the basic results do not vary greatly and the greater effect on earnings is given by some index of human capital investment. Ability when defined independently from human capital has a small part in earnings differentials. So, it appears that educational effects on earnings are much greater than the ability factor.

2.3.3. College Major, Quality of Institution, College Performance and Earnings

Another group of independent variables is related to students' experience in (higher) education. Experience differs depending on different qualitative differences in education life. Rumberger and Thomas (1993) identified three sources of differences affecting American students: difference due to choice of college major, difference due to quality of institution attended, and differences due to one's own performance. In different ways and by different degrees, these factors pose different effects on one's future earnings.

In the United States, it has long been recognised that the earnings of college graduates are affected substantially by their college major. In general, college graduates who major in engineering and business tend to command higher salaries than students who major in other disciplines. These differences tend to increase over time (Rumberger, 1984; Berger, 1988; James et. al., 1989). Findings in the United Kingdom by Belfield et. al. (1997) also confirm that subject of study is related to earnings. In broad discipline terms, clinical medicine and engineering graduates earn more than average; sciences and social science graduates earn approximately the average; and graduates in humanities earn approximately 10% less. In other words, graduates from vocational-related programmes tend to earn more than graduates from non vocational-related programmes. Because

these differences are well-known, they influence the choices that students make when deciding what major to select in college (Berger, 1988a).

A second source of qualitative differences concerns institutional quality. Human capital theory argues that the quality of the institution affects the earnings of the students because better school means better instruction and the transmission of better and/or extra skills would mean higher earnings for the graduates. This primarily explains why so many parents are willing to send their children to world-famous higher education institutions. However, there are always difficulties in defining quality aspects of an institution. Psacharopoulos (1975) classified three major groups of quality variables. These are:

1. by school expenditure (Welch, 1966), often the average per student expenditure;
2. by non-expenditure assessment of school (Carroll and Ihen, 1967), such as the teacher's verbal ability, peer's influence, school reputation;
3. by student quality (Johnson and Stafford, 1973) used as a proxy for the quality of institutions.

Yet, there are demerits of using per student expenditure, because a high expenditure does not automatically mean better quality when the efficiency factor of the school budget is not made explicit (Psacharopoulos, 1975). Besides, the quality of students is frequently mixed up with quality of institution. After all, the richer and better students tend to cluster at the best schools (Foster and Rodgers, 1979; Solman, 1975; 1985).

Despite the difficulties in assigning monetary values to the quality aspects, research findings in this area show that graduates from higher-quality institutions, where quality is most frequently measured by a single index of institutional "selectivity" (the Astin index of the average SAT/ACT scores of freshmen), generally enjoy higher salaries than graduates from lower-quality institutions, even controlling for differences in family background and ability (e.g. Solmon, 1975, 1985; James, et. al.

1989). However, in most cases the effects explain only a small proportion of the variance in earnings.

A third source of qualitative differences concerns one's own college performance. Several studies have demonstrated that college grades significantly affect graduates' salaries as well as the salaries' gradual increase, even controlling for differences in college major and college quality (James et. al. 1989, Jones and Jackson, 1990).

All of the above studies demonstrated that qualitative differences in graduates' experiences in college have important influences on earnings. However, there are limitations in some of these researches. In most cases, each of these qualitative differences were examined independently on graduates in the 1960s and the 1970s. To overcome the problem, Rumberger and Thomas (1993) adopted a multilevel analysis of graduates to estimate the impact of the three types of qualitative differences in college experiences on the earnings of recent graduates. The results show that all three types of qualitative factors influence initial earnings, but the effects of institutional quality and educational performance are not uniform for graduates with different college majors. Thus, the impact of these factors appears to be lower than the influence of higher education.

2.3.4. Family Background and Earnings

Family background is one of the independent variables in the earnings function. A number of studies on the effects of family background on earnings indicate that there are certain links between family background and earnings. In the United States, Jencks et. al. (1979:81) discovered that the income differentials of the American population aged 25 to 64 in the early 70s, as influenced by family background, was between 15% to 35%. Schultz T.P. (1988) noted that the role of family background in the earnings function may reflect both nepotism and social stratification (that allows influential parents to place

their children in favourable jobs), or else a tendency for better-educated parents to provide their children with a more favourable learning environment at home. Becker and Tomes (1979) provided a theoretical model for analysing the intergenerational transmission of economic status and family characteristics in which children are assumed to receive endowments from the social connection of their families, the genetic inheritance from their parents, and learning skills through their family culture. Education and/or occupation of the parents may be good indicators of important background factors. If wealthy and well-educated parents secure a better education for their children, the education effect remains. But, if they secure a better job for their children independent of education, the relationship between children's education and earnings may overstate the effect of education on labour productivity. Likewise, in the United Kingdom, Blundell et. al. (1997:68) revealed that individuals from more educated or more affluent family backgrounds are also more likely to go on to obtain higher education qualifications and thus higher earnings.

These cases are particularly prevalent in developing countries where sometimes family connections play an important part in job-seeking activities. This phenomenon of a tendency that meritocracy of education is being overwhelmed by aristocracy of family connection is not uncommon. Carnoy (1967) found that the father's occupation had a strong influence on wages of males in Mexico. Heckman and Hotz (1986) found that parents' education has positive effects on one's earnings, with the mother's education having the larger effect. Patrinos (1995) found a positive relationship between the father's education and return to schooling in Greece. His study disclosed that higher rates of return for those from more privileged backgrounds is evidence of a more successful and more profitable job search, facilitated by one's family background and subsequent connections. The lower rates of return for those from disadvantaged backgrounds is evidence of a less successful and less profitable job search, due to lack of connections by virtue of family

background. The more privileged, in addition, are more able to afford a lengthy job search period since they are being supported by their families; those from less wealthy homes are more likely to curtail their search period quickly and end up in inappropriate jobs. Likewise, Liu et. al. (2000) studied the effect of family background on Taiwanese (Republic of China) workers' wages and found that it is significant in the private sector but not in the public sector. This suggests that wages are more sensitive to unobservable family connections in the private sector than in the public sector. The difference may also suggest greater meritocracy in the public sector. Also, returns to schooling increases with level of education. The effect of the father's schooling is larger than the effect of mother's schooling in the wage function; however, the effect of the wife's schooling is even larger. This analysis suggests that including family background variables may overstate the decline in returns to schooling because of errors in measured schooling.

But, does ability and family background play a more dominant role than education in effect on earnings? Recent research on educational effects on productivity and earnings have provided new evidences to prove that education still remains the chief influence on higher earnings. One of them was conducted by Ashenfelter and Krueger (1994). They used identical twins⁶ as samples to test the direct relationship between education, productivity, and earnings. The quasi-experimental "design" of the sample is interesting to note: identical twins were separated early in life and received different amounts of education. The study imposed exceptionally strict controls, eliminating the effects of innate ability, differences in social class, race, genetically-based motivation, personality traits, and (at least in the earlier years) differences due to community background and prior schooling. Furthermore, the study uses schooling

⁶ The twins are genetically identical (monozygotic, that is, coming from one egg), so there can be no question of differences in innate ability or self-selection of different levels of schooling based on ability, or any other genetic traits that would end up

CHAPTER THREE

Benefits from Investment in Human Capital: Students' Expectations

3.0. Introduction

The previous chapter has established a positive relationship between education, productivity and earnings that shows the strength of human capital theory. In this chapter, the literature review will be focused on the relationship between human capital investment and benefits for the individual.

The central questions of this chapter are: In deciding to pursue higher education, what makes students willing to shoulder the cost (in terms of both time and money)? And, what benefits do students expect from this investment?

The first five sections of this chapter are basically an extension to Section 2.3 of Chapter Two. Section one examines the economic value of higher education to an individual. This sets the ground that since they are expecting returns from education; students have an investment attitude towards it. Both their decisions and their expectations become targets of study in the field of economics of education.

Section two pursues rate of return studies, with an emphasis on private rates of return. This section asserts that to an individual, investment in higher education is a wise choice to make as it promises a rather high rate of return on the investment.

Section three reiterates students' expectation of higher education in general. Section four draws attention to Hong Kong students' expectations before higher education expansion. Section five points out some factors that might possibly affect Hong Kong students' expectations in the 1990s, and which also explain why this study has to be done.

The last section refers to two related studies on students' expectations from higher education in Hong Kong and the United Kingdom. They serve to give insights on how and why the present study was conducted.

3.1. The Economic Value of Higher Education to an Individual

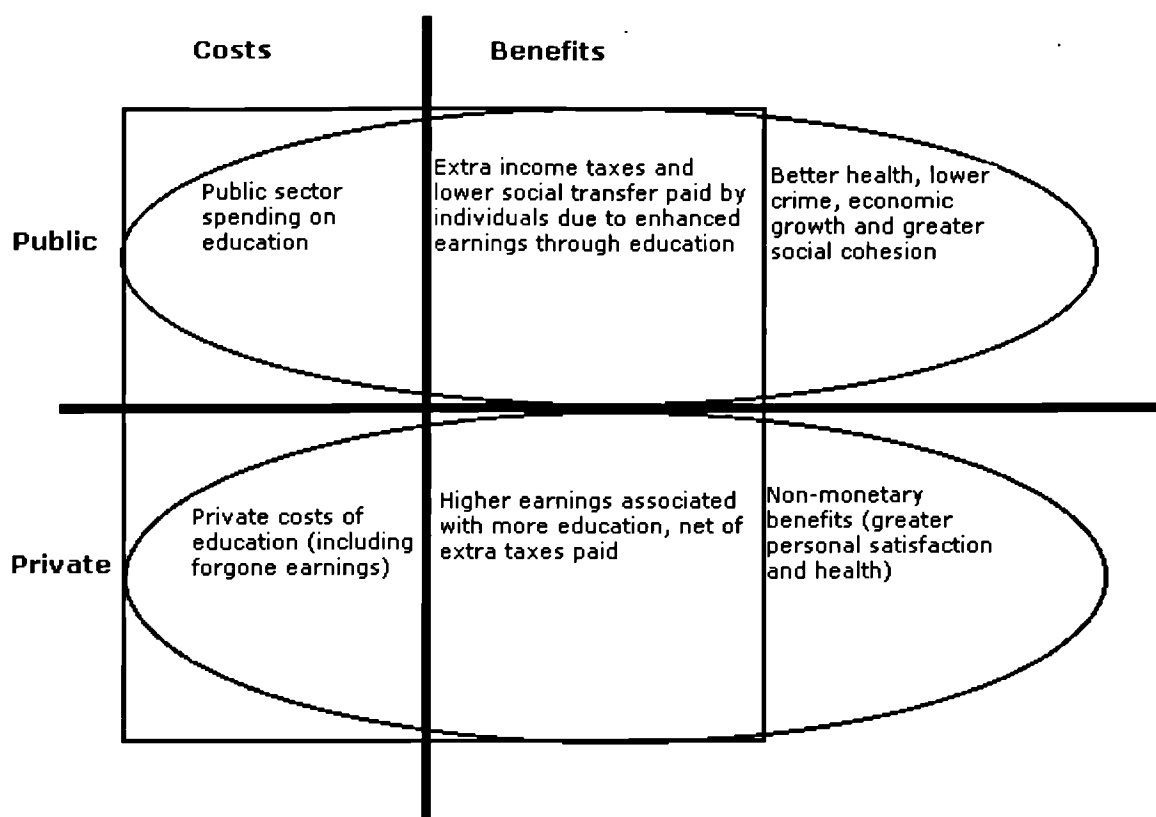
In a broad sense, the economic value of higher education confers both pecuniary and non-pecuniary benefits to an individual just as it does to society or the nation as a whole. Williams (2001) summarised five distinct categories of benefit as analysed by economists.

1. Monetary benefits to individual graduates.
2. Higher productivity of graduates.
3. External economic benefits: i.e. higher productivity in the economy as a whole.
4. Direct immediate or subsequent consumption benefits for students and graduates; it has been linked both to an immediate consumer good and as a durable consumer good.
5. External non-monetary benefit: i.e. social and cultural and similar benefits to the community as a whole from the presence of graduates.

Benefits can in principle be positive or negative. They are also distributed amongst individuals: information about average benefits can conceal wide variations that may be associated with identifiable attributes, educational and non-educational, such as subject of study or innate ability, or they may be due to luck. Some of these characteristics are observable, at least in principle, and some are not. Any serious analysis of the economic value of higher education must take account not only of the benefits but also the cost (Williams, 2001).

Figure 5 captures and focuses on the different dimensions of private and public benefits of higher education, side by side their costs.

Figure 5: Costs and Benefits of Human Capital Investment in Higher Education



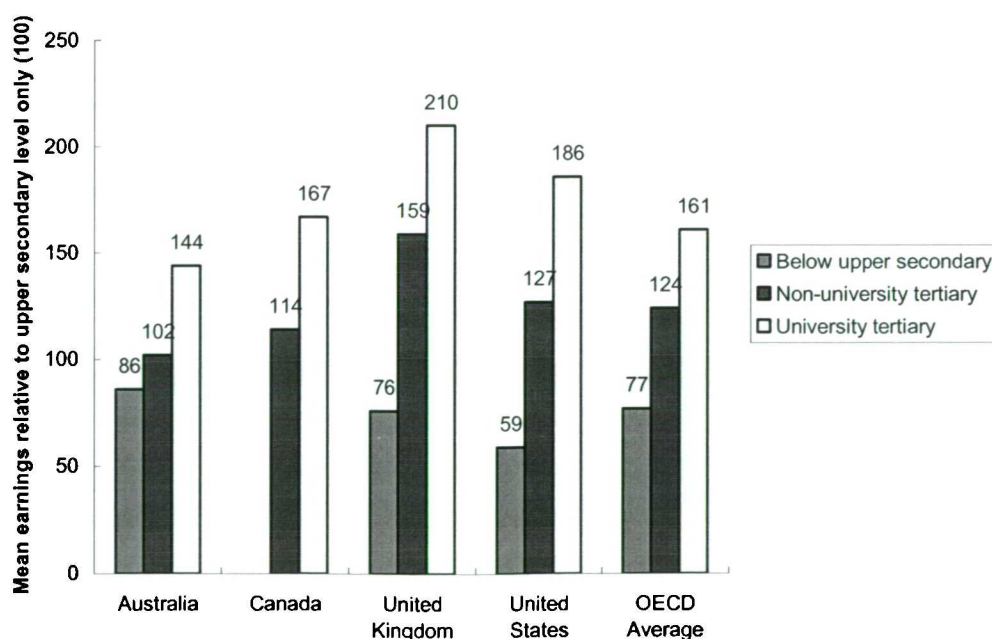
Source: OECD (1999a:69)

In a narrow sense, the prime economic value of higher education for an individual is its income-generating value (Blaug, 1990:14). The Dearing Report, Number 7 (1997:3), highlighted that the significance of education is one of several factors (others include innate capabilities and family background) that strongly influences pay. OECD (1999a:54) findings also suggested that students with higher levels of education are more likely to participate in the labour market, face lower risks of unemployment, and receive, on average, higher earnings.

Evidence of pecuniary returns from higher education to an individual are many. The age-earnings profile illustrated in Chapter Two is one. Besides,

OECD (1999a:111) findings indicated that men and women in OECD countries with a university tertiary level of education receive higher average earnings than those with non-university tertiary, even while non-university tertiary earns more than those with a below secondary level of education. In some cases, notably, France, the United Kingdom, Canada and the United States, returns to university education are very high (Cohn and Addison, 1998:256). Likewise, Asplud (1999) reviewed recent work on rates of return to education in fifteen European Union countries and came up with broadly similar conclusion. In the United Kingdom, there is evidence that between 60% and 80% of British graduate earnings premium reflects skills gained through higher education, with the remaining 20% to 40% reflecting underlying ability and background factors (Dearing, 1996). So, one could be quite certain that the private economic benefits of university education to an individual are fruitful. Figures 6 and 7 illustrate the earnings differential between men and women of some English speaking developed countries and other OECD countries respectively.

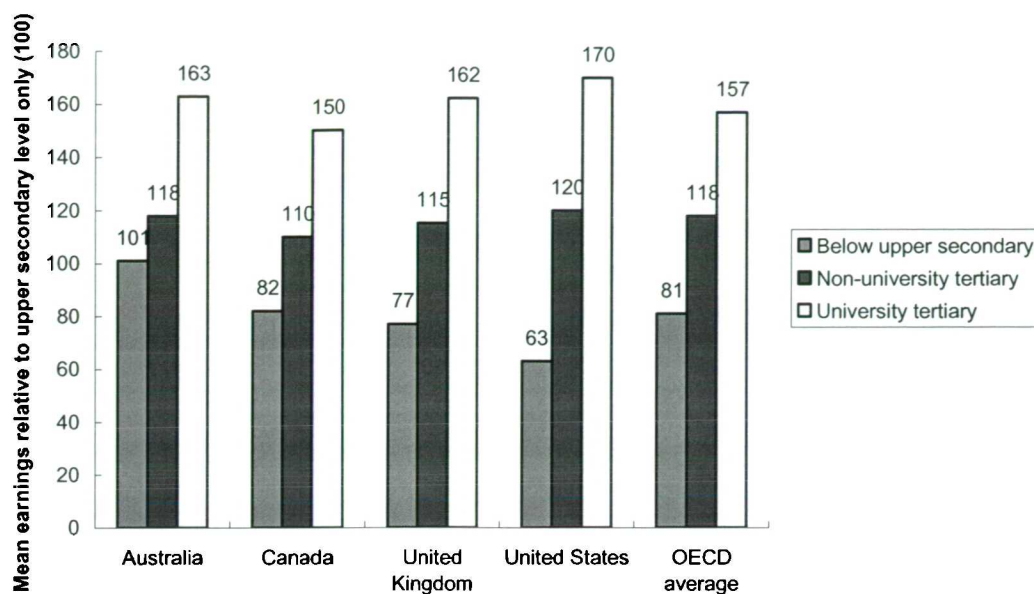
Figure 6: Education and earnings of women aged 30-44, 1995



Source: OECD (1999a:111)

Data of below upper secondary level of education in Canada is not available.

Figure 7: Education and earnings of men aged 30-44, 1995



Source: OECD (1999a:111)

According to Blaug (1976:839; 1980:225-226), the choice of acquiring additional education is also associated with expectation for non-pecuniary returns. To an individual, non-pecuniary benefits of higher education are multiple. It is tempting to make an elaborate list. Robbins (1963) suggested a rather broad idea about the development of the general power of mind. Among Schultz (1963)'s list are the cultivation and discovery of (potential) talent, increased capability of people to adjust to change in job opportunities, better citizenship, the ability to appreciate and recognize a wider range of cultural and other services such as that of filing of income tax returns. Blaug (1985:19¹) and Carnoy, (1995:4) agreed on enhancement of one's cognitive knowledge. Barnett (1994:70) added the fostering of a strong sense of lifelong learning ability and intention. Economists also agree that attitudes and generic skills such as team spirit, enthusiasm, motivation, and openness to new ideas are all

¹ Blaug (1985:19) clearly pointed out that most jobs in a modern economy require about as much cognitive knowledge and psychomotor skills as used when driving an automobile. Cognitive knowledge consists of general communication skills and problem solving abilities rather than occupation-specific competencies. It implies a combination of particular personality traits and a certain level of cognitive achievement.

important cognitive abilities directly related to knowledge (McMahon, 1998:317-318; OECD, 1999a:10; Vila, 2000; Bennett, et. al., 2000). Cultivation of one's imaginative power, understanding and judgement, problem-solving skills, the ability to see the relationships within what one learns, and to perceive a field of study in a broader perspective are more advanced intellectual domains that one could expect from higher education. In sum, the honing of analytical, critical², reflective, and independent thinking (Barnett, 1990:203; 1994:62) as well as the abilities to cope with uncertainty, challenge, and turbulence (Teichler, 1999:76; Barnett and Hallam, 2000:151; Barnett, 2000:170-171) are valuable personal benefits one can possibly gain from higher education.

Based on the above list, it could be suggested that non-pecuniary benefits, though not bearing direct monetary value, significantly but indirectly raise the ability and productivity of an individual and thus enable him/her to generate higher lifelong economic benefits. Hence, pecuniary and non-pecuniary returns from higher education are complementary, not exclusive. Together they add value to the individual. This investment in education (to boost personal productivity) increases lifetime earnings by an amount which exceeds the direct and indirect amount spent on education as well as earnings foregone during the course of the education (Woodhall, 1995:24-28; Wagner, et.al. 2000). Such tremendous benefits to the individual explain the core investment value of higher education.

3.2. Rates of Return from Higher Education

Describing examples of benefits of the investment in higher education

² Barnett (1997b) elaborated that critical thinking is a key component of the competencies needed for economic regeneration. Without going through a process of critical self-reflection, a student will not be able to take critical action and become a fully critical person. In addition, a learned society is necessarily a critical society. Since higher education is the highest form of human development, higher education for a learning society is thereby commissioned for the training of a critical person who is experienced in multiple discourse and the wider understandings and questionings of his or her intellectual field.

does not in itself show that investment is worthwhile. There may always be a possibility of a higher rate of returns of other capital investment. But putting aside other investing opportunities, if it is to demonstrate that the investment in higher education will more likely produce a positive rate of return, it is necessary to show that expected benefits exceed the cost of the original investment. The technique of cost-benefit analysis has been used to calculate both private (individual) and social (public and private) rates of return. The main task of this study is to find out what students expect from higher education and whether their expectations have been altered in a situation when they need to readjust their perception of the costs of higher education. A greater concern is therefore placed in the aspect of private rates of return than in the social one. It is believed that while making decisions about investing in higher education, an individual will think in terms of the relation between the cost and the long-term economic benefits education will bring him/her, rather than the overall social effect.

Private rates of return or internal rates of return for an individual can be calculated by the present value of costs against the present value of expected benefits. The direct cost of higher education will include the tuition fee and other expenses related to study excluding food, clothing, and transportation; the basic necessities of life. The indirect cost (or opportunity cost) includes any foregone earnings, i.e. earnings the individual would make if not attending university. Private benefits are measured by the additional lifetime earnings of an individual, measured after payment of tax. If the benefits exceed the costs, the student may very well consider it a profitable investment.

On the other hand, social benefits or wider benefits of higher education are not measured directly in terms of additional income or increased productivity. These are benefits above the level of the individual, that is, from family household through community to the wider society, as well as those accruing to individuals, for example, higher education may reduce fears of being apprehended for crime or increase fears of illness, or lead to increased

dissatisfaction at work where skills are not utilised (Wider Benefits of Learning Team, 2001:2, 7).

However, rate of return analyses in education have been subjected to criticism. For example, Bennell (1996, 1998) argued that the rates of return are calculated on past data. They are not necessarily a good guide to the future. Secondly, it is not always clear how much differences in earnings can be attributed to differences in education, and how much is due to other factors such as natural ability, socio-economic background, and labour force status. Thirdly, rates of return are marginal rates and this may not tell us much about the average rates. Finally, some figures were not gained from large or representative samples across all economic sectors and geographical locations.

Despite these criticisms, Psacharopoulos (1995) argued that the concept of rates of return in education is an important guide for policy decision makers in allocating resources to education at different levels. The private rates of return are in general estimated to be high, usually well in excess of 10 or 12% and often as high as 30 to 40%. Besides, Psacharopoulos and Woodhall, (1985:119) pointed out that in developed and developing countries where student loans are available, evidence suggests that even if students have to pay interest rates of 10 or 12% (in most cases, the interest on loans are well below market rates), their investment in education would still be profitable.

In one of the best-known examples that illustrates long term effects of private returns from higher education, Stager(1996) studied the returns from investment in university education in Ontario, Canada (a high income country), between 1960-1990. He reported that private rates of return, by field of study of university graduates in 1990 ranged from 7% (humanities) to 21 % (medicine). Returns were generally higher for women³ than for men. Stagers'

³ Woodhall (1970) showed that the reasons for rates of return to educated women being higher are due to more highly educated women returning to work after child bearing. More highly educated women may face less market discrimination than uneducated or less educated women. Women's non-market work has positive economic value and those women arguably enjoy increased physical income as compared with men educated at similar levels. In addition, women tend to be concentrated in public sector employment, such as teaching and nursing, where the value of earnings as a measure of marginal product is more than usually suspected. These combine to suggest that rate of return studies typically understate the

study also shows that any adjustment in the direct cost such as doubling tuition fees from 1990 levels or else abolishing them would change the rates of return by only about two percentage points in either direction. Doubling fees in the major professional faculties would leave rates of return still in excess of returns to arts and science students at current fee levels. The result revealed that in Canada, one of the highest spenders⁴ in higher education among OECD countries, the rates of return from investment in tertiary education (especially on professional subjects) remained profitable in the early 1990s even though there was a drastic increase in tuition fees.

It is not very likely that students will make precise calculations of their expected rates of return. And even if they do make an attempt to do so, they could never plan it with any high degree of accuracy. While they may be able to estimate the actual costs, they do not have reliable information to predict, for example, the expected future earnings which are subject to adjustment according to the changing political, economic, and social circumstances. As a result, students may over or underestimate their rates of return.

Nevertheless, it is highly probable that students, seeing themselves as making a personal investment in higher education, are conscious of the possible costs and benefits of higher education. It is believed that they often have a fairly sensible idea of the balance between costs and benefits. Psacharopoulos and Woodhall (1985:123)'s reference to the Indian case precisely illustrates the point. There remained a high private demand for higher education despite the prevalence of educated unemployment in India. The message is simple: Indian students were aware that private rates of return from higher education were higher over other alternative investments. Menon (1998) drew a similar conclusion after investigating the findings of relevant studies in

returns to investment in the education of women. It is noticeable that many cost-benefit analyses use data relating to males only.

⁴ OECD Report (1993) recorded that based on 1991 figures, Canada ranked first for spending in tertiary education with 2.4% of Gross Domestic Products as compared to 2.26% for the United States and the 1.5% average for OECD countries.

the United Kingdom, Philippines, Egypt, Hong Kong and Cyprus. She found that the students' perceived rates of return to higher education are very realistic, indicating an accurate perception of the economic benefits of higher education on the part of the students.

3.3. Students' Expectations from Higher Education: An Investors'

Approach

In the previous sections, references have been made to the economic value of and students' perceptions of private rates of return from higher education. What do the discussions tell us about students' expectations from higher education as a whole? And what makes up expectations? Machlup (1978) explained that expectations are information that is gathered from past experiences, knowledge about predecessors' experiences, peer group pressure, and even public opinion, along with social norms. However, expectations may vary when any one of these factors becomes altered. The factors, in turn, are subject to the influence of any political, social, and economic changes that people experience. Expectations can be taken as ongoing 'equilibrating' adjustments to the factors. Expectations are not fixed, but are contingent to changing situations and they depend a great deal on how favourable the "expector" perceives his stand in the changing situation to be, or otherwise. In addition, they can also reflect rational perceptions of the present situation.

In the most basic terms, students expect higher education to give them a good earning ability, a high living standard, a respected social status in future times (Psacharopoulos and Woodhall, 1985, 1995; Little, 1992), and positive personal development (Purcell and Pitcher, 1996). The study by Williams and Gordon (1981) demonstrated that British 16-year-olds' decisions to pursue higher education is affected by their expectations of how that decision will alter their future lifetime earnings; Wong (1989) and Menon (1997) also discovered that students of both Hong Kong and Cyprus respectively display similar traits in their decision to pursue higher education. Menon found out

significant differences between the anticipated rates of return of students intending to enter higher education and those who do not. Likewise, Hung et. al. (2000) surveyed the educational intentions of senior secondary students in Shenzhen, the first and largest Special Economic Zone in China to adopt a market-oriented economy and open door policy in the last two decades. He found that ninety percent of the students opted to continue into higher education on completion of senior secondary education. Findings of these studies demonstrate that students reveal positive expectations when they make their choice of higher education.

Other researches also show that students are rational decision-makers when investing in higher education. Freeman (1981) pointed out that in the United States in the 70s students feared graduate unemployment. Purcell and Pitcher (1996) found that in the United Kingdom in the 90s, some students chose their courses for pragmatic reasons, i.e. to enter a particular field or get a good job, and some were concerned about graduate unemployment and difficulties in finding remunerative and fulfilling employment. Psacharopoulos and Sanyal (1982) compared students' expectations with the actual labour market performance in Egypt and discovered that students' perceptions of the labour market were in tune with current market conditions. For example, many students chose less popular subjects (such as agronomy) because of the availability of places that would in turn ensuring them a better chance of attaining more attractive economic rewards. Stager (1996) found that most Canadian students use their perceived private rates of return as a guideline when making a decision on any higher education enrolment.

It is possible to suggest that in different parts of the world, students in higher education perceive the economic value of their education with a positive view. Indeed, students in Hong Kong share similar expectations when anticipating economic returns from higher education. It is not surprising that they do, if one takes into account the high benefits and private rates of return Hong Kong university graduates had enjoyed in the 40 years before the last decades of the 20th century. The next section will elaborate on this issue.

3.4. Benefits and Private Rates of Return from Higher Education — The Case of Hong Kong before Higher Education Expansion

In the past, elitist higher education in Hong Kong was regarded as a path to success because it promised high private rates of return and therefore many local educators had recorded and validated the cause and effect relationship between higher education and career.

The first systematic study on this was done by Simpson (1959), which gave a brief account of graduate employment in Hong Kong in addition to studying the issues of university expansion in the late 1950s; graduate employment patterns, salary range, and job requirements. Simpson extended his analysis in 1966 (Simpson, 1966a, 1966b) and his findings indicated that graduates from HKU in the 50s and 60s were fully absorbed in the labour market without any difficulties and, normally, they received a promising remuneration⁵.

Cheung (1981) studied graduate employment patterns and found that university graduates in the early 80s were fully absorbed by the labour market when demand for educated manpower exceeded supply, a result of economic expansion. As such, university graduates in Hong Kong from the 50s to the 80s seldom had to worry about occupation issues such as employment prospects or salary levels.

Other Hong Kong researchers in the field of economics of education reached a similar conclusion while studying personal investment into higher education in Hong Kong. Yip (1981) calculated that the private rate of return from higher education over secondary education in Hong Kong was 15.35%. The calculations of Hung (1982) on a cross sectional 1% sample of land-based population of Hong Kong utilised the earnings stream comparison method to estimate the rates of return from secondary and university education, using cost-benefit analysis to calculate both the social and private rates of

⁵ UGC of Hong Kong Report (1965-66) reported that enrolment in HKU in the 50s was around 750 students per year.

return to “senior secondary” and university education. Hung concluded that investment in university education could yield a private rate of return of up to 25% higher than simply secondary education.

Later, Kwok (1984) used Mincer's experience model, which focused on schooling and experience to study the earning structure of Hong Kong. His study, excluding female cases, was based on the 1976 by-census and the 1981 census. Kwok found that investment in university education yielded a private rate of return of 22% in 1976 and 21% in 1981. Leung (1984) had a similar finding; higher education yielded a private rate of return of 22.3%.

Liu (1991) based his study on 1% samples taken from each of the three census years: 1976, 1981 and 1986. He compared the rates of return from investment in education in Hong Kong, as calculated by the direct present value of lifetime earning methods and the regression approach, which is based on human capital earnings functions. He discovered that at each level of education, the present value approach yielded higher rates of return than the regression approach. By using the present value approach, the rates of return to university education for all employees was estimated to be 26%, 28%, and 27% in 1976, 1981, and 1986 respectively. When using the regression model the corresponding estimates were only 17%, 14%, and 18%, respectively.

Wong K.F. (1992) used data from the 1976, 1981, and 1986 population census to estimate the private and social rates of return from university education for men. He found that in 1976, the private rate of return was 24.8% and the social rate of return was 5.3%. In 1986, the private rate of return from university education was 26.9% and the social rate was 11.9%. Table 6 provides a summary of the calculations by Hong Kong researchers of the rates of return from university education in Hong Kong during the 1970s and 1980s.

Table 6: The Rates of Return From University Education in Hong Kong in the 70s and the 80s as Calculated by Hong Kong Researchers

Rate of Return	Yip (1981)	Hung (1982)	Kwok (1984)	Leung (1984)	Wong K.F. (1992)
Private	15.35	25.2	21.42	22.3	24.8
Social	9.29	12.44	9.1	n.a	5.3

Source: Chung, & Wong (1992)

All of the above findings show that in Hong Kong, the private rates of return were high among higher education students in the 1970s and 1980s. This indicates that during that period, enrolment in higher education could be regarded by students as a promising investment that could generate a fruitful economic return. Wong K.F. (1992) specifically highlighted a pattern of rising private rates of return and stated that this was primarily the result of a shift in the demand for more educated labour, a demand that was not matched by an increase in supply. The findings also show that private rates of return were much higher than social rates in that period, and this can be explained by the generous government subsidy in university education at the time (Hung, 1982; Wong K.F., 1992).

Regarding perceptions of likely future earnings, Wong (1989) showed that most secondary students, irrespective of family background, ability, or quality of school, expect high rates of return from their future earnings with higher education⁶. The perceived rates of return to university-educated students in the mid-1980s were 22% for boys and 21% for girls. Secondary students also expected higher education to give them attractive material rewards, promotional prospects, and social recognition of their competence and accomplishments. Most students who decided to pursue higher education did so as a means of improving their living standard and social status.

In the following year, Leung (1990) used a questionnaire survey to further reveal that most secondary school students' first choice of a higher education subject was a commercially-related subject; one that they expected would lead to high rates of return in commercial careers in the transforming service oriented economy.

⁶ Wong(1989) based his method by following the general earnings function used by Williams and Gordon (1981): $\ln Y = a + \beta_1 E_1 + \beta_2 E_2 + \beta_3 A + \beta_4 SX + \beta_5 FB + \dots$. Where $\ln Y$ =log of lifetime expected earnings; E_1 = level of schooling; E_2 = different level of schooling; A = ability scores; SX =sex; FB =family background. The calculation of the expected rates of return is to discount the estimated lifetime earnings by the discount rate; 'r'. Empirically, it is to find an 'r' which would reduce the coefficient of the β_1 and β_2 to 0. This is to reduce the effect of entering a high level of education on discounted expected lifetime earnings to zero. The rate of discount is thus interpreted as the perceived internal rate of return.

The above *ex post* and *ex ante* (perceived) cost and benefits studies before the late 1980s (before higher education expansion began in Hong Kong) confirm that rates of return from higher education had been attractive. Up till the present moment, there is not yet any publication of rates of return from higher education after Hong Kong enters the era of mass higher education. It is still early to say if investment in higher education has become a less profitable venture for students. So if one is to find out about how students' perception of the worthiness of investment changed after higher education expansion, it is necessary to shift the attention back to factors which may likely alter their perceptions of benefits from higher education.

3.5. Factors Affecting Students' Expectations in the 1990s

Since 1989, UGC-funded higher education institutions in Hong Kong expanded their enrolment (see Table 7), and therefore supplied more graduates (See Table 8). Student enrolment in UGC-funded institutions increased from 8.6% in 1989-90 to 18.8% of the relevant age group in 1995-1996. In 1995-96, higher education in Hong Kong produced a total number of 23,231 graduates in seven-UGC institutions. Up until 1999, the number remained at this level without much change due to a freeze in enrolment expansion in 1996. Compared with the number of graduates in 1989-90, there was an increase of 7,811 graduates in 1995-96, not counting the number of returning higher educated emigrants, higher educated immigrants from mainland China, and returning graduates from overseas education. This rise in the number of graduates led to a greater demand for graduate employment opportunities in several different sectors. It inevitably initiated keener competition in the graduate labour market and led to reduced starting salaries that might have inadvertently lowered students' economic expectations from higher education.

Table 7: Student Enrolment in UGC-Funded Institutions, 1989 - 90 to 1995 -96

	89-90	90-91	91-92	92-93	93-94	94-95	95-96
Sub-degree	12,198	12,446	13,407	12,090	10,214	9,370	9,414
Undergraduate	24,027	26,265	29,793	33,593	38,150	41,782	44,659
Taught postgraduate	2,250	2,608	2,931	3,565	3,904	4,236	4,691
Research postgraduate	729	783	1,348	1,943	2,276	2,547	3,012
Total student enrolment	39,205	42,102	47,480	51,190	54,544	57,935	62,045
Student enrolment # (headcount)	54,833	57,824	64,942	68,109	70,181	72,154	75,520
Total headcount students per 1000 population	9.6	10.1	11.3	11.7	11.9	11.9	12.2
Full time first-year first-degree places	7,426	8,575	10,665	12,090	12,726	14,253	15,073
% of relevant age group (age 17-20)	8.6%	10.2%	12.6%	14.5%	15.3%	17.4%	18.8%

Source: UGC of Hong Kong, Statistics (1996)

Table 8: Graduate Numbers from UGC-Funded Institutions, 1989-90 to 1995 - 96

Graduate number	89-90	90-91	91-92	92-93	93-94	94-95	95-96
Sub-degree	7,513	8,387	8,609	8,324	7,465	6,337	4,997
First degree	5,973	6,740	7,792	8,169	10,690	12,529	13,609
Taught postgraduate	1,719	1,867	2,117	2,274	2,668	3,227	3,810
Research postgraduate	215	225	263	325	515	1,055	835
Total graduate number	15,420	17,219	18,781	19,092	21,338	23,148	23,231

Source: UGC of Hong Kong, Statistic (1996)

The extent of competition in the labour market is greatly determined by the supply of job vacancies, which in turn depends on the current economic situation. In Hong Kong during the mid and late 1990s, the economic situation was very dynamic. Primarily, political uncertainty arising from the change of sovereignty in 1997 raised questions on whether or not the existing economic system and practices would be maintained. Secondly, the Asian Financial Crisis that broke out in late 1997 cast doubts on the outlook for the economy and it is beyond the limit of the present study to predict or research on what changes will be made in those areas. What the study can do is investigate if these uncertainties have affected or altered the perceptions of students of returns of higher education.

Another factor that might influence students' perceptions is the cost of higher education. Increased tuition cost and interest rate on the newly-proposed

student loan scheme (as discussed in Chapter 1) have raised students' concerns about a possible reduced rate of return from higher education.

Information about the graduate labour market in the mid 1990s, provided by higher education institutions in Hong Kong, may give some hints about the costs and benefits of investing in higher education. Data about post-expansion employment prospects are not very encouraging. Two examples will be quoted here: the Graduate Destination and Remuneration of 1995, and the Bachelor's Degree Graduates Report of University of Hong Kong (1995). Both recorded that 16% of 1993 and 15% of 1994 graduates were working in occupations that did not require a degree. There was also a slightly less than 3 % graduate unemployment rate in Hong Kong for new graduates in 1994. For any undergraduates whose expectations are based on knowledge from early 1990 employment prospects and full-time employment for new graduates, these figures are certainly not promising.

It is not the intention of this thesis to jump to conclusions and say that higher education in Hong Kong during the mid-1990s reached a stage of imbalance in demand and supply of graduate labour. Nor is the thesis suggesting that graduates are facing a crisis of credentialism or 'Diploma Disease'⁷, as described by Dore(1976) or as predicted by Teichler (1992) about the possible effect of higher education expansion on graduate employment⁸. Quite the contrary; the thesis wishes to strike a balanced

⁷ Dore(1974) traced a relationship between the point in world history at which a nation begins its drive towards modernisation, the extent to which educational certificates are employed for job allocation, the quality of the process of learning and teaching, and the ability of education to develop skills relevant to the needs of developing societies. Dore stated that "the later development starts the more widely education certificates are used for occupational selection; the faster the rate of qualification inflation and the more examination-oriented schooling becomes at the expense of genuine education."

⁸ Teichler (1992) described the possible effect of higher education expansion on graduate employment; first, higher graduate unemployment or prolonged transition periods from graduation to first employment may result. Second, graduates' income and status advantages over secondary-school leavers may decrease slightly when compared with the pre-expansion period. Third, inappropriate employment may increase modestly.

view and recall Psacharopoulos (1995)'s argument⁹, in refuting the notion of over-education¹⁰, that "in spite of lowering rates of return, the private demand for higher education remains high. This is a good indicator that apart from monetary returns, students must also have expected some other valuable benefits from higher education". Since the concepts of over or under education only concentrates its fire on the measurable pecuniary returns from jobs or occupations instead of including the un-quantifiable non-pecuniary returns produced by higher education, they are not comprehensive notions to fully explain the issue of student expectation of higher education.

Yet, an important point to make here is that students probably will not make precise calculations when making a cost-benefit analysis of higher education investment. So while it is interesting to find out what non-monetary values they expect, it is also necessary to explore whether and the extent to which the factors referred to in the previous paragraphs affect the faith of some individuals on a good private return from higher education. These are the major areas of concern of this piece of research.

⁹ Psacharopoulos(1995) asked 'From what point of view can there really be "Over Education"? From the private point of view, one can talk about rates of return below a market level. But if people are willing to invest in their education, in spite of low private returns, they must be deriving some value other than monetary. In addition, if they finance their own education, this is a zero sum game from the point of view of the social policy. These people are not overeducated in any bureaucrat's sense; they are rightly educated according to themselves. One cannot deny people's chance to undertake more education for probable social advancement, or even sheer consumption, if people pay for their own education.'

¹⁰ The concept of over-education proposed by Duncan and Hoffman (1981) distinguishes between an individual's attained level of education and the education required in a job. From these two concepts, they derived measures of over-and under-education, and they estimated returns to these years of mismatch, as well as returns to required years of education. But, Hartog (2000) pointed out that returns to over-education are positive. Typically, the returns are about half to two-thirds of the returns to required education. In addition, Alba-Ramirez (1993) found that over-educated workers are more likely to change occupation when moving firm and undereducated workers are more likely to move to a different job in the same occupation. Kiker et. al (2000) also found that the over-educated have faster earnings growth with tenure. Finally, Hartog (2000) concluded that the concept of over-education was still far from satisfactory as it failed to cover-up the lack of direct measurement of changes in demand.

3.6. Related Studies on Students' Expectations: In Hong Kong and The United Kingdom in the 1990s

Undergraduates' expectations of higher education received little attention among educational researchers in Hong Kong before the 90s. A recent research study on higher education student experiences that bears closest relevance to the present study is *Preparation of Students for Tertiary Education (POSTE) Report* (1996), sponsored by the University Grants Committee. Looking beyond Hong Kong, the Purcell and Pitcher (1996) study on students' expectations in the United Kingdom also shed light on the issues of this study. The findings of these studies will be briefly reported and analysed in the following sections.

3.6.1. Preparation of Students for Tertiary Education Report in Hong Kong in 1996

The POSTE study, conducted by a team of researchers from the University of Hong Kong, the Chinese University of Hong Kong, and the Hong Kong Institute of Education, was completed in August of 1995. The aims of the project were broad: to examine the interface between secondary and tertiary education, and to understand how secondary schools have prepared school leavers as entrants to tertiary education. As one of its minor tasks, the project reviews the variations in perceptions and expectations found among different categories of students (in terms of abilities), in relation to their choice of field of study and institution. It is exactly this issue that this study is interested in.

The POSTE report discloses that in the era of elitist higher education, there was only one category of student in terms of ability: high calibre. But, as the number of higher education places increased, students from wider ranges of ability gained admission.

As reported in chapter seven of the POSTE Report, students gain admission to higher education institutions by submitting applications to different programmes in different institutions through the Joint Universities Programmes Admission Scheme (JUPAS)¹¹. Secondary students are allowed to choose up to 20 programmes from the seven UGC-funded institutions, ranked in order of preference. The first stage of the application is made about half a year before they attend the Advanced Level examination, which is the examination to satisfy university entrance requirements.

Secondary students are allowed to make alterations to their choices and the rankings in the intervals after their submission of any application forms, and within a certain time period after the Advanced Level examination. The last chance to make a change is given in the short period after the Advanced Level examination result is released, but at this stage students are only allowed to make adjustments to the rankings.

There is a high degree of estimation when matching one's ability to one's interests in and expectations of a chosen programme at the first stage of application. The second and last stages are more realistic adjustments of the students' choices to match both the requirement of the programme and the self-evaluated (in the second stage), or actual (in the last stage) performance of the students in examination. Whether estimated or realistic matching, the students are seen as making a free and rational decision to put themselves in the best position to maximise their profit from higher education.

The research team used the 1994 JUPAS data to analyse Secondary 7 (the final year of secondary students) students' choices of higher education institutions and fields of study. The findings reflected a connection between the students' abilities and their choices of programmes and /or institutions. The most interesting finding related to this study is that both the students' choice of

¹¹ JUPAS (Joint University Programmes Admission Scheme, formerly known as Joint Universities and Polytechnics Admission Scheme) is the centralised admission system recommended by the Education Commission Report No. 2 in 1986. It was fully implemented in 1990 for admission of students to UGC-funded tertiary institutions in Hong Kong. Since 2000, the number of choices of JUPAS programmes was increased to 25.

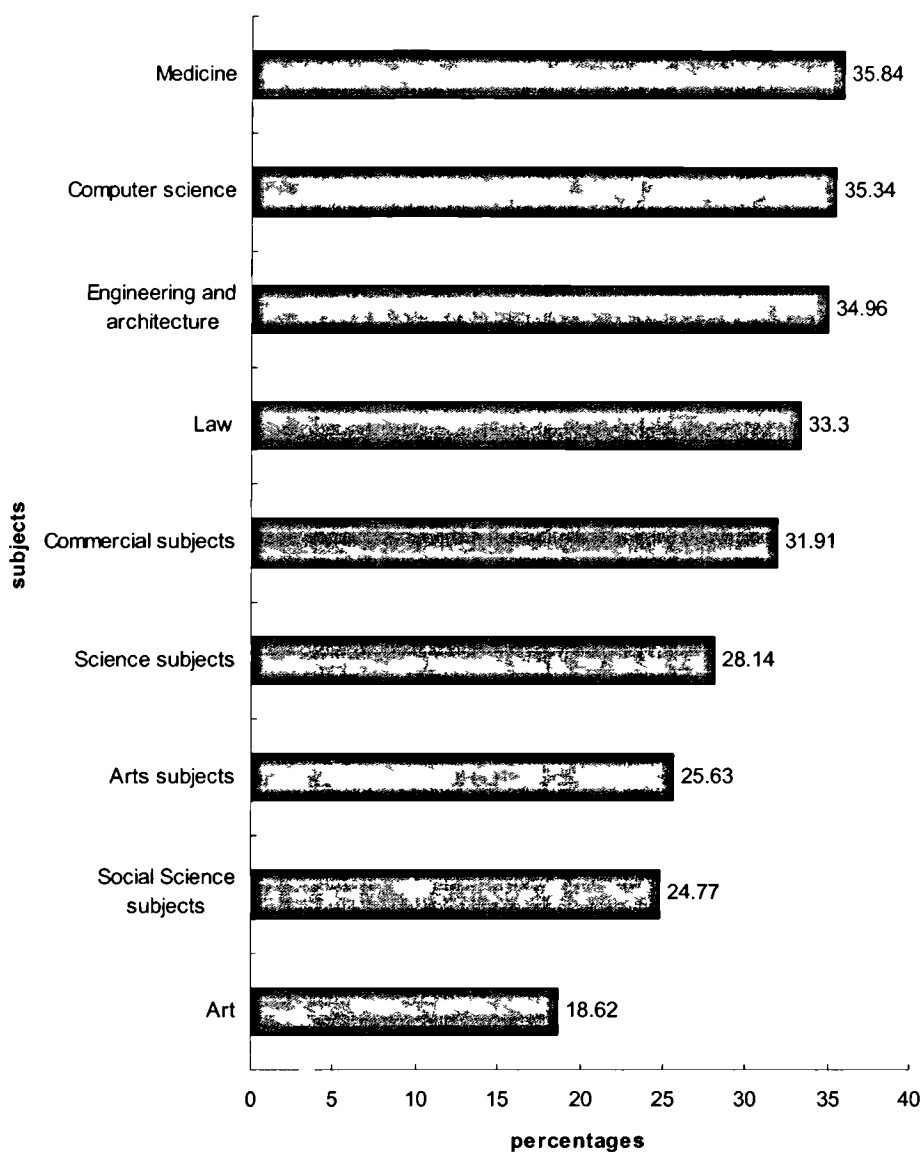
programmes and the actual offer are closely related to Advanced Level (A-level) examination results. Students with the best A-level results chose and were offered medicine, those with significantly lower results chose and were admitted to science, arts, social science, and art. Those in between, joined engineering, architecture, computer science, commerce, and law. This proves that students are realistic about their abilities when making a choice of programme. They have an accurate estimation of their own ability and are able to make an appropriate match between their ability and the requirement of programme selected.

Figure 8 and Figure 9 suggest that both in terms of students' choices and in terms of the actual offer, the five most preferred programmes are those considered to be high income-generating programmes in the future of Hong Kong: medicine, computer studies, engineering and architecture, law, and commercial studies. It could therefore be generally assumed that higher ability students tend to choose programmes with more promising economic benefits whereas those lower down in level of ability have to be contented with jobs that promise less conspicuous pecuniary benefits.

The finding that the most popular first choice programmes were commercial subjects, as shown in Figure 10, does not refute but only confirms the above assumption. The popularity of commercial subjects indicates that students in Hong Kong are mostly economic-oriented. Owing to the rapid growth of the economy in the years prior to 1994, students foresaw that participation in commercial careers would promise them higher economic returns. Yet, the phenomenon can also be partly explained by its less restrictive admission requirement than professional programmes such as medicine, architecture, and engineering. As such, most middle to high ability students tend to prefer commercial-related subjects because of the vocational nature and lower entry requirements. Besides, commercial subjects are available at seven out of eight degree granting institutions, there are more places offered than the other subjects. It constitutes 20%, the largest percentage, of the total full-time

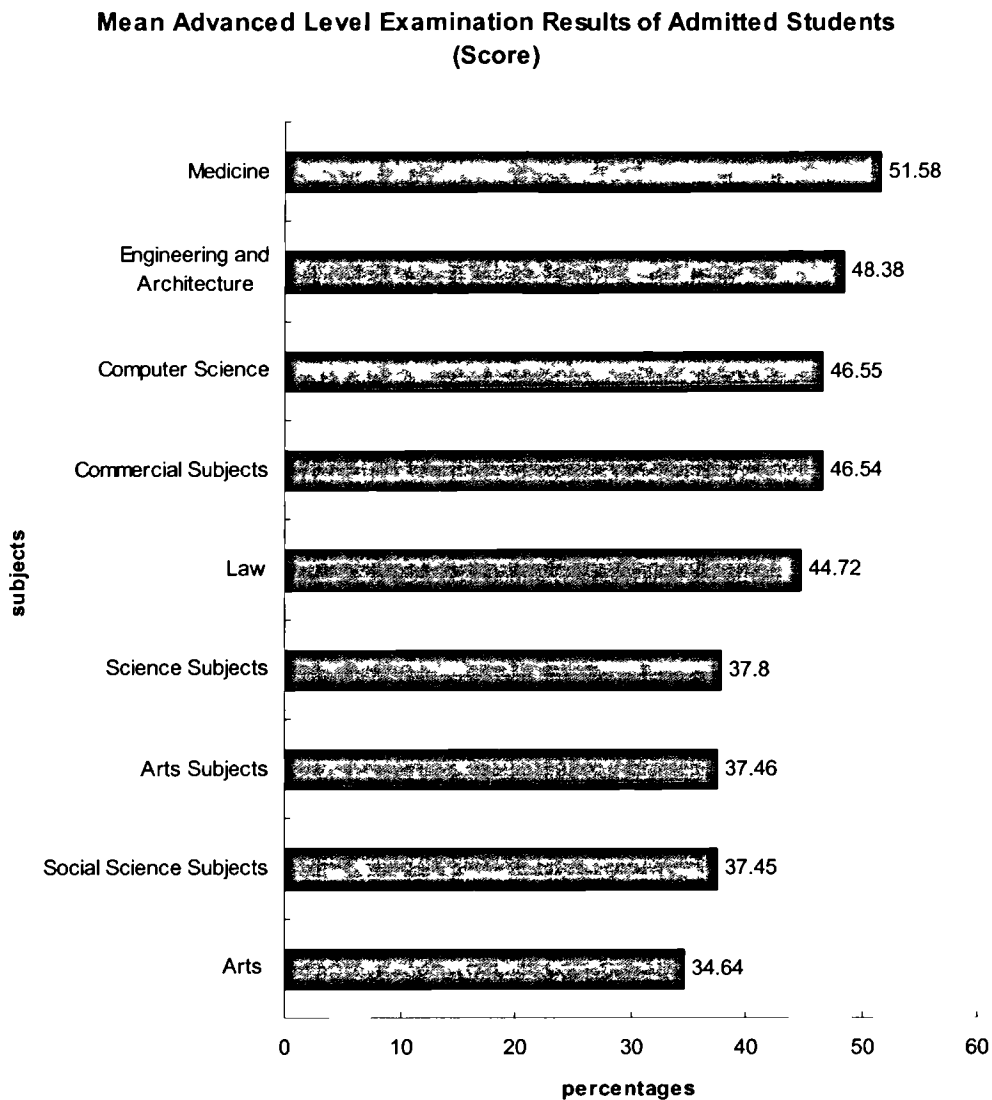
undergraduate courses (UGC, 1995:41). Thus commercial subjects appear more attractive especially to a majority of Hong Kong students

Figure 8: Mean Advanced-level Examination results of Applicants (Score)



Source: UGC(1996) POSTE Report, Chapter 7 P.7.

Figure 9: Places offered by the different programmes of the UGC institutions in relation to students' Advanced Level Examination results

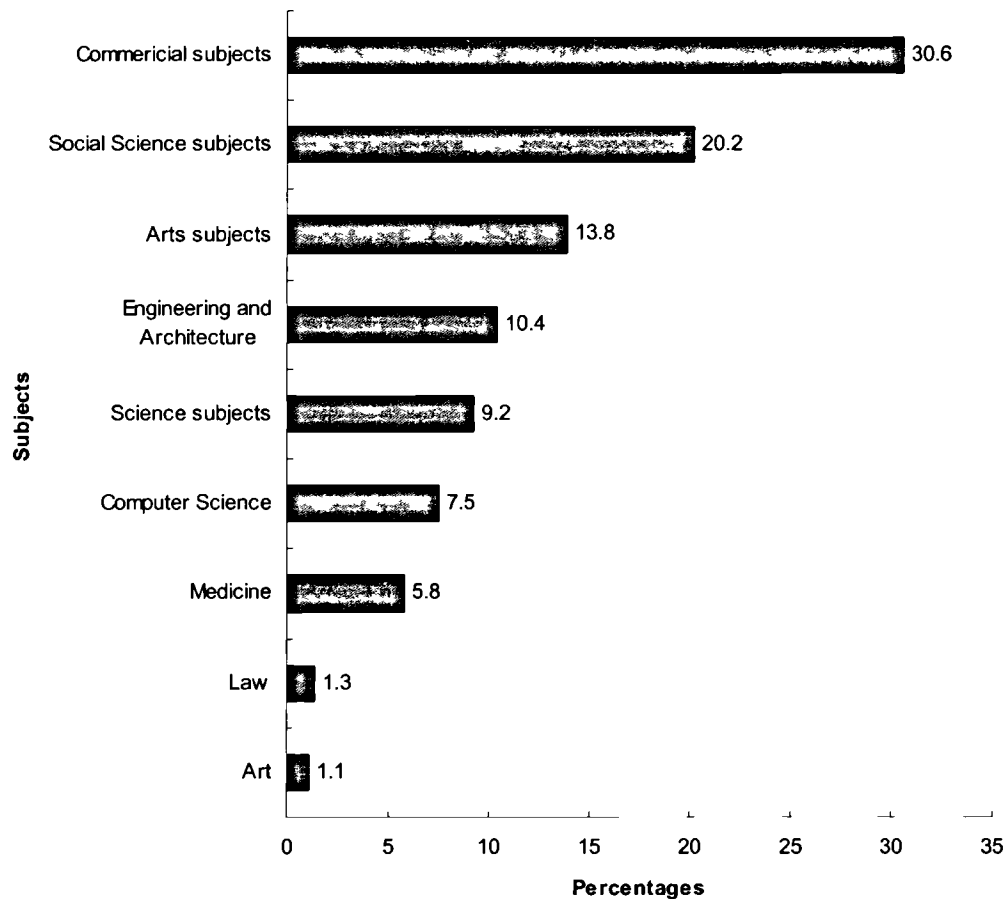


Source: UGC - POSTE Report (1996) Chapter 7, P.9

In Figure 10, arts, science, and social science subjects looked more popular among students than law, computer science, and medicine. But it needs to be pointed out that the former three fields of programmes offer a much larger number of places, which means easier access and less competition. This was therefore more attractive to students in general. On the contrary, the three latter programmes offer a limited number of places and only very confident students would dare take them as their first choice.

The choice of institutions is even more limited. Usually, the decision is based on the student's impression of the institutions and an evaluation on whether or not they will get admitted into them, especially the more upscale institutions. The impressions are usually focused on the institutions' status, quality, admission requirements, and the employment prospects for the graduates (Chiu, 1991; Lee, 1995, Purcell & Pitcher, 1996).

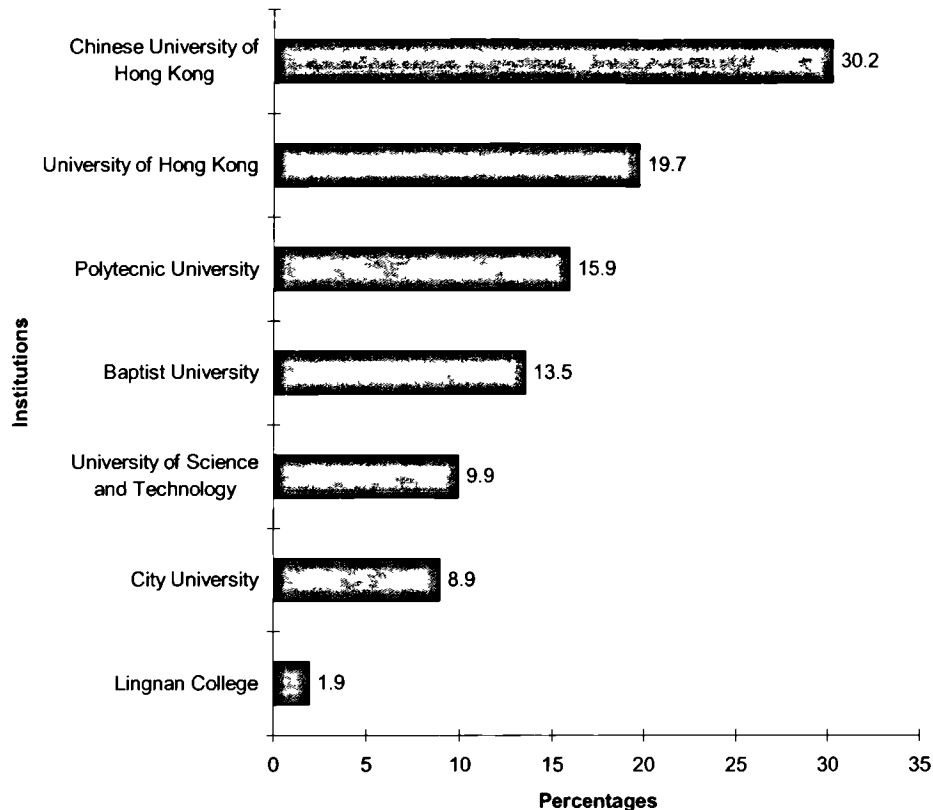
Figure 10: Distribution of Students' First Choice for the Field of Study (%)



Source: UGC - POSTE Report (1996) Chapter 7, P. 4.

Figure 11 shows that the most popular universities in Hong Kong are the Chinese University of Hong Kong and the University of Hong Kong, which are both traditional universities with a higher social reputation and better connections with society's elite class.

Figure 11: Distribution of Students' First Choice for the seven UGC Institutions

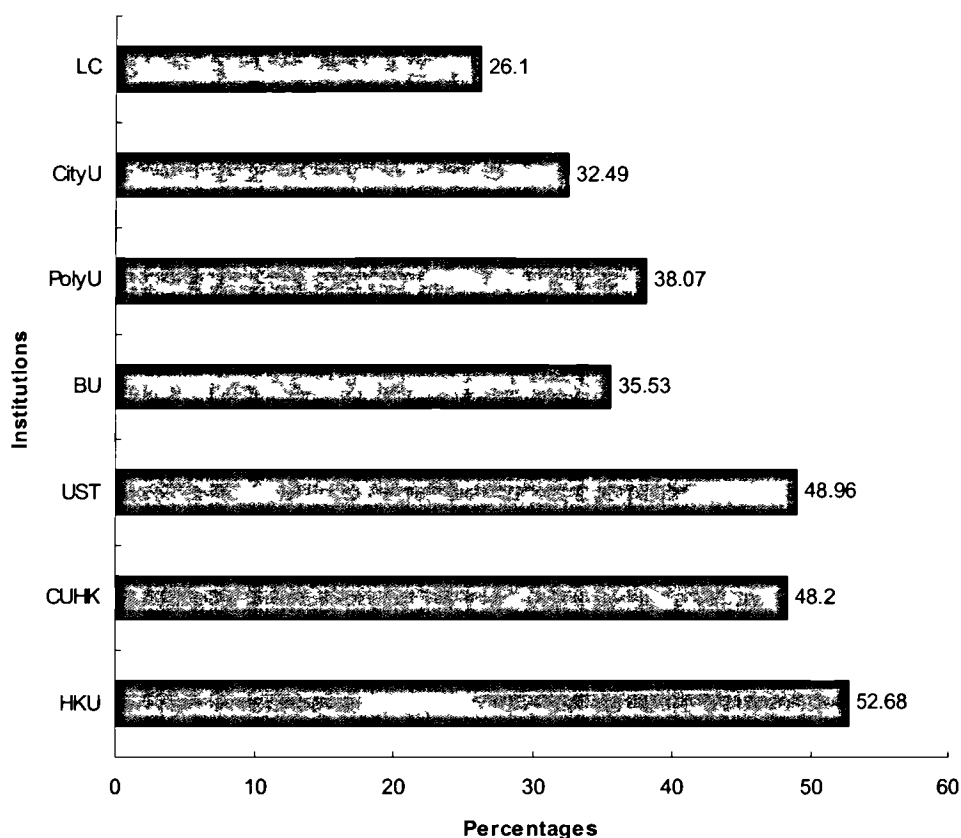


Source: UGC - POSTE Report (1996) Chapter.7, P.5

Though there is no formal research on this, employers in general tend to give higher priority to graduates from these two universities when selecting their employees. For example, graduates from the Faculty of Law of HKU will almost certainly out-compete a graduate from the same faculty of HK City University during initial post-graduate employment.

In terms of the actual intake of students, Figure 12 shows that HKU was taking the lead in admitting the best students in A-level examinations, while UST and CUHK fell slightly behind. This indicator is a strong signal indeed to both students and employers; HKU is the most preferred higher education institution as it admits the top students. To those who consider themselves not among the best, they may prefer not to try HKU in order to avoid the competition.

Figure 12: Places offered by the UGC institutions in relation to students' Advanced Level Examination results



Source: UGC - POSTE Report (1996) Chapter 7, p.8

As for the other institutions, since almost all of them were either opened or upgraded to university status in the early 1990s¹² it is not surprising that fewer top quality school leavers are keen on putting them in their top priority. The University of Science and Technology is an exception to this; this university (as the name suggests) specialises in the science and technology fields and is the target university of many top science streams secondary students. Moreover, the highly advanced teaching and research facilities, together with the prize-winning and purpose-built campus, are elements of attraction to many students.

¹² Hong Kong University of Science and Technology was established in September, 1991, Hong Kong Baptist University, Hong Kong Polytechnic University, and Hong Kong City University were all upgraded to university status in 1994 and Lingnan College followed suit in 1999.

There are other exceptions: some programmes offered by individual institutions, such as Journalism in HKBU, are very popular. This is due to the fact that Journalism graduates from the HKBU are almost immediately employed by the most popular broadcasting companies or the best newspapers as news presenters, reporters, and editors.

On the whole, the POSTE report on students' choice of programmes and institutions helps to illustrate students' choices as being ability associated. (POSTE, 1996, Chapter 7:7). From the Report, one could further suggest that higher ability students have higher expectations, and therefore choose fields which lead to higher economic returns and careers with better prospects (mostly vocational-related ones). Less able students, on the other hand, have to be content with fields that do not seem to promise immediate and attractive returns.

To a certain extent, the POSTE Report provides a crude explanation on what secondary students of different ability groups expect to gain in terms of pecuniary benefits from higher education before their enrolment. The present study takes a further step to examine what undergraduate students expect to gain in terms of non pecuniary benefits and the extent to which their pecuniary expectations would be affected when de-motivators, such as higher costs and uncertain careers prospects, seem threatening.

3.6.2. Students' Expectations Study by Purcell and Pitcher in the United Kingdom in 1996

In 1995, in Warwick University, Purcell and Pitcher reviewed a number of research reports on the expectations employers have of graduates in the expanded graduate labour market of recent years. In view of the fact that there is an increasing proportion of the population that is obtaining higher education qualifications in a diverse range of subjects at a wide variety of higher education institutions in the 1990s, and being concerned with this implication to the graduate labour market and the economic benefits

expectations of any new graduates, a study to investigate students' expectations was launched in 1996.

The objectives of Purcell and Pitcher's research were various: to investigate student evaluations of higher education, their career expectations and their approaches to job-seeking in their final years of study, the sources of information from which they draw and how they use them, the extent to which student expectations of higher education are being and are likely to be met, and the extent to which their expectations of the transition from education to employment are realistic. Some of these questions are related to this study's research on students' expectations of economic remuneration and other benefits from higher education in Hong Kong.

From April to June 1996 a detailed, self-completed questionnaire survey was sent to 12,500 students in their final year at 21 higher education institutions in the United Kingdom, randomly sampled from a population of 43,165, and 5,228 responded fully. The research investigated a full range of academic disciplines and subject areas which are normally taken to prepare students for the general graduate labour market. The institutions these students were in include the full spectrum of undergraduate experience: from Oxbridge to newly approved degree-granting higher education colleges. It was followed by focus group interviews with groups of respondents at universities around the country in order to ascertain similarities and differences among different types of students, particularly in terms of discipline and subjects studied, category of institution, gender, and regional location. This enabled the research to cover the full diversity of the United Kingdom undergraduate experience.

The following are some major findings from Purcell and Pitcher's study which are relevant to the present study:

(i) Three types of student motivation for higher education were identified:

'Hedonistic', where students chose courses on the basis that they expected to enjoy them; 'Pragmatic', where they chose them in the belief that it would enhance their careers or employment prospects; and 'Fatalistic', where they acceded to, rather than chose, their programmes of study.

The findings revealed that most students enrolled in vocational-related programmes are pragmatic. These included 72.2% of the Law students, 55.4% of the Business Studies students, and 46.7% of the Engineering and Technology students. This may be taken to indicate that students of vocationally-related subjects tend to have clearer and stronger economic expectations in relation to their choice of careers and choice of programmes.

On the other hand, students who enrolled in non-vocational related subjects were more hedonistic. These included 85.1% of the Arts and Humanities students and 81.1% of the Modern Languages students, indicating that students from non-vocational related subjects tend to have less economic expectations in relation to their choice of programmes, and that they chose these programmes based on their personal interest.

Up to here, the Purcell and Pitcher study seems to echo one important finding from the UGC—POSTE Report (1996) in Hong Kong; most vocational related students have higher economic expectations than those of non vocational related subjects. However, the Purcell and Pitcher study only focused on those students whose discipline and subject areas dealt with preparation for the general graduate labour market, and did not sample any students from narrowly-targeted courses that effectively incorporate professional qualifications for a particular occupation: medicine, education, and journalism. Thus, the report may not be able to fully compare expectations between vocational-related subjects with non vocational-related subjects.

- (ii) Nearly two-thirds of students had incurred repayable debt during their courses.
- (iii) Around 65% of respondents intended to enter employment immediately after they had completed their courses. More than half planned to embark upon career-related jobs, whereas the remainder saw themselves as working temporarily in any job to pay off debts and /or take time to decide how to develop their career.
- (iv) Students perceive that employers are more concerned with work experience, personal qualities, and enterprise skills than with subject specialism or

academic ability; although they also believe that a good degree is a prerequisite for most employers to make appointments. Students from new universities widely believe that they are discriminated against because of where they studied.

- (v) There was, however, not much evidence that graduate expectations are changing. Although there was widespread awareness of insecurity and increased competition, most students still aspired to a traditional 'graduate' career and were reasonably optimistic that they would be able to realise their ambition.
- (vi) In looking for employment, students' priorities include interesting and challenging work, a competitive salary, and continual skills development.

In points (ii), (iii), (iv), (v), and (vi), Purcell and Pitcher's study disclosed that despite debts incurred during their study and other perceived obstacles and setbacks in their careers, students' expectations of future employment and earnings have not changed much from the traditional pattern.

The merit of both the POSTE Report in Hong Kong and the Great Expectation Study in the United Kingdom (as far as their relation to this one is concerned) is that they go beyond taking students of higher education as a whole and seeing their decision to invest into higher education as a single matter. They make an attempt to divide students into different groupings of ability or preference to study how this could be related to their choice of programmes and institutions.

The present study will explore further the POSTE Report's finding about expectations of vocational and non-vocational related (different ability group) students in higher education. It will examine how differently these students perceive the economic value of higher education under less favourable situations. It is believed to be the first of this kind of study in Hong Kong. It is hoped to contribute useful information about students' views on higher education to policy makers and other stakeholders of higher education.

CHAPTER FOUR

Research Methodology

4.0. Introduction

This chapter explains the two research approaches adopted in the present study. The first one is a series of interviews conducted in June, 1997 and the second is a questionnaire survey conducted in March, 1999 that partially replicates the methodology used by Purcell and Pitcher (1996). After setting the aims and scope of the study, the rationale for conducting two different forms of research will be explained. The remainder of the chapter describes the methods of sampling and explains how the two pieces of field work were carried out.

4.1. Aims and Scope of the Research

The purpose of this research is underpinned in four main questions:

1. How has the emergence of mass higher education affected students' perception of its economic benefits?
2. How did the anticipation of bearing an increased share of cost affect students' perception of the economic benefits of higher education?
3. Did students maintain the same expectation for economic benefits immediately before and after Hong Kong returned to Chinese sovereignty?
4. How far are students instrumentally motivated in their choice of investing in higher education?

Question 4 sets the core of the research intention; to check the extent to which students had positive expectations of higher education in mind when they made decisions on the pursuit of it. It has been ascertained that in the time of elite higher education, students possessed

a highly positive expectation of benefits from higher education, notably high immediate and lifetime earnings, a respected social status and other non-pecuniary benefits. The expansion of higher education in the early 90s has increased the supply of graduate labour and intensified competition in the graduate labour market. This less favourable career prospect has turned worse as Hong Kong affected by the Asian Financial Crisis from September, 1997 till the end of 1999. It was one of the worst economic setbacks the territory has experienced in the post World War Two period. Did the present generation of undergraduates still perceive higher education as a worthy investment to make? Question 1 is set to find out if students' perception of the economic benefits of higher education has been changed and whether the optimism for positive returns has been maintained during mass higher education. Question 2 is directed towards the issue of the increased share of higher educational cost the students have to bear as the Hong Kong Government decided to raise tuition fees and interest rates of student loans to support its expansion. This provides the other side of the coin—the cost side—to make weighing cost against benefits possible. This probably could help to understand how far the students were positive in their expectation of higher education. If, despite the rising cost, expectations remained high, it could confirm that they were instrumentally motivated towards higher education. Question 3 deals with the unique situation of the political change of sovereignty in 1997, which set the research context in a rather “extreme” situation in which students were expected to take the benefits analysis seriously.

It needs to be pointed out that the present study has paid as much attention to non-pecuniary benefits of higher education as to pecuniary benefits. The former, though being very difficult to quantify, are believed to be as highly valued by students as well as by society. Efforts have been made to ascertain this in this study. It has also

attempted to differentiate the expectations of students of different ability groups, with a hope to generalise of the findings of the research.

These areas of concern will be explored by both qualitative and quantitative research approaches. The qualitative approach takes an in-depth, open-ended interview study of 60 students from six different vocational and non-vocational subjects. The choice of the subjects is to a great degree related to the diversity of abilities among the students, and this will be explained in a later section. The purpose of this approach is to find out the interviewees' view on the economic value of their education; the areas of concern and worries; the extent to which these worries differ among students from different fields of study; and how higher education students evaluated mass higher education in Hong Kong before July, 1997.

Part of the aim of this study from the outset was to test the solidity of the research finding by checking on students' views at two points in time. In the case of the present study, owing to the uniqueness of the research context, it is of great interest that students' views on higher education expansion and their expectations of the benefits from it before and after the resumption of China's sovereignty over Hong Kong could be cross-checked. Hence, during the process of the qualitative research, a decision was already made that a quantitative study would be done some time after 1997. It was also decided that the two points in time should not be too close to each other. The basic consideration was that the impact of the change of sovereignty needed time to take effect. It was regarded meaningless to make the second study at the end of 1997 or even the beginning of 1998. At last it was the acute economic downturn of Hong Kong since November 1997 that helped to fix the timing of the second study. The researcher decided to give the students some time to "digest" the impact of the economic setback before follow-up study was made. So a decision was made that it would be done in the first half of 1999.

The qualitative and the quantitative researches should supplement each other not only for cross-checking purposes. The former should also serve in part as a pilot study for supplying ideas for the design of the questionnaire to be used in the latter larger scale study. The latter should also help remedy an obvious shortcoming of the former – that the sample size was too small to make effective and meaningful generalizations.

4.2. Methodology: Combining a Qualitative Inquiry with a Quantitative Survey

The first part of the present study is an interview survey of 60 students conducted in June of 1997, immediately before Hong Kong returned to Chinese sovereignty. It was an interview based on a semi-structured open-ended interview schedule (See Appendix One). The process was inductive, as it attempted to make sense of students' perceptions (especially regarding returns) of higher education without the imposition of pre-existing expectations. The interview began with specific inquiries and observations of individual students' experiences, viewpoints, and thoughts and then worked with the data collected to build a general pattern of students' responses as a whole. The merit of this approach is that it can gain access to what is inside a person's head (Tuckman, 1972) to produce a wealth of detailed information about the perceptions and processes that affect the person's decision. This method can also yield a deep understanding of the person's feelings (Kvales, 1996) and experiences.

As this study is interested in actual personal perceptions, experiences, and feelings, it is logical and sensible to use an exploratory method such as an open-ended interview. While viewpoints diverge, feelings may differ in various ways and to different extents and such things cannot be quantified. A semi-structured open-ended

exploratory approach usually allows for a greater variety of findings as well as a higher degree of authenticity when describing them, since they can be described in direct quotations. Indeed, the students' subjective feelings on higher education policy are exactly the kind of objective information that this research intends to gather.

The second part of the study was a wider survey conducted in late March and early April, 1999. The timing served to compare students' views before and after the political changeover. However, the period between the two surveys coincided with one of the worst economic periods that Hong Kong experienced since the Second World War. So, the research was conducted in an economic context that neatly tested the robustness of student perception even more than was originally intended.

In the following sections, some technical points related to the interview and questionnaire surveys will be highlighted, with reference to their merits and demerits. Details on how these tests were conducted and how samples were selected will also be described.

4.3. The Interview Survey

4.3.1. The Researcher as the Instrument of Data Collection and Data Interpretation - the Issue of Neutrality

In an interview, the researcher is the main instrument. The quality of the research depends a great deal on the researcher's interviewing or observation skills, experience, rigour, competence, and sensitivity¹. Quality is also dependent on the rapport between the researcher and the people under study, as well as the language skill of

¹ Kvaales (1996:36-37) pointed out that a qualitative approach depends on the interview skill of the researcher as well as his or her being subject to the personal interactions between the respondents and the interviewer. It is a process of knowledge production through conversation, in which knowledge is constructed

the former to capture the responses of the latter. Critics of qualitative research have charged that the “human” factor plays such a large role in determining the effectiveness and validity of this kind of research and that the interview approach is too subjective.

It is certainly not easy to attain complete objectivity in a qualitative inquiry. As the researcher is the instrument of both data collection and data interpretation, it is highly likely that he or she enters the field with preconceptions that guide the people under study towards answers rather than letting the people say whatever they like in their descriptions of how they see reality. It is also possible that the researcher manipulates the data in order to arrive at a predisposed truth.

To deal with this, a stance of neutrality (Patton, 1990) is what a qualitative researcher must take to reduce the element of subjectivity. Throughout the present study, the researcher kept reminding himself that he should welcome, honestly report, and provide an unbiased review of whatever perspectives and complexities of thoughts and views emerged in the data collection and interpretation processes, regardless of whether these findings matched his own personal perspective or theories.

4.3.2. An Open-ended Interview

The effectiveness of a sample of qualitative research depends a great deal on the measures taken to solicit responses from the people under study. The present research adopts the open-ended interview measure by using a semi-structured interview guide, as it is regarded as the most appropriate measure with which to invite respondents to express their own ideas, attitudes, and feelings fully and freely while under the guidance of the interviewer. The respondents can also benefit

through the interaction between interviewer and interviewee. As well, this method may be conceived as a basic mode of knowing how human reality is understood.

from this type of interview as they are given the chance to explore their own perceptions regarding the subject in a systematic way. This, though without immediate practical value, offers a good opportunity for self-reflection.

The interview approach that this research used is the general Interview Guide Approach (Patton, 1990). Before the interviews took place, a set of issues or questions that were to be explored was outlined. These issues are directly or indirectly related to the four main research questions stated at the beginning of this chapter. Open-ended questions were formulated, but they were not meant to be asked in a fixed sequence or even with their exact wordings. There were two reasons for not requiring this; one is that since there was only one interviewer in this research, there was no need for standardisation to minimise (different) interviewer effects. The other is that, because the researcher was also the designer of the interview guide, he knew the framework of the interview very well. He wished to enjoy the freedom to develop questions as well as the discretion to put them in a sequence that would get the best results out of different interviewees, and then make decisions towards further exploring any issues that he thought would be of interest to the research.

The obvious strength of the interview guide approach is that it permits greater flexibility and individualisation while opening up the possibility that information can be collected from some people more easily than from others. But, when getting to data analysis, it becomes difficult to be certain how the findings are influenced by these qualitative differences in the depth and breadth of the information received (Patton, 1990:286). To redress this drawback, the present research followed the recommendations of Patton (1990) when mixing questioning approaches.

Some standardised quantitative questions were also included in the interview guide and on one hand they helped to give a cardinal

format of the research findings. On the other hand, some of those questions provided a checklist of options as prompts for the interviewees to come to a response. But, to avoid the undesirable effect of limiting the interviewees' responses to those provided by the interviewer's checklist, the former were always encouraged to elaborate extensively on the reasons behind their choice so that the researcher could understand and interpret their opinions and feelings. Interviewees (students) were also encouraged to add new items to the checklist.

It has been repeatedly emphasised that the interview guide is meant to be a semi-structured one. Yet, it is still possible to classify its questions into four main categories, each intending to gather different types of information:

- a. Questions 1-8, 15 and 16 serve to explore into students' choice of institutions and programmes as well as their rationale for participating in higher education.
- b. Question 9-14 serve to find out students views on increasing cost of higher education.
- c. Question 18-24 serve to gather information about student opinions of the future labour market.
- d. Question 25-28 are to find out how, in students opinions, political factor influence their future careers.

4.3.3. Reporting the Findings

This section only explains the approach of analysing and that of presenting the interview findings. The actual report will appear in the next three chapters.

After the interviews, the interviewer transcribed the response, intending to collect the four main types of information referred to at the end of the last section. Since it is not possible to list the exact words of all the responses made by individual students and make meaningful

generalisation out of them, the interviewer made note of the key points, ideas or words raised. Then they were grouped into meaningful factors or points of interest for purpose of quantifying the result of the findings. It was also decided that, for the sake of clarity and convenience in presentation, tabulation of the counting will be given.

At the same time, the interviewer found it appropriate to capture a number of direct quotations of the students' responses so that the perceptions of the interviewees could be authentically comprehended and analysed by the readers themselves.

It is hoped that while some generalisation could be made of the interview findings, attention is also paid to the individual's unique opinions and feelings.

4.3.4. The Pilot Study of the Interview

Wiersma (1986:95-96) stated that a study conducted prior to the major research study is in some ways a small-scale model of the major study, conducted for the purpose of gaining additional information by which the major study can be improved. Furthermore, Powney et al. (1987) explained that a pilot study allows the researcher to clarify any ambiguities regarding the research questions. Through a pilot study, the research objectives become more focused and the researcher is thus able to draw attention to the relevant areas and collect useful information. The pilot study, then, should be as close to the real interviews as possible and serve three main functions. First, it checks that the structure or organisation of the interview meets the requirements of the research project. Second, it tests the logistics of the interview. Third, it hones the social interactive skills necessary for the kind of interview chosen.

Based on the above considerations, five pilot interviews were conducted in March, 1997. All the interviewees were contacted through

friends and colleagues of the researcher. Among them were two students from the Faculty of Law, HKU; two students from the Faculty of Education, HKU; and one student from the Faculty of Social Sciences, CUHK. All of them were second year students.

The pilot interviews were done in standardised open-ended format. The interview questions were drafted and then read out to the respondents in a fixed sequence. The advantage of this approach was that the interviews were highly focused and timing could be well controlled. However, the uniqueness of each individual's feedback convinced the researcher to reconsider adopting the interview guide approach to allow for more flexibility in the interviews. It was decided, then, to retain the general framework of the questions during the actual interviews, but their wordings and sequence were subject to modification to suit different students based on their readiness to respond and their unique experiences. Normally, the exact wordings of the questions in their written forms were not read out directly. Rather, questions were rephrased to give a casual conversational tone. The two parties were just like engaging an informal discussion or exchanging views on the subject matter. The rationale is that rigid questions invite rigid answers which may not reflect the genuine experience or perspectives of the students.

Moreover, the checklist of prompts was refined after the pilot interviews. Prior to these, the researcher had reservations about including the checklist on the grounds of limiting the students' response to a predetermined set of possible responses. What was learned in the pilot study, however, was that the checklist was helpful in giving prompts to students, especially those who had not really thought about the research issue beforehand. To them, the items in the checklist served as stimulus to their self-reflection and they became ready to elaborate their viewpoints about the items on the checklist.

The researcher could then see lots of room to explore further into related issues, though this was unfortunately made impossible by the standardised interview format. This was another reason why a change in the interview approach was necessary.

Moreover, the checklist was finally included in the interview guide (See Appendix One) only because it was revealed in the pilot study that the checklist was comprehensive and already included most of the answers supplied by two students who did not need any prompts in the pilot study. As such, the fear that the checklist might constrain the thoughts of the students was removed. It was therefore decided to keep the checklist in the interview guide after adding a few more items suggested by students from the pilot study.

The pilot study also exposed the researcher to possible difficulties that might be encountered in the actual research process. The most difficult part of the interview was in getting people to talk about the issue of returning to Chinese sovereignty; as this was a highly sensitive issue most students seemed to be hesitant about discussing it at all. Upon the encouragement of the researcher, they only gave rather vague initial replies such as, “It was difficult to say...” or, “We could only hope for a brighter future...” This suggested to the researcher that more specific questions had to be added to the interview guide in order to explore the issue more deeply. The researcher also had to reconsider the appropriate choice of words to be used for this part in order to reduce the students’ reluctance to express their real thoughts. It was also necessary to explain the purpose of the interview and the use of the data to reassure students of the confidentiality of the research.

Another very common difficulty is the control of time span of each interview. As mentioned in section 4.3.2., in order to allow for more flexibility and encourage open articulation of feelings and opinions, the original sequence and wordings of the interview questions were not adopted and room was made for elaboration on related issues.

As such, the originally planned 30 minutes interview span was seldom kept. In the pilot interviews, only one interview was close to 40 minutes while the others all exceeded 60 minutes. It was therefore decided that each interview would be allotted to one hour duration which turned out, to be adequate in most cases. Yet, this decision to extend the interview duration cast another problem to the researcher as it would mean at least doubling the overall time for the whole data collection stage.

4.3.5. Sampling Selection and Profile of the Samples

According to Wong (1989:255), the demand for higher education in Hong Kong is largely economically-motivated and ability associated. To come to this conclusion, Wong used secondary students as a sample. In his conclusion, Wong doubted whether secondary students actually act on what they perceive from higher education. He also pointed out that secondary school education may be too early a stage to predict the effects of choice of discipline. Thus, in the present research, undergraduate students are used as a sample to study how the actual participants (investors) of higher education perceive costs and benefits of their investment, particularly in terms of choice of programmes and institutions.

A sample of 60 students in current degree courses from seven UGC-funded education institutions in Hong Kong were selected for the interview. For a qualitative research in which respondents' replies are examined in detail, a sample size of 60 is certainly not a "small" one. Putting aside the availability of manpower, the consideration of having to conduct 60 one hour interviews in a period of around three weeks (not including all the time for pre-interview arrangements and post-interview follow up work) in the most historical moment of Hong Kong's history also explains the decision on the sample size. This

“shortcoming” was later remedied by conducting a much larger scale quantitative survey.

The samples of students came from six fields of study; Medicine, Law, Education, Engineering, Journalism, and Arts/Science. The reasons behind the selection of subject fields are related to different categorisations. First, the fields include both vocational-related subjects (Medicine, Law, Education, Engineering, and Journalism), and non-vocational-related subjects (Arts/Science). This research intends not only to explore how perceptions of careers and values in higher education may differ among students in different fields, it also wishes to determine if any common or different pattern of views and values might emerge between the two categories named above.

Another way of categorising these fields is that while Law, Medicine Science, Engineering and perhaps also Journalism were popular first choice subject for students making their JUPAS application in the last three years preceding 1997, Arts and Science and Education were among the least preferred choices. Based on the assumption that the more able students or the higher achievers (those with good Advanced Level Examination results) are more likely to opt for the former subjects while those who are less confident of their ability would make the latter group of subjects their choice, this research also intends to look into the extent to which these two categories of students might differ in their perceptions and expectations of higher education.

In addition, Law and Journalism students were included in the sample to compare the extent to which students who were trained to pay more attention to political and legal systems might differ in views and expectations from those who were not. Law students will pay more attention to the difference of the legal systems and legal procedures prevailing in Hong Kong and the Peoples’ Republic of China, they may

be more sensitive about how the change of sovereignty might affect the existing legal environment in Hong Kong. Likewise, Journalism students will concern themselves with the extent of freedom of expression which Hong Kong people will enjoy after the change of sovereignty. More related to the theme of this study is that students of these two subjects might also worry that the change of sovereignty might as a result affect their future career development and prospect, and possibly their lifelong earnings. It is of interest to find out how they perceived this issue.

The samples of this study were distributed rather evenly among the seven UGC-funded degree granting institutions, based on the availability of the six chosen degree programmes in these institutions. There was an equal number of students from each field. Table 9 describes the distribution of samples from different fields and different institutions.

Table 9: Distribution of Samples in Different Fields and Different Institutions

	Education	Law	Journalism	Medicine	Arts/Science	Engineering
HKU	5	5	2	5	2	3
CUHK	5		3	5	2	3
City U		5			2	
BU			3		2	
HKPU					2	2
UST						2
LC			2			

Sample selection was mainly done by chain referral or snowball sampling (Patton, 1990:104; Lee, 1993). According to Patton, chain sampling begins by contacting well-situated people who know a lot about the research subject. Since it was very clear that any higher education student could be information-rich for the purposes of the present research, the researcher began by contacting friends and colleagues working in different fields who kindly helped to approach potential interviewees. Then, further contacts were made by those

students to others. Other sources of chain referral occurred with the assistance of student unions and academic societies in the different institutions.

This approach has an obvious limitation; chain referral creates a situation in which interviewees, very likely, know each other. It is also possible that they are peers and that they share similar experiences and hence their views and attitudes may be common on many issues. So, unfortunately, there is a risk of bias in such an approach. In order to minimise this risk, the chain referral in this study was limited to three students in a chain at most, so as to ensure that a wider scope of data would be collected.

Of the 60 students interviewed, there were 29 females and 31 males. They ranged from the first year to the final year of their first degree programme and were between 19 and 24 years of age. In order to protect the identity of the interviewees, all of them were given a code for identity which will be referred to when direct quotations of their viewpoints or feelings are made in the data analysis chapters. For example, the third student from the Faculty of Education, a female, is identified as 3E(F), while the fifth engineering student, a male, is identified as 5EN(M). Table 10 shows the code names given to each respondent.

Table 10: Distribution of Samples by Code Names in Different Fields and Institutions

	Education (E)	Law (L)	Journalism (J)	Medicine (M)	Arts/Science (AS)	Engineering (EN)
HKU	1E(F), 2E(F), 3E(F), 4E(M), 5E(M)	1L(F), 2L(F), 3L(F), 4L(F), 5L(M)	1J(F), 2J(M)	1M(M), 2M(M), 3M(M), 4M(F), 5M(F)	1AS(F), 2AS(F)	1EN(M), 2EN(M), 3EN(M)
CUHK	6E(F), 7E(F), 8E(F), 9E(M), 10E(M)		3J(F), 4J(F), 5J(M)	6M(F), 7M(M), 8M(F), 9M(M), 10M(M)	3AS(M), 4AS(M)	4EN(M), 5EN(M), 6EN(F)
City U		6L(M), 7L(M), 8L(M), 9L(F), 10L(F)			5AS(F), 6AS(F)	
BU			6J(M), 7J(M), 8J(F)		7AS(M), 8AS(M)	
HKPU					9AS(M), 10AS(M)	7EN(F), 8EN(M)
UST						9EN(M), 10EN(F)
LC			9J(F), 10J(M)			

Students from the Faculty of Medicine

Full-time Bachelor of Medicine and Bachelor of Science (M.B.B.S.) students were only available from HKU and CUHK, and were selected through convenient contacts. All five students from CUHK were in their third year of five-year programmes. As for the HKU medical students, five students from first year to fifth year were selected for the interview with the helpful assistance of the HKU Medical Society. There were five males and five females in this sample.

Students from the Faculty of Law

Similar to the full-time Bachelor of Education programme, only two institutions (HKU and HK City U) offer a full-time Bachelor of Law programme and again, there were more female students than male students. Six female students and four male students were selected for interviews. Among them, one of the male students was attending the full-time Post-graduate Professional Certificate programme at the time of the interview and he stressed that the Post-graduate Professional Certificate was a compulsory course for all Law students entering professional practice. Therefore, he considered that he had not graduated from Law School yet and that he should be allowed to express his opinions in the interview. Table 11 summarises the profile of the interviewed students.

Table 11: Profiles of Interviewed Medical and Law Students

Profile	Medical students (N=10)	Law students (N=10)
Age	20-25	20-23
Gender	Five males and five females	Four males and six females
Years of Study	1-5 years	1-4 years
Institutions	HKU and CUHK	HKU and HKCityU

Students from the Faculty of Education

In 1997, a full-time Bachelor of Education programme was available only at HKU and CUHK. Therefore, five students from each institution were chosen through convenient contacts at the Faculty of Education at both universities. As there were more female than male students in this field of study, six female and four male students were selected. It should be noted that all students who attended the interviews were very co-operative as they were aware that this was a piece of educational research.

Students from the Faculty of Engineering

Four higher education institutions in Hong Kong offer full-time Bachelor of Engineering programmes; HKU, CUHK, PUHK, and HKUST. Therefore, equal sampling based on the number of engineering students in these institutions was applied in sample selection. Three students each were chosen from HKU and CUHK, and two students were chosen from both PUHK and HKUST. Most of the samples were contacted through convenient contacts, and some with the assistance of different Students Unions. As there are more male students in engineering, seven male students and three female students were contacted for interview. These students were enrolled in Civil Engineering, Electrical Engineering, Mechanical Engineering, and Computer Engineering. Table 12 summarises the profiles of the interviewed education and engineering students.

Table 12: Profiles of interviewed Education and Engineering Students

Profile	Education students (N=10)	Engineering students (N=10)
Age	18-24	18-23
Gender	Four male and six female	Seven male and three female
Years of Study	1-4 years	1-3 years
Institutions	HKU and CUHK	HKU, CUHK, HKUST, and HKPU

Students from the Faculty of Journalism

The HKBU and the HKCU offer a Bachelor of Mass Communications with a major in Journalism and Journalism Studies. However, many Social Sciences students from HKU and LC who major in Sociology of Communications also consider journalism as their career. In these special circumstances, three students from the Bachelor of Mass Communications programme at HKBU and three students from the Bachelor of Journalism programme at CUHK were chosen for the sample.

For the remaining four students, two Social Sciences students from HKU and three Liberal Arts students from LC were also selected through convenient contacts and network sampling. Among them, there were five female students and five male students. They were selected based on the consideration that some non-journalism majored students may consider a journalism related career in the future.

Students from the Faculty of Arts and Faculty of Science

Full-time Bachelor of Arts and Science programmes are available in five higher education institutions; HKU, CUHK, HK City U, HKBU and PUHK. The sample students were contacted through various channels, including convenient contacts through those working in these institutions, network sampling through the help of students, and through contacting different student unions in the differing institutions. Four female and six male students were selected for interviewing. The Arts students were enrolled in History, Chinese Literature, Music, Philosophy, and Linguistics courses. The Science students were enrolled in Chemistry, Physics, Mathematics, Bio-Chemistry, and

Botany programmes. Table 13 summarises the interviewed Journalism and Arts and Science students.

Table 13: Profiles of interviewed Journalism and Arts and Science Students

Profile	Journalism students (N=10)	Arts and Science students (N=10)
Age	18-24	18-23
Gender	Five male and five female	Six male and four female
Years of Study	1-4 years	1-3 years
Institutions	HKBU, CUHK Lingnan College and HKU	HKU, HKBU, CUHK, HKPU and HKCityU

4.3.6. Description of the Interview

For the interview, copies of a letter introducing the nature and intention of the present research to the students, along with an appeal for assistance to attend the interview was sent out, with a covering letter to department heads, student unions, and academic societies in early May, 1997. In the covering letter, the above mentioned institutions were requested to help in distributing the letter to their students or members, whichever their case was. The letter assured the students of the confidentiality of the research and also contained the time schedule and venue for the interview. Students who showed interest and were willing to attend the interview were asked to return a replying letter to indicate their acceptance. They gave their telephone number for forthcoming contact. In the end, six students did not respond. Replacements were made immediately. This was done by reaching out for assistance from those who have replied. Six students were picked at random and contacted. They helped to find one student each (but he/she did not have to be in the same programme) to attend the interview. This was again a chain referral method.

At the beginning of each interview, the researcher once again briefed the interviewees on the nature and confidentiality of the interview. Then he began the questions, using the interview guide (See Appendix One) as a reference. The name of the student was not recorded, only age, gender, name of programme, and institution were noted down. As explained earlier, question wordings were not rigidly formalised, nor was the sequence of the questions fixed. The interviewer's skills and sensitivity were heavily relied upon to detect the enthusiasm, the readiness to talk, and the emotional status of the student to determine the flow and the length of the interview. Most of the interviews were confined in the range of 45 minutes to 1 hour each.

Language imposed some complications on the interviews. Though the interview guide was written in English, all interviews were conducted mainly in Chinese (to be specific, the Cantonese dialect). Sometimes, some phrases or expressions were repeated in English to cross-check understanding of what was being asked, or to clarify the response. The interviewer, in most cases, made notes to record the response by translating it directly into English in the presence of the respondent. The greatest difficulty of such a recording mode was; how to accurately capture the explicit and implicit meanings of the reply in a different language code? To ensure that this was effectively done, the interviewer had to show the respondent the translated/recorded notes (usually in the form of short phrases) immediately after the interview for confirmation. This was done in the last ten minutes of the interview.

Immediacy was stressed, as this let the respondent check the script at a time when the memory of what he or she had said was still fresh. It also allowed the researcher to make amendments to any misinterpretations right away, without having to arrange for another meeting. This saved both the time and energy of the researcher.

However, it would be a difficult task for the researcher to do questioning, translating, and observing simultaneously. So, at the

beginning of each interview the researcher requested consent for a tape-recorded interview. The researcher explained that the taping served the purpose of clarification should it deem necessary. It would probably be necessary only when the interviewer found that the immediately translated note-taking by the researcher did not fully agree with what he/she meant. Then the tape could be played back for him/her to make clarification. But the real merit of tape-recording is that it allows the researcher to concentrate on the questioning and observation part of the interview and the transcribing can be done after the interview is over. It certainly helped when the note-taking was always done in a rush and therefore not thorough or clear enough. The researcher could always play back the tape to listen to what the respondent said for as many times as possible. The demerit is that extra time and effort are needed for transcribing the taped materials, and the transcription has to be sent to the respondent for confirmation. The present researcher preferred to make the best use of a taped interview. It was, however, interesting to find that many respondents were reluctant to have their conversations taped; only 34 tape recordings were made in this research. Only two transcribing was actually done and sent to the interviewee for further confirmation.

4.3.7. The Interview Setting and Atmosphere

Interviews took place at several different locations in different higher education institutions. These included empty lecture rooms, canteens, discussion rooms in the libraries, meeting rooms of student union offices, and public resting places. The researcher did not think that the location of the interview venue and the resulting environment affected students' responses, except when a tape recording was made. In these cases, a quiet environment was ensured.

The timing of the interviews was also scheduled to avoid having them done in a hurry. Usually, they occurred in the after-class or after-part-time work hours of the students. The researcher usually told the interviewees in advance that the interview was around one hour in duration, but the interviewees were patient and did not show any annoyance when the interviews ran over time. All interviews were conducted in a relaxed atmosphere.

Rapport-building was crucial for the interview to succeed. Before starting the discussion, the interviewer chatted with the interviewee for several minutes to break the ice. Then, the interviewer began the questioning. The respondent was allowed some time to organise his/her answer in every case. Occasionally, the interviewer would guide the interviewee with prompts if the question allowed or if the interviewee hesitated.

The entire interview schedule was completed without too many technical difficulties. The most difficult part throughout the course of the fieldwork was the liaison work when contacting sample students and arranging the venues and timing of the interviews. As the seven higher education institutions are located in different parts of Hong Kong, it was quite time consuming to travel from one place to another. Besides, it was not easy gathering students from the same field of study to attend an interview in the same morning or afternoon. All interviews were completed in the third week of June, 1997, one and a half months after the first interview took place.

One part of the present study covered sensitive areas related to the change of sovereignty in 1997, such as the maintenance of political stability and economic prosperity or judicial independence. In one way or another, this required the respondents to reveal personal opinions about the PRC government and its policies. As reported by Cheng J. (1995), many Hong Kong academics adopted self-censorship during the

late transitional period before the 1997 deadline in order to protect themselves from offending the Chinese authorities.

Though with some reservations, one tends to believe that such a self-protective attitude was also shared by students when they were expressing opinions about Chinese rule and the future development of Hong Kong. Lee (1993) pointed out that the perceived sensitivity varies from individual to individual, but what he was certain about was that unless students understood that they were safe to do so, they were hesitant about expressing their real and true opinion openly and frankly. Such hesitation would have an adverse effect on the reliability of the research. Hence, when coming across sensitive issues interviewees were frequently reminded that all information obtained would be treated in a strictly confidential manner.

4.4. The Questionnaire Survey

The questionnaire used in the 1999 survey partly replicates the Great Expectations Study conducted by Purcell and Pitcher in the United Kingdom in 1996. However, in this case some modifications were made to match the present study's research questions. These include adding questions related to the increase in interest rates on student loan schemes and questions related to students' experiences after graduation. On the whole, the questionnaire was designed to gather five kinds of information:

- (1) Students' motives for investing in higher education, their career intentions and choice of programme;
- (2) Students' opinions on the increase in tuition fees and the higher interest of student loans;
- (3) Students' opinions on the graduate labour market;
- (4) Students' perception of future employers' expectations;
- (5) Students' aspirations for career development and long term life goals.

Table 14 illustrates similarities and differences of the issues as investigated by the two field works.

Table 14: Similarities and Differences of the Issues covered by the Two Field Works

June, 1997 Interview (60 students)	March-April, 1999 Questionnaire Survey (731 students)
Choice of institutions and programmes	Students' motivations when pursuing higher education including choice of programme
Increasing costs	Increasing costs
Graduate labour market	Graduate labour market
Political uncertainties	Economic uncertainties
	Employer demand for graduates
	Students' long-term career goals and values

The data collection process began after a questionnaire survey modified from the one created by Purcell and Pitcher (1996) was constructed (See Appendix Two for a copy of the questionnaire). After the draft version of the survey form was completed, a pilot study or trial run was conducted in early March, 1999 on 15 students in order to check the time needed for completing the survey form and to test whether students had any difficulties in understanding the questions. The outcome was satisfactory; most students were able to complete the questionnaire within twenty minutes since the questions were not difficult to comprehend.

A form of stratified sampling was used to ensure a valid distribution. The questionnaires were not distributed randomly. There was instead a planned distribution of questionnaire forms based on a proportion of 3%² of the population size in six fields of study, the fields from which students were selected for the earlier interview. The intention is to relate the findings of the questionnaire survey to the in-depth interview.

² The decision of confining to 3% of the student population is based on the time limitation and financial resources available to the researcher. It is unfeasible for the writer alone to distribute and collect all of the questionnaires from the distribution points in order to cover a larger sample size.

The data collection was conducted among undergraduates at the eight degree-granting institutions in mid-March, 1999, when the academic year was approaching its end. In order to achieve a better return rate and to obtain a wider cross-section of the undergraduate population, survey forms were sent out through diversified channels.

Two main channels were utilised to distribute the questionnaires. The first one was through the kind assistance of some helpful professors in the targeted programmes. Questionnaires were distributed in this way to Medical students from CUHK, Law students from HKCityU, Education students from HKIEd, Journalism students from HKBU, and Arts students from LC. The other channel was by distributing questionnaires through student unions, employment placement centres, subject associations (such as Medical Association of HKU), interest clubs, and even resident halls. These bodies were requested to pass the questionnaire forms to students of the programmes of study concerned. But, it turned out that apart from the targeted programme samples such as Medical students and Law students from HKU, Engineering students from HKUST, and Arts/Science students from HKU and CUHK, students from programmes not previously interviewed in June, 1997 also responded to this survey.

All of the pre-contacted persons from whom the questionnaires were distributed were thoroughly briefed either by phone calls or personal visits. Then, a letter from the writer explaining the purpose of the survey and 50 copies of the survey forms were sent or delivered personally to each of the pre-contacted channels. The letter in particular requested distributors to explain the purpose of the survey to the students and to emphasize their own neutral stance in the study. A total of 26 venues at the eight UGC-funded degree granting institutes participated in the assistance of data collection. Each venue was responsible for distribution and collection of the completed

questionnaire forms. By mid-April 1999, 731 copies of valid questionnaires were collected out of the 1,300 questionnaires sent out. The total return rate is 56.2%. Only those questionnaires that had at least 90% of all the parts completed were counted as valid replies.

The most difficult part of the data collection process was, how to guarantee the prompt return of the questionnaires from the students? The most secure way in the present research was to conduct the questionnaires during class hours. The limitation of this method was that it was possible only with the permission and the co-operation of the teaching staff, along with the willingness of the students. But fortunately, in the present questionnaire survey, a large percentage of data was collected in this way, thanks to helpful colleagues in the higher education sector.

4.5. Summary

This chapter defines the aims and methods of the present study. It explains why both qualitative and quantitative methods were used, before going on to highlight some important aspects of the study. The findings of the two studies will be explained, compared, and analysed in later chapters.

CHAPTER FIVE

Report and Analysis of Data: Choice of Institutions and Programmes

5.0. Introduction

The following three chapters report and discuss the findings from the interviews conducted in June, 1997. This chapter focuses on students' choice of institutions and programmes. It also serves an important function in setting out the framework for the later data analysis. Chapter six deals with students' response to the increase in the costs of higher education. Chapter seven is about students' perceptions of anticipated economic benefits.

This chapter starts with a classification of the students under study. The classification facilitates the analysis of data. The second section provides general information about the number of education places and expected career prospects of the six subjects concerned. This offers a background for understanding the situation students were in and what they could have expected at the time they entered higher education. The last two sections make up the main part of the chapter. They report and analyse data concerning students' choice of university programmes and institutions.

5.1. Classification of Students under Study

To set out the framework reporting the findings, Table 15 classifies students from the six subjects under study in terms of subject nature, level of vocational skills, level of difficulty in admission, and student ability.

Table 15: Classification of Students under study

	Subject nature	Type of vocational skill	Level of Difficulty in Admission	Student ability
Medicine	Vocational	Narrowly vocational	Highly difficult for Science students	High ability*
Engineering	Vocational	Narrowly vocational	Highly difficult for Science students	High ability*
Law	Vocational	Narrowly vocational	Highly difficult for Arts/Science students	High ability*
Education	Vocational	Vocational	Moderately difficult for Arts/Science students	Less high ability
Journalism	Vocational	Vocational	Moderately difficult for Arts/Science students	Less high ability
Arts and Science	Non-vocational	Generic	Least difficult among the six subjects	Less high ability*

* Classification of student ability is based on POSTE Report (1996).

It is necessary to explain the classification. In Table 15, the first three subjects are identified as narrowly targeted professional subjects. Once students have received the intended professional education, they will seldom decide to change their career after graduation. The Education and Journalism students are also vocationally trained. But, due to the requirements of their careers, greater emphasis on language proficiency and general intellectual competence could be expected in their education. As such, it is still possible, though not often, for graduates to change their careers. But for Arts and Science subjects, since the knowledge and skills taught are generic, that is, not specific to any particular career in the general labour market, these students may not be able to identify any career prospects during the course of their education. And, it is more common for graduates from these subjects to change careers than students from the other five subjects.

On the other hand, as the number of places in these six programmes is fixed, the admission requirements are based largely on the student's academic performance in the public examinations. This research borrows the findings of the POSTE Report (1996) as the basis with which to classify students into different ability groups. The POSTE Report (1996)'s findings include the fact

that vocationally-oriented students are the higher ability students academically. These students obtain very good results in the Advanced Level Examination to get admitted to their choice of programme (see Figure 8 and 9), despite the higher level of difficulty of admission. So, in Table 15, medicine, engineering, and law students are considered high ability students as the admission requirements for these programmes are the most rigorous. Students from education and journalism are less high in ability than the former group as their admission requirements are less restrictive. Arts and science subjects recruit students from a wide range of abilities as their admission requirements are the least restrictive among the six programmes.

5.2. General Information About Education Opportunities & Expected Career Prospects of the Six Programmes under Study

Medicine

In Hong Kong, serving as a medical doctor is a professional career promising a high rate of lifelong economic benefits and high social status. Newly-graduated doctors usually chose to serve in public hospitals administered by the Hong Kong Hospital Authorities, and public clinics administered by the Medical Department of the Hong Kong Government before they enter private practice.

For doctors, starting salaries and fringe benefits are attractive, even though the workload and pressures are heavy. The limited supply of degree places in medicine is chiefly controlled by the government, through the funding of the University Grants Committee. The number of first year first degree places for doctor training is around 135 places each for the University of Hong Kong and the Chinese University of Hong Kong. The two schools of Medicine screen students with the best Advanced Level result (assuming high ability students), out of all applicants.

Law

Law is a popular vocational programme for arts stream secondary students. The number of places for lawyer training is around 150 (UGC, 1996), shared by the University of Hong Kong and the City University of Hong Kong. The language requirements of both Law Schools are higher than those of many other arts or social science programmes. As competition for admission is high, students with very good language proficiency, both oral and written, in addition to a good academic standard, stand a higher chance of gaining admission.

Newly-graduated lawyers may either join private law firms, the commercial sector, or the legal section of the civil service. Starting salaries for new lawyers in the private sector may not be very high, especially when compared to those of the public sector. Yet, the opportunity for career development is often very promising and therefore many new lawyers are ready to work hard and patiently during their initial years.

Engineering

Engineering is offered by five universities in Hong Kong; the University of Hong Kong, the Chinese University of Hong Kong, Hong Kong University of Science Technology, the Hong Kong Polytechnic University, and the Hong Kong City University. There are several different varieties of engineering degree programmes such as civil engineering, civil and structural engineering, building services engineering, mechanical engineering, electronic engineering, electrical engineering, manufacturing engineering, and maritime engineering. Graduates from these degree programmes may opt to join a wide range of diversified jobs in either the public or private sectors. Economic returns from engineering programmes are generally considered as ranging from medium to high.

In Hong Kong, the starting monthly salary of a fresh engineering graduate, ranges from HK\$18,000 to HK\$20,000 (About 1,700 pounds to 2,000 pounds), depending on different field of speciality. In usual cases, a junior engineer may take his chartering examination within three years of his graduation. Once chartered, his salary will boost. But this is still subject to the pay scale of the institution of his employment. For self-employment cases, it also depends on whether it is a successful case.

The admission requirements for engineering programmes are usually high, but the fact that there are more university places open for admission means that a larger batch of students will be included in these programmes. They will include not only high ability students, but also some above-average students.

Education

Both the University of Hong Kong and the Chinese University of Hong Kong offer various full time Bachelor of Education degree programmes for pre-service teachers. This research does not take into account the other sources of graduate-teacher education because it only includes full-time students in the sample.

The following table summarises the different types of pre-service Bachelor of Education degree programmes in the two universities from which our sampled students came.

Table 16: Different Types of Pre-Service Bachelor of Education Degrees in Hong Kong in 1997

Universities	Programmes	Length of studies	Number of 1 st year 1 st degree places
HKU	Bachelor of Education (majored in languages) for newly-matriculated students	4 years	40
CUHK	a. Bachelor of Education (Primary education) for newly-matriculated students	3 years	50
	b. Bachelor of Education (Primary education) for newly-graduated HKIEd students	2 years	50
	c. Bachelor of Education (Physical Education and Sports Science)	3 years	20
Total number of students			160

Admission requirements to education programmes are not as demanding as commerce and social science programmes in the same universities. Students who are not confident they will gain admission to commerce and social science programmes are likely to opt for education. So, it could be generalised that education students are students with average academic standards (middle ability students). These students usually regard teaching as a stable career.

Education degree students are eligible for graduate (Graduate Master/Mistress) teaching posts in both primary and secondary schools. It needs to be pointed out that in practice; all degree holders are eligible for teaching posts in secondary schools. Holders of other degrees, such as Bachelor of Arts or Bachelor of Science, are only required to obtain an in-service Post-graduate Certificate in Education within five years, before a promotion or further advancement in the master pay scale occurs. This means that the job market for education degree graduates is still inherently very competitive.

In Hong Kong, teaching is a career that brings about a steady and stable economic return. In fact, the initial salary for graduated teachers in Hong Kong is highly attractive: HK\$21,000 (1826 pounds) per month in 1997. This is

considered above average¹ by international standard as well as when compared with the starting salaries of many other careers in the graduate labour market. Though the promotional prospects may not be promising for most cases, the life-long earning prospect is reasonably promising for students whose expectations are not extremely high.

Journalism

Journalism degree programs are offered by two universities in Hong Kong; the Chinese University of Hong Kong and the Hong Kong Baptist University. The former offers a three-year, full-time honours degree course leading to a Bachelor of Social Science (Honours) degree in communication, for 40-50 students. The course is subdivided into English print and Chinese print. The latter offers a three-year, full time honours degree programme leading to a Bachelor of Social Science with four professional tracks for options: broadcast journalism, print journalism, advertising and public relations, and media studies. The annual intake is about 100 students. Together, the total intake of Journalism students for first year first degree places in Hong Kong is about 150. The academic standard admission requirements are not very high, but some other criterion has to be met in order to gain admission. These include a good language standard, an outgoing personality, a presentable appearance, and most importantly, a strong sense of journalistic instincts. Applicants are required to attend a compulsory pre-admission interview to determine whether or not the said requirements are met.

In the graduate labour market, Journalism degree students may chose to work in the news media, the entertainment media, advertising, public relations, or telecommunications. For the vast majority of Journalism graduates, their first job is as a reporter in the media industry with a relatively low starting salary. The starting salary for a news reporter ranged from HK\$8,000 (696

¹ The average starting salary of a university graduate of social science or commercial related studies in the private sector in 1997 was around HK15,000 or 1304 pounds.

pounds) to HK\$11,000 (957 pounds) per month in 1997. In time, some of them will be promoted to senior posts in the media and related industries, and will gain a more favourable remuneration. But the fact that there are not many of these senior positions means that Journalism graduates may not find promotional prospects very promising. In view of the limited supply of places and the high admission requirements of this subject, Journalism students in general are those with above average abilities. These students are willing to accept Journalism as a challenging career and expecting a medium to high economic return from it.

Arts and Science

Arts and Science degree programmes are offered by six universities in Hong Kong. The programmes consist of either pure Arts or Science subjects such as Languages, History, Mathematics, Philosophy, Physics, Chemistry, Biology, etc. These programmes provide places for about one third of the first year first degree student population (approximately 5,000), who are admitted to UGC-funded degree programmes. Due to the larger number of places available, the admission requirements are considered to be more lenient than those required by the vocational-related programmes. Admission normally would be based on academic results relevant to the choice of programme chosen. As such, the intake includes students from a wider range of abilities. There are usually a number of high ability students, but the majority are of less high ability and some who just managed to meet the minimum entry requirements.

Due to the non-vocational nature of the subjects, most graduates will enter the general graduate labour market. Many graduates will join either the civil services, the education sector, the commercial sector, or the social services sector depending on their major subjects. Starting remuneration for these fresh graduates in the private sector varies, while the civil service sector offers a starting salary of about 40% higher. It ranged from HK\$7,000 (608

pounds) to HK\$20,000 (1739 pounds) in 1997. Salary increments in the private sector may be subject to performance and experience with the relevant profession. But salary increment in the public sector is usually based on seniority.

5.3. Choice of Programme

As mentioned in Chapter 2, a students' college major is considered as an independent variable that affects his/her future earnings. The present study attempts to explore this aspect. In the interview survey, students were asked about their motivation in the choice of programmes. One of the purposes is to find out how students' choices are related to their expectations of future economic benefits, earnings being an important element. Table 17 summarises the responses of the sampled students from all six subject areas.

Table 17: Factors that Help Students in Deciding their Choice of Programme

Factors/ Field	Medicine N=10	Law N=10	Engineering N=10	Education N=10	Journalism N=10	Arts and Science N=10
Subject interest	3	3	4	7	10	2
economic and career considerations	7	5	5	5	7	6
Parents/seniors' influence	2	2	2	1	nil	1
Career teachers' advice	1	2	1	1	nil	4
Information brochures	nil	1	1	nil	nil	nil
Career exhibitions	nil	nil	1	nil	nil	nil
Others	nil	nil	nil	1	nil	3

* Some students mentioned more than one preference

From the summary, it is possible to figure out some points of interest to be discussed.

1. It is clear that economic and career considerations and personal interest (in this order) are the major concerns of Hong Kong students when making choice of programmes, whatever it may be. This suggests that Hong Kong students are in

terms of the Purcell and Pitcher classification both pragmatic and hedonistic or both in making subject choices. Being “pragmatic” means that they are conscious that their present choice of subject programme has a direct bearing on their future economic condition and career prospect. Being “hedonistic” refers to the desire to take pleasure or personal enjoyment in the subject. It could, to a certain extent, be regarded as a kind of non-pecuniary benefit.

2. Examining the subject groups, it could be seen that more Medical, Law, Engineering and Arts and Science students show pragmatism, while a greater number of Education and Journalism students appear to be hedonistic. Being hedonistic, the latter groups of students are also those least dependent on advice of others.
3. It could also be seen that the Arts and Science students are the least hedonistic in their choice of programme but they are also the group that are most influenced by career teachers’ advice. It seems to reflect that this group of students, being the weaker ability group among those admitted to higher education, are not so sure of their own career inclination or preference, and have to seek guidance from teachers. But such remarks are only crude ones before further exploration has been made.

Precautions were taken to make effective generalisation. As stated earlier in Chapter Four, snowball samples were confined to three in number. Also, the referrals were usually made casually --- interviewees were asked to refer somebody in the library or canteen whom he/she knew to the researcher. As such, intimacy or too common in characteristics would not usually occur and independent answers could still be expected.

The value of a qualitative exploratory interview study is that it is able to go deep into the minds of the interviewees and understand their perceptions. In the following, direct quotations of some of the students’ responses will be presented to facilitate understanding of the motivation behind their choice of programme.

One Medical student traced his positive view back to his secondary school days and said that since then he has worked hard towards his goal of joining the medical profession.

"I regard the medical profession as a much respected career. Not only can it provide a promising income, it can also help assure the health standard of the community. So, I worked very hard during my secondary school years to prepare for the Advanced Level Examination. I am glad that I am in medical school now. I will continue to work hard and strive to become a successful doctor." 7M(M)

This student has clearly expressed his motives for joining the medical profession based on the expectation of higher lifetime earnings apart from desire to serve the community. His motives on assuring the health standard of the community would certainly create an externalities effect or social benefit to the society. These motives seem to suggest that the student was motivated by both anticipated private and social returns.

Another Medical student highlighted the influence of a relative behind his choice, which appeared to have been made a long time ago.

"I wanted to become a doctor since my primary school years. I was impressed by my uncle who is a successful doctor. He is my hero. From time to time, he told me a lot about the medical profession. I admire him very much." 9M(M)

In this statement, the student has not explained explicitly his high aspiration for the medical profession. Subtly, he mentioned learning a lot about the profession from the uncle. This probably was related to the meaningful job nature. This is suggesting that the student aspired to achieve a non-economic goal in his life time. According to a Law student,

"My father is a practising lawyer and I am the only child in the family. It was my father's wish for me to succeed his career. He always took me to his office and showed me around. Certainly, he has arranged all the education matters for me since kindergarten. I was enrolled into the best co-ed secondary school in Hong Kong. I feel I have to comply to his demand though personally

I am not very interested in Law. I have talked to Mom, but she supports Dad's idea. My own personal interest is in Social Science. I may pursue a Master's degree in this area after I complete my Law degree. I hope they would allow me to do so." 2L(F)

The above statement reflects that the student's decision to enrol in Law was largely influenced by her parents' desire. But obviously, the parents' views were closely related to economic considerations. As for the student, her desire to continue to invest into further study in social science subjects reflected her hedonism in social sciences subjects. That she was ready to pursue further education despite the opportunity cost for giving up a well paid career in Law revealed a strong non-pecuniary aspiration.

Most of the replies from the engineering students reflect strong personal preference for the programmes as well as their confidence in economic benefits in terms of job opportunities and attractive salaries. The following extracts are representative of their views.

"There are plenty of construction projects in Hong Kong. The real estate market is booming too. I visualise that there will be many job opportunities in civil engineering." 2EN(M)

"Hong Kong is a cement forest; there are many high rise apartments. There will be plenty of jobs for building services engineering." 8EN(M)

"Engineers in Hong Kong have well-paid jobs. Many aspects of life require professional engineering; even toy factories in Hong Kong require mechanical engineers for designing toys, not to mention other construction projects." 1EN(M)

For education students, personal preference and economic motives are equally strong behind their choice of programme. But some of them are certainly not economically-oriented. One student who has a strong mission in mind expressed the following;

"The education system in Hong Kong is backward when compared with many developed nations. You can tell the difference by just looking at the class size, not to mention other things. Besides, the curriculum is too

examination-oriented. The heavy workload on students simply displaces their time and energy from extra-curricular activities. My goal is not simply to teach. Some day, some how, I hope to reform this confusing education situation in Hong Kong!” 7E(F)

The above statement reflects that the student expected not only a well paid job, rather she expressed a vision for improving the current education system. In this sense, the aspiration for reforming the education system is indeed a form of non-economic consideration which the student intends to achieve. From a wider perspective, the fulfilment of her goal would bring social benefit to the society to the community as a whole.

Another student found interest in teaching and said,

“To become a teacher has always been my wish. I served as a private tutor since I was in S.4. I enjoy helping the younger ones. I find a lot of satisfaction when I see the children grow and improve. When I was in S.6, I served as a volunteer in “the small teacher programme” at the study room of a community centre. The feeling was great; students and parents in the neighbourhood paid me a lot of respect. I cherish the intrinsic rewards more than the extrinsic rewards in teaching. I enjoy teaching and I would regard it as a life long career.” 6E(F)

A few other students have some special personal reasons for their choices. To one, it was parental influence.

“My father was a primary school principal; he passed away when I was nine years old. My mother is a primary school teacher. She has been supporting our family of four since my father’s death. I have been learning a lot about the teaching career since I was small. Teaching is an honourable job. I would like to follow the footsteps of my father and mother and serve in the education sector.” 3E(F)

To another student, his decision was based on redressing some bad personal experience.

“I was mistreated by teachers and students during the primary school years simply because my dialect carried a Putonghua accent. Now, there are

more new immigrants moving into Hong Kong from China every year. There is a bigger demand for teachers who are willing to help these children. I want to help, so Education is my first choice. After all, teaching in Hong Kong is a respected career.” 5E(M)

The above three statements shared the view that the teaching profession is a respected career in Hong Kong. Obviously, they choose to enter the profession out of personal aspiration. The statements do not explicitly address on economic returns, however, they sound out the expectation for the fulfilment of personal pleasure which is a higher order of non-economic benefit.

One student was honest in admitting that,

“The starting pay of a school teacher is attractive. Besides, there are plenty of holidays; I can afford to travel more often.” 4E(M)

This above statement expresses an explicit expectation on the material returns of being a teacher. During the interview, this student also revealed that he would switch back to a commercial programme if such opportunities arose. He might also consider pursuing a post-graduate degree in commerce should he later find teaching really undesirable to him. Undoubtedly this student’s motive for higher education is very pragmatic. He also said,

“My most desired degree programme is commerce. I consider a commercial career as more lively and challenging than teaching. Education was actually my third choice when I made the JUPAS application.” 4E(M)

In the first instance, the above students’ remarks even gave an impression that he was only looking for a higher education degree, what ever it is, to bring him his desired economic returns. But when he mentioned that he would pursue a further degree relevant to his interest, it was clear that he did not just intend to get a ‘credential’ of higher education. He expected further education to equip him with more suitable knowledge and skill for his desire career. His remarks suggest how some students look at the function of higher education, especially the first degree programme. They, in this case the medium ability students, are not confident about their abilities and potentials

and they aspire for higher education to equip them before they enter the labour market. They look up to higher education, believing that it will bring them more benefits than if they enter the labour market without having any education at all. Hence, they adopt a “better in than out” approach and accept the programme, even though it might not be their preference; they need the degree program as a stepping stone to other pursuits. It can therefore be held that these students certainly have high expectations of higher education even though these expectations might not be career specific.

For Journalism students, their choice of programme was based largely on personal preference but like the education students, many were non-economic in consideration. A number of them expressed that they developed an interest in Journalism at a young age. One of them in particular found the job very challenging and meaningful;

“News reporting is a very challenging job, the media certainly has a monitoring function at any social event. I was the school newspaper reporter since F.3. and editor of the school magazine in F.6. I enjoy giving honest reports to others.” 5J(M)

Another student wished to apply his hobbies to his careers.

“Photography and video recording are my favourite hobbies. Good photographs or video tapes can vividly report. Being able to apply my hobbies to work brings me job satisfaction.” 2J(M)

A third one aspired for the excitement the job would bring.

“The most amazing thing of a reporting job is being able to meet with celebrities all the time. I fancy this because I am nosy.” 3J(F)

Only two students anticipated attractive long term economic benefits from this career. One said,

“I enjoy working as a broadcaster. Once I establish my reputation with the audiences, I am sure that I will have a very generous remuneration like any other celebrity in the show business.” 8J(F)

Another remarked confidently,

"Advertising is big business in Hong Kong. I don't mind starting low in order to develop more practical experiences. Someday, somehow, I will own my own advertising firm." 5J(M)

These findings seem to suggest that the determination of the Journalism students to pursue higher education in this particular field is seemingly less economically-motivated than the other fields (except perhaps Education), though the economic benefits can be promising in the long run. This may be due to the highly interesting and meaningful nature of the job as well as the social status it promises.

On the other hand, the motivation behind the choice of programme for Arts and Science seems more diversified. Personal preference (non-economic) was one of the factors. One student stated,

"I have enjoyed reading Philosophy books since I was fifteen. I enjoy thinking about what I have learned. So, I raised questions with my teachers and I argued with my friends all the time. Philosophy enables me to debate effectively." 4AS(M)

But this motivation remains a minority view. Many students also depended on the advice given by their career teachers at school. An interesting point exhibited here is that students of lower ability may find it difficult to choose, or become confused about their choice of programmes. It seems that the final decision on their choice is not up to them but rather dependent on their final academic results. In other words, they have less autonomy in these choices. As two students stated,

"I was not very confident that I could get a good grade in the Advanced Level Examination so I have made a diversified approach in my JUPAS application. Finally, I have been placed in my third choice. Well, I guess this is the best that I can do." 6AS(F)

"A degree is still a degree. My careers teacher told me it was easier to gain admission to a Bachelor of Arts degree. The main point is to graduate and get a good job." 5AS(F)

The above two statements had indeed expressed a pragmatic motive and approaches for enrolment in higher education. The first statement reflected that the student was contented with her programme choice which is based on academic performance. The second statement clearly reflected behaviour motivated by the expectation for getting a good job.

Three students pointed out simultaneously that the programmes they were in were very low in their priorities. They accepted the offer by JUPAS just because they had no better choice. One of them expressed,

“The programme is not my desired one. But I would rather go on with my studies than work. How much could I earn if I started working now?”
10AS(M)

The last two quotations illustrate once again that many Hong Kong students (even the lower ability ones) possess a positive view towards higher education. They believe that a degree, no matter which one, will bring them a better job and higher lifetime earnings. From these responses, it can be concluded that students in Hong Kong are generally concerned with the economic value their courses will offer them. That is, they are positive that they will gain from their education in the chosen field. For students in vocational-related fields, relatively higher ability students make their choice for its promising economic benefits much more than for satisfying personal interest. Those who are relatively less high in ability carry more balanced expectations. They seem to care a lot for the non-economic benefits their courses promise, while at the same time treasure the economic benefits they provide. As for the non-vocational related students, they do not seem to have too high hopes for economic benefits. This is due partly to their relative lack of confidence and partly to their relatively less clear career prospects. But what is certain is that many have been guided by their seniors to believe that higher education in general will bring benefits to them.

5.4. Choice of Institution

As suggested in Chapter 2, another independent variable that affects earnings is institutional quality. The present study attempts to find out if students take this into consideration when making choice of institutions. However, since students do not possess objective criterion to measure the quality of institutions, the interview prompts refer to “reputation” which may be relevant to students when they make judgement of “quality” of institutions. In Hong Kong, it is not uncommon that employers relate the reputation of the higher education institutions as selecting criteria in the hiring process. As such, the choice of institution may reflect students’ economic concern in this regard. Table 18 summarises the response of students regarding their choice of institution. There was a rather mixed response.

Table 18: Factors That Help Students in Deciding Their Choice of Institution

Factor/Field	Medical	Law	Engineering	Education	Journalism	Arts and Science
Reputation of the institution	6	5	6	4	4	3
Geographic location	3	Nil	Nil	1	5	5
Academic results	nil	5	1	nil	1	2
Others	1	Nil	3	5	nil	nil

In making their choice, more (six out of ten) Medical students placed priority on the reputation of the institutions. Here, whichever the choice made may not be of much significance to the earnings, as far as reputation is concerned. This is mainly because most medical students, whether from HKU or HKCU, usually enter the public sector immediately after graduation, and are remunerated according to the master pay scale. Hence, students considered other factors. Another factor is the location of the institution. Three students considered this important, as they spent less on transportation time and cost if their institutions were closer to their homes. One student was worried about

study and work pressure. He preferred HKU Medical School because it has less internal examinations during the academic years.

As for the Law students, both the reputation of an institution and academic requirement for admission are important factors behind their choice. In this consideration, HKU certainly enjoys an edge over HK City University in institutional history. As an older law school, HKU Law School has produced a greater number of graduates, many of whom are prominent leaders in the profession. This also means a wider alumni connection network in the legal profession, which enables better social and working convenience during the job-seeking process as well as in the future working environment. In terms of academic results, since the academic and language requirements for admission into HKU are higher than those of HKCityU (See POSTE Report findings in Fig. 12 in Chapter 3), students consider this a bench mark for the higher quality of HKU Law School and its graduates. Naturally, students of higher ability would prefer HKU to HKCityU. As expressed by one HKU law student,

"I considered HKU Law School the best Law School in Hong Kong. It has produced many excellent lawyers. Many HKU Law students took up summer jobs in famous law firms in their second or third year of study. They were most likely recruited by the same firms or were recommended to other famous law firms upon graduation. Big law firms prefer HKU graduates. I opted for HKU Law School based on these considerations and of course my Advanced Level Examination results were good enough to meet the requirements." 4L(F)

A HKCityU Law student frankly revealed that City University was only his second choice and admitted that he did not have a very good examination result.

"It seems that I haven't got a choice. I prefer HKU Law School as my first choice. But I was placed to HKCityU by JUPAS. My A-level Examination result was only fair.... . Recently, I have heard that some of our graduates have difficulties finding jobs in the legal sector. Job competition in the legal

profession is very keen. Apart from HKU graduates, there are many graduates from institutions in the United Kingdom. Many employers base their hiring criteria on language skill and reputation of the institution. Some of our graduates may have to accept jobs at a lower starting salary point than those offered to HKU Law School graduates. But it doesn't matter to me, as long as the job provides a good career prospect. I know that HKCityU is good, particularly in the legal system in mainland China. I think it could be our edge. Sooner or later, the Hong Kong legal system will use more Chinese than English. Language is not a big problem. Certainly, I had wished to be enrolled in HKU. But now, I have to face the reality." 8L(M)

To many (six out of ten) of the sampled Engineering students, the reputation or academic result of the institution were the decisive factor behind their choice. They believed that employers use students' institutional backgrounds to select employees. But more significantly, three students pointed out themselves that the teaching facilities of the institutions such as the laboratory, computer equipment, and research capabilities of the teaching staff are also influential factors in their choice of institution. These students have demonstrated awareness that such factors also affect the quality of their education. They had the following opinions:

"Reputation of an institution is certainly important, but the laboratory equipment in some of the older institutions in Hong Kong are very out of date. I prefer HKUST because it is a new institution. I hope to learn more effectively there" 10EN(F)

"Computer facilities in HKUST are excellent. There are computer extension outlets everywhere. Students can search for information from the library and communicate with their Professors and fellow students very conveniently through these channels. One of the important considerations is that I can improve my written English by writing more electronic mails to teachers and friends. I was very impressed after a tour there." 9EN(M)

"HKU may be good in their traditional subjects such as Medicine, Law, and Architecture, but their strength in electronic engineering is incomparable

to HKCU; the latter certainly has an edge over them. In fact, the founding father of the Department of Electronic Engineering, Professor Kao Quin (the former Vice Chancellor of the CUHK) is the inventor of the optic fibre. I prefer HKCU because of their research potential.” 5EN(M)

It seems that Engineering students are very conscious of the relation between their choice of institution and their future economic benefits. But Education students have a special restriction in making their choice of institution: since HKU and CUHK each have specified programmes (see Table 37), students have to make their choice according to their desired specialisation. For example, those who prefer to specialise in secondary education cannot opt for CUHK, which offers primary teacher training programmes only.

But to one Education student, his choice of programme was determined by his choice of institution. He pointed out that he chose Education in HKU rather than his most preferred programme - commerce - because he estimated that only HKCityU would offer him the commerce programme due to his relatively weak HKALE result. He said,

“I considered HKU first because of its reputation in Hong Kong. I put the institution before the programme.” 4E(M)

The way this student justified his decision obviously reflects a highly pragmatic investment approach since he traded his personal interest for a much better learning and earning opportunity that he believed HKU could offer him. But what remained untested is whether he was actually simply looking for a credential of higher education or that he expected the education he received from HKU would really bring him higher possible earnings than that from HKCityU.

Like Education students, Journalism students’ choice of institution can also be determined by their desired specialisation. Those who are interested in the written media journalism have to opt for the CUHK while those interested in broadcasting journalism have to choose the HKBU. But Journalism is a subject completely new to secondary school students in Hong Kong. Many not really have a clear understanding or a strong preference for what to specialize

in, so this explains why so many of their choices were also determined by the geographical location of the institution. Students living in the urban areas may opt for HKBU while those in the New Territories may choose CUHK. Yet, half of the students interviewed still made their choices by considering the reputation and academic performance of the institution. In so doing, they might be considering the brand name effect that might have influenced their future employers' decision to employ them.

Most of the Arts and Science students also tended to consider their choice of institutions in terms of geographical location. Three students who were confident of their Advanced Level results selected either HKU or CUHK, the two oldest universities. The rest considered pragmatically their chances of admission in selecting a university.

"I know my Advanced Level result would not be too good; if I aimed at HKU, I might not have been given an offer at all. Luckily, I chose the one with minimum requirements as my first choice and I was admitted. The main point is to guarantee that I will get a good job." 5AS(F)

From the responses of the students explaining their choice of institution, the following conclusion can be drawn: the majority of students in Hong Kong base their choice of institution on its reputation. It is possible to suggest that students think that reputation of an institution is in some ways related to its quality education with experienced teaching staff, modern teaching and research facilities and eventually to their prospect of getting a better job. That is, they tend to believe that graduating from one particular institution is better than graduating from another one, though in both cases they are granted the same honour (Bachelor) degree. On the other hand, students may also possess the idea that reputation of an institution serves as a signal to their future employers. That is, they may prefer to study in a higher reputation institution, regardless of the course they will take, because they believe employers prefer graduates from that institution.

As for considering the geographical location of the institution and specialisation of programme, the choices made in these cases were strictly personal and it is not possible or desirable to make any generalisations.

While putting aside the consideration for geographical location and specialisation of programmes, it can be concluded that the choice of institution according to reputation is greatly concerned with economic benefits. Whether considering the quality of the institution or just its name or fame, students are making a decision to maximise what the choice is going to bring them.

5.5. Summary

This chapter is the first of the three chapters about the findings of the interview research completed in 1997. It begins with a classification of the sampled students in terms of subject nature, type of vocational skills, level of difficulty in admission and student ability. Accordingly, students are grouped into the high ability vocational group, less high ability, vocational group and the less high ability non-vocational group. The classification is deemed necessary for determining whether students of different ability groups have different expectations for returns of higher education. The next section provides some general information about the six subject field: the education opportunities and the prevalent careers situation upon which undergraduates would base expectation of their own prospects. The last two sections report and analyse on the findings about students' choice of program and institutions.

The findings strongly suggest that Hong Kong students are rational investors in higher education. Their decision is based more on the consideration of both economic than non-economic returns. For the choice of institution, it is more narrowly economic consideration. Moreover, the findings also suggest that the higher the ability of the students, the stronger and more apparent their expectations for economic benefit are (This is because they are able to get admitted to the programmes and institutions that they believe will give them most benefits). This behaviour supports the argument that students

made decisions on investment in higher education, out of an instrumentalist consideration.

CHAPTER SIX

Report and Analysis of Data: Students' Perception of Increased Education Costs and Expected Benefits

6.0. Introduction

This chapter reports and analyses the findings on how higher education students in Hong Kong perceived the benefits of higher education when they had to shoulder the burden of increased tuition fees and anticipated higher interest costs in student financial assistance schemes in the period prior to the sovereignty change over in 1997.

6.1. Students' Perception of Increasing Shares of the Education Costs

In order to understand students' perception of sharing the cost of education, the interview guideline sets three main questions asking the sample first about their mode of paying their education expenses and their attitude towards the increase in tuition fees. Secondly, students were asked to express their views on student loan policy, the proposed non-means tested student loan, and the proposed new interest rates of the means-tested and the non-means tested student loans. The interview guideline does not contain questions on whether students expected a higher, lower, unchanged amount of benefits or no benefit at all from education when they knew they had to shoulder an increased cost. The rationale is that this is too straight-forward a question. Students would naturally say their expectation is lower by a simple "higher cost, lower return" deduction. As such, they might not think deeply into the meaning of increased costs and particularly the effect of the increased interest rate and the two means of loan repayment schemes and their costs. Students also would have grasped neither adequate data nor perhaps the method needed to calculate the benefits against the cost. Hence, a lengthy dialogue over this issue between the interviewer and students was conducted and reported to obtain the direct

response in the students' own words. Overall, the objective of the interview was two fold. Firstly, it aimed to uncover how the increased costs might affect choice of students on whether they would continue or to give up their opportunity in higher education. Secondly, it aimed to investigate how the increased costs might affect students' perceived benefits.

6.2. Mode of Paying Education Expenses

It was deemed necessary to find out the mode of paying the education cost, to highlight the weight of the burden on the student and his/her family. To most of the students interviewed, the initial investment cost was not easy to bear. Table 19 reports a summary of how the 60 sampled students paid for the cost of higher education. 25 out of them had their tuition fees funded entirely by their parents. As they came from middle or upper-middle class family backgrounds, they did not qualify for the means-tested student loan. The remaining 35 students relied on student loans and grants to pay their tuition fees. However, education cost does not mean tuition fees alone (Psacharopoulos and Woodhall, 1985:35). There are many related expenditure items (indirect costs) such as purchase of reference materials, purchase of equipment, expenses incurred in different kinds of student activities, such as transportation costs, and foregone earnings. Out of the 60 students, a total of 42 students had to have one or more part-time job(s) to cover these expenses, meaning that the cost of education was a severe financial burden.

Table 19: Mode of Paying Education Costs by the Sampled Students

	Medicine	Law	Engineering	Education	Journalism	Arts/Science	Total
a. Parental support	7	6	4	2	4	2	25
b. Student loan and grants	3	4	6	8	6	8	35
c. a + Part-time jobs	3	2	4	3	2	3	17
d. b + Part-time jobs	5	3	3	5	2	7	25

6.3. Increasing Shares of Education Costs: Tuition Fees - Did

Expectations for Economic Benefits of Education Change?

When asked about their views on the increase in tuition, all of the sampled students expressed concern and pointed out that it had imposed extra financial burdens on themselves and their families, who had to make sacrifices. Those who did not qualify for the existing grant and loan scheme criticised the qualifying conditions of the scheme. Some of those students who received student finance remarked that the student loan was just sufficient to cover the tuition fees while others complained it was barely enough. This explained why so many students had to find part-time jobs, which ultimately exerted pressure on their studies. The following are some of their comments.

- (1) Students who complained about the increased fees but still anticipated future pecuniary benefits that would cover their present cost ---- a positive investment view.

"I didn't receive any student loan, not to mention grants. This is because my family background barely qualifies for a student loan. The cost of studying medicine is expensive. The tuition fee has increased; I also need a lot of reference books and medical equipment. I don't mind investing now. I know I can get it all back after my graduation. But couldn't the Student Financial Assistance Scheme Office be more lenient in granting loans?" 3M(M)

Apparently, this student possessed an optimistic view towards his present investment in higher education. His remark indicated that he was confident that he was able to recapture the costs of his education after he graduated.

"The student loan and grant only covers my tuition fee and dormitory expense. Now the government increases the tuition fee and I still need money to pay for other expenses. My father is a lorry driver and my mother is a domestic helper. I find it embarrassing to ask for money from my parents. I

have been working as private tutor since I was in senior secondary school. I hope I can cope with it. But I still think this is worthy money to spend." 6M(F)

This student shared a similar view as the previous student. Despite the fact that she had to overcome her financial problem by serving as a part-time private tutor, she clearly expressed that her present sacrifice was a worthwhile investment. Obviously, she was looking ahead for long term pecuniary rewards.

"The tuition fee has increased. The student loan and grants barely cover my education cost. I still have to ask for money from my father. My family is not very rich. In order to ease the family financial pressure, I work as a part-time sales assistant at a mobile phone provider. I just hope for a bigger loan so that I don't have to burden my father anymore. I just long for my graduation. By then, all these burdens will disappear." 8M(F)

"My student loan is just enough to cover part of the tuition cost. It has increased again this year. I have three part-time tutorships now to make up the expenses. Though I have to pay for the interest, I still desire a bigger loan to ease the present financial burden. The pressure of work and study is too heavy now. But I have no choice. I keep reminding myself that my future is bright. All these sacrifices will come to an end soon." 7L(M)

Though the loan and grant scheme had help cover much of the expenses of these two students, inadequacy still existed. The financial burden appeared to be rather great for both. However, both of them expected that the burden would disappear when they started working full-time after graduation. Again, this illustrated clearly a positive expectation that their investment into higher education would bring relief to their present burden.

"I did not receive a student loan in my first year of study. This year, I receive a small loan compared to that given to average applicants and it only covers two thirds of the tuition cost. The financial situation of my family is very tense. I work as private tutor and do summer jobs to support all my other expenses. I feel very tired all the time and part-time jobs are very disturbing to my studies. I hope I can get a bigger loan next year, despite it implying greater

debt. But no matter how much harder I work, I will still strive on. It is just a lump sum I am putting as an investment. I will reap the benefits over the rest of my life." 3L(F)

In spite of the hardships, this student was determined to continue her study as an important investment. She believed firmly that the present investment in higher education was aimed for lifelong benefits.

"I never expected that the tuition fee and living expenses in Hong Kong could be so high. Tuition fees for higher education in Hong Kong are much more expensive than tuition fees in the United Kingdom or Canada. I wonder if the policy makers really understand the situation of Hong Kong students. On the one hand, the government claims to help students. On the other hand, they are burying students with debts. How can they expect students to concentrate on their studies while finding ways to cope with debts? I don't think it is a just policy to increase the interest rate of the student loan. Yet, I still have to live with it. If I don't sow the seeds now, I won't reap the harvest in future." 7EN(F)

Though this student was resentful to the tuition and interest rate policy of the government, she had to accept it realistically. But her final remark expressed a strong and vivid positive forward looking view on future benefits.

"The increase in tuition fees surely imposed financial burdens on me. I only received a student loan to cover my tuition fee. In order to cover the living expenses, I obtained three credit cards from three different banks. I used the credit line alternatively to cover the spending and to pay monthly credit card payments. It sounds silly, but it works. Certainly, I have two private tutorial jobs and a summer job to help make ends meet. I must find employment immediately upon graduation, I hope for a gradual improvement in my financial state." 5EN(M)

Like many of his counterparts, financial pressure existed. To cope with the adverse situation, this student adopted a rather daring and risky way to deal with the problem. Apart from taking up part-time jobs, he obtained loan from

three credit cards to cover his expenses. However, he too expected that his financial situation should be able to improve upon his graduation.

"Who needs student loans? Certainly, the poor and the needy! Why does the government give loans to them? Of course, it is the intention of easing their financial burden. But now we are faced with a high tuition fee and an increase in the interest rate, which is but a delay in the financial burden. Remember my family is poor and I have the responsibility of supporting it upon my graduation. The increase in the interest rate will certainly be a burden. But so what? What would become of me if I quit now?" 3EN(M)

This student seemed to have been caught in the dilemma between investing into higher education for a better future and expensive cost. Without much choice, he seemed to have accepted the reality by completing his study regardless of increasing cost.

"My father is unemployed. I don't know when he will work. If there is an increase in the tuition fee and an increase in the interest rate next year, it certainly will increase the burden of my financial situation. But I know I have to persist and survive the difficulty. The future is promising." 9E(M)

Regardless of present adverse financial difficulties, this student still maintained a positive expectation and a forward looking view that the future is promising. *"Tuition fee increases shouldn't be too rapid. The existing assistance scheme does not help much. Many students have to work part-time jobs. Yet, I am still contented that I am in university at least. I am sure these days will not last forever and my future will certainly be more stable and comfortable than my father now."* 4E(M)

This student possessed a forward looking view that he believed that his present education will help to improve his future family life.

"Frankly speaking, the tuition fee of my university education is costly. Given the amount of debt I have incurred so far, I will seriously consider finding a job before pursuing post-graduate study. But I think in the long run, the debts will be paid off and my financial situation will improve." 8EN(M)

To a certain extent, this student's remark expressed concerns about whether or not the accumulated debts during the undergraduate years would become a decisive factor in considering future graduate study. Yet, he was confident that financial situation would improve in the long run.

"Under the present formula of calculating family income by the Student Financial Assistance Office, my student loan covers only two thirds of the tuition fees. My parents pay for the remaining portion but I have to find ways to support my living costs and other expenses. I am glad this awkward situation will end soon." 8J(F)

Again, this student remained optimistic despite the financial stress. She maintained a positive attitude towards her future.

Twelve quotations were cited in this section. From the remarks on the existing financial burden, it could be generalised that a sense of concern prevailed among the students. The undergraduates of the period before higher education expansion certainly did not share this feeling partly because of the lower tuition fees and partly because of the availability of scholarships, grant and loan to a relatively smaller number of students. Nevertheless, current students remained positive about what higher education would bring to them, in pecuniary terms. That is, they were still confident about their chances in the graduate labour market and of the monetary rewards which they believed would settle their existing financial problems. Compared with the undergraduates before higher education expansion, their expectations of the benefits of higher education might not be as high because their cost was higher. What was certain was they still possessed a positive expectation on their investment—that they were going to reap the benefit in future (upon graduation) and some were even optimistic that the benefit would be a lifelong one.

- (2) Students who complained about increased fees but did not express any positive expectations of returns.

"The increased fee is a big burden already. Now the government is talking about increasing interest rate of loan. I wonder if the government is really helping students." 4EN(M)

"HK\$43,100.00 (US\$5512.00) per year over three years means HK\$ 129,300.00. If living costs and activity fees are included, it is estimated to be around HK\$310,000.00 or more. This is a huge investment. Not every family or individual can afford this. I wonder if I can achieve a break even a few years after my graduation." 8AS(M)

From the above remarks it was quite obvious that they felt the pressure of the increasing fees. Naturally, they did not welcome the increase in the cost of education. There seemed to be a passive acceptance of the reality of the increased tuition fees; at least none of the students had expressed that they had considered or even decided to drop out owing to financial difficulties. Maybe they were convinced of the "user-pay concept", or perhaps felt they could do nothing about it but rely strongly on student financial assistance.

Of course, students from less favourable family backgrounds felt that student financial assistance was more urgently needed. However, most of the students remained positive about the immediate and long term benefits of their present investment and other sacrifices. This seems to be strong supporting evidence that students regard their education as a form of investment which, they expect, will bring benefits to them after their graduation. There seems to be, little diversity between the views of the higher ability students and those lower down in this respect.

6.4. Increasing Shares of Education Costs: Student Loan Interest Rates - Did Expectations for Economic Benefits Change?

This section focuses on students' opinions about student loan interest rates. As the government has just made a proposal for a new (increased) interest rate, a comparison of the students' opinions on both may help to

analyse whether students' expectations of returns from education would be altered by the anticipated increase in interest rates in student financial assistance. Table 20 and 21 summarise the findings.

Table 20: Opinions About the Present Student Loan Interest Rate

	Medicine	Law	Engineering	Education	Journalism	Arts/Science	Total
Present interest rate (2.5% per annum) is reasonable	10	10	10	10	10	10	60
Present interest rate is unreasonable	nil	nil	nil	nil	nil	nil	nil

Table 21: Opinions About the Proposed New Student Loan Interest Rate

	Medicine	Law	Engineering	Education	Journalism	Arts/Science	Total
New interest rate (5% per annum) is reasonable	3	4	1	nil	nil	nil	8
New interest rate is unreasonable	7	6	9	10	10	10	52

A careful analysis of Tables 20 and 21, along with the remarks made by students regarding their opinions about the present and proposed student loan schemes quoted in the following, brings out some interesting points.

Table 20 shows that all sampled students accepted the present student loan interest rate (2.5%). Therefore, it can be assumed that they regarded obtaining a student loan as a normal phenomenon in higher education student life and some had considered that student loans (with interest added) is an investment item that could generate return. The following remark is representative of their general views.

"Obtaining a student loan is like making an investment. If the money can be spent soundly, and can generate a good return, then this is a good investment. The present interest rate is not high at all. It's reasonable."
10M(M)

Many students actually preferred to finance their own education by obtaining a student loan.

"So far, our student loan policy is a means-tested one. Not everyone is eligible for application. I hope we can have a non-means-tested one, with not too high of an interest rate, of course. I know that some students with affluent

family backgrounds want to support their higher education independently."
5L(M)

But when asked about the proposed increase in interest rates (Table 21), a majority of the sampled students (52 out of 60) raised objections. From their remarks, it is revealed that they objected to the new interest rate for two reasons: almost all regarded the proposed rate as too high (though it was not shown if they would accept a lower interest such as 3% per annum or 4.5% per annum), and some of them objected to the basic principle behind the increase.

As one student said,

"The new interest rate is too high. The government should assist, rather than overburden, the higher education students." 5L(M)

Another echoed,

"The government should help the needy students. After all, this is the spirit of the government student loan policy. By raising the interest rate so high, the government is breaking its promises now." 6L(M)

"The newly proposed interest rate of 5% is absolutely unreasonable. Six years ago, a degree course was HK\$8,700.00 (U.S. \$1,100.00) a year. It was not too heavy a burden for poor students to repay the student debt with a 2.5% interest rate. Now the tuition fee is HK\$42,000.00 (U.S.\$5,200.00) and they are going to double the interest rate. I know what user-pay is, but it must be within our affordability! The promises that no students should be denied higher education wills, I am afraid, become a window-dressing policy." 4E(M)

"An increase in the interest rate is an unacceptable policy. The tuition fee has increased already! So, the interest rate should remain unchanged."
3E(F)

Some students showed concern of their ability to repay the loan with such a high interest rate.

"The job market is very competitive. I have heard about lots of cut-throat competition. More and more fresh graduates have accepted below-market rate salaries. Even if I am lucky enough to get a job, the salary I earn may not be sufficient to cover repaying my loan at the present level of the

interest rate. The proposed increase in the interest rate will certainly deepen our financial difficulties.” 10AS(M)

This student has pointed out the increasing competition in the general graduate labour market. This description about the increasing number of fresh graduates accepting lower starting salaries suggests his awareness of the possible downward adjustment of the salary level of fresh graduates.

Several students from the Arts and Science programmes also felt that the proposed non means-tested student loan may make their investment in higher education more risky. They expressed worries about their potential to repay the loan upon graduation.

“The non-means tested loan seems attractive to some students because of its universal eligibility. But, the high interest rate means higher debt. I am not sure if I would be employed immediately after graduation to pay off the accumulated debt.” 4AS(M)

“The question is whether or not my degree can guarantee me enough return to repay my student loan and support a reasonable standard of living at the same time.” 2AS(F)

Similarly, one Journalism student asserted that the stagnation in the average starting salaries of fresh graduates in recent years may make repayment more difficult.

“Traditionally, the starting salary of a fresh graduate reporter is low. Most newspapers in Hong Kong are cutting costs due to financial difficulties. Two daily newspapers closed down last year and all the evening newspapers are withdrawing from the market. So, there is a surplus number of journalists in the market. Some newspapers simply lowered their starting salaries since now they do not have to worry about the supply. Even if I am employed, I doubt if I can repay my debt according to the current schedule.” 6J(M)

On the whole, most students felt the pressure imposed by the proposed increase in the interest rate and worried if their immediate economic return could effectively enable them to repay the debts incurred during their studies. In this sense, many students inevitably saw dwindling economic benefits from

higher education as they perceived the cost of education raised by the increased interest rate. It seems that their objection to the increase in the interest rate was even stronger than objections to the increase in fees.

What is more interesting, however, was that 8 out of 60 students accepted the new interest rate as reasonable. One student directly pointed out that the present interest rate was low, and hinted that the interest rate could be raised in order to match the commercial rate.

"I think the present interest rate is too low when compared to the commercial rate. Too many students are taking it for granted." 9L(F)

It seemed like a rather exceptional remark, and it was indeed rather strange to find students willing to accept higher interest rates at a time of increase in tuition fees.

Another engineering student considered that the increase in the interest rate was acceptable.

"The new rate is acceptable because tertiary education is a personal investment. Besides, the interest rate must realistically reflect the cost of borrowed funds. The present prime rate in the market is 8%. The newly proposed student loan interest rate is still lower than this. " 5EN(M)

Within the constraints of this study, the finding that some students still maintained a relatively high expectation on the marginal rate of return from higher education despite the increase in its cost, is a significant one, although all were in subjects that involved professional training. This reveals that there are students who are very confident of their investment in higher education. It is important to note that they are the highest ability group in the narrowly vocational-related programmes. They do not mind the increase in cost; one even said it is reasonable. This attitude can be taken as evidence that some students, especially those who are confident of their ability and the prospects of their professional career, still possess high expectations of the returns from higher education.

6.5. Concluding Remark

The majority of Hong Kong students in the 90s rely on financial assistance to pay for the cost of higher education. They take a student loan as a means of financing their present investment. An increase in tuition fees as well as in the interest rate both increases the financial burden of the students and, naturally, is not welcomed. There seems to be a clear distinction when students compared with their counterparts in the past two decades who were mostly financed by a low interest rate(0% before 1987 and 2.5% after 1987) student loan and a non-repayable grants system. Yet, students are ready to live with the change instead of dropping out. The most obvious explanation of this is that students are, on the whole, still positive about any future economic gains that the present investment will bring them, even though to some the gains will not be as attractive as their expectations were before the increase in costs. All in all, these student perceptions have proved that they participated in higher education with a long term investment in view. They are ready, though not pleased, to tolerate immediate financial burden in expectation for a high lifetime earnings.

CHAPTER SEVEN

Report and Analysis of Data: Expectations of the Benefits of Higher Education

7.0. Introduction

This chapter reports the findings of the interview survey about students' expectations of benefits from higher education in terms of their future careers. The first part reports on how students viewed the importance of economic benefits along with other considerations. The second part reports on students' awareness of the problems they might encounter in the graduate labour market and the future conditions of their expected careers.

7.1. Expectations of Economic Benefits

In the interviews, students were not directly asked about how they calculated economic benefits and perceived non-economic ones. Instead, some questions related to their employment expectations were asked. One question deals with the determinants affecting the choice of first employment. For this, seventeen factors were outlined as prompts to students' responses. Five of them are economically related while the rest are all non-pecuniary considerations, and students could choose more than one reason because motives for higher education can be multiple. The purpose is to gain a general picture of the relative significance of economic benefits to students' choice and what kind of non-pecuniary considerations are of interest to them. The replies of the sixty sampled students are summarised in Table 22.

Table 22: Reasons Behind the Choice of First Employment for all of the Sampled Students

	Medicine	Law	Engineering	Education	Journalism	Arts/Science	Total (%)
1. Personal interest	10	6	10	9	10	6	51 (85%)
2. Job satisfaction	8	6	7	9	10	8	48 (80%)
3. A chance to help others	9	7	7	10	6	4	43 (71%)
4. A high future salary *	9	8	10	3	7	5	42 (70%)
5. Prospects of promotion and long term career development*	6	6	7	7	6	4	36 (60%)
6. Good working conditions	7	6	4	5	3	10	35 (58%)
7. Long term job security	7	3	7	8	5	5	35 (58%)
8. Overseas exposure	6	7	8	2	10	nil	33 (55%)
9. The opportunity to be creative and original	4	2	7	3	10	4	30 (50%)
10. Further study opportunities	5	3	2	6	3	7	26 (43%)
11. Possibility of eventual self-employment *	6	3	5	nil	3	7	24 (40%)
12. A chance to serve the future SAR government	3	1	2	8	1	9	24 (40%)
13. Serving the global community	4	2	5	3	3	3	20 (33%)
14. A chance to serve motherland China	2	4	3	5	nil	6	20 (33%)
15. A high starting salary *	3	nil	5	8	nil	nil	16 (27%)
16. The opportunity to gain unexpected profit *	2	3	4	nil	1	2	12 (20%)
17. An opportunity to emigrate	nil	2	2	2	2	2	10 (17%)

** Economically-related factors*

An interesting point regarding economic returns of higher education found in the students' responses is that they were not so high in their expectation for immediate economic return as for future economic benefits. Out of the total number of students interviewed, only 27% (16 out of 60) chose a high starting salary as an important consideration behind first employment. Far more, 70%, expected the first employment to lead towards a high future salary and 60% hoped the first employment would generate prospects of promotion and career development (factors that are crucial to lifelong economic benefits). These figures indicate that students' view is realistic about their immediate economic returns after graduation. Factors that contribute to this expectation can be multiple. Firstly, it is due to the political uncertainty related to the 1997 change of sovereignty (Lo, 1995a, 1995b). The implications of political uncertainty and concerns of students will be elaborated in a later section. Secondly, undergraduate

students are aware of a keener competition in the graduate labour market since higher education expansion began. They have learnt about the changes in the graduate labour market from the media, or their seniors who graduated earlier that employers, in the private sector in particular, have been adjusting the starting salary of the fresh graduates because of the availability of an abundant supply of graduate labour. As such, undergraduate students' views are adjusted realistically as it collaborates with the cobweb type salary adjustment process in the graduate labour market (Ehrenberg and Smith, 1991:312-314). This behavioural pattern matches clearly with Machlup's (1978) explanation of expectations (See Chapter 3, Section 3.3.). Thirdly, undergraduate students are also aware that they cannot expect a high starting salary because of their inexperience in the work world. Therefore, they are willing to accept a lower starting pay from the first job in exchange for more practical work experience and on the job training opportunities.

In a nutshell, the first job is sometimes accepted by some of the new graduates as a form of apprenticeship which is regarded as an important starting point of a life long career. This situation appears to be less apparent among students of Education. For the vocational-related programmes, they usually require graduates to practise in the relevant fields for an article or apprenticeship period of one or more years. During this time, graduates would receive a lower salary than those who have fulfilled the requirements. For example, for the medical students, although they usually receive a higher than average starting salary than the other professions, the long working hours and comparatively difficult working conditions in the public hospitals, such as the emergency wards, actually diminish the pay (in terms of real value) that they are receiving (Hong Kong Medical Association, 1996). It is not surprising therefore medical students seldom expect a high starting salary. Rather, they

cherish much more about the on the job training opportunities during their first year of service.

The same situation may apply to engineering students at the beginning of their careers. Apart from the differential salary in serving the public or private sectors, it would also depend on the specific field that they are specialising. Certainly, the level of starting salary would be largely determined by the invisible hand of the market mechanism. For instance, the acute demand of graduate labour by the fast growing information technology field would raise the starting salary of a newly graduated computer engineering or electric and electronic engineering major much higher than a mechanical engineering graduate, while a civil engineering or a marine engineering graduate may be required to undertake a longer article period before receiving a status of chartered engineer. Hence, most engineering students have anticipated that their bargaining power for a high starting salary is low.

As for the non vocational-related programmes, Arts and Science graduates, they usually seek employment among a broader range of careers in the general labour market. Normally, new graduates of a generic nature are required to receive a general or specific on-the-job training before specialising their careers. They receive a lower salary than those who are more experienced. In this sense, the students' responses reflect they do not relate the benefits of higher education only to immediate returns but that they possess a longer term forward looking view towards the returns to their higher education.

The exceptional case here is that the majority of education students showed expectations for a high starting salary, but far fewer expected a high future salary. This is a clear proof that education students in Hong Kong are fully realistic about the economic returns from their education. The starting salary of Hong Kong graduate teachers is comparatively much more attractive than the starting salary of many other professional careers in the private sector, such as Law

and even Engineering; the starting pay of a newly graduated teacher received a salary of HK\$21,000 (1826 pounds) per month in 1996-7 (Education Department, 1996) compared with HK\$18,000 (1,566 pounds) per month for a fresh lawyer (Graduate Employment Survey, HKU, 1996). Yet, education students are also aware that their restricted career path and the slow increment along the pay scale will not promise them high long term (future) earnings.

7.1.1. Expectations of Non Pecuniary Benefits

As mentioned earlier, 12 prompts suggested in the interview guide are related to non-pecuniary values in employment. In making these prompts, the research makes an assumption that students, if they have any expectations for non-economic benefits from higher education, wish to realise them in their employment the earlier the better. So, in enquiring what, apart from economic related ones, students expect as important considerations in choosing the first employment, the research is making an attempt to explore what non-pecuniary benefits of higher education students expect.

It is found that a high proportion of the respondents is concerned with personal contentment. 80% or more of the respondents valued personal interest and job satisfaction. The hedonistic tendency of the students is extended from choice of programmes to choice of employment.

It is found that slightly over 71% of the students sought a chance to help others. It is apparent that these students think in terms of extending what they learned from higher education to a wider range of beneficiary. That is, they are being concerned with their future contribution to society as a whole. This indeed underlines the students' perception of social (non-pecuniary) returns of higher education.

However, this intention to serve remains a localised one. Only about 35% expressed their concern for the global community.

Around half of the students also had in mind other non-pecuniary benefits of higher education. For example, 55% chose 'overseas exposure', reflecting their value for open-mindedness; 50% - especially the Journalism and Engineering students - chose the 'opportunity to be creative and original', indicating their aspiration and wish to be able to apply what they learn to their work; 43% of the students, especially the Arts and Science students, longed for further study opportunities, showing their intention for life long learning. On the other hand, it is also observed that about one-third of the students opted for service to the SAR government, and China. This can be regarded as an indication that many of the students were still rather indifferent about the change of sovereignty. Yet only one-sixth of the students said they expected to look for opportunities to help them emigrate. At least, most students still found Hong Kong their place for long-term settlement after 1997.

7.2. Awareness of the Increase in the Supply of Graduates by the Expansion in Higher Education and Problems Likely to be Encountered in the Future Labour Market

The interview sought to find out how much students are aware of the changes in the labour market conditions and how seriously they think the changes would affect them. These students' perceptions can help to understand how much they see the economic values of higher education. More importantly, it intends to investigate how changes in the graduate labour market have affected the perceived benefits of the undergraduate students and their choice of future employment.

Ever since mass higher education policy was introduced in Hong Kong in the 1990s, the segmented graduate labour market has been affected, by the intensified competition caused by the increase in

the supply of graduates from different fields of study. This situation was made worse by returning overseas graduates and immigrating graduates from mainland China. Are current university students in Hong Kong aware of the situation? Table 23 indicates that there is a high degree of awareness among the interviewed students about the possibility of change for the worse in this respect. Analysis of the responses of the students from each field of programme will be made in the following paragraphs.

Table 23: Students' Awareness of the Anticipated Problems in the Graduate Labour Market

	Medicine	Law	Engineering	Education	Journalism	Arts /Science	Total
Aware	10	7	10	10	10	10	57
Not aware	nil	1	nil	Nil	nil	nil	1
Others	nil	2	nil	Nil	nil	nil	2

Medical Students

One Medical student remarked,

"In the eighties, the number of medical graduates was around eighty from each university. Now the supply of local medical graduates has been doubled in the last three years, not to mention those who return from overseas and those who come from mainland China and pass the medical examination administered by the Hong Kong Medical Council." 3M(M)

Some were worried about the prospect of becoming employed.

One student remarked,

"I am still uncertain if I am able to find a job upon graduation."
He also expressed concern over remuneration; *"It seems that doctors in Hong Kong nowadays are not so well remunerated as in the past. I am worried."* 8M(F)

Most were especially worried about the change of employment conditions which made their careers seem less secure. The Hospital Authority of Hong Kong announced in May, 1997 that there would be a shortfall of new jobs for newly- graduated doctors who have completed their internship as house men in hospitals. In addition, only short term contracts - not lifetime tenure positions - would be offered to the new graduates. This announcement was made just one week before the interviews with the students took place. All the medical students were keen on expressing their opinions about the policy and there seemed to be a general consensus that this policy created a sense of insecurity and was therefore a severe blow to their morale. The following are some of the comments made by the medical students.

"The new contract system is unfair as it creates uncertainty. What we want is a long term employment to develop our career."
6M(F)

"The iron rice bowl for doctors has been cracked. The career path is becoming unstable. We have to start thinking about contingency plans for our career. If worse comes to worse, we may have to start private practising earlier. But I doubt very much if we can set up private practice upon graduation." 4M(F)

"Ever since all the hospitals in Hong Kong were put under the central administration of the Hospital Authority, we had heard complaints from senior graduates that they were not getting ideal jobs. We never thought that it could be so serious." 5M(F)

"I always think that becoming a doctor will guarantee a stable career. But many of our senior students have to accept contracts with the Hospital Authority. What if the contract is not renewed after it expires? This never happened to medical graduates in Hong Kong before." 2M(M)

The last quotation reflects the fact that medical students were particularly disappointed by the Hospital Authority's new policy of

offering contract terms instead of lifelong tenure to new doctors. There is no direct evidence to prove that this student was thinking along the lines of his life-term economic benefits. But, obviously, the anticipation for such obstacles in the career path would affect the medical students' perceptions of job security and long term career development, factors which 70% and 60% respectively of the medical students considered as important factors when determining their choice of first employment. (Refer to Table 21)

Law Students

Among the 10 Law students interviewed, 7 of them indicated their awareness of increasingly intensive competition in the graduate labour market. But HKU Law students showed more confidence than Law students from the HKCityU when facing these problems. It has been explained in section 5.4 that the academic requirement for admission to HKU is higher and hence their undergraduates are those with higher academic standard. These, and the wider alumni connection network of HKU law graduates, are factors behind the sense of confidence of the HKU law students. All five of the sampled HKU Law students said that they had secured summer jobs at the law firms since their second or third year of study.

"The real estate market is booming. There are plenty of jobs for solicitors. We are often employed by law firms during the summer months, just to ease the pressure of the practising lawyers." 1L(F)

In the final year of study for post-graduate certificates in Law, many of the HKU students would probably have been employed by large and reputable law firms. In the very recent past, students rarely heard that HKU law graduates, especially those in the solicitor sector, failed to quickly find a job in a law firm or in the civil service sector.

"I don't worry about job competition. My competitors are those who graduated earlier than me. Hong Kong is a free market economy. An able person earns more." 4L(F)

The sampled HKCityU students were less optimistic. Two of them stated that senior students had told them they needed a longer lead time to obtain a job. Some graduates were willing to accept jobs at smaller law firms, with a lower starting salary than HKU graduates.

"I understand that getting a good job these days is not easy. I don't mind starting from a less attractive position to the top." 9L(F)

However, since HKCityU Law School specialises in the legal system in China, graduates could opt for employment in law firms or commercial firms that specialise in "Business in China" (China trade).

"It may be competitive in Hong Kong but I may choose to work in China. China trade has opened up plenty of opportunities for us. Our specialisation in the Chinese legal system gives us a stronger edge over HKU graduates." 10L(F)

Both groups of Law students showed no significant worries about the intensifying competition in the graduate labour market, since most of them were aware of the latest development of the current employment market in 1997. The increase in the supply of higher education graduates has not threatened them directly and the supply of law graduates can be accommodated by the steady increase in vacancy positions, as well as with flourishing career opportunities in mainland China.

The main reason for the high demand for legal professionals was the booming real estate market in Hong Kong over the previous decade, which created a high demand for solicitors to handle property transaction-related matters. Secondly, the demand for commercial solicitors has also increased due to the substantial growth in the China trade. Lastly, there has been an increasing demand from commercial firms in Hong Kong for law graduates to fill executive positions. The

difference between HKU and HKCityU Law graduates is mainly in the lead time difference for finding a job, or maybe some difference in the starting salary.

Once employed, working performance will determine an individual's career development, employment conditions, lifetime earnings, and the effects of the difference in credentials from the two law schools will eventually be reduced to a minimum.

For barrister students, the situation may be somewhat different.

"I haven't decided yet. I may join the civil service after completing my article years. I don't expect a good starting income. But if I want to get high pay, there are many good jobs with high starting salaries for beginning barristers. I just wish to acquire more working experience before setting up my own business." 5L(M)

Barrister graduates have to work under the supervision of a mentor barrister for a certain period of time after graduation. Their starting salaries are usually lower than those of solicitor graduates depending on the number of clients referred to them by solicitors. They will not expect immediate high salaries until they have established a good reputation in the legal field and have set up their own chambers. So, the employment situation of the barristers may be more difficult than that of solicitors. It demands greater commitment to stay with the career.

Education Students

All of the sampled students were aware of the increasing competition in the graduate labour market and expressed different degrees of concern for this situation. Education students conveniently obtain first-hand information during their practicum in schools. Several Education students expressed opinions similar to the following two:

“The availability of graduate primary school teaching posts is very small. Most primary schools reserve these vacancies for internal promotion. Seldom would they recruit fresh graduates to fill these posts, because there are many degree holders in their own schools queuing for an upgrade from Certificate Master post to Graduate Master post. The problem is created by the government. On the one hand, it calls for an “all graduate teaching force”, so a large number of serving teachers are pursuing part-time (in service) Bachelor of Education (primary education) degrees, not to mention those studying full-time. On the other hand, it is not creating more new Graduate Master posts. This intensifies internal competition among primary school teachers. Since we are the inexperienced ones, we can be out-competed very easily. I will be very disappointed if I have to accept a Certificate Master post instead of a Graduate Master post in a primary school. But can I find a job in the secondary schools easily? More often than not, secondary school principals prefer fresh, subject-based degree holders.” 2E(F)

“I don’t think the education system in Hong Kong can absorb all of us unless the government is determined to create more graduate teaching posts and transform more half day schools to whole day schools as it has promised in the Education Commission Reports. So far, the government has not acted on these promises at all. To be frank, I am worried about my future career.” 9E(M)

From the above two quotations, it appears that there is a disparity between supply and demand of graduate teachers that inevitably instils worries about graduate unemployment. This leads students to make concessions such as accepting lower paying jobs in the education sector despite the fact that a high majority of them expected a high starting salary in their first employment (Refer to Table 22). To these students, this is certainly a great disappointment. Two students said,

“Yes, there are more graduate primary school teachers now. Many serving teachers are taking the in-service Bachelor of Education degree programme or distance learning programmes. So, we are at a disadvantage in the competition. I have sent out 40 application letters but received only 3 summonses for an interview. If I fail to find a job in the government or the subsidised school sector, I don’t mind working for private schools or private tutorial schools with a lower pay. ”

7E(F)

“If worse comes to worse, I wouldn’t mind starting my career from a Certificate Master post. After all, the pay difference is only three to four thousand dollars. And it also means a more difficult task of repaying the government loans. But it’s better to be employed than unemployed. Besides, the government might create more graduate master teaching posts in primary schools in future. So, I would seize any opportunity to strengthen my teaching experience.” 4E(M)

These expressions of pessimism remind and help to explain why so few Education students claimed they expect a high future salary.

There were optimists who have confidence in the government and in themselves. However, they are a minority in the group.

“In the long run, the government will create more graduate teaching posts in primary schools. The intensified graduate labour competition is just a temporary phenomenon. I have faith in the government that our education will not be wasted. Competition is up to an individual’s ability; if I am well prepared, I don’t think the school principal will not give me a chance.” 7E(F)

Engineering Students

Though all Engineering students claimed they realise that they would face severe competition in the labour market upon graduation,

most of them remain highly optimistic about their employment prospects.

"Information technology is booming in Hong Kong. Almost every sector in society has a high demand for computer experts. I remain very optimistic about my career as an electronic engineer." 10EN(F)

"It is true that there are more graduates, including graduates from post-graduate degrees, competing for jobs nowadays. But, given the fact that there are so many building projects in Hong Kong, I don't think I will worry at all." 5EN(M)

"I don't expect a high starting salary at all; mechanical engineers in Hong Kong have to work their way up, but their future prospects are quite promising. Despite keen competition in graduate labour market, I am still optimistic. Employers are very practical; they would not be prejudiced on where you graduate from so long as you could perform the given task and generate profits for them." 9EN(M)

"The government is planning to invest vastly on the transportation system, including new highways, a new railroad network, and extensions for mass transit railways and public housing estates over the coming years. Besides, the real estates market is booming and the demand for more private housing is ever rising. All these would create many jobs for us. I think the growing economy of Hong Kong should be able to absorb the increased supply of civil engineers." 2EN(M)

One student looked forward to even better opportunities and remuneration in China;

"Many manufacturing industries have moved their factories to China. If I want a well- paid job, I may station in China or else travel more often." 8EN(M)

Arts and Science Students

The Arts and Science students also said they were aware of the relative increase in competition in their graduate labour market.

“There were more than 18,000 applicants for just 175 vacancies (new Executive Officers) in government departments and many applicants were even post-graduate degree holders. Can you imagine how stiff the competition is?” 1AS(F)

To them, the problem was worsened by the declining edge of advantage in the general applicability of their programme of study. For example, Arts and Science graduates could easily enter the teaching profession to serve as untrained teachers, or enter different government departments as assistant officers, or join multi-national companies as junior trainees before 1995. But the intensified competition in the general graduate labour market gave this system a severe blow.

“In the past, we were able to serve as untrained teachers in secondary schools. This is not possible now because secondary schools prefer trained teachers. Besides, there are also graduates from the Faculty of Education. There are more barriers preventing fresh graduates from our faculty becoming teachers.” 4AS(M)

“The manufacturing sector has been downsized; they either moved to China or other developing countries to minimise costs. So, the demand for administration trainees has come down. I cannot expect too much from my first job. I will be glad if I am even employed!” 9AS(M)

Journalism Students

Journalism students seemed more optimistic despite the awareness of stiff competition in the media industry. Many of them remained calm when facing the changing scenario. Three students said,

"It is true that there is more competition in the field of Journalism. But, the number of degree holders in Journalism is still small. The media industry still places us before untrained reporters or diploma holders. Besides, many of us have established some connections during the co-operative placement." 4J(F)

"Competition will be tight. I have expected it. Fortunately, both the radio and television industries are expanding. They will need more trained people like us, especially since we are trained locally." 8J(F)

"In the past, many journalists in Hong Kong started their careers as apprentices. The current practice requires a higher standard; it normally requires a university degree and our professional qualification gives us a better edge." 5J(M)

As such, some students, especially the Arts and Science undergraduate students, inevitably lower their high expectations of economic returns (especially immediate ones) to their investment in education. Likewise, some of the education students anticipate lower pay and difficulty in getting first employment, while few medical students are concerned about the contract position rather than life-long tenure.

On the whole, the findings realistically reflect that, to a large extent, undergraduate students as reported by previous research on perceived benefits of undergraduate students such as Purcell and Pitcher (1995) and Menon (1998), are aware of the current graduate labour market. They are particularly realistic about effect produced by the expansion of higher education on their designated labour market. Students are realistically anticipating the possible lower immediate returns upon graduation as influenced by the increase in supply of graduates. This is especially true of those whose career prospects, such as engineering may be boosted by the return of Hong Kong to China. Yet, many remain positive and confident.

7.3. Students' Expectations and the Return of Hong Kong's Sovereignty to China

The return of Hong Kong's sovereignty to China was a historical milestone in the history of Hong Kong. On July 1st, 1997, Hong Kong began its administration by the SAR Government under the "One country, two systems" principle. To the international community and to the people of Hong Kong, the strict adherence to this principle was the warrant for maintenance of the political status quo and social order which in turn would promise continuous economic development in the territory.

However, the political row between the British and Chinese governments on issues over the arrangement of the political transition (Lo 1995a, 1995b), such as the interpretation of Basic Law in the process of constitutional reform, the establishment of the Provisional Legislative Council in replacing the role of the Legislative Council under British rule after the reverting of sovereignty, and the controversy over measures of maintaining judicial independence all effected the creation of a scepticism among the public towards whether or not the Chinese government would faithfully honour the "One country, two systems" principle. Although the situation had not imminently affected economic development, would it have affected students' confidence in the future of Hong Kong and their expectations towards their future careers, particularly their economic returns from higher education?

Referring back to Table 22, students who chose the two factors that are directly related to this issue, namely, "a chance to serve the future SAR government", and "a chance to serve motherland China" made up 40% and slightly lower than 40% of the whole sample respectively. The percentage, though not a majority, revealed that these students were positive about the political changeover and confident of

the two levels of government. Those who did not indicate interest will not be taken initially as showing negative feelings. They were only seen as being apathetic or having adopted a “wait and see” attitude towards the two levels of government. So it is necessary to further explore into their level of optimism towards the future development of Hong Kong.

7.4. Expectations of Career Prospects in Relation to the Social and Economic Situations of Hong Kong after July 1st, 1997

In the interview, students were invited to express their views about the social and political future of Hong Kong and how this will affect their future employment opportunities. Whether or not students possess an optimistic attitude towards the future development of Hong Kong has direct bearing on their expectations of economic returns from their education. Table 24 reveals that 26 students showed optimism, compared to 27 who were pessimistic and 7 feeling hopeless.

Table 24: Expectations of Future Employment Opportunities in Relation to the Social and Political Development of Hong Kong After July 1st, 1997

	Medical	Law	Engineering	Education	Journalism	Arts/Science	Total
Optimistic	7	4	7	5	0	3	26
Pessimistic	2	4	3	5	7	6	27
Hopeless	1	2	Nil	nil	3	1	7

A closer look at the response of students from each programme and their elaborated views is more revealing of the difference in the degree of worry among students from different programmes.

Among the vocationally-related students, those in the Medicine and Engineering fields were most optimistic about their future career opportunities. This is largely due to their conviction that their career

conditions would not be affected by the political or social conditions, whether improved or deteriorating. As one Medical student remarked,

Medical Students

"The prime duty of a doctor is to help the sick and the dying regardless of their political belief, race, or social background."

8M(F)

Another medical student even anticipated greater demand for medical services in China after its political merger with Hong Kong.

"China is a developing country with a huge population. Many people need medical attention. I could work in China." 3M(M)

Engineering Students

Most Engineering students believed that the infrastructure construction projects in Hong Kong would not slow down after the political changeover. One of them expressed in this way:

"The real estate market is booming in Hong Kong. There is also a strong demand for public housing as the population is growing rapidly. Apart from the new Hong Kong Airport and the related transportation systems which are due to be completed, many new highway projects as well as the Mass Transit Railway extension lines are prepared for launching. Meanwhile, the government needs to import skilful construction workers from overseas, not to mention civil and structural engineers. I don't think these projects would be affected by the political changes as they are aimed for the prosperity of future Hong Kong." 6EN(F)

Another said,

"I don't think China will rock the boat too hard in Hong Kong. If the political situation becomes unstable, it will affect the employers

first. If all the employers leave Hong Kong, the job market will inevitably contract. Should this really happen, China will not benefit at all. After all, the present priority of China is aimed for stability and economic development. The rapid economic development in the Pearl River delta in the last ten years is an excellent example. I don't think the Chinese Government will allow any economic retreat after tasting the benefits of economic development brought on by reforms. All in all, I trust that the demand for engineering graduates in Hong Kong will continue to grow. I am optimistic about the development of Hong Kong in the next twenty years." 8EN(M)

They all felt very sure that the demand for more housing and information technology was growing at an increasing rate. One Electrical and Electronic Engineering student was delighted that,

"Information technology and tele-communication is extremely important to the future competitiveness of Hong Kong. The power of the Internet has demonstrated its function on international learning and communication. There will be a growing demand in this regard whether Hong Kong returns to China or not. You can reach a conclusion by just looking at the popularity of mobile phone usage in Hong Kong." 5EN(M)

Yet there were some in these two fields with opposite views. Two Medical students said they were pessimistic while one even said he thought the future was hopeless.

"The future of Hong Kong is hopeless. I will continue my studies overseas in the near future." 9M(M) But this seems to be a remark based on personal attitude rather than are based on an objective consideration of social and political situation of Hong Kong.

Three Engineering students said they were worried about the possibility of an economic downturn triggered by the political change. One of their remarks was:

“The lips-and-teeth relationship between Hong Kong and China is very realistic. They are relying on each other. The rapid economic development in the past ten years may be impressive, but this totally depends on the reforming government leaders. If the ultra left faction overpowers the reformers, the entire economic policy will change again. I have some reservations about the political development in Hong Kong. The future employment markets for engineers still depend on what sort of policies the SAR Government will implement.”

8EN(M)

Students from the other three vocational related programmes were less positive. They anticipated that social and political changes in Hong Kong after 1997 would, in different ways, affect their career conditions and employment opportunities.

Education Students

The Education students were evenly divided. Five were optimistic, five were pessimistic. Among the latter group, the English language students were mostly worried that the change from an English to a Chinese medium of instruction in many schools might reduce the demand for English teachers. One English language student said,

“English language teachers are the most wanted. It is not easy to find a good English one..... But the idea of using the mother-tongue as the medium of instruction is gaining popularity. If more schools opt for using a Chinese medium of instruction, what will happen to us?”

2E(F)

The non-English language teachers were also worried that the increasing use of Putonghua (the official mainstream dialect spoken in China) in schools might in the long run replace Cantonese- (the mainstream dialect spoken in Hong Kong) speaking teachers. These students anticipated an influx of graduates from mainland China to take

up teaching posts in Hong Kong. Two students expressed their worries in rather similar ways:

"The entire education policy in Hong Kong after July 1st, 1997 is up to China. If they wanted to increase the usage and popularity of Putonghua as the medium of instruction in Hong Kong schools, they would send more Putonghua-speaking teachers to Hong Kong to replace the Cantonese-speaking ones. This would intensify the graduate labour market to an even greater extent. Besides, there is still the worry that the in-coming SAR Government would change their policy on the salary level of Hong Kong teachers. If there is a salary cut, it would be very demoralising." 3E(F)

"Hong Kong people may not be able to decide on what they would like their future to be; they simply depend on the policy of China. However, I still think teachers in Hong Kong have plenty of opportunities, because the emphasis on education is in line with the economic reform in China. One worrying factor might be the policy of using Putonghua as a medium of instruction. As most of us are not prepared to teach in Putonghua, China may gradually replace Hong Kong teachers by importing more teachers from the mainland. If this is their policy, competition in the employment market of teachers will certainly be intensified and we are definitely in the disadvantage." 7E(F)

Law Students

The Law students were more divided in attitude. Four respondents, who remained faithfully committed to their beliefs in the western legal concepts of justice, democracy, and human rights displayed a negative attitude towards hopes for a better future in the condition of their career and employment opportunities. One of them stated in this way,

"I am losing faith in the Chinese government. The promises about the political transition in Hong Kong made over the last few years were disguising. There will be no respect for human rights, democracy, or the feelings of Hong Kong people. There will be a difficult time for lawyers" 1L(F)

Another student also expressed worries;

"The economic reform in China is progressing well. But I am still a bit disappointed with the political reform and the enforcement of law to stop corruption." 8L(M)

Two students even expressed hopelessness in their view of the future SAR Government and the political situation of Hong Kong. They had chosen to emigrate should the situation become unbearable to their beliefs in law and democracy. One of them remarked,

"I do not have a fantasy about the Communist government. Their policies were erratic. Our beliefs on democracy, human rights, religion, private property rights, and rule of law are so different from theirs. I have chosen to be a lawyer because I believe in the justice of the legal system. Also, corruption in China had reached an unbearable limit. I would rather leave Hong Kong than accept a job that requires me to bury my ideals and beliefs, no matter what pay it offers." 2L(F)

On the other hand, four of the Law students sampled expressed confidence about the reforming attitude of the PRC government in terms of economic and legal development. They had faith on the prospect of China trade and maintained positive expectations towards the employment opportunities of their careers. The following remark was echoed by similar ideas.

"Though I disagree with some of the practices in the legal system in China, I trust that the Chinese government is putting a lot of effort towards enforcing and reforming the rule of law. China and Hong Kong have two different cultures; they are interacting and

mutually influencing each other. Besides, it is a matter of priority for China to maintain stability. Survival comes first. Who would want to manage a hungry and chaotic China? China has changed a lot in the last five years. There were many reforms in different areas. The continuation of an open door policy and economic reforms are good evidences that China would keep its promises about the rule of Hong Kong according to the Basic Law. I would like to join the Legal Department of the SAR government because I have high expectations of the bilingual legal system." 4L(F)

Journalism Students

The Journalism students were negative when they made a response to this question. None of them expressed optimism towards the social and political future of Hong Kong. Seven of them said they were pessimistic while the remaining three said they had no hope for the future of Hong Kong. What worried these students the most was not so much that there might be fewer prospects for employment after the political changeover; they were more worried that the existing state of freedom of speech, freedom of press, and freedom of reporting might not be maintained. They felt that if these basic journalistic principles were stripped away, it would be meaningless for them to stay in the profession.

"Censorship of the media is a general practice in China. Have you ever watched live news broadcast on T.V.? Seldom do their broadcasters make any verbal mistakes during the programme. Why? Because all the news broadcasts are pre-recorded; all the programmes are pre-screened. Should this happen in Hong Kong after the hand over, I would rather quit than work in a controlled media." 3J(F)

"Some newspapers in Hong Kong are undergoing self-censorship as the hand over date is approaching. I doubt if the

media would dare to offend the in-coming government when handling sensitive political issues. If the situation worsens, I may need to change to another profession.” 9J(F)

“Reporting truthfully is the basic principle of a journalist. If this is not allowed then what is the difference between a journalist and a writer?” 4J(F)

“We are free to criticise the government now on different social or political issues; it is part of our job to be critical. Besides, it is a common practice in a democratic society to file independent and honest reports. Even the British Government does not intervene in the reports of the British Broadcasting Company. We wonder if Radio and Television in Hong Kong might yield to the pressure of the in-coming government.” 8J(F)

“It would be very likely that future news reports would be censored by the authorities before public dissemination.” 10J(M)

“Some parts of our media are changing their ‘steering wheel’ (this is a common saying in Hong Kong which refers to a change in political attitude) to please the in-coming government. Instead of reporting news about the slow-paced democratic movement in China, they instead highlight the rapid economic development. If we want to survive in the industry, perhaps we have to follow the same line of thinking. But could we?” 7J(M)

“In the future the media industry might use political vetting as a condition of employment. They would try to avoid any unnecessary embarrassment with the in-coming government, especially over sensitive political issues. Don’t forget, the main aim of businessmen in the media industry is money-making; they are apathetic to political issues.” 5J(M)

These views clearly articulate the determination of the students to uphold their integrity as free and truthful media workers. Their worry was that the future conditions of their career may not allow room

for their persistence in this respect. Many students expressed the possibility of having to change their career if the freedom to report was curtailed or removed. In this way, the political issue was a barrier that prevented them from having high expectations of their education and careers.

Arts and Science Students

As for the non-vocation related Arts and Science group, students also shared the pessimism of some of the Law and Education students. Seven of them expressed negative views. However, their concern was more directly related to the economic future of Hong Kong rather than the future conditions of any specific field of career; the economic future of Hong Kong would determine their employment opportunities. Arts and Science students worried that political uncertainty would lead to economic uncertainty; they feared any major structural change to the economic practices of Hong Kong. The following are some of their remarks.

“Who would know if they can keep the promise of the Basic Law? Their creditability in abiding to the law is low. If private property rights cannot be honoured, the economy would tumble. It would then affect our employment opportunities.” 2AS(F)

“A free market economy and a low tax rate are the hallmark of Hong Kong’s success. Our present economic system is basically free from any government intervention. I wonder if the in-coming government would assert any control over the present system. Should freedom disappear from Hong Kong, the place would lose its attraction to foreign investors. Then everything in Hong Kong would be affected, including our employment opportunities.” 4AS(M)

The remaining 3 students maintained optimistic views towards their career prospects. But their optimism was not based on positive

expectations of stable political development or continued economic growth in Hong Kong. Rather, they claimed that they would maintain their present attitude towards employment opportunities regardless of socio-economic and political uncertainties.

"Good or bad, this is the place where I was born. July 1st, 1997 is not the end of Hong Kong. It may even be a good beginning! No matter what happens, I will continue to live and work here. I will try my best to make good use of what I learn from the university so that I can contribute to society." 7AS(M)

"What other choice do I have? I have no migration plan. There is no such opportunity. I will get a job here anyway." 8AS(M)

"I have confidence that there will still be lots of opportunities, especially when more migration takes place." 3AS(M)

The above report reveals that Hong Kong students were "half and half" divided between being positive and negative about future social and economic changes and their possible impact on their respective careers. Those who were positive believed that the political changeover in Hong Kong in 1997 either promised steady development or would not affect the present development in Hong Kong's economy and society: lots of opportunities remained for them. Maybe they are the ones who would be glad to serve the SAR government or motherland China. Hence, they maintained high expectations of the long term returns from their education. Those who were negative may have foreseen specific uncertainties in the political and legal systems, as well as in education policies, which would have a direct impact on their perception of the future of their careers. They were less sure if their education could bring as many benefits to them. Some even worried that they may need to change their career. Once again, the crux of the matter of this entire issue on expectations of future career prospects in relation to the social and economic situations of Hong Kong after July 1st, 1997, was precisely on whether the students

maintain a positive view of the political future of Hong Kong. This perception varied. It was based entirely on how an individual assessed the situation pending on individual experience and political value judgement. Certainly, this issue is beyond the scope of this present paper to explore. Yet, the responses indicate that the political future of Hong Kong has indeed been affecting the decision making process of the undergraduate students.

7.5. Summary

The interview findings suggest that with the exception of Education students, most of the students were reserved about immediate economic returns but maintained expectations for good, long-term economic benefits from their education. At the same time, many students also displayed concern for different aspects of non-economic returns. It appears that students were realistically aware of the intensified competition in the graduate labour market and other changes in the condition of mode of different professions. They also understood the possible impact the political, social, and economic changes in Hong Kong after the 1997 change of sovereignty, would make on their career prospects. Yet, the degree of detected worry varied, depending on the individual's own political attitude on the nature and extent of changes they anticipated.

CHAPTER EIGHT

Report and Analysis of Data: Questionnaire Survey

8.0. Introduction

This chapter reports on and analyses the questionnaire survey findings obtained from 731 sampled higher education students. This survey was conducted in March, 1999. As mentioned in Chapter 5, the questionnaire for the present survey was modified from the questionnaire used by Purcell and Pitcher in the United Kingdom in 1995. Some of their classification tools were adopted. This new questionnaire survey serves to probe into students' motivations for pursuing higher education; their opinions on increasing costs and the changing labour market; the skills and competence level they expect to develop from higher education, and the long-term values and personal attitudes they hope to glean from their education. The aim is to cross-check with the findings of the interview conducted in 1997 to what extent students' expectations for benefits from higher education have changed due to increased costs and competition, political uncertainties and economic downturn. To a certain extent, it may be considered as a strategy to verify, compare and distinguish, if any, major differences of the two findings based on different approaches at different time frames, that is, the political changeover in 1997 and the Asian Economic Crisis in 1999.

8.1. Samples of the Respondents

Figure 13 illustrates the distribution of respondents by area of study. This distribution corresponds well with the number of undergraduate places offered by different fields of studies in all higher education institutions in Hong Kong --- with Arts and Science (the non-vocational related subjects) students forming the largest group, followed by Engineering and the rest. The total number of sampled students is 731.

Figure 14 illustrates that 44.4% of the sample is male and 55.6% is female.

Figure 13: Distribution of respondents by area of study

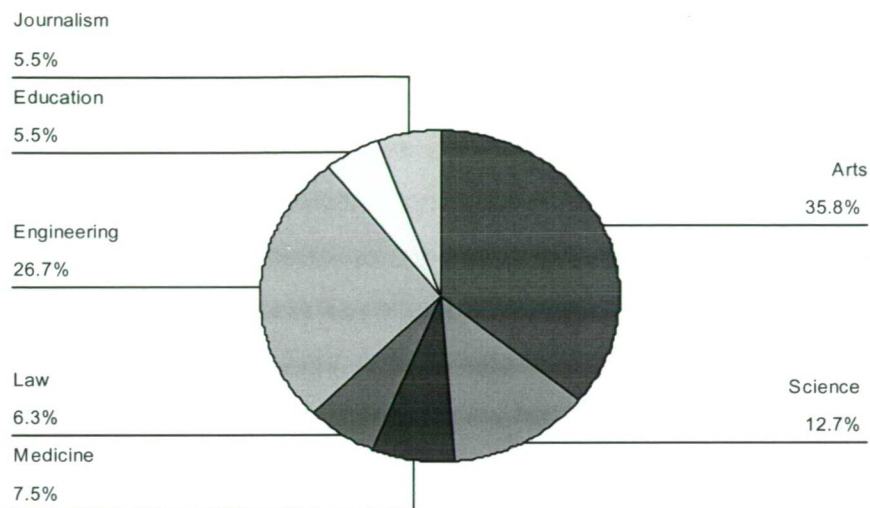


Figure 14: Gender of the Respondents

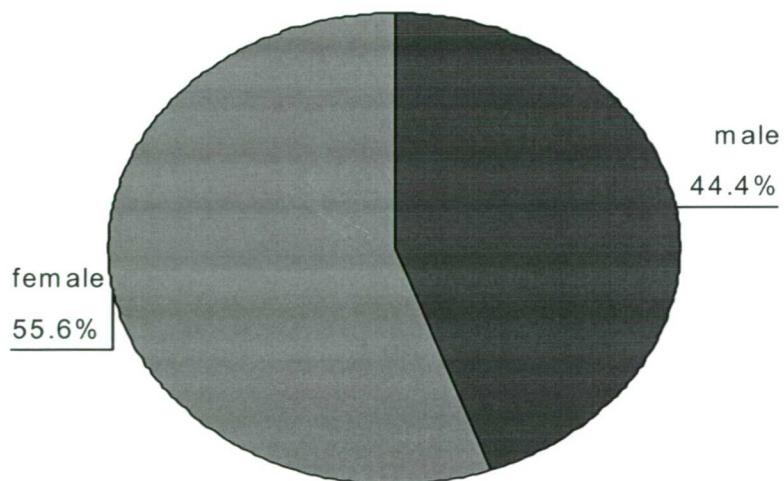
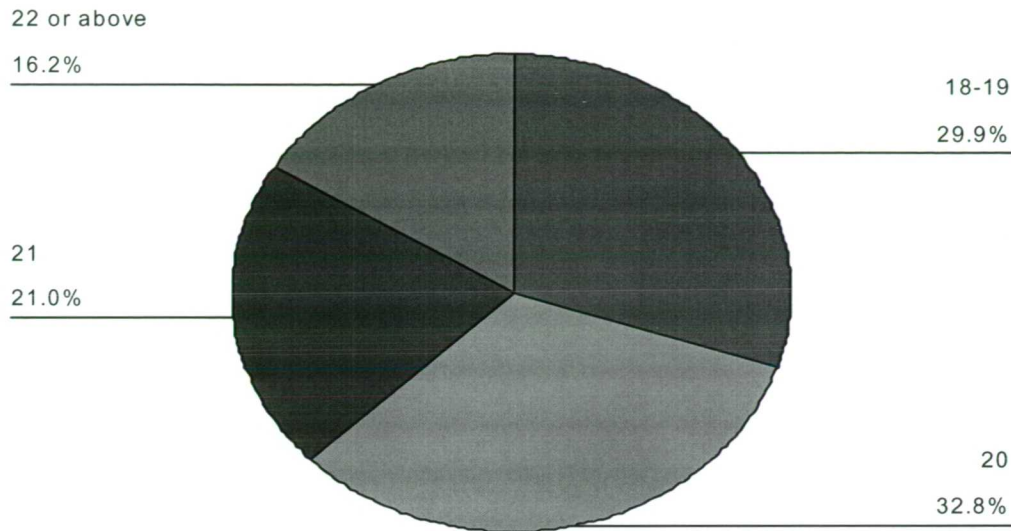


Figure 15: Age Distribution of the Respondents



As students were not required to indicate their current year of study in the questionnaire, it was assumed that the 18-19 age group were Year I students; the 20 age group were Year II, and the 21 and 22 and over age groups were Year III. The distribution of respondents in terms of age is shown in Figure 15. This sample is considered to be satisfactory as there was a rather even distribution in terms of the students' current year of study.

The family background of the respondents are categorised into three main groups. They include:-

- a. Higher Income Group : 7%
(with father as a doctor, accountant, or another type of professional)
- b. Middle Income Group : 38.3%
(with father as a teacher, merchant, manager, and others)
- c. Lower Income Group : 54.7%
(with father as a worker, driver, cleaner, and others)

The majority of respondents came from the middle or lower income group families. This sampling certainly predetermined the results of our exploration on students' perceptions on the cost of education. It could be anticipated that most students regard the cost of education as high, but one should notice that the sample distribution by family background corresponded closely with the distribution of the total population of students by family background. So, the findings regarding this issue should be highly reliable.

Figure 16: Distribution of respondents by institution

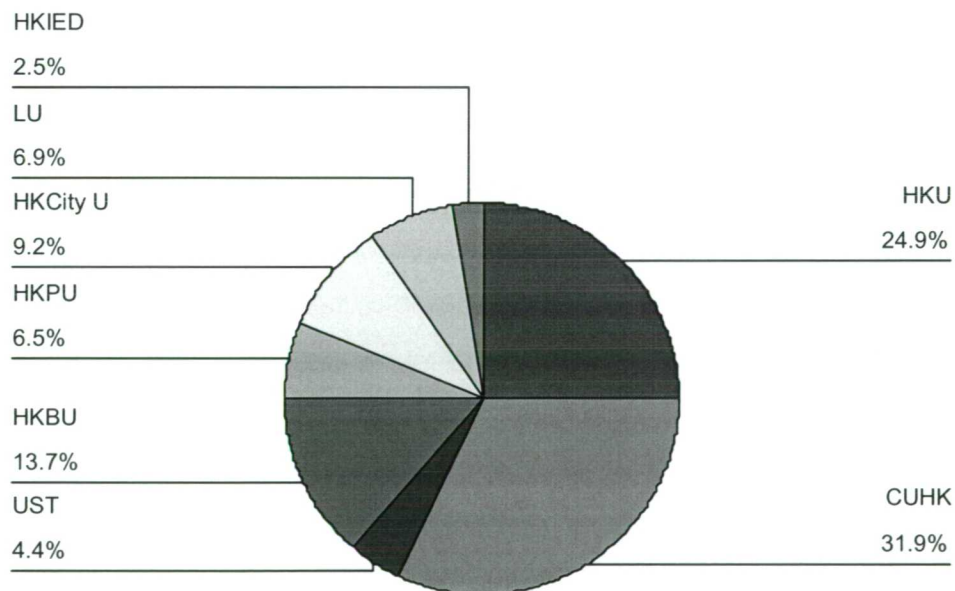


Figure 16 illustrates the distribution of respondents by institutions. The institutions with the highest responding rate are CUHK and HKU. They are also the two most populated universities in Hong Kong. Table 25 illustrates the availability of programmes among institutions in the present study. HKU and CUHK offer more programmes of study than the other

institutions. Both offer 6 out of 7 programmes in the present study, while the other institutions offer less programmes. For example, the HKIEd only offers 120 Bachelor of Education programmes and Lingnan College (now University of Lingnan) only offers Arts programme, therefore making their student sample smaller.

Table 25: Availability of the 6 fields of study in the eight UGC funded institutions

Institution/subjects	Medicine	Law	Engineering	Education	Journalism	Arts	Science
HKU	*	*	*	*		*	*
CUHK	*		*	*	*	*	*
UST			*				*
HKBU					*	*	*
HKPU			*			*	*
HKCityU		*	*				*
LC						*	
HKIEd				*			

On the basis of the above accounts, it is believed that the collected data is a reliable representation of the full diversity of students in terms of gender, year of study, family background, and area of study.

8.2. Questionnaire findings

The questionnaire (Appendix Two) was designed to gather information relating to these five issues:

- (1) Students' motives for investing in higher education, their career intentions and choice of programme;
- (2) Students' opinions on the increase in tuition fees and the higher interest of student loans;
- (3) Students' opinions on the graduate labour market;
- (4) Students' perception of future employers' expectations;
- (5) Students' aspirations for career development and long term life goals.

The findings are elaborated in the following.

8.2.1. Students' Motivation for Higher Education

The first task of the survey is to examine the students' motivation when pursuing higher education. This aimed to verify whether students' choice of programme and institution, as reported in the interview in 1997, are mostly economic related.

In Question 1, a total of 9 statements about the reason for undertaking higher education, ranging from career-oriented motivation to passive acceptance motivation, are given. Students were invited to make free choices of all the statements they thought applicable to their situations.

The classification tool used by Purcell and Pitcher (1996) was adopted with a slight modification for this survey. The three classifications into 'pragmatic', 'hedonistic' and 'fatalistic' motivations were maintained. In this study, pragmatic motivation refers to an economic-oriented motivation, that is, beliefs that the degree would lead to better career prospects. Hedonistic motivation refers to intrinsic interest or enjoyment of the subject as well as positive motivations which are clearly non-pragmatic in nature; fatalistic motivation refers to negative or passive motivations. Three of the given statements have been singled out as indicators of three different kinds of motivation. But this was not made known to the students.

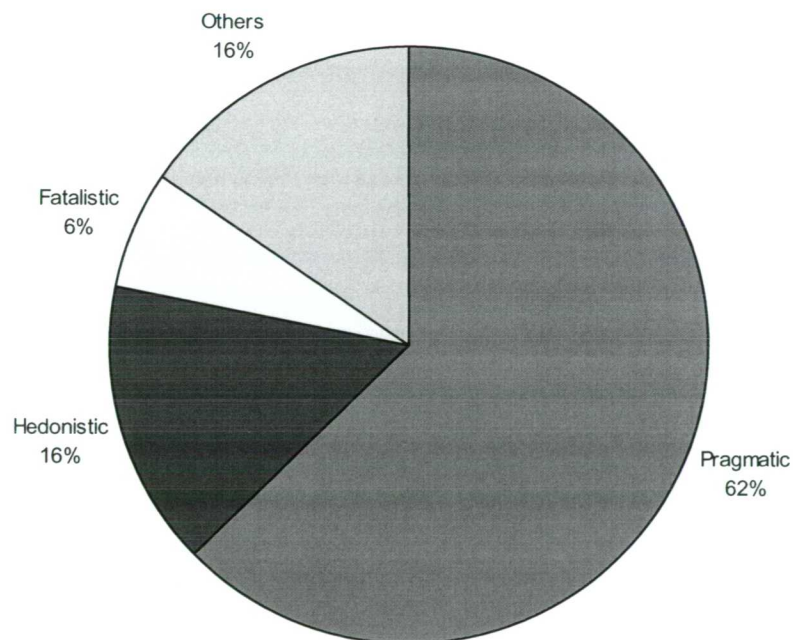
Statement a:- "My degree programme will enable me to get the kind of job or training opportunity I wanted" is the indicator of pragmatic motivation; meaning students are primarily relating higher education to longer-term career plans (economic related factor).

Statement f:- "I did not undertake my programme or degree for employment-related reasons" is the indicator of non pragmatic (hedonistic) motivation.

Statement i:- “I have to enter this programme because my parents want me to do so” is the indicator of fatalistic motivation; meaning students undertake higher education for passive reasons.

Figure 17 shows the total number of responses made to each of these 3 statements.

Figure 17: Main reasons for choice of courses and programmes



455 students agreed with Statement a, 114 agreed with Statement f, and 46 agreed with Statement i. Though a small number of students have opted for more than one answer, these findings suggest that a majority of students undertook higher education based on the economic consideration that it would benefit them in their future careers. This finding corroborates

the finding from the interview in 1997, that the majority of students' choice of programme and institution is based largely on economic considerations. Table 26-28 shows the percentage of responses made to each of the 3 statements by students in different areas of study.

Table 26: Pragmatic Students by Area of Study (Statement a)

	Medicine	Law	Engineering	Education	Journalism	Arts	Science	Total
Count	44	36	122	33	30	141	49	455
Yes	9.7%	7.9%	26.8%	7.3%	6.6%	31%	10.8%	100%
<i>Percentage opting yes by subject area</i>	80%	78.2%	62.8%	82.5%	75%	54.2%	52.6%	

Table 27: Hedonistic Students by Area of Study (Statement f)

	Medicine	Law	Engineering	Education	Journalism	Arts	Science	Total
Count	3	1	21	1	7	62	19	114
Yes	2.6%	0.9%	18.4%	0.9%	6.1%	54.4%	16.7%	100%
<i>Percentage opting yes by subject area</i>	5.4%	2.1%	10.8%	2.5%	17.5%	23.8%	20.4%	

Table 28: Fatalistic Students by Area of Study (Statement i)

	Medicine	Law	Engineering	Education	Journalism	Arts	Science	Total
Count	7	4	7	4	1	17	6	46
Yes	15.2%	8.7%	15.2%	8.7%	2.2%	37.0%	13.0%	100%
<i>Percentage opting yes by subject area</i>	12.7%	8.6%	3.6%	10%	2.5%	6.5%	6.4%	

*The figures reported in the above tables do not include the missing counts. The figures are valid percentages only.

By field of study, more vocation-related students show pragmatism than the Arts and Science ones (See Table 26). On the other hand, more Arts and Science students show they are hedonistically motivated (See Table 27). These two results match quite well with the interview findings, that vocational-related students are more pragmatic in their career

expectations. Arts and Science students, owing to the non-career specific nature of their programme, are less certain of their employment opportunities and/or future career conditions. They therefore tend to show more care for non-pecuniary return of pursuing education than pecuniary returns when compared to vocational-related students.

The finding regarding the fatalistic motivation, shown in Table 28, indicates that there are students who have been passively 'drawn' into their programme among both vocation-related and non-vocation related students. The interesting point is that the percentages of vocational -related students such as Medicine (12.7%), Law (8.6%) and Education (10%) who are fatalistic are relatively higher than that of the Arts and Science students. These figures are quite reflective of parental influence on students' choice of higher education and programmes especially when the programmes concerned enjoy high social reputation. This echoes a similar finding of the interview survey.

Question 2 further explores into the pragmatism of the students in taking the course of study. Table 29 illustrates students' responses to this question.

Table 29: Difference in students' pragmatic expectations (by area of study)

Students opt to Develop More Specialist Skills and/or Knowledge (by area of study)		MED	LAW	ENGG	EDUC	JOUR	ART	SCI	Total
	Count Yes	45 9.8%	36 7.8%	130 28.3%	25 5.4%	32 7.0%	139 30.3%	52 11.3%	459 100%
	Percentage opting yes by subject area	83.3%	78.2%	66.6%	62.5%	80%	53%	55.9%	
Students opt to Prepare for a Career (by area of study)		MED	LAW	ENGG	EDUC	JOUR	ART	SCI	Total
	Count Yes	40 9.5%	38 9.0%	109 25.8%	33 7.8%	25 5.9%	130 30.7%	48 11.3%	423 100%
	Percentage opting yes by subject area	74.4%	82.6%	55.8%	82.5%	62.5%	49.6%	51.6%	
Students opt Higher Education Would Improve Job Prospects (by area of study)		MED	LAW	ENGG	EDUC	JOUR	ART	SCI	Total
	Count Yes	17 7.3%	4 1.7%	64 27.6%	17 7.3%	18 7.8%	83 35.8%	29 12.5%	232 100%
	Percentage opting yes by subject area	31.4%	8.6%	32.8%	42.5%	45%	31.6%	31.1%	
Students opt Successful Completion of the Course as a Prerequisite for Entering Chosen Career (by area of study)		MED	LAW	ENGG	EDUC	JOUR	ART	SCI	Total
	Count Yes	29 11.9%	32 13.1%	62 25.4%	13 5.3%	17 7.0%	67 27.5%	24 9.8%	244 100%
	Percentage opting yes by subject area	53.7%	69.5%	31.7%	32.5%	42.5%	25.5%	25.8%	

Abbreviation: MED: Medicine, LAW: Law, ENGG: Engineering., ENGG: Engineering, EDUC: Education, EDUC: Education, JOUR: Journalism, ART: Arts, SCI: Science

*The figures reported in the above tables do not include the missing counts. The figures are valid percentages only.

Options b (to develop specialist skills/knowledge), c (to prepare for a career), d (to improve job prospects), and e (to enter a chosen career) were clearly career-related reasons. While the percentage of responses to Options d and e are not as high as expected, the responses to Options b and c appear to correspond largely to the pragmatic orientation of the students as reflected in their responses to Question 1. Again, the degree of pragmatism is generally higher among vocational-related students than Arts and Science students.

In a breakdown of the findings by gender by a Chi-square analysis (Table 30), the findings show that there is significant difference in only 2 of the reasons for choice of courses; first in “to develop more specialised skills and or/knowledge” (option b) and second in “I was interested in the

content of the course” (option f). For option b, the Chi-square value is 4.63 and the p-value is 0.031, smaller than 0.05 significance level (α level). The results demonstrate that there are differences of responses between genders. This indicates that slightly more female students do not consider developing more specialised skills and or knowledge as an important reason behind their choice of programme.

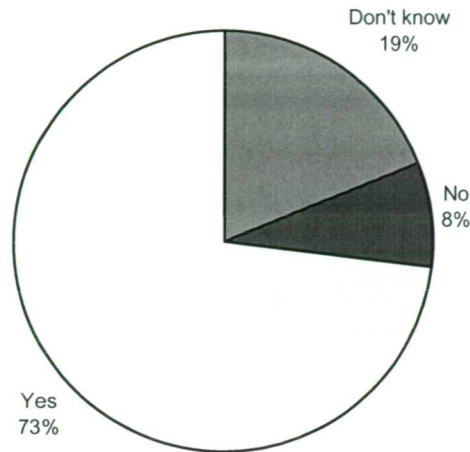
For option f, the Chi-square value is 9.882 and P-value is 0.002. More female students choose their programmes for their interest in the content. These findings indicate that more female students than male ones are driven by hedonistic motivation in their pursuit for higher education.

Table 30: Difference in response between gender on reasons for courses

Q2(b) to develop more specialized skills and or/knowledge		Male	Female
	<i>Yes</i>	263 (47.0%)	296 (53.0%)
	<i>No</i>	148 (39.9%)	223 (60.1%)
		$\chi^2 = 4.630$	p-value = 0.031
Q2(f) I was interested in the content of the course		Male	Female
	<i>Yes</i>	172 (38.8%)	271 (61.2%)
	<i>No</i>	239 (49.1%)	248 (50.6%)
		$\chi^2 = 9.882$	p-value = 0.002

In Question 10, students were asked if they thought the possession of a degree is a requirement for obtaining work in the future. Figure 18 shows the percentages of different responses to this question.

Figure 18: Students' view on whether the possession of a degree is a requirement for obtaining the future job



73% of all respondents gave positive responses, which once again reflects that students maintain economic motives for pursuing higher education. They realise that a university qualification have now become a common prerequisite or a bench mark qualification for a job in the knowledge-based global economy. This signifies their awareness that personal investment in higher education is a necessary 'gateway' to their future career. They are thinking of higher education as an investment for some gains to be reaped in future.

When breaking down the results by subjects by Chi-square analysis (Table 31), the Chi-square is 43.056, the P-value is 0.000, which is smaller than the significance level—0.05. It demonstrates differences of opinions among students of different subjects. Interpretation of the data is rather complicated in this case as one cannot just take the face value of the percentages for granted. One needs to take into the consideration that the percentages are actually determined by the total student population of the subject group. That is, as the Arts students make up 35.8% of the total

student sample (as shown in Figure 12), the percentage of the Arts students, whether responding 'yes', 'no', or 'I don't know' would be higher than for instance, the percentage of Education students who make up only 5.5% of the total sample. Bearing this factor in mind, the percentages (by subject) in Table 31 are interpreted relative to the percentages of student population of each subject shown in Figure 13.

An obvious pattern found is that Medicine, Law and Education students are more likely to agree with the view that possession of a degree is a requirement for obtaining the future job. This can be partly interpreted by the slightly higher percentages of students who opted 'yes' relative to the sampled student percentage of the three subjects. The significantly lower percentages of students who opted 'no' or 'I don't know' relative to the sample percentage of the three subjects could help reinforce this interpretation. Comparatively, Arts and Science students are clearly less certain of the said view. While a portion of them, corresponding to the percentage of Arts and Science students in the sample, opted 'yes', a higher (relative to the sampled Arts and Science students) percentage opted 'no', and an even higher relative percentage of Arts students opted 'I don't know'. These findings hint that the vocation-related students in Hong Kong are very certain of the relation between higher education and their future jobs/careers. On the other hand, the non-vocation related ones are either less certain of the relation between higher education and their future careers or that they are less concerned with the practical value of higher education – a prerequisite for the future job. This latter interpretation matches with a previous finding that non-vocational students in Hong Kong are less pragmatic than students of other subject groups, especially the narrowly vocation-related ones.

Table 31: Difference in students' view on whether the possession of a degree is a requirement for obtaining the future job by subject area

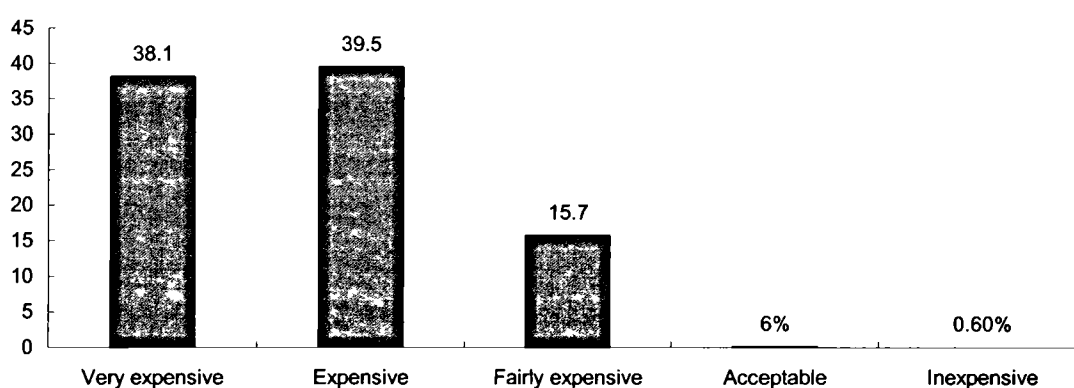
		Arts	Science	Medicine	Law	Engineering	Education	Journalism
Q10	Yes	34.0%	12.3%	9.8%	8.1%	24.3%	6.6%	4.9%
	$\chi^2 = 43.056$				p-value = 0.000			

8.3. Perceptions of Increasing Cost of Higher Education

5 questions were set to determine students' perceptions of the increasing cost of higher education, the students' actual financial situation, and how they tackled the increased cost.

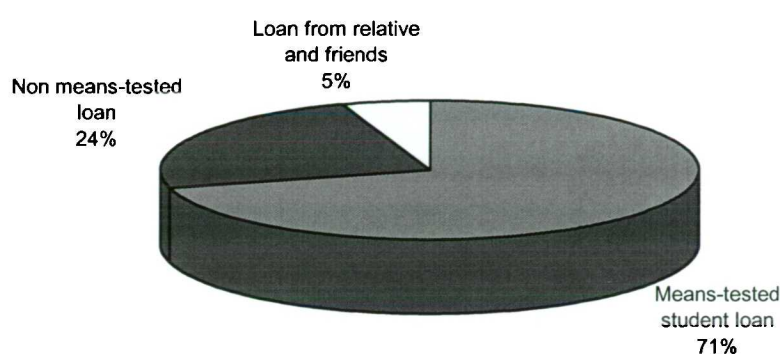
In Question 3, we asked students to express their opinions on the tuition fees. Over 93% of the respondents described it as expensive (including very expensive, expensive, and fairly expensive). As the findings correspond closely with the percentage of (93%) students coming from middle or lower-income family backgrounds, it is inferred that students who come from the less affluent families would show more objection to the increasing cost since it would affect them directly. Figure 19 illustrates this landslide majority view as compared with those who regard the tuition fees as acceptable or inexpensive.

Figure 19: Students' Opinions on Current Tuition Fees



As gathered from the questionnaire, 67.8% or 633 respondents have obtained a loan, either from the government or from other sources such as friends or relatives. Figure 20 shows the distribution of students by type of student loan.

Figure 20: Distribution of Students by Type of Student Loan

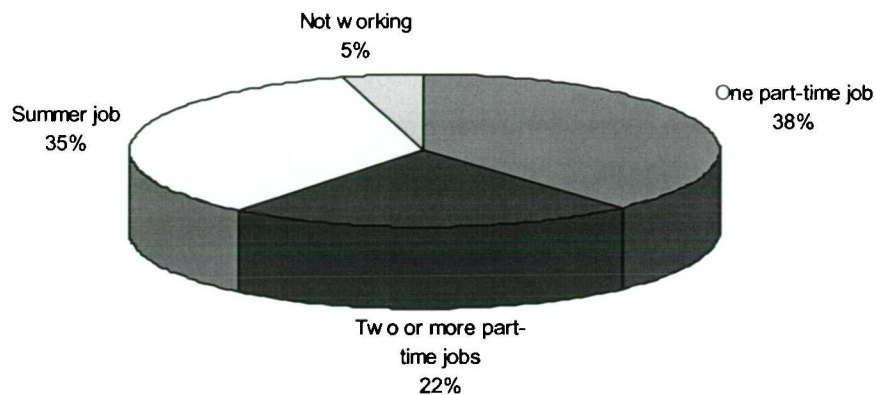


Among those who applied for a government loan, 515 students said they obtained a means-tested student loan in their response to Question 4. The fact that so many students have applied for mean-tested loan indicates a problem: basically that the other type of student loan—that is, the non means-tested one-- is unattractive due to its 5 percent higher interest rate. In fact, the high percentage of positive responses (87.4%) to Question 5 - which asks whether students think the non-means tested loan interest rate is too high - accurately reflects and identifies the problem of this loan scheme.

Figure 21 illustrates the distribution of students by means of repaying debts (not student loan). The fact that only 5% of students do not have to resort to working part-time to repay debts suggests that the

majority of students are severely pressured economically. This added pressure could have adverse effects on their studies and other hedonistic educational activities such as joining academic or social clubs.

Figure 21: Distribution of Students by Means to Repay Debt



So far, there appears to be strong evidence that higher education students in Hong Kong are being pressured by the increasing cost of their schooling. They regard the tuition fees as expensive, the interest rate of the student loan high, and most of them had to resort to part-time jobs to cover the expenses of higher education.

8.4. Perceptions of the Graduate Labour Market

The questionnaire contains 2 related questions - Questions 8 and 9 - that are intended to determine students' perceptions of the graduate labour

market. Both questions require students to choose the statement(s) - which include some worry indicators - most appropriate to their own situation. Table 32 illustrates the responses to each statement from Question 8.

Table 32: Students' views regarding the graduate labour market

a. The graduate labour market is very competitive.	71.8%
h. There is an oversupply of undergraduates.	50.4%
b. There are few suitable jobs available.	39%
f. I expect a low economic return in the next few years but a higher return in the long term.	33.8%
g. When the economy recovers, there will be plenty of good jobs.	29.8%
c. I will apply for postgraduate study if I cannot find a suitable job.	24%
d. I don't think I will have problems getting a job.	11.9%
e. My studies have nothing to do with my career.	10.2%

The most popularly chosen statement is Statement a, indicating a high degree of awareness that the graduate labour market is becoming very competitive. This sense of anxiety is echoed inversely by 12% of respondents who agreed with the Statement d, "I don't think I will have problems finding a job.", which implies that about 88% of the students thought they might have problems finding a job. Half of the respondents also believed that there was an oversupply of undergraduates (Statement h). These are all evident signals of worries. The relatively low percentages for Statements f and g (33.8% and 29.8% respectively) also do not correspond positively to the majority impression of optimism shared by students interviewed in 1997. It is highly likely that the economic crisis which occurred since November, 1997 had produced a deeper gloomy picture about the economic future of Hong Kong that more students by 1999 were less confident of the economic returns of higher education.

To examine the findings more closely by looking at the different responses between different institutions and different subject programmes, Cramer's V analysis¹ is applied. This aims to uncover whether and how

¹ Cramer's measure of association (V): It measures the strength of association for nominal data arranged in a table larger than 2x2. Cramer's V has a range between 0 to +1, it is easier to interpret the data by using this method than the other measures.

the sense of gloom and worries varies by different institutions and different subject programmes. Out of all the responses to the eight statements, there is only significant difference in four. They are statements b, e, f, and h. Findings of Cramer's V analysis are shown in Tables 33-38 and respective interpretations are given in the following.

Statement b is "There are few suitable jobs available.", agreeing with the statement is an indication of pessimism. There is significant difference in the views of Arts, Medicine, Law, and Engineering students from different institutions (See Table 33). Of Arts students who agree with the statement, almost half comes from CUHK, over 20% comes from LU and HKU. There are rather high percentages compared with the other figures. However, it does not necessarily mean that these Arts students are more pessimistic about the job availability. It needs to be recalled that both HKU and CUHK have large Arts student population while LU offers only Arts programme. The sample of Arts students from these institutions is relatively high. Bearing this in mind, it is inclined to suggest that in general, Arts students are not so positive about their employability. On the contrarily, when turning to those who disagree with the statement, the highest percentages are obtained from CUHK and HKU. This is probably due to the fact that these two institutions enrol, among others, the best students --- those of highest ability in the subject group. Their disagreement with this statement probably illustrates confidence of their core competence in suiting many jobs. As for the Medical students, actually there is not much marked difference between the opinion of HKU and HKCU students. Among the Engineering students, fewer HKU students agree with the statement, indicating greater level of confidence than students from other institutions. (The percentage of HKPU is not considered because of too small a sample size.) This is probably due to the fact that the higher ability students (with higher A-Level results) gather in HKU, the most prestigious and demanding institution in admitting students. Students there are more

confident with their competitiveness. So they don't agree that there are few jobs available.

Table 33: Difference in students' responses regarding "There are few jobs available." by institutions and subject group

Q8 (b) There are few suitable jobs available		HKU	CUHK	UST	HKBU	HKPU	HK CityU	LU	HKIEC																								
Arts	Yes	14.9%	28.9%	13.2%		9.6%	1.8%	31.6%																									
Science	Yes	18.2%	59.1%		6.8%	4.5%	11.4%																										
Medicine	Yes	52.9%	47.1%																														
Law	Yes	23.1%					76.9%																										
Engineering	Yes	12.9%	30.0%		24.3%	2.9%	30.0%																										
Education	Yes	37.5%							62.5%																								
Journalism	Yes				100%																												
$\chi^2 = 20.745$				p-value = 0.008		Cramer's V																											
						<table><tr><th></th><th><u>V</u></th><th><u>P-value</u></th></tr><tr><td>Arts</td><td>0.251</td><td>0.006</td></tr><tr><td>Science</td><td>0.272</td><td>0.149</td></tr><tr><td>Medicine</td><td>0.292</td><td>0.032</td></tr><tr><td>Law</td><td>0.379</td><td>0.012</td></tr><tr><td>Engineering</td><td>0.223</td><td>0.049</td></tr><tr><td>Education</td><td>0.118</td><td>0.762</td></tr><tr><td>Journalism</td><td></td><td></td></tr></table>					<u>V</u>	<u>P-value</u>	Arts	0.251	0.006	Science	0.272	0.149	Medicine	0.292	0.032	Law	0.379	0.012	Engineering	0.223	0.049	Education	0.118	0.762	Journalism		
	<u>V</u>	<u>P-value</u>																															
Arts	0.251	0.006																															
Science	0.272	0.149																															
Medicine	0.292	0.032																															
Law	0.379	0.012																															
Engineering	0.223	0.049																															
Education	0.118	0.762																															
Journalism																																	

Table 34 illustrates the Cramer's V finding on statement 8 (e), "My studies have nothing to do with my career". Agreeing with this statement implies a hedonistic attitude towards studies. The findings show that only the P-value of the Arts students is less than 0.05, the significance level. It indicates that these are differences in responses from Arts students of different institutions. Among all the institutions that offer Arts programs, a far higher percentage of students (63.5%) from CUHK agree that their studies have nothing to do with their career. It can be argued that Arts students from CUHK are likely to be more hedonistic than those from other

institutions.

Table 34: Difference in Students' responses regarding "My studies have nothing to do with My career." by institutions and subject groups

Q8(e) My studies have nothing to do with my career		HKU	CUHK	UST	HKBU	HKPU	HKCityU	LU	HKIEd																								
Arts	Yes	13.2%	52.6%	7.9%		7.9%		18.4%																									
Science	Yes	15.0%	50.0%		10.0%		25.0%																										
Medicine	Yes	33.3%	66.7%																														
Law	Yes	50.0%					50.0%																										
Engineering	Yes	22.2%	22.2%		11.1%		44.4%																										
Education	Yes	35.9%	5.1%						59.0%																								
Journalism	Yes				100%																												
$\chi^2 = 26.672$			p-value = 0.000			Cramer's V																											
						<table><tr><td></td><td><u>V</u></td><td><u>P-value</u></td></tr><tr><td>Art</td><td>0.302</td><td>0.000</td></tr><tr><td>Science</td><td>0.238</td><td>0.273</td></tr><tr><td>Medicine</td><td>0.211</td><td>0.122</td></tr><tr><td>Law</td><td>0.01</td><td>0.947</td></tr><tr><td>Engineering</td><td>0.161</td><td>0.295</td></tr><tr><td>Education</td><td></td><td></td></tr><tr><td>Journalism</td><td></td><td></td></tr></table>					<u>V</u>	<u>P-value</u>	Art	0.302	0.000	Science	0.238	0.273	Medicine	0.211	0.122	Law	0.01	0.947	Engineering	0.161	0.295	Education			Journalism		
	<u>V</u>	<u>P-value</u>																															
Art	0.302	0.000																															
Science	0.238	0.273																															
Medicine	0.211	0.122																															
Law	0.01	0.947																															
Engineering	0.161	0.295																															
Education																																	
Journalism																																	

Table 35 shows the Cramer's V's finding on statement 8(f) on "I expect a low economic return in the next few years but a higher return over the long run". Agreeing means acceptance of a lower immediate economic return but an expectation for better long term benefits. The findings demonstrate that the only P-value of the engineering student is smaller than the significance level 0.05. HKU and CUHK Engineering students, the elitist group in terms of ability and examination result, appear more realistic of their present situation.

Table 35: Difference in students' responses regarding "I expect a low economic return in the next few years but a higher return over the long run." by institutions and subject groups

Q8(f) I expect a low economic return in the next few years but a higher return over the long run.		HKU	CUHK	UST	HKBU	HKPU	HKCityU	LU	HKIEd
Arts	Yes	13.1%	20.2%	15.5%		16.7%	2.4%	32.1%	
Science	Yes	16.7%	58.3%			8.3%	16.7%		
Medicine	Yes	90.0%	10.0%						
Law	Yes	45.5%					54.5%		
Engineering	Yes	27.9%	34.4%		13.1%	6.6%	18.0%		
Education	Yes	37.5%							62.5%
Journalism	Yes				100%				
$\chi^2 = 24.86$			p-value = 0.0002			Cramer's V			
						V		P-value	
						Arts		0.124 0.559	
						Science		0.193 0.493	
						Medicine		0.189 0.164	
						Law		0.137 0.365	
						Engineering		0.298 0.002	
						Education		0.168 0.762	
Journalism									

They understand that owing to the economic situation, they have to accept a lower immediate return. But they have faith on a better return in the long run. Students from the other institutions may not be so confident of the long term return.

Table 36 shows Cramer's V's finding regarding statement 8(h) on "There is an oversupply of undergraduates". Agreeing with this statement indicates worry about future employment. Response to this statement can be used to check with response to statement b "There are few jobs available". The findings show that only the P-value of Arts student is 0.005, smaller than the significant level of 0.05. This is interesting compared with findings about statement b, where differences are found also in

vocation-related subject groups. This seems to suggest that Arts students are not only worried about the supply of jobs, but also the oversupply of graduate employees looking for jobs. This is understandable when one takes into account the much larger Arts student population than the vocation related student population. The findings also show that HKU Arts students are less affected by this worry.

Table 36: Difference in students' responses regarding "There is an oversupply of undergraduates." by institutions and subject groups

Q8(h) There is an oversupply of undergraduates		HKU	CUHK	UST	HKBU	HKPU	HKCityU	LU	HKIEd																								
Arts	Yes	14.4%	26.5%	20.5%		12.9%	4.5%	21.2%																									
Science	Yes	22.7%	50.0%		6.8%	2.3%	18.2%																										
Medicine	Yes	67.9%	32.1%																														
Law	Yes	40.0%					60.0%																										
Engineering	Yes	24.0%	36.0%		21.3%	4.0%	14.75%																										
Education	Yes	50.0%	4.2%						45.8%																								
Journalism	Yes				100%																												
$\chi^2 = 18.277$				p-value = 0.019		Cramer's V																											
						<table><tr><td></td><td><u>V</u></td><td><u>P-value</u></td></tr><tr><td>Arts</td><td>0.222</td><td>0.027</td></tr><tr><td>Science</td><td>0.274</td><td>0.145</td></tr><tr><td>Medicine</td><td>0.101</td><td>0.457</td></tr><tr><td>Law</td><td>0.282</td><td>0.062</td></tr><tr><td>Engineering</td><td>0.183</td><td>0.17</td></tr><tr><td>Education</td><td>0.372</td><td>0.067</td></tr><tr><td>Journalism</td><td></td><td></td></tr></table>					<u>V</u>	<u>P-value</u>	Arts	0.222	0.027	Science	0.274	0.145	Medicine	0.101	0.457	Law	0.282	0.062	Engineering	0.183	0.17	Education	0.372	0.067	Journalism		
	<u>V</u>	<u>P-value</u>																															
Arts	0.222	0.027																															
Science	0.274	0.145																															
Medicine	0.101	0.457																															
Law	0.282	0.062																															
Engineering	0.183	0.17																															
Education	0.372	0.067																															
Journalism																																	

Question 9, asks students' views on first employment opportunities. Table 37 illustrates the response to each statement in that question. Statements c and d are statements reflecting more positive attitudes. Statement a and b reflect confidence. Statements e and f reflect different degrees of desperation.

Though the percentages in support for statement c and d are not high, it is still an encouraging sign that most students adopted a positive attitude towards their first employment. However, few are confident of their first employment opportunities. The percentages supporting statement a and b are both very low. Despite this, not too many of the students opted statements e and f which display desperation. No attempt was made in the questionnaire to investigate into the reasons behind their lack of confidence in first employment opportunities. Yet, it is possible to make an inference by referring to the political and economic situation of the time when the questionnaire survey was conducted. As far as the political situation is concerned, the 1997 change of sovereignty issue did not seem to have any negative impact on Hong Kong. To a large extent, the capitalist state of economy and way of social life has been maintained. The promise for a high degree of political autonomy for Hong Kong has also been kept by the Beijing government. So, it is quite unlikely that the issue of political uncertainties, that was once a source of worry before 1997, has continued to annoy Hong Kong students. It is, rather, the recent Asian Economic Crises that has instilled the sense of gloom among higher education students.

Table 37: Students' Views about First Employment Opportunities and Situation of Their Career at the Time of Their Graduation

a. I will get exactly what I want.	11.2%
b. I will take the best of several jobs offers.	27.4%
c. I will take the first offer I am given to gain experience in order to eventually obtain the type of job I really want.	41.7%
d. I will take the job to broaden my experience and develop more general skills.	53.3%
e. I will take the job to pay off debts.	19.1%
f. I will take anything that is available over being unemployed.	32.6%

To investigate further, whether there are any differences in responses between institutions and subjects. Cramer's V test is applied. Result shows that there is significant difference among students from different institutions only in response to statement d. Table 38 shows the

findings. It shows that the P-value of Engineering and Education students (0.019 and 0.001 respectively) are smaller than 0.05, the significance level.

Table 38: Difference in students' responses regarding "I will take the job to broaden my experience and to develop more general skills" by institutions and subject groups

Q8(d) I will take the job to broaden my experience and to develop more general skill		HKU	CUHK	UST	HKBU	HKPU	HKCityU	LU	HKIEC																								
Arts	Yes	16.4%	22.1%	20.0%		16.4%	2.9%	22.1%																									
Science	Yes	16.7%	50%		7.1%	7.1%	19.0%																										
Medicine	Yes	79.2%	20.8%																														
Law	Yes	52.2%					47.8%																										
Engineering	Yes	24.7%	35.3%		27.1%		12.9%																										
Education	Yes		12.5%						87.5%																								
Journalism	Yes				100%																												
$\chi^2 = 33.362$				p-value = 0.000		Cramer's V																											
						<table><tr><td></td><td><u>V</u></td><td><u>P-value</u></td></tr><tr><td>Arts</td><td>0.142</td><td>0.396</td></tr><tr><td>Science</td><td>0.158</td><td>0.686</td></tr><tr><td>Medicine</td><td>0.139</td><td>0.308</td></tr><tr><td>Law</td><td>0.028</td><td>0.853</td></tr><tr><td>Engineering</td><td>0.248</td><td>0.019</td></tr><tr><td>Education</td><td>0.648</td><td>0.001</td></tr><tr><td>Journalism</td><td></td><td></td></tr></table>					<u>V</u>	<u>P-value</u>	Arts	0.142	0.396	Science	0.158	0.686	Medicine	0.139	0.308	Law	0.028	0.853	Engineering	0.248	0.019	Education	0.648	0.001	Journalism		
	<u>V</u>	<u>P-value</u>																															
Arts	0.142	0.396																															
Science	0.158	0.686																															
Medicine	0.139	0.308																															
Law	0.028	0.853																															
Engineering	0.248	0.019																															
Education	0.648	0.001																															
Journalism																																	

As a matter of fact, figures as shown in Table 37 show that the difference between engineering students is not very marked. As for the Education students, the high percentage of HKIEd students opting for the statement draws attention to the fact that as the first B.Ed programme of HKIEd commenced in September, 1998, all HKIEd students interviewed were in their first year of study. They are more likely to take a "freshman approach" of welcoming anything that will add skills and broaden

experience. Probably most of the HKIEd students opted this statement and therefore brings the percentage of the other institutions down.

8.5. Perceptions of Employers' Expectations of Graduates

This is a new issue that was not explored in the 1997 interview study. The aim of adding it is to probe deeper and uncovers students' understanding of qualities future employers might expect from graduates. Question 11 lists 25 skills or attributes and students were invited to indicate the extent to which they think their future employers regard them as important, on a five point scale ranging from 'very much' to 'not at all'. These areas of competence were arranged in alphabetical order in the questionnaire but they could be grouped into 3 categories: traditional academic skills, personal development skills, and enterprise skills. Most of the attributes and skills, as well as the classification tool, are borrowed from Purcell and Pitcher's Great Expectations Study in the United Kingdom (1996).

It may not look directly relevant to include a section about students' perceptions of employers' expectations of graduates. But the rationale is that if the students could perceive what qualities their future employers will demand from them, they could expect their higher education to develop those attributes or skills. In this way, the students are expecting higher education to enhance their productivity potentials so as to ensure them of higher chance of being selected by employers and in the long run, give them a better long term reward. In this sense, students are again considered as highly sensitive of the investment value of higher education.

Before analysing the findings, it needs to be emphasised that students were not asked to indicate the extent to which their course had enabled them to develop these areas of competence. After all, the major concern of this study was to investigate the students' perceptions of higher education, not its effectiveness. However, this is certainly a very

interesting area for further research, the findings of which could enable better design of undergraduate courses by suiting the needs of both undergraduate students and employers.

Figures 22, 23, and 24 illustrate the overall findings. As it turned out, 6 of these attributes or skills stood out as prominent areas of competence which students believe would be expected of them by future employers. All of them were regarded by over 80% of the students as important attributes. They include critical analysis and spoken communication (traditional academic skills), independence, self-confidence, and problem solving skills (personal development skills), and presentation skills (enterprise skills). Putting aside the fact that the possession of these qualities would enable students to have a higher chance of being employed and develop their career, we assume that students might also value these attributes for their own lifelong personal growth, development, and interpersonal communication. In this perspective, the students are also believed to be highly concerned with non-pecuniary benefits of higher education.

But when we analyse the findings by area of study, we once again find that the degree of importance of the attributes depends largely on the nature of the related career requirements. (Refer to Table 39, 40, and 41) For example, the ability to apply knowledge is considered to be more important for vocation-related studies such as Medicine, Law, and Education than non-vocation related areas such as Arts/Science. Similarly, creativity is not so much needed for the Medical students as for Education students. Knowledge of international affairs is not rated high by Medical, Law, and Engineering students, but very high by students of Journalism. Presentation skill is unanimously selected as important by Law and Education students, while logical thinking and spoken communication are highly regarded by Law students.

Figure 22: Areas of Competence 1: Traditional Academic Skills

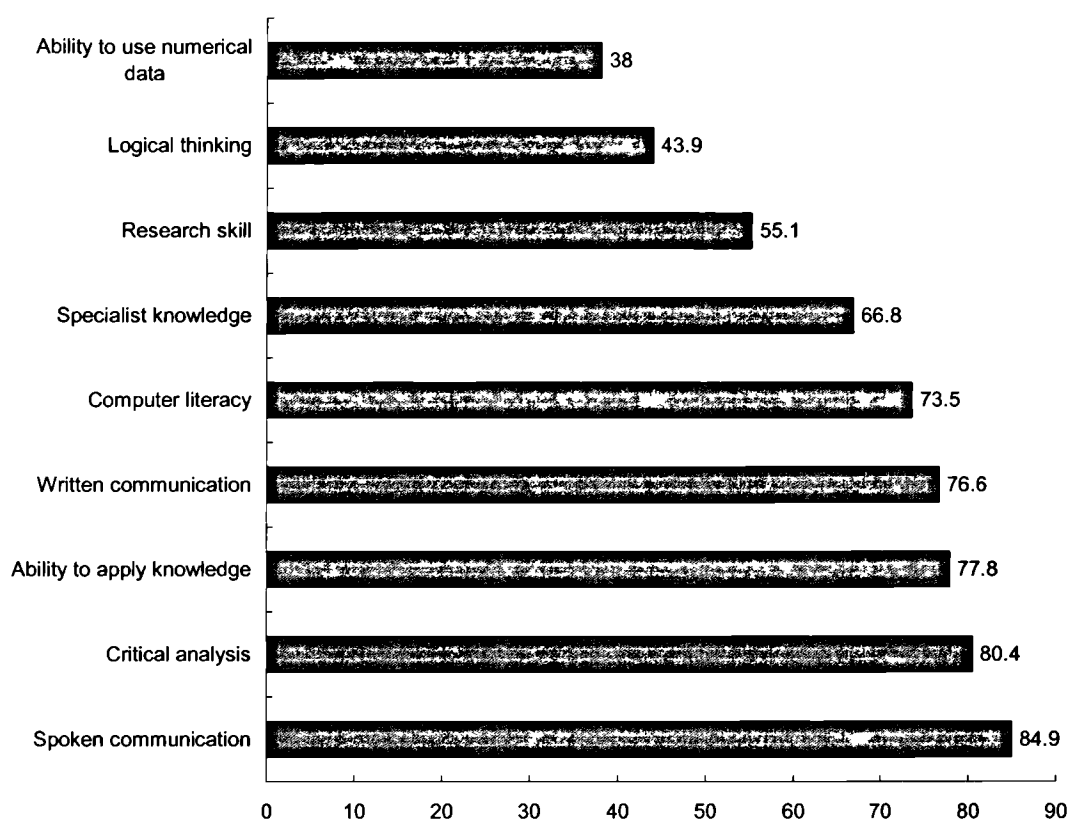


Table 39: Students' Perceptions of the Main Attributes and Skills Sought by Graduate Employers, by Area of Study (Traditional Academic Skills)

Traditional academic skills	Medicine	Law	Engineering	Education	Journalism	Arts	Science
Specialist knowledge	92.7%	86.9%	60.8%	87.1%	69.2%	63.2%	64.5%
Ability to apply knowledge	98.1%	95.6%	71.1%	95%	84.6%	76.2%	74.1%
Logical thinking	94.5%	100%	77.3%	90%	89.7%	79.8%	84.9%
Critical analysis	92.7%	97.7%	72.6%	77.5%	89.7%	73.9%	80.6%
Problem-solving skills	94.5%	100%	81.9%	97.5%	87.1%	87.4%	90.3%
Written communication	81.8%	91.8%	59.3%	90%	84.6%	82%	72%
Spoken communication	92.7%	100%	71.5%	92.5%	89.7%	91%	81.7%
Ability to use numerical data	38.2%	43.5%	39.7%	57.5%	17.9%	35.6%	47.3%
Computer literacy	56.4%	69.6%	72.2%	85%	71.8%	74.4%	79.6%
Research skills	60%	60.9%	46.9%	77.5%	64.1%	59.2%	46.3%

Figure 23: Areas of Competence 2: Personal Development Skills

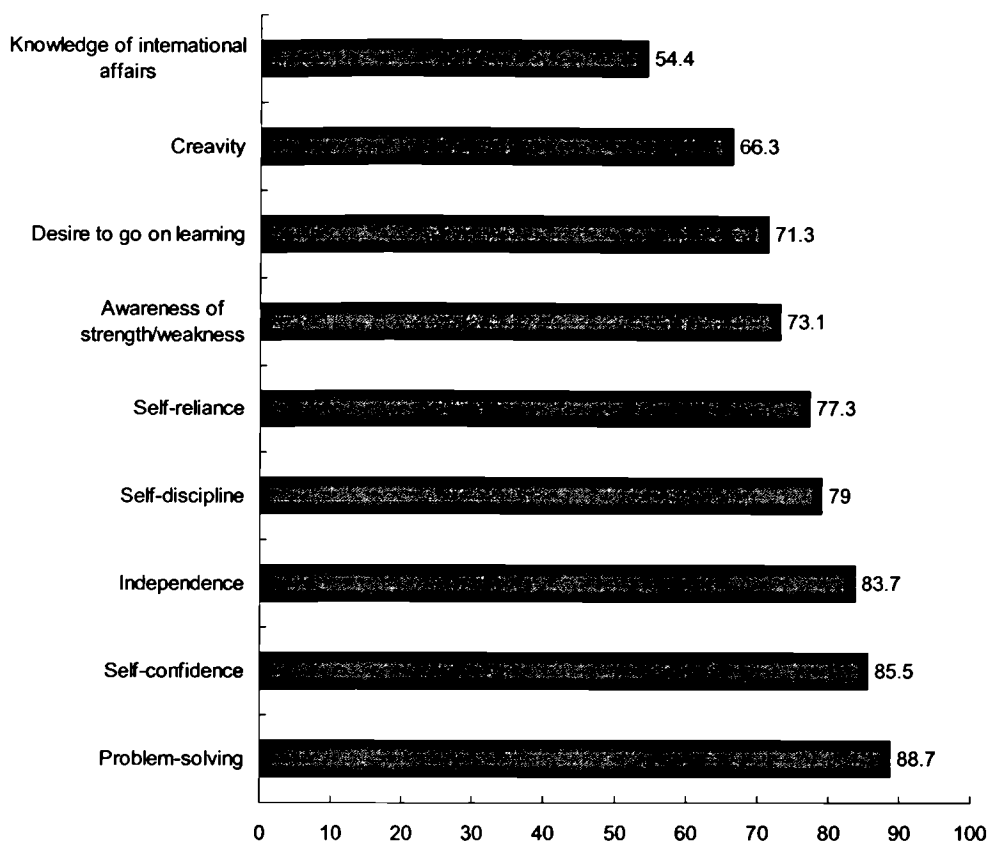


Table 40: Students' Perceptions of the Main Attributes and Skills Sought by Graduate Employers, by Area of Study (Personal Development Skills)

Personal development skills	Medicine	Law	Engineering	Education	Journalism	Arts	Science
Self confidence	92.7%	100%	73.4%	92.5%	94.9%	87%	83.9%
Self-discipline	94.5%	91.3%	64.8%	92.5%	87.2%	78.5%	78.5%
Self-reliance	92.7%	82.2%	67.9%	76.9%	82.1%	77%	78.5%
Awareness of strengths and weaknesses	80%	91.1%	55.3%	92.5%	71.8%	73%	79.3%
Creativity	36.4%	60.9%	64.8%	82.5%	64.1%	65.9%	73.1%
Independence	87.3%	69.6%	75.8%	87.5%	87.2%	87.4%	82.8%
Knowledge of international affairs	45.5%	52.2%	43.3%	70%	92.3%	55.9%	49.5%
Desire to go on learning	85.5%	67.4%	65.8%	94.9%	71.8%	70%	68.8%

Figure 24: Areas of Competence 3: Enterprise or Business Skills

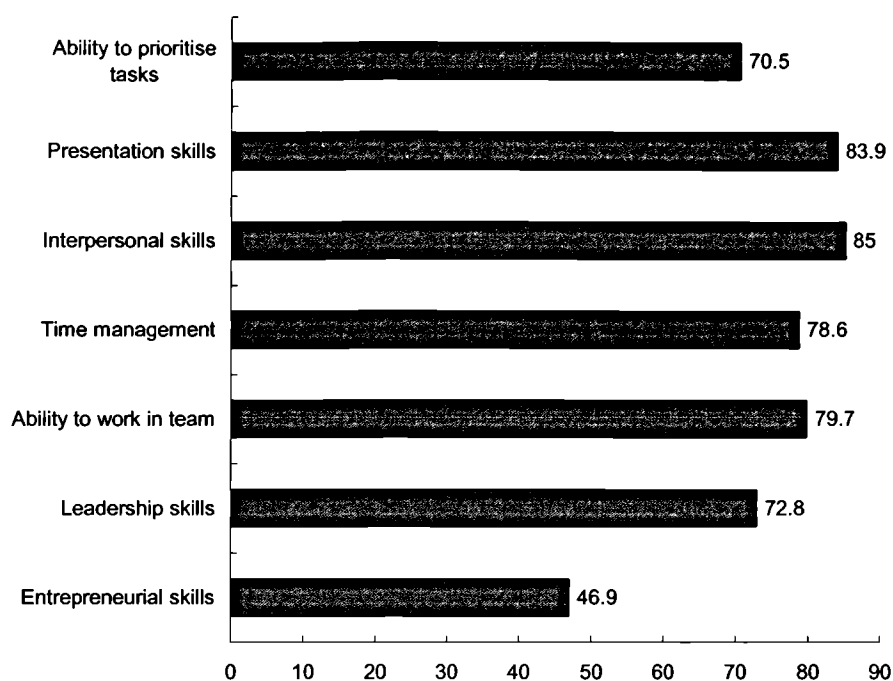


Table 41: Students' Perceptions of the Main Attributes and Skills Sought by Graduate Employers, by Area of Study (Enterprise or Business Skills)

Enterprise or business skills	Medicine	Law	Engineering	Education	Journalism	Arts	Science
Entrepreneurial Skills	43.4%	52.2%	42.8%	64.1%	25.6%	49.1%	43%
Ability to prioritise tasks	92.7%	91.3%	62.3%	80%	79.5%	70.3%	62.4%
Time management	91%	91.3%	68.6%	87.5%	87.2%	80.3%	67.7%
Interpersonal skills	87.3%	95.7%	78.6%	92.5%	89.7%	84.6%	78.5%
Presentation skills	89.1%	100%	75.3%	100%	87.5%	86.1%	77.4%
Ability to work in teams	89.1%	80.4%	82%	90%	74.4%	72.5%	75.3%
Leadership skills	67.3%	87%	70.6%	87.5%	61.5%	70.4%	72%

The above examples are good illustrations that students are aware of the dimensions of competence they need for future employment. Though these are the non-pecuniary benefits of higher education, they are valued for their close utility in future careers. That is, they can help to generate economic benefits. In this sense, again, students who pursue higher

education with an expectation to develop these attributes are regarded as rational decision makers of human capital investment. However, it should be noted that up until this point, the findings have not yet uncovered that students value the intrinsic value of these non-pecuniary benefits, or that students value long-term personal development at all. This will be dealt with in a later section.

8.6. Aspirations for Career Development and Long Term Life Goals

The last three questions (Questions 12 to 14) are meant to examine students' aspirations for career development and long term life goals. They intend to investigate what kind of motives and expectations are held by undergraduate students on their career development, in particular, whether they maintain a desire on pursuing higher lifelong earnings through career development. In other words, it is a cross examination of the degree of pragmatism among students. Question 12 asks about short-term changes in the career path. It seems to have incited much less excitement among students than the previous question. Table 42 presents the findings of this question.

Table 42: Expectations of Career Development in the next 5 years

<i>Expectations</i>	<i>Percentage</i>
1. Achieve a higher position	62.9%
2. Achieve a better use of my qualifications	54.2%
3. Study part-time for additional qualifications	48.5%
4. Achieve more secure employment	43.1%
5. Move to a more demanding job	31.3%
6. Take a career break for personal development	28%
7. Change my field of responsibilities	26.4%
8. Undertake further full-time study	22.6%
9. Change my employer	24.9%
10. Become self-employed	18%
11. Change a completely different job or career	16.7%
12. No major change	12.5%
13. Take a career break for family-related reasons	9.8%
14. Move to a less demanding job	9%

The option that attracts most students' responses is "Achieve a higher position.". Though this question does not address directly to whether the higher position is within the same firm or across-firms, it intends to uncover whether undergraduate students possess a progressive forward looking view in career development. That, only less than 63% of students chose this option suggests that reservations have to be made when suggesting that students are, in general, confident of promotion in their immediate future. Looking down the list of options, the next two that earn the highest student response are, "Achieve a better use of my qualifications" (54.2%), and "study part-time for additional qualifications" (48.5%). Again, in ticking these two options students are revealing their sense of insecurity in their immediate future – for these two options both imply a sense of inadequacy. For the former, it is the inadequate use of qualification. For the latter, it is an inadequate qualification. But in both cases, there is recognition for, not a denial of, the usefulness of higher education in leading to their qualification, whatever it may be. It could therefore be said that students still possess positive regards for their investment in it.

Breaking down the findings by gender, one uncovers that there is difference of opinions in the following options, (d) "achieve more secure employment", (e) "achieves a better use of my qualification", (g) "move to a more demanding job", and (l) 'Study part-time for additional qualification". We apply Chi square analysis to obtain the following results in Table 43.

Table 43: Differences of Expectations of Careers Development by Gender

		Male	Female
Q12(d)	Yes	146 (36.8%)	251 (63.2%)
		$\chi^2 = 15.983$	p-value = 0.000
Q12(e)	Yes	196 (39.4%)	301 (60.6%)
		$\chi^2 = 10.321$	p-value = 0.001
Q12(g)	Yes	149 (51.9%)	138 (48.1%)
		$\chi^2 = 9.845$	p-value = 0.002
Q12(l)	Yes	183 (40.9%)	264 (59.1%)
		$\chi^2 = 3.953$	p-value = 0.047

All the P-value of these four findings are less than 0.05, the significance level. It shows that there are differences in the responses by gender. The findings reveals: (a) The percentages of female students (63.2%) intending to achieve more secure employment is almost double that of male (36.8%); (b) There are far more female (60.6%) than male (39.4%) students intending to achieve a better use of their qualification; (c) There are more male students (51.9%) than female (48.1%) students intend to move to a more demanding jobs; and (d) There are more female (59.1%) than male students (40.9%) intending to study part-time for additional qualification. As such, it can be inferred that female undergraduates in Hong Kong appear to feel more insecure than male about their career development in the near future. They fear they may not make use of their qualification or they think they need additional qualification. On the other hand, more male are ready to take up more challenges in their jobs.

Table 44 illustrates the results of Chi-square analysis in examining the difference in expectations of careers development by subject groups. The findings indicate that the P-value of Q12's statement (a), (c), (d), (e), (g), (l), and (m) are all less than 0.05, the significance level. So, there are differences in responses made by students of different subject groups.

Table 44: Difference in expectations of Career Development by subject groups

		Arts	Science	Medicine	Law	Engineering	Education	Journalism
Q12(a)	Yes	40.2%	10.5%	2.2%	4.8%	26.2%	3.1%	5.2%
		$\chi^2 = 16.672$			p-value = 0.034			
Q12(c)	Yes	38.8%	10.4%	4.2%	4.7%	23.2%	4.2%	4.3%
		$\chi^2 = 18.366$			p-value = 0.019			
Q12(d)	Yes	43.2%	11.9%	6.3%	4.3%	14.4%	4.0%	5.6%
		$\chi^2 = 33.352$			p-value = 0.000			
Q12(e)	Yes	44.3%	9.3%	6.9%	3.4%	17.7%	4.6%	3.8%
		$\chi^2 = 21.397$			p-value = 0.006			
Q12(g)	Yes	34.7%	9.7%	6.3%	4.5%	27.4%	2.8%	5.6%
		$\chi^2 = 17.825$			p-value = 0.023			
Q12(l)	Yes	46.9%	9.4%	4.7%	3.4%	17.3%	4.0%	2.5%
		$\chi^2 = 35.984$			p-value = 0.000			
Q12(m)	Yes	45.4%	10.9%	2.4%	9.1%	21.8%	3.0%	0.6%
		$\chi^2 = 23.513$			p-value = 0.003			
		$\chi^2 = 37.673$			p-value = 0.000			

According to the findings, vocation-related students, especially Medicine, Law, Education, and Engineering students tend to expect a stable career development. The percentages of those who opted for changes are smaller than the percentages of these four groups of students in the total sample. On the other hand, among the non-vocation related students, the Arts students are apparently more receptive to career changes in the immediate future. In all the responses concerned, the percentages of Arts students opting are higher than the percentage of Arts students in the total sample. Again, this probably has to do with the unfixed career plan, or to put it more positively, the flexible career direction of these students. Yet, the Science students' expectation resembles more the vocation related students. They prefer career stability than changes.

We asked students about long-term values in life in Question 13 and Question 14. Students' long term values are a direct indication of long term forward looking view in human capital investment of various forms. Tables 45 and Table 46 illustrate the findings from these two questions.

Table 45: Students' Long-Term Values

Long-term values	Percentage
a. Career development	92.4%
b. Personal development and growth	90.6%
c. Job satisfaction	88.0%
d. Being valued by my employer	79.4%
e. Family development	63.5%
f. Rewarding leisure/travel	63.5%
g. Gaining international experience	58.8%
h. Doing socially useful work	57.8%
i. Concern with current affairs	56.3%
j. Involvement in local community issues	49.6%
k. Concern with ecological issues	38.2%

Table 46: Students' General Personal Value of Life

Personal Values	Percentage (%)
d. I work to live	59.4%
e. I expect to work continuously until retirement	56.5%
a. I am extremely ambitious	55.3%
i. I expect to change my career several times in the course of my working life	41.7%
f. I expect to take career breaks for family reasons	41.5%
j. Jobs for life are a thing of the past	39.0%
c. I live to work	37.8%
b. I do not expect to get my main fulfilment from work	36.8%
g. I shall expect my partner to take career breaks for family reasons	33.9%
h. Women cannot combine a career with children	17.1%

The factor that receives the highest response rate (over 92%) in Question 13 is career development. Similarly, the two highest scores in Question 14 are related to work. This again recollects an important previous finding that Hong Kong higher education students are mostly pragmatic and career-oriented in goal. Again, what has not been confirmed by these two questions is whether students view education as a means to achieve their career goals.

One of the options in Q13 is “own personal development and growth.” Over 90% of all respondents consider this an important long-term value. This finding can compensate the shortcoming of section 8.5 in this chapter in not being able to prove that students value the non-pecuniary

values of higher education. As a matter of fact, 9 out of the 11 given options (except 1 and 4) in this question are related to non-economic values. Most of them received votes from nearly half of the respondents, if not more. This proves that non-economic values are much valued by students in their long-term life goals.

8.7. Comments on the Graduate Labour Market Based on the Students' Perceptions of the Cost and Benefits of Higher Education

Only 64 students gave written comments on the graduate labour market with reference to their perceptions of the costs and benefits of higher education. Their comments can be classified into two groups: positive ones that suggest a diversity of expectations for economic and non-economic benefits from higher education, and negative ones that suggest pessimistic attitude towards higher education returns. The following are examples of these comments, quoted directly. Only minor corrections on obvious grammatical errors are made.

Positive comments

1. *Higher education now seems to be the only means to get a good job. (525, B. A, English, HKU)*

This student expresses a pragmatic view regarding the pecuniary benefits of higher education. He thinks that without higher education, he may not get a good job.

2. *I do not believe that most students do not gain from their studies: interpersonal skills, skills of writing, and critical thinking, for example. More importantly, I think university students in Hong Kong should know how the world operates and how we can live wisely and be mature. If not, university students will be just as childish as secondary*

students who just devote all their time to studying. (881, B. Communication, Journalism, HKBU)

This is a very positive comment. It rightly recognises the value added or empowerment function of higher education. The major concern is its non-pecuniary benefits.

3. *I disagree somewhat with the idea that the higher the education, the better the job. However, I do think that with higher education, one can choose a job they like. (139, B.S.Sc, Journalism, CUHK)*

This Journalism student seems to disagree with the function of education in winning a better job. But he cannot deny the fact that higher education will give him the freedom of choice for jobs. It reflects that the student understands that higher education will confer him transferable non-professional specific skills that may cope with a wider variety of work in the graduate labour market.

4. *My learning from higher education can be efficiently used in the graduate labour market in order to increase my competitive power. (164, B.Ed, HKIEd)*

Apparently, the student believes that higher education will confer him the knowledge and needed skills to make him competitive in coping with his future work.

5. *Although the cost of the education is high, I can obtain a lot of knowledge from it; it broadens my horizon and the return will be good as well. (166, B.Ed, HKIEd)*

The student highlights the benefits of higher education in both pecuniary and non-pecuniary terms. He seems optimistic about accepting the present high cost for a promising future return.

6. *Higher tuition fees may cost me a lot but I can enjoy a university life that makes so much difference from secondary school life; not everybody has the chance to enjoy such an experience in his life. (256, B.A, Economics, HKBU)*

Obviously, this student feels a hedonistic passion on higher

education, she considers her high spending on higher education is worthwhile and she does not indicate any concern for economic returns.

7. *University is not an occupational training college. Instead, students should develop the skills of independent thinking to have the insight to know what is right and wrong. (96, B.A., English Literature, HKU)*

This statement shares some ideas of higher education as initiated by Barnett (1990: 189-205) which emphasises the importance of independent thinking and critical self-reflection. These are certainly non-pecuniary benefits of higher education. Such benefits will contribute not only to individuals but to society as a whole.

8. *Better jobs, higher salary. (282, M.B.B.S, Medicine, HKU)*

The expression of this student illustrates a commonly shared view among students in Hong Kong. It clearly reflects an economic motive for higher education, a desire for pecuniary return (higher salary). But by better jobs, it may also mean non-economic consideration such as a respectable status, or even an opportunity to contribute to society. It is certainly a positive view of the benefits of higher education.

9. *I prefer to learn further personal skills by joining activities and societies. I wish I could learn how to manage different kinds of work at the same time so that I'd know how to manage my spare time during my higher education. (378, B.A., History, CUHK)*

Though this remark does not show a direct reference to pecuniary or non-pecuniary benefit of higher education, it clearly affirms that higher education is a means for personal empowerment as well as a place for skill formation for the future work place. This is a positive view that what is done at present is a preparation for the need in future.

10. *It's worth it to have a tertiary education. We can gain special knowledge and ways of thinking during university life. (570, B.Sc, Physics, CUHK)*

This is a positive remark of the knowledge function and process of learning of university education for these non-pecuniary benefits.

11. *A bright future. (636, B.Sc, Information Technology, HKPU)*

A simple and positive remark which illustrates a positive forward looking view, though it is not clear whether he is thinking in pecuniary or non-pecuniary terms or both.

12. *Having a higher education is not just about work, it is also about personal development. However, people always emphasise too much on further education and their future occupation. Regarding the latter, only commercial fields are being emphasised. Some fields such as something related to fine arts or literature should also be valuable. (891, B.Sc, Journalism, HKBU)*

This student possesses a wider perspective on the function of higher education that it should not be restricted by employment needs only. He seems to be of the opinion that pecuniary benefit of higher education should not be the sole or prime concern of students. He calls for a recognition for the non-pecuniary contribution of higher education to a person's development.

13. *No pain, no gain. The opportunity cost of studying higher education is the early employment. Benefits from higher education are gaining more knowledge and enjoying the unique university life. (910, B.Sc, Statistics, HKBU)*

This student is sure that the higher education brings benefits. But he seems to be concerned more with acquisition of knowledge or enjoyment of university life. He remarks that "no pain, no gain. The opportunity cost.... early employment." This statement suggests that he did not mind giving up early employment opportunities in order to gain the non-pecuniary benefit of higher education.

The above comments show that these sampled students share a positive view of the importance of higher education as a means for better future benefits. Some of them display greater level of pragmatism by stressing the importance of pecuniary benefits and its career orientation. Others emphasise their hedonism for higher education and care more its non-pecuniary value. Those who make more general positive remarks may

not be so sure about their priority.

Negative Comments

1. *The average monthly pay has been lowered for many graduates. And there are not as many suitable jobs in the market as there were before. (136, B.Sc, HKCU)*

This student is realistically reporting the situation in the general labour market of Hong Kong in March, 1999, a period when the general unemployment rate surged up to 6.3%, a highest record in the past three decades. It expresses worries about his future employment opportunities.

2. *There are too many universities in Hong Kong and a degree nowadays simply represents a pass in the curriculum, no more than what a HKCEE certificate was 50 years ago. In the view of an employer, there is too wide a choice of students. Actually, experience is more important than a degree. (820, B. Engineering, Electric and Electronic Engineering, HKU)*

To a certain extent, this statement reflects the phenomenon of erosion of exceptionalism (Scott, 1995:5-9, 103-5) which refers to the decline of the elitist social status among university students after the size and shape of higher education transforms to a mass system. This resulted to the so called qualification inflation in labour market due to the availability of a larger supply of graduates in mass higher education. This student has a higher regard for experience than a certificate.

3. *I worry about the prospects in the graduate labour market. Nowadays, graduates are not guaranteed for finding a good job (with stability, good pay, and benefits). So, the benefits of studying higher education are not as plentiful as they used to be. Compared with the situation of the past, the cost is higher and the benefits are fewer. (252, B.A, Economics, HKBU)*

This remark reveals a pessimistic attitude towards future graduate labour market especially when comparing current situation with previous

ones. The looming pessimism is probably a direct result of the undesirable economic performance in early 1999.

4. *There are no benefits to graduate university right now because it is hard to find a job during the recession. Also, there are a lot of university graduates both in Hong Kong and overseas. (503, B.A, Geography, HKU)*
5. *Since there are increasing numbers of university graduates both from Hong Kong and overseas, it seems that the supply in the graduate labour market is too abundant. Hence, university graduates will not have such superior opportunities as before. (502, B.A, English Literature HKU)*
6. *There are more and more university graduates, but there are fewer jobs available. I think the standards of graduates nowadays have a somewhat large variance. There is indeed an oversupply of graduates, which is a main factor that drives down ranges. (527, B. Sc, Chemistry, HKU)*

These three remarks are common in their concern for the oversupply of graduates which in turn would reduce their own employment opportunities. On the one hand, it is interesting that all the three students came from business-related or financial fields—the fields that were most hard-hit by the Asian Economic Crisis. It is not surprising that they expressed such worries in such an adverse economic situation. Nonetheless, it needs to point out that their negative responses are directed more towards the deteriorating labour market than towards the benefits of higher education itself. None of them refuted the value of higher education at all.

7. *In the past, higher education was more meaningful. It really provided a route for those who were interested in studying and it really helped to increase one's knowledge and competence skills. (525, B. Sc, Biology, HKU)*

This is a rather exceptional remark as it negates the meaning of higher education and even challenged its function of knowledge and skill building. No reference is made to the pecuniary nature of higher education value. This is the most negative remark obtained from the students.

8. *The graduate unemployment rate is high; it's hard to get a first job relating to what we have learnt in university. It's a waste of money to have paid 30 to 40 thousand dollars for 3 years of study. (462, B. Engineering, Computer Science, HKUST)*
9. *I have invested much time, effort, and money into higher education, but it was only to receive the low salary that F.5 graduate could also earn. (543, B.Sc, Chemistry, HKU)*

There is a clear sense of pessimism expressed in these remarks. Remark 8 points out that his higher education is waste of money. Remark 9 refers to the low salary comparable to a F.5 graduate. Such remarks were made in an angry mood. It is a reflection of disappointment or even disillusionment when somebody fails to get what he expects. This point is important – these two students indeed have positive expectations from higher education. They want monetary gains, the value for the money spent. But they do not anticipate a promising return.

The above comments reflect realistically worries about the poor economic performance in 1999. Its undesirable impact on the general labour market has stricken the minds of many students, especially for those pragmatic students who treated investment into higher education as a means to attain a well paid job. The unfavourable economic situation and deteriorating graduate labour market inevitably instil fearful and resentful responses. Yet, in expressing their pragmatic worries about employment opportunities or declining pecuniary return, students (with only one exception) have not remarked negatively on the non-pecuniary value of higher education benefits. One fortunate sign is that none of them expressed that they would give up their present study, no matter how great their present grievance was. It is possible to conclude that these students have not given up hopes or the benefits of higher education. Their revealed pessimism is only a short-term one, pending on the current economic performance and the labour market condition of the territory.

Out of the 13 positive comments, 6 (46%) are made by students from

vocation related programmes, this agrees with a previous statement that students of vocation related programmes are more positive about their higher education investment than non-vocation related programmes. On the other hand, 78% of the negative comments are voiced by students of non-vocation (Arts and Science) programmes. As such, it is held that students of vocation related programmes share a more positive vision on their education investment despite hardships and seemingly uncertain employment prospects. Students of non-vocation related programmes seem to be affected more by the uncertain economic outlook of Hong Kong after the Asia Economic Crisis, as much of their negative comments were associated with the keener competition of the general graduate labour market. On the whole, these comments have realistically reflected the circumstantial reality that undergraduate students are encountering during the adverse economic period of Hong Kong. It is possible to suggest that under more favourable circumstances, their positivism would be restored as a majority of the students remain positive in their expectation of pecuniary and non-pecuniary values of higher education.

8.8. Summary of the findings

Findings of this questionnaire survey can be summed up in the following points:

- (1) The majority of the Hong Kong students in the higher education sector are pragmatic as their choices of programmes and institutions are largely based on economic or career related considerations.
- (2) Many students express a sense of lack of confidence or insecurity about the immediate future career development. Yet they maintain positive attitude and few display the state of being desperate.
- (3) Between subject groups, the vocation-related students are more pragmatic than the non-vocation related ones who are more ready to welcome the non-economic values of higher education. The latter are

more inclined to relate higher education with personal growth and development.

- (4) Vocation related students are also more inclined towards fewer changes in the immediate career future. That is to say, they desire for a stable career development. Arts students appear to be the group which is most ready for changes in careers development.
- (5) Between the two sexes, female students are found to be more hedonistic in their views of higher education. They also display a greater sense of insecurity and lack of confidence in their immediate career development. Male students are more ready to accept changes in career development.
- (6) As the questionnaire survey was made in early 1999, the Asian Economic Crisis must have had a great impact on the students' perception. The display of the sense of pessimism about the immediate career future is certainly a point that cannot be neglected. Nevertheless, their pessimism is probably due more to the uncertain economic situation than to their scepticism of the economic value of higher education. It is indeed encouraging that most remain positive about the value of higher education.

8.9. Comparing Purcell and Pitcher's study in the United Kingdom (1996) with the present findings

The present survey was based on the research tool developed by Purcell and Pitcher in the United Kingdom in 1996 and there is value in a comparison between the findings of the two surveys though it was not part of the aim of the study to make a full scale and detailed comparative analysis of them. Rather, some comments will be made on a few interesting issues, particularly where marked difference in the findings can be cited. The issues to be dealt with in the following are: the extent to which students had a clear career path in mind when they decided on what to study, the proportion of students indicating their hedonistic or pragmatic

motivation behind undertaking higher education and the students' evaluation of skill development on courses.

The findings of the present Hong Kong study clearly revealed that there were some major differences between the perceptions of students here towards higher education and those of their counterparts in the United Kingdom. The most obvious and significant difference was that while the majority (63.5% of the Old universities' students, 61.5% of the Mid-centuries universities' students, and 45% of the New universities' students) of the United Kingdom undergraduates indicated that they embarked upon their courses for hedonistic reasons as indicated in Figure 2 of Purcell and Pitcher (1998:184), around 62% of the respondents in Hong Kong indicated their pragmatic motivation (refer to Figure 17 in Chapter 8). The hedonistic students were also significantly fewer in Hong Kong than in the United Kingdom.

By area of study, both the United Kingdom and Hong Kong students in vocation-related programmes were more pragmatic than those from non-vocation-related programmes. However, the percentage of pragmatic Hong Kong students was higher than that of the United Kingdom students. This remark is based on a comparison of responses from the two common programmes in two studies: Law and Engineering. It is noticed that 78.2% of Hong Kong Law students were pragmatic compared to 72% of the United Kingdom Law students and 62.8% of Hong Kong Engineering students were pragmatic compared with 46.7% of the United Kingdom Engineering students.

On the other hand, there was a much smaller body of non-vocational students in Hong Kong expressing hedonistic motivations than their UK counterparts. In Hong Kong only 20-25% of Arts and Science students could be classified as hedonistic compared with 85.1% of Arts and Humanities students in the United Kingdom. Many students in the United Kingdom pursued non-vocational related courses simply because they

enjoyed them. But in Hong Kong, this sense of simply appreciating or enjoying one's course of study was definitely not popular among students.

This big difference in the degree of hedonism and pragmatism between the United Kingdom and Hong Kong students is an interesting issue to pursue. The underlying reasons behind it must have something to do with the difference in culture and sense of value, as well as the socio-economic environments in which the students found themselves. In the first place, Hong Kong students, though having been nurtured in western education for generations, remained deeply influenced by the traditional Confucian concept that further education would lead to enhancement of social status and subsequently wealth accumulation. The idea of studying for enjoyment, though not totally non-existent in Chinese culture, has never been in the mainstream of Chinese thinking. The greater percentage of pragmatic students and the far smaller percentage of hedonistic students in Hong Kong can be explained with reference to cultural differences.

Moreover, the rarity of higher education opportunity in Hong Kong before its expansion in the 1990s has deeply shaped the mentality of the Hong Kong people to consider higher education as one of the most guaranteed means of achieving social respect and economic advancement. And Hong Kong undergraduates could and would never expect a political career, as their counterparts would in the United Kingdom, such as becoming a Member of Parliament who would make broader scope decision for the whole nation. This could be another possible reason to explain the self-oriented, utilitarian perception of higher education of the Hong Kong students.

Family expectation or pressure is also an important factor behind Hong Kong students' pragmatism. In the United Kingdom, as in all western societies, children in the family are brought up to be independent individuals. Their studying and career plans are considered their own personal responsibility. Parental guidance is probably not lacking, but the

students are encouraged to make their own decisions which are usually respected by the family. There is a very different culture in Chinese families. Chinese parents are more assertive and dominating with regard to the future plans of their children, such as study and career plans, the former being always regarded as an important step towards the latter. As the Chinese family tie is close and parents start to exert their influence at an early stage. Parental advice is, more often than not, expected (by parents) to be taken seriously as a close guide, if not a rule to follow. Most Chinese parents are more pragmatically oriented than their children, naturally as they were brought up in the period of elitist higher education, when the higher education places were so few that the private return to education investment had been highly attractive. They teach or influence their children to be pragmatic users of higher education.

Last but not least, the very fact that the sampled United Kingdom students did not have to worry about tuition fees (Up until 1998, the majority of British students still had their tuition fees paid in full by public funds.), not to mention the other grants and loans available to them, while Hong Kong students were expecting increase in tuition fees and interest rates of loans in the late 1990s suggests that there is a very big difference in their perception of the direct cost of university education. Having to make personal cash investment into their own education, the Hong Kong students were naturally more mindful of a promising return upon graduation. The United Kingdom students who enjoyed free higher education could afford to take a more hedonistic attitude towards it.

Based on the factors discussed above to explain the pragmatic inclination of the Hong Kong students, it is concluded that most of our students did have a career path in mind when they decided on what to study. This means that they pursued higher education to pave their career paths. But the clarity of perception of the career paths varied among different batches of students. The vocational related students were very clear minded in this respect while those in general, non-career specific higher education

programmes, like Arts and Science ones, were less clear about their exact paths. In the United Kingdom study, Purcell & Pitcher suggested that only in the case of the most vocational courses did the majority of students have a clear idea of their probable career development. But as Harvey, et.al. (1997) pointed out, there is nothing to worry about the lack of a narrowly focused prospective since what the graduate labour market demanded for are highly flexible people with “adaptive, adaptable and transformative potential”. What is important is that they could develop the necessary generic skills which give them flexibility.

Comparatively speaking, the Hong Kong students appeared more positive when they evaluated their skills development on courses. As mentioned earlier in section 8.5., 6 out of the 25 listed skills were considered as highly important skills by over 80% of the respondents. On the other hand, only 5 attributes were considered as important by less than 60% of the students. In other words, students in general regarded most of the listed skills as important ones demanded by future employers. It was also revealed that students of different courses considered different specific skills as important in their own areas. For example, there was a significantly higher percentage of Education students than Medical students who considered creativity as very important to them. This difference in students’ perception of different attributes expected by future employers echoed the United Kingdom phenomenon.

But were the Hong Kong students really more positive than the United Kingdom ones? It would be too crude to draw any conclusion before some controlled comparative analysis is made. But the wording of Question 11 of the questionnaire for HK students might provide some hints in this concern. The question simply reads, “Out of the competences listed, which do you think are regarded by your future employer as the most important?” Respondents must have based their replies on their perception of what future employers would expect of them, related to their own expectation of the skills their courses would help them to develop. It is

quite different from the United Kingdom study on the students' perceptions of the extent to which their courses had enabled them to develop skills and competencies. The Hong Kong study was basically an expectation study while the United Kingdom study was more ambitious: both expectation and outcome study. In their responses, the United Kingdom students should have engaged in some evaluation on whether their undergraduate courses had contributed to the development of those dimensions. The Hong Kong students were obviously not prompted to make this consideration when making their responses. So the present study will not go too far to suggest that the Hong Kong students were more positive about skills development during their courses of study than their United Kingdom counterparts as there are not enough evidences. But they were certainly positive in their expectation for the development of skills to take place during their courses of study.

CHAPTER NINE

Commentary and Conclusions

9.0. Introduction

This chapter begins with a discussion of the findings of the two research studies in relation to the four research questions raised at the earlier part of the thesis. It is followed by a critical assessment on the methodology and results of the research and a final conclusion to round up the thesis.

9.1. Discussion of the findings of the two surveys in relation to the Four Research Questions

The interview and the questionnaire survey of the present thesis were both conducted in the context of higher education expansion in the 1990s. Both attempted to uncover students' expectations of the economic and other values of higher education. Issues such as students' motives for choice of programmes and institutions, perceptions of the increasing individual cost of higher education, the intensified competition in the future graduate labour market, and economic and non-economic benefits from higher education were explored in both studies.

The political and socio-economic background against which the two studies were conducted respectively should be noted. The interview survey was conducted with a small sample of 60 students before Hong Kong's sovereignty changeover in 1997, when the socio-economic setting of Hong Kong was greatly affected by political uncertainties. The larger scale questionnaire survey was conducted in a more stable political environment but a rather adverse economic situation stemming from the Asian Financial Turmoil since November 1997. 731 students from all the UGC funded degree granting institutions responded. Strictly speaking, both surveys

were carried out in periods of economic uncertainties in Hong Kong unprecedented since World War Two. They provided very crucial economic settings to explore answers to the first two research questions:

- 1. How has the emergence of mass higher education affected students' perception of its economic benefits?**
- 2. How did the anticipation of bearing an increased share of cost affect students' perception of the economic benefits of higher education?**

It is assumed that when individuals determine if there is any economic benefit from their investments, they probably make a simple cost-benefit assessment. The most apparent cost to students, in this context, is the increase in the study costs that they have to bear. These include increase in tuition fees and also interest rate of student loans. Hence, this discussion will attempt to respond first to Question 2 – how the students' perception of the increase in education cost has affected their perception of economic returns of higher education.

It is quite certain that students were all disappointed with the increase in the cost of higher education. Compared with students of the pre-expansion era, they were less positive about the expected returns. But expectation remained. When comparing the views of the students solicited in the two surveys, it could be seen that students' expectations were lower in 1999 than in 1997. The interview findings suggested that a smaller percentage of students were dissatisfied with and worried about the increased cost in 1997 and many still expressed positive expectations. The questionnaire survey suggested a higher level of frustration. But there was no evidence that students had given up their positive expectations. It can be concluded that even in serious economic downturns, students still maintain their instrumental views on higher education, despite the fact that they may blame the government for not helping to relieve them from the prevailing economic pressure. They may expect a lower return. This student reaction

is natural as individual investors tend to base their perception on a higher cost, lower benefit calculation.

This weighting of costs and benefits becomes more revealing to the investors when they consider the intensive competition to be anticipated in the future labour market. Intensive competition in the graduate labour market is an outcome of higher education expansion. In response to Question 1, both sets of findings indicated clearly that students were fully aware of the likelihood of intensive competition. But they worried more in 1999 than in 1997. This is probably due to the fact that in 1997, all responses were made in anticipation of the possible impact of the sovereignty change but in 1999, the responses were true reflections of their experience of the adverse economic performance in Hong Kong.

The 1997 findings suggested different perceptions of the possible impact of the sovereignty change. The vocation related students were basically more optimistic about their career prospects than the Arts and Science students. The former were not worried about the impact of political change on their segments of the labour market. This probably was also due to the monopolistic features of the graduate labour market of the vocation related programmes, especially Medicine, and Law, and to a lesser extent Education. The supply of graduates in these fields is stabilized by the restricted admission to universities, rationed according to public examination results, despite higher education expansion. This is also the reason why during the interview, students from vocation related programmes showed more concern in changing career conditions as it would affect the monopolistic nature of their graduate labour market. For example, Medical students were unhappy about the introduction of the appointment contract system. Education students were concerned with the possible impact of the changing policy on medium of instruction: anticipating that changes from using English and Cantonese to Putonghua might eventually diminish their career opportunities. Contrarily, the Arts and Science students were worried that the economic downturn would

further intensify competition in the labour market because there would be keener competition in the general graduate labour market and that, they might have to tolerate a longer lead time for first employment and a lower immediate economic return.

The adverse economic performance of Hong Kong since November, 1997 did further intensify the competition in the labour market; general unemployment soared at 6.3% in the first half of 1999. News about labour disputes due to salary cuts and mass layoffs became popular headlines in the mass media. The questionnaire survey respondents further confirmed this increasing sense of frustration. They indicated their readiness to accept a lower salary for their first job or during the recession.

However, they looked forward to higher returns over the long run. Probably, these students had strong faith that the salary level would be adjusted by market mechanisms. While they were willing to accept less satisfying immediate earnings, their long-term expectations of attractive economic returns did not subside and many maintained an optimistic attitude to their higher lifetime earnings.

The conclusion is: Most of Hong Kong students have faith that their education will bring them economic benefits. Their worries are only related to the political or economic crisis of Hong Kong. No matter how disappointing the present situation is, students have never doubted the economic value of their higher education investment. They appear to be confident that when the economy recovers, their investment in higher education will pay off.

These findings also elaborated on the findings of Wong (1989) that secondary five students in Hong Kong were largely economically motivated in their decisions about higher education. It further proposed that when secondary students actually enrol in higher education, they maintain a persistent expectation of economic benefits regardless of hardships or other de-motivators such as increasing cost and uncertainties. A critical point to make here is that when Wong conducted his research in the 80s, the Hong

Kong's higher education system was basically elitist in nature. But when the present two field studies were conducted, Hong Kong has reached the mass higher education stage. So, the finding that students still had expectations for good economic benefits of higher education is a significant one. It means that, generally speaking, the emergence of mass higher education has not adversely affected the students' perception of the economic benefits of higher education.

3. Did students maintain the same expectation for economic benefits immediately before and after Hong Kong returned to Chinese sovereignty?

Many students lowered their expectations for economic benefits from higher education immediately before Hong Kong returned to Chinese sovereignty. This was mainly because many students showed scepticism of the feasibility and practicability of the 'One Country, Two Systems' principle. They were worried that the existing political, social, and economic orders in Hong Kong might not be maintained as promised. Among the vocation related subjects, Law and Journalism students were most worried that the essence of an open society: judicial independence and freedom of speech might not be fully maintained. To a much lesser extent, education students also expressed concern over the possible change in medium of instruction. Medical and Engineering students did not express as much worry that the political change would greatly affect their career conditions. In comparison, Arts and Science students seemed to worry more as they found the political and economic future rather uncertain. They were anxious that their careers opportunities and prospects would not be promising.

Nevertheless, the smooth political transition and the maintenance of political autonomy and free economy showed students that their worries were more imaginary than real. It is, as discussed earlier, the Asian

Economic Crisis that became the new cause of a similar kind of worry that frustrated the students. So, the students have had little chance to recover their lowered expectations.

Hence, it would be incorrect to suggest that the change of sovereignty had lowered the expectations of the students. Expectations were reduced already before China took back Hong Kong. The smooth political transition actually proved to the students that there was much less to worry than expected.

But again it needs to be repeated that students' worries were directly related to their perception of the possible outcome of the political change as well as the negative impact of the economic crises. This worry has little direct relation with students' basic conviction of the positive returns from higher education.

4. How far are students instrumentally motivated in their choice of investing in higher education?

The two studies confirmed that most Hong Kong students are pragmatic. They have perceived their higher education as an important step towards a long term career path. They have also maintained positive expectations for economic benefits from higher education, in spite of the increasing cost and difficulties in the graduate labour market, either during the period of political uncertainties before June, 1997, or during the economic downturn since November, 1997. But many of them were realistic enough to expect lower immediate pecuniary returns after their graduation.

But their expectations were not just confined to pecuniary returns. They tended to value the non-pecuniary returns as much, if not more. The questionnaire survey showed that students expected higher education to confer on them generic and transferable skills which will prepare them for future employment and lifelong whole person development. Some of these

skills, such as computer literacy, contribute to their productivity at work. Others, such as interpersonal skills, would enable them to harmonise not only with the work world but also with society as a whole. The ability to solve problems and critically analyse, the sense of self confidence and self discipline, creativity and a desire to go on learning are certainly valuable attributes that students hope to develop during higher education. It is believed that students longed to develop these skills or attributes to satisfy their future employers. They found them useful for long-term career or personal growth.

It was also discovered from the researches that students made sensible decisions about their own abilities when making application for admission to different courses. Higher ability students tended to apply for and were admitted to vocation related courses, such as Medicine and Law, which traditionally promised higher income and social standing to graduates in Hong Kong than many other courses. The lower ability students were generally contented with non-vocation related courses that did not promise clear career prospects. But they still possessed positive expectations for benefits from higher education in the long run.

Based on the above discussion, it could be concluded that to a large extent, students in Hong Kong are instrumentally motivated in their choice of investment in higher education. A far smaller percentage of Hong Kong students expressed their hedonistic tendency when making their choice for higher education than those who revealed their pragmatism. The pragmatic tendency of the Hong Kong students is significantly revealed when comparison is made between this study and the United Kingdom study by Purcell and Pitcher in 1996. The latter showed that in the United Kingdom, a much greater percentage of students exhibited their hedonistic nature when making decisions of study. The non-professional students in the United Kingdom were also significantly far more hedonistic than those in Hong Kong. Even among the professional students, the percentage of United Kingdom students who expressed their pragmatic tendency was far

smaller than that of Hong Kong. Similar to the findings of the United Kingdom study, a very small percentage of students has been characterized as having a fatalistic orientation. What is interesting, however, is that a percentage that is exactly the same as that of the hedonistic group (16%) expressed that they chose higher education because of reasons other than pragmatism, hedonism or fatalism. This thesis has not been able to explore deeper into their reasons. But it is certainly the intention of the researcher of this thesis to pursue on to find out what exactly motivated these students to embark upon higher education.

9.2. Critical Assessment on Research Methodology and Results

There has been a good deal of research investigating the reasons behind the government decision for higher education expansion in Hong Kong as well as the subsequent decision on freezing the expansion to providing first degree undergraduate places up to 18% of the relevant age students. It is also well known that students in Hong Kong traditionally have an aspiration for opportunities for more and further education. But there is little hard evidence about the expectations of the students themselves when they embarked upon it. It is the shortage of information about students' perceptions that aroused my attention and interest to carry out this study. The more that is found out about students' expectations, the sounder would be arguments put forward in support or against the decision for further higher education expansion.

The methodology adopted in the present research was based in part on Purcell and Pitcher's (1996) in the United Kingdom. The Purcell and Pitcher Study consisted of a questionnaire survey and a focus group follow-up interview session of the United Kingdom final year undergraduate students undertaken between April to June 1996. That study covered a wide range of academic disciplines and subject areas that are normally taken to prepare students for the graduate labour market. The

narrowly targeted vocational courses, such as Medicine, and Education were excluded. The sampled students came from the oldest universities to the newest ones. The present research does not borrow the research tool completely. Attempts were made to modify it in a number of areas: First, the questionnaire survey was carried out after the interview survey, not before it. Second, the interval between the two surveys was much longer. It lasted almost twenty months. Third, subject areas ranging from narrowly vocational courses to general non-vocational courses were included. And fourth, the sampled students were not confined to any particular year of study. The rationales behind these arrangements and the major difference between the findings of the United Kingdom and the Hong Kong studies have already been explained and discussed in the preceding chapters and will not be repeated here.

The following is a critical assessment of the research methodology of the Hong Kong study. In the first place, the interview followed by questionnaire sequence, in retrospect, could be considered to have been effective but not ideal. I would not choose to follow the same sequence if the research were done again. It is an effective sequence as the interview survey could generate some detailed findings as the basis for verification to be made in the questionnaire survey. The verification is considered necessary and desirable as it serves to study a bigger sample to make generalization of the research findings sound and valid.

Should the research be done again, I would rather stick to the sequence of the United Kingdom study that is the interview session would follow the questionnaire. The questionnaire can then serve to gather statistical results for the research, to be followed by more in depth exploration of the views of a smaller sample of students. One possible arrangement is that in the questionnaire, an invitation for voluntary participation in the interview research would be included. Interested parties might be asked to give the names and contact means in the questionnaire form. It is believed that in this way, the sample for the interview survey

will be recruited from a fuller diversity of courses than the selecting sample by chain referral. But on the other hand, the disadvantage of so doing is that it is not possible to control the sample as neatly as what the researcher wants it to be, as in the case of this research, that the samples should come evenly from six chosen degree programmes distributing among the UGC funded degree granting institutions. It is also possible that the response to the invitation will not be as good as expected and the required sample size may not be attained. So the option to apply chain referral should still be left open.

The purpose of using questionnaire findings to generalise those of the interview findings would not be fulfilled should the sequence be changed. Instead, the interview would serve the purpose of an in-depth longitudinal study. Most ideally, the sample could be used for further longitudinal studies over a longer period of time, to investigate the extent to which student expectations of higher education are being met as they graduate and at different stages of their career paths. To a researcher, a series of longitudinal study ahead of this one would certainly be of prominent interest as findings of these would provide important implications for educators, employers and policy makers.

However, it is deemed necessary to point out some problems when conducting the questionnaire survey as they might result in doubts on the reliability of the findings. It is something related to the general attitude of most Hong Kong people towards questionnaires. In the western world, questionnaires being mailed to individuals for self-completion are common and many researches are in fact conducted in this methodology. In Hong Kong, it is also not an uncommon survey practice, either in the commercial or academic sector. Yet, I have observed though without rigorous support that, many respondents do not respond to questionnaires in a really serious manner. If the questionnaire is sent by mail, the researcher has to hope for the good will of the target group to complete it seriously and mail it back. People in Hong Kong always complain that they are very busy and many

do not like being bothered if they do not see any practical “value” for completing the questionnaire. Moreover, if the questionnaire is a long one, or worse still if the questionnaire is written in English, the chance that the questionnaire will be returned will be still lower.

Taking into account all these considerations, the questionnaire survey in the present research did not rely on sending the questionnaire by mail to the target groups. Instead, they were specially arranged for distribution to samples of students by lecturers in lecture rooms to be completed and collected on the spot, or by reliable student leaders, using their persuasion “power” to make their peers complete the questionnaire. In the former cases, the “ethical issue” of ensuring and securing the respondents to make responses on their own free will had to be attended to. The likely impact of the fact that the questionnaires were distributed and collected by the respondents’ lecturers on the way students made their responses was considered. Precautions were made by inviting the lecturers to brief their students clearly when distributing the questionnaires about their own role as “messenger” whose responsibility was to pass the questionnaires from the researcher to the respondents and backwards; and that they would have no access to the collected data. This measure, together with the questionnaire’s declaring statement for strictest confidentiality, should have helped to forestall any bias response in this connection.

But owing to the fact that most questionnaires were completed under a certain extent of time constraint or that some students may feel reluctant to complete the form, a number of incomplete or invalid forms were found. Some forms were completed by students not belonging to the sampled target groups. So because of all these various reasons, out of over 1,300 questionnaires distributed, only 731 were valid for analysis. They were considered valid when 90% or above of the questionnaire have been completed. There was actually no way to assess how seriously the students have responded to each of the questions raised. This might have affected

the overall accuracy and reliability of the research results. Unfortunately, there is still little that could be done, by individual researchers or even large research bodies, to control the attitude of the respondents toward questionnaire surveys in Hong Kong. It will surely take time for a more sincere and respectful survey culture to develop before improvement could be made.

In retrospect, the researcher also finds that the inclusion of students of the very narrowly vocation related courses, such as the Medicine, Law and Engineering, in the sample for this study should be reconsidered. The reason is simple. Their pragmatic orientation is more than obvious to require investigation or verification. Instead, students of Social Sciences, Business Studies and Information Technology or Computer Science courses should be more useful targets to test students' instrumental motivations during periods of very acute economic downturns.

Moreover, the target samples should be confined to students of the same year of study, instead of a mixture of students of different years. It is believed that students from different years of study may vary in their perception or expectations. So it is not helpful to making generalizations to research findings. For an expectations study like this one which explores into students' expectations for returns of higher education, including skills to be developed during their courses of study, first year students should be more suitable samples. They are freshmen of the higher education sector and are still excited and clear about what to expect from it. Students of the other years may have become more practical, because of various reasons, during their courses of study. Their expectations and perceptions may also have changed. Also, for instance, when they are asked about their expectation for skills development on course, their answers may not be purely about what they expect; they may be confused with whether the skills have been developed. The respondents may not be aware of this confusion. The researcher may also not be able to detect this. Interviewing first year undergraduates will avoid these problems. Furthermore, if first

year students are selected as samples, further researches could be made again, most ideally in each year of their course durations or at least at the time when they complete their courses. Certainly, these will be very useful to trace if and how students' opinions in these matters change through time. The idea and plan for the longitudinal study should be exposed and explained to the sample for the interview survey, to solicit their support in advance. Hopefully, the same group would agree with carrying on with the research for some time after their graduation.

The above self-assessment is made to generate alternative ideas and further improvements in future studies. Looking back at the present research methodology, the chosen approach was effective in serving the objectives of the study. It could be justified by the following points.

1. As a matter of fact, the researcher first encountered the Purcell and Pitcher Study while planning the interview survey in early 1997 and did not make the decision to adopt its research tool until after the interview survey was completed. So it was not possible to follow the questionnaire first, interview next order of that study.
2. Hence, the qualitative interview survey served to collect in-depth and genuine information of the students' perceptions and perspectives of the benefits of higher education. Despite its small sample size, it provided useful materials to identify areas of interests to be further explored in the subsequent questionnaire survey.
3. The questionnaire survey was conducted at a later stage to cross-check the findings of the interview survey. The quantitative approach was adopted as the researcher intended to conduct the second survey with a sample much larger in size than that of the former one in order to make generalization of findings effective and meaningful.
4. The timings of the two surveys were deliberate and they served the purposes of the study well. The interview survey was conducted in June 1997 to capture the subjective views and feelings of the students immediately before the political change. The questionnaire survey was

conducted in March-April 1999, 21 months after the sovereignty change and in the midst of one of the worst economic setbacks that Hong Kong has ever experienced. The two survey findings therefore could not only be used to compare students' views before and after July 1997. The second set of findings also validated the findings of the first survey.

5. The inclusion of students of narrowly vocational courses such as Medicine and Education in the Hong Kong sample was also on purpose. In Hong Kong, Medicine was always one of the most popular first choice university subjects and also one that always admitted the best students in the Hong Kong Advanced level Examination (HKALE). Education, on the other hand, was one of the least preferred degree programmes before 1997. Students who were admitted appeared to be those who performed less well in the HKALE. The present study included them in the sample to investigate into the extent to which the higher ability students and the lower ability ones might differ in their perceptions and expectations of the benefits of higher education. The Law and Journalism students were included to explore how students who were educated to be politically sensitive might perceive the political impact on the benefits of higher education and their future careers differently from the others.
6. In addition, the chosen methodology, though marred by shortcomings examined earlier in this section, was considered a feasible one for a student researcher. First, it did not require too great manpower to conduct the surveys and analyze the findings: the interview survey was conducted solely by the researcher; the questionnaire survey was conducted with the help of friendly connections. In both respects, a good network of connection was an asset for making referrals for interviews and for distributing questionnaire forms. Second, it did not require too many material resources. Financial resources, namely printing and postage costs, sufficed. On the other hand, the benefits

which the researcher gained in the process of conducting the methodology exceeded the costs. The researcher benefited much in developing and improving research skills such as interviewing skills, planning and scheduling skills and data analysis skills. What was more, in making contacts with undergraduates during the interview survey, the researcher had further strengthened his connection network to pave way for further studies to be made.

9.3. Concluding Comments

The present thesis set out to investigate Hong Kong students' expectations of higher education in the context of changing higher education scenario in the 1990s. Changes included an expansion in the number of higher education places, an increase in students' share of the direct cost, and keener competition in the graduate labour market. The impact of these changes was subject to the adverse effects of the sense of political uncertainty arising from the hand-over of sovereignty in mid-1997, as well as the deteriorating economic setting after the Asian Economic Crisis in late 1997. Increased pressure and tension on students were inevitable outcomes, which certainly affected their expectations of higher education.

The thesis reveals that students' expectations for economic benefits from higher education remain generally good, though with some downward adjustment. It may be inferred that in a normal situation, students' expectations may adjust upwards as explained by Machlup (1978) (see Chapter 3). In making the cost and benefit analysis, students set their eyes on long-term benefits. The increased costs, therefore, are considered short-term costs weighed against long-term benefits. There may be some variations between students in different programmes of study when calculating cost-benefits difference, the variations depending a great deal on their own special career conditions. But, to all, higher education is

thought to add value. Whether these benefits are economic or non-economic, they are still added values.

In this sense, the study supports the main argument of the thesis: as higher education expands in Hong Kong, most higher education students may foresee less attractive immediate economic benefits than their predecessors did but they are still convinced that over the long term their individual benefits will remain good. Hence, the majority of Hong Kong students remain optimistic in their perception of benefits from higher education. The demand for higher education will remain high. The Hong Kong SAR Government could continue to widen the participation of higher education without capping the undergraduate degree places at the level of 18% of the relevant age group only. Continuous investment in human capital is the key of future success for both an individual and the society. Paul Krugman (1997:197) pointed out that technological change is causing unemployment and similar economic problems such as income inequalities. New technology, Krugman asserted, displaces unskilled workers and workers whose skills are tied to outmoded forms of technology. It follows that education and on the job training (Thurow, 1999: 262-274) for technological change is one of the keys to solving unemployment, particularly unemployment among youth. The idea is the concept of lifelong learning and life wide learning or the creation of a learning society (Hutchins, 1968). Most OECD countries widely accept lifelong learning as a policy guide for future educational planning. The new approach is a true “cradle to grave” view¹: it encompasses all purposeful learning activity undertaken with the aim of improving knowledge, skills, and competence (Williams 1977:17; UNESCO, 1996; 1998a; OECD 1996; 1998:8; 1999a; 1999c; 2000, 2001; Blackstone, 1998; Green et. al., 1999:221-233; Yung,

¹ OECD (1998:8) pointed out the four key points of lifelong learning. They are (1) the centrality of the learner and learner needs; that is, an orientation towards the “demand side” of education and training rather than just the supply of places. (2) An emphasis on self-directed learning, and the associated requirement of “learning to learn” as an essential foundation for learning that continues throughout life. (3) A recognition that learning takes place in many settings, both formal and informal. (4) A long-term view that takes the whole course of an individual’s life into consideration.

1999; Blunkett, 2000, Preston and Plewis, 2001). This corresponds to Robertson's (1999:29) emphasis that 'smart' people generate 'smart' ideas, and the exploitation of the new idea is the one sure means by which mature economies can continue to grow.

Indeed, higher education is conducive to the creation of wealth, both to individuals and to society or the nation as a whole (Levin, 1998; Gray, 1999:23; Thurow, 1999:130-148; OECD 1999a:55-73). This thesis has shown that most higher education students in Hong Kong are aware of this. They are contented with the "pay more now, take returns later" concept. With the arrival of the new millennium, there will be an increasing demand for higher education world-wide to satisfy the increasing need for socio-cultural and economic development (UNESCO, 1998:4-9; OECD, 1998b:19; 1999c:65-83; Blunkett, 2000). Hong Kong will not be the exception. After all, the population of Hong Kong has increased substantially during the last decade². Demand for higher education places would naturally increase.

As such, there is no reason for the Hong Kong SAR Government to cap the level of investing in higher education for only 18% of the relevant age group. This thesis supports the proposition that the Hong Kong SAR Government should pursue the goal of "tertiary education for all" who have the ability and the will to do so. That is, the government should consider expanding the higher education sector even further, or seriously consider the establishment of private universities and community colleges. Only in this way, as Levin (1997) believed, could Hong Kong be able to achieve steady economic growth in the 21st century while converging into the global village. Only when Hong Kong's economy continues to grow could higher education students reap the maximum benefits from their investment in higher education.

² Hong Kong Department of Census and Statistics (2000) recorded that the population of Hong Kong in 1991 was 5,840,400, while the population in 1999 was 6,843,000. In less than ten years, the population of Hong Kong increased substantially.

On 11th October, 2000, the Chief Executive of the Hong Kong SAR Government announced at his Annual Policy Address (Tung, 2000:22) that the government planned to increase human capital investment at all levels of education. In higher education, the objective is that within ten years, 60% of senior secondary school leavers will receive tertiary education. The Hong Kong Special Administrative Region Government will provide about 28,000 additional places for higher education, bringing the total number to around 55,000. The planned development will concentrate on higher diploma and sub-degree places by establishing more community colleges and private universities. The Government certainly plans to expand higher education based on a wider perspective of the benefit of Hong Kong as a whole. This study's advocacy of expansion, taking into consideration the private concern of the students --- their expectation for economic and other benefits of higher education --- to a certain extent, has been answered.

BIBLIOGRAPHY

- Alba-Ramirez, A. and San Segundo, M. J. (1993). "Mismatch in the Spanish labour market?". *Journal of Human resources*, 28(2), 259-278.
- Alba-Ramirez, A. and San Segundo, M. J. (1995). "The returns to education in Spain". *Economics of Education Review*, 14(2), 155-166.
- Altbach, P. (1998). "Comparative perspectives on higher education for the twenty-first century". *Higher Education Policy*, Vol.11, 347-356.
- Altbach, P. (1999). "Patterns in higher education development", in Philip Altbach, et al. (eds.), *American Higher Education in the Twenty-first Century*. Baltimore: The Johns Hopkins University Press.
- Alchian, A. and Allen, W. (1983). *Exchange and Production: Competition, Coordination, and Control*. Los Angeles: University of California.
- Altonji, J & Pierret, C. (1996). "Employer learning and the signalling value of education", Working Paper No.5438, National Bureau of Economic Research. Mass: Cambridge.
- Arrow, K. (1974). "Higher education as a filter". *Journal of Public Economics* (2), 193-216.
- Asplund, R. and Pereira, P.T. (1999). *Returns to Human Capital in Europe*. ETLA: The Research Institute of the Finnish Economy Helsinki.
- Ashenfelter, O. & Krueger, A.(1994). "Estimates of the economic return to schooling from a new sample of twins". *American Economic Review*, 84, 1157-1173.
- Ashenfelter, O. & Rouse, C.(1998a). "Income, schooling, and ability: evidence from a new sample of identical twins". *Quarterly Journal of Economics*, CXIII (1), 253-284.
- Ashworth, J. (1997). "A waste of time? Private rates of return to higher education in the 1990s". *Higher Education Quarterly*, 51 (2), 164-188.

- Barnett, R. (1990). *The Idea of Higher Education*. Buckingham: Open University Press.
- Barnett, R. (1994). *The Limits of Competence*. Buckingham: Open University Press.
- Barnett, R. (1997a). "A knowledge strategy for universities", in Barnett, R. and Griffin, A. (eds.), *The End of Knowledge in Higher Education*. London: Cassell.
- Barnett, R. (1997b). *Higher Education: A Critical Business*. Buckingham: SRHE/Open University Press.
- Barnett, R. (1997c). *Towards a Higher Education For a New Century*. London: Institute of Education, University of London.
- Barnett, R. (1999). "The coming of the global village: a tale of two inquiries". *Oxford Review of Education*, 25 (3), 293-306.
- Barnett, R. (2000). *Realizing the University in an Age of Supercomplexity*. Buckingham: Open University Press.
- Barnett, R. and Hallam, S. (1999). "Teaching for supercomplexity: a pedagogy for higher education", in Peter Mortimore (ed.) *Understanding Pedagogy and its Impact on Learning*. London: Paul Chapman Publishing Ltd.
- Becker, G. (1964). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. Chicago: The University of Chicago Press.
- Becker, G.S. and Tomes, N. (1979). "An equilibrium theory of the distribution of income and intergenerational mobility". *Journal of Political Economy*, 87, 1153-1189.
- Belfield, et.al. (1997). *Mapping the Careers of Highly Qualified Workers*. Bristol: HEFCE Research Series.
- Bennell, P. (1996). "Using and abusing rates of return: a critique of the World Bank's 1995 education sector review". *International Journal of Educational Development*, 16(3), 235-248.
- Bennell, P. (1998). "Rates of return to education in Asia: a review of the evidence". *Education Economics*, 6(2), 107-120.

- Bennett, N., et. al. (2000). *Skills Development in Higher Education and Employment*. Buckingham: Open University Press.
- Berg, I. (1970). *Education and Job*. New York: Praeger.
- Berger, M. (1988a) "Cohort size effects on earnings: differences by college major". *Economics of Education Review*, 7, 375-383.
- Blaug, M. (1965). "The rate of return on investment in education in Great Britain" in Mark Blaug (ed.) *The Economics of Education and the Education of an Economists*. Hant: Edward Elgar.
- Blaug, M. (1967). "Approaches to educational planning" in Mark Blaug (ed.) *The Economics of Education and the Education of an Economists*. Hant: Edward Elgar.
- Blaug, M. (1968). *Economics of Education I*. London: Penguin.
- Blaug, et al. (1969). *The Causes of Graduate Unemployment in India*. London: Penguin Press.
- Blaug, M. (1970). *An Introduction to Economics of Education*. London: Penguin.
- Blaug, M. (1972). "The correlation between education and earnings: what does it signify?". *Higher Education* (1), 53-76.
- Blaug, M. (1976). "The empirical status of human capital theory: a slightly jaundiced survey". *Journal of Economics Literature*, Vol. 14 (3), 826-55.
- Blaug, M. (1978). *Economics of Education, A Selected Annotated Bibliography*. London: Pergamon Press.
- Blaug, M. (1980). *The Economics of Education and the Education of an Economists*. Hant: Edward Elgar
- Blaug, M. (1985). "Where are we now in the economics of education?". *Economics of Education Review*, 4 (1), 17-28.
- Blaug, M. (1990). *The Economic Value of Higher Education*. Netherlands: The Netherlands Institute for Advanced Study in Social Science.
- Blundell, R. et. al. (1997). *Higher Education, Employment and Earnings in Britain*. London: Institute for fiscal Studies.

- Bowles, S. and Gintis, H. (1975). "The problem with human capital theory – a Marxian critique", *American Economic Review*, May, 74-82.
- Bowles, S. & Gintis, H. (1976). *Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life*. New York: Basic Books.
- Bowman, J. (1966). 'The human investment revolution in economic thought'. *Sociology of Education*, Spring: 111-137.
- Bosworth, D. and Ford, J. (1985). "Income expectations and the decision to enter higher education". *Studies in Higher Education* (10), 21-31.
- Bound, J. and Solon, G. (1999). "Double trouble: on the value of twins-based estimation of the return to schooling". *Economics of Education Review*, 18, 159-167.
- Bourdieu, P. (1973). "Cultural reproduction and social reproduction", in Richard Brown (ed.) *Knowledge, Education and Cultural Change*. London: Tavistock.
- Brown, S. and Sessions, J. (1999). "Education and employment status: a test of the strong screening hypothesis in Italy". *Economics of Education Review* (18), 397-404.
- Bray, M. (1992). "Hong Kong education in an international context: the impact of external force", in Gerard Postiglione (ed.) *Education and Society in Hong Kong: Toward one country and two systems*. Hong Kong: Hong Kong University Press.
- Bruner, J. (1977). *The Process of Education*. Cambridge: Harvard University Press.
- Carnoy, M. (1967). "Earnings and schooling in Mexico". *Economic Development and Cultural Change*, 15, 408-419.
- Carnoy, M. (1995). "The economics of education, then and now". In Carnoy, Martin (eds.). *International Encyclopaedia of Economics of Education*. Cambridge: Pergamon Press.
- Carroll, A. and Ihnen, L. (1967). "Costs and returns for two years of post-secondary technical schooling: a pilot study". *Journal of Political Economy*, December.

- Cheng, J. (1995). "Higher education in Hong Kong – the approach to 1997 and the China factor". *Higher Education*, Vol. 30, 257-271.
- Cheng K.M. (2002). 'Change in the work place and the implications for education' . A keynote speech at the 2002 meeting of the International Congress for School Effectiveness and Improvement on "Democratic Learning", January, 3-7, 2002, Copenhagen. (Further revised January, 16, 2002). Re-presented at a seminar in University of Hong Kong , March, 13, 2002.
- Cheung, C.W. (1981). *Investment in Human Capital and the Distribution of Earnings*. Unpublished M.Soc.Sc dissertation, Faculty of Social Science, University of Hong Kong. Hong Kong.
- Chiu Y. W. Y. (1991). *Careers Perceptions of Matriculation Students in two Schools in Hong Kong*, Unpublished M.Ed dissertation, Faculty of Education, University of Hong Kong.
- Cohn, E. and Geske, T. (1972) (Reprinted in 1990). *The Economics of Education*. New York: Pergamon.
- Cohn, E. and Addison, W. (1998). "Economic returns to lifelong learning in OECD Countries". *Education Economics*, Vol.6 (3), 253-307.
- Court, G. (1995). "The US and UK labour markets for new graduates – Trends and comparisons", *Industry and Higher Education*, June, 170-175.
- Crawford, L. (1995). "The development of the secondary education in Hong Kong, 1945-71", *History of Education*, Vol.24 (1), 105-121.
- Denson, E.F. (1962). *Accounting for United States Economic Growth, 1929 - 1969*. Washington: Brookings Institution.
- Denson, E.F. (1964). "Measuring the contribution of education (and the Residual) to economic growth.". In *Organisation for Economic Co- operation and Development*, 13-55.
- Dey, E. and Hurtado, S. (1999). "Students, colleges, and society: considering the interconnections", in Philip Altbach, Robert Berdahl, and Patricia Gumpert (Eds), *American Higher Education in the Twenty-first Century: Social, Political, and Economic Challenges*. Baltimore: Johns Hopkins.

- Dore, R. (1976). *The Diploma Disease*. London: Unwin Education Books.
- Duncan, G. and Hoffman, S. D. (1981). "The incidence and wage effects of over-education". *Economics of Education Review*, 1 (1), 75-86.
- Ehrenberg, R. and Smith, R. (1991). *Modern Labour Economics*. New York : Harper Collins.
- Endacott, G. (1964). *A History of Hong Kong*. Hong Kong: Oxford University Press.
- Fagerlind, I. (1975). *Formal Education and Adult Earnings*. Stockholm: Almqvist & Wiksell International.
- Florida, R. and Cohen, W. (1999). 'Engine or infrastructure? The university role in economic development', in Branscomb, Lewis; Kodama, Fumio; and Florida, Richard (eds.) *Industrialising Knowledge University-Industry Linkages in Japan and the United States*. Massachusetts: Massachusetts Institute of Technology Press.
- Foster, E. and Rodgers, J. (1979). "Quality of education and student earnings". *Higher Education*, 8, 21-37.
- Freeman, R. (1981). "Response to change in the United States". In: Linley, A (eds.). *1981 Higher Education and the Labour Market*. Buckingham: Society for Research into Higher Education.
- Gardner, H. (1983). *Frames of Mind: The theory of multiple intelligence*. New York: Basic Books.
- Goleman, D. (1995). *Emotional Intelligence*. Boston: Harvard University Press.
- Gomez-Castellanos, L. and Psacharopoulos, G. (1990). "Earnings an education in Ecuador: evidence from the 1987 Household Survey". *Economics of Education Review*, 9 (3), 219-227.
- Green, A., Wolf, A. and Leney, T. (1999). *Convergence and Divergence in European Education and Training System*. London: Institute of Education, University of London.
- Gray, H. (1999). *Universities and the Creation of Wealth*. Buckingham: Open Universities Press.

- Groot, W. & Hartog, J. (1995). "Screening models and education", in Carnoy, M. (ed.), *International Encyclopaedia of Economics of Education*. Oxford: Pergamon Press.
- Griliches, Z. (1979). "Sibling models and data in economics: beginnings of a survey". *Journal of Political Economy*, 87, S37-S65.
- Hartog, J. (2000). "Over-education and earnings: where are we, where should we go?". *Economics of Education Review*, 19, 131-147.
- Harvey, L. et. al. (1997). *Graduates' Work: Organisational Change and Students' Attributes*. Birmingham: University of Central London.
- Harris, P. (1978). *Hong Kong: A study in Bureaucratic politics*. Hong Kong: Heinemann Asia.
- Haselgrove, S. (1994). *The Student Experience*. Suffolk: Open University Press.
- Haskel, J. et al. (2000). "Estimating returns to education using a new sample of United Kingdom twins". A draft paper prepared by the research team from Queen Mary and Westfield College and Twins Research and Genetic Epidemiology Unit, St.Thomas's Hospital, London, the United Kingdom.
- Heckman, J.J. and Hots, V.J. (1986). "An investigation of the labour market earnings of Panamanian males: evaluating the sources of inequality. *Journal of Human Resources*, 23, 507-542.
- Hong Kong Medical Association (1999). "More unemployment for newly graduate medicine students". *News Release*. Hong Kong: Hong Kong Medical Association.
- Hong Kong University Statistic Society (1990). *A Survey on Decisions of Higher Education in Hong Kong*. Hong Kong: University of Hong Kong.
- Hong Kong University Career Advisory Board (1995). *Comment on Career Preparation for Undergraduates*. University of Hong Kong: Press Release.
- Hong Kong University (1996). *Graduate Employment Survey*. Hong Kong: University of Hong Kong.

- Hong Kong Medical Association (1996). *Annual Report*. Hong Kong: Hong Kong Medical Association.
- Hung, F. S. (1982). *Private and Social Rates of Return on Investment in Education in Hong Kong*, Unpublished Master Thesis, School of Education, The Chinese University of Hong Kong. Hong Kong.
- Hung, F. S., et. al. (2000). "To work or to continue to higher education? The choice of senior secondary students in Shenzhen, China". *Higher Education*: 39, 455-467.
- Hutchins, R. M. (1968). *The Learning Society*. New York: F.A. Prageger.
- Isacsson, G. (1999). *Essay on the Twins Approach in Empirical Labour Economics*. Stockholm: Institute for Social Research.
- James, E. et. al. (1989). "College quality and future earnings: where should you send your child to college?". *American Economic Review*, 79, 247-252.
- Jamison, D. and Lau, L. (1982). *Farmer Education and Farm Efficiency*. Baltimore: Johns Hopkins University Press.
- Jencks, C. et al (1972). *Inequality: a reassessment of the effect of family and schooling in America*. New York: Basic Books.
- Jencks, C. et al (1979). *Who Gets Ahead? The Determinants of Economic Success in America*. New York: Basic Books.
- Jennings and Logan (1953) *A Report on the University of Hong Kong*. Hong Kong: Cathy Press.
- Jones, E.B. and Jackson, A.D. (1990). "College grades and labour market rewards". *Journal of Human Resources*, 25, 253-266.
- Jones, J. and Kwan K.P. (1999). *The Video Interview Project: Listening to our students talk*. Hong Kong: City University of Hong Kong.
- Johnson, G.E. and Stfford, F. P. (1973). "Social returns to quantity and quality of schooling". *Journal of Human Resources*, Vol.8, 139-155.

- Kavale, S. (1996). *Interviews – An Introduction to Qualitative Research Interviewing*. London: Sage Publications.
- Kiker, B.F. et. al. (2000). “The role of human capital and technological change in over-education”. *Economics of Education Review*, 19 (2), 199-206.
- Knight B.J. and Sabot, H.R. (1990). *Education, Productivity and Inequality. The East African Natural Experiment*. Oxford: Oxford University Press.
- Kwok, C. K. (1984). *An Analysis of the Earnings Structure of Hong Kong*. Unpublished master thesis. Hong Kong: the Chinese University of Hong Kong.
- Krugman, P. (1997). *Pop Internationalism*. Cambridge: Massachusetts Institute of Technology Press.
- Krugman, P. (1999). *The Return of Depression Economics*. London: The Penguin Press.
- Kugler, B. and Psacharopoulos, G. (1989). “Earnings and education in Buenos Aires household survey”. *Economics of Education Review*, 8 (4), 353-365.
- Landes, D. (1998). *The Wealth and Poverty of Nations: Why some are so rich and some so poor*. New York: W.W. Norton & Company.
- Lee, J. (1995). *Social Class and Career Aspirations: A Study of F.5 Students in Two Schools in Hong Kong*. Unpublished M.Ed dissertation, Faculty of Education, University of Hong Kong. Hong Kong.
- Lee, R. (1993). *Doing Research on Sensitive Topics*. London: Sage.
- Lee, N. and Lam, A. (1994). *Professional and Continuing Education in Hong Kong: Issues and Perspectives*. Hong Kong: Hong Kong University Press.
- Leung, K. M. (1984). *An Empirical Study of Rates of Return to Investment in Education in Hong Kong*. Institute of Education, University of London, the United Kingdom.

- Leung, K. H. (1990). *Career Aspirations of Hong Kong Secondary Students*. An unpublished Master dissertation, University of Hong Kong.
- Levin, H. (1997). *Accelerated Education for an Accelerating Economy*. A lecture by Wei Lun Visiting professor at the Chinese University of Hong Kong, 26th September, 1997.
- Levin, H. (1998). "Financing a system for lifelong learning". *Education Economics*, 6 (3), 201- 217.
- Lindley, R. (1981). *Higher Education and Labour Market*. Buckingham : Open University Press.
- Little, A. (1992). "Diploma Disease". In Clark and Neave (eds.), *The Encyclopaedia of Higher Education*. London: Pergamon Press.
- Liu, C. W. (1991). *Investment Returns to Education in Hong Kong*, Unpublished M.Soc. Sc dissertation, Faculty of Social Science, University of Hong Kong.
- Liu, C. W. (1991). *Investment Returns to Education in Hong Kong*, unpublished M.Soc Sc dissertation, Faculty of Social Science, University of Hong Kong.
- Liu, J.T., et. al. (2000). "Family background and returns to schooling in Taiwan". *Economics of Education Review*, 19, 113-125.
- Lo, C. K. (1995a). "From "through train" to "second stove". In Joseph Cheng and Sonny Lo (eds.), *From Colony to SAR, Hong Kong Challenges Ahead*. Hong Kong: The Chinese University Press.
- Lo, C. K. (1995b). "Constitution and Administration". In Stephen Cheung and Stephen Sze (eds.), *The Other Hong Kong Report, 1995*. Hong Kong: The Chinese University Press.
- Lockheed, M. et. al. (1980). "Farmer education and farm efficiency: a survey". In King.T (ed.), *On Education and income*. World Bank Staff Working Paper, No. 402, Washington: World Bank.
- Mace, J. (2000). *Economics of Education I – Advanced Diploma in Education*. London: University of London Press.
- Machlup, F.(1978). *Methodology of Economics and Other Social Sciences*. London: Academic press.

- McMahon, W. (1991). "Relative returns to human capital and physical capital in the U.S. and efficient Strategies". *Economics of Education Review*, Vol. 10, 283 - 296.
- McMahon, W. (1997). "Recent advances in measuring the social and individual benefits of education". *International Journal of Educational Research*, 27 (6), 447-532.
- McMahon, W. (1998). "Conceptual framework for the analysis of the social benefits of lifelong learning". *Education Economics*, 6 (3), 309-346.
- McMahon, W. (1999). *Education and Development: Measuring the Social Benefits*. New York: Clarendon Press.
- Mak, Tit Wah (1983). '*Planning Strategies and the Allocation of Resources in the Hong Kong Educational System*'. Hong Kong: M. Soc. Sc. (Public administration) Dissertation, University of Hong Kong.
- Menon, M. (1997). "Perceived economics benefits of higher education: the case of Cyprus". *Education Economics*, 5 (1), 53-61.
- Menon, M. (1998). "Perceived rates of return to higher education: an international review and comparison". *Compare* , 28 (3), 293-304.
- Miller, P., Mulvey, C. and Martin, N. (1997). Family characteristics and the returns to schooling: evidence on gender differences from a sample of Australian twins. *Economica*, (64), 119-136.
- Milne, P. (1999). "The role of universities in economic growth: the ASEAN countries", in Harry Gray (ed.), *Universities and the Creation of Wealth*. Buckingham: Open Universities Press.
- Mincer, J. (1958). "Investment in human capital and personal income distribution". *Journal of Political Economy*, LXVI, 281-302.
- Mincer, J. (1962). "On-the job-training: costs, returns and some implications". *Journal of Political Economy* (Supplement) 70 (October): 281-302.
- Mincer, J. (1974). *Schooling, Experience and Earnings*. New York: Columbia University Press.
- Mincer, J. (1984). "Human capital and economic growth". *Economics of Education Review*, 3 (3), 195-205.

- Mincer, J. (1996). "Changes in wage inequality, 1970-1990", Working Paper 5823, National Bureau of Economic Research, Cambridge, Mass.
- Moock, P.R., and Addou, H. (1995). "Education and agricultural productivity". In Carnoy Martin (ed.), *International Encyclopaedia of Economics of Education*. London: Pergamon.
- Neumark, D. (1999). "Biases in twin estimates of the return to schooling". *Economics of Education Review*, 18, 143-148.
- Paterson, E. H. (1987) *A Hospital for Hong Kong : The Centenary History of The Alice Ho Miu Ling Nethersole Hospital*. Hong Kong: Nethersole Hospital.
- Patrinos, H. (1995). "Socioeconomic background, schooling, experience, ability and monetary rewards in Greece". *Economics of Education Review*, 14(1), 85-91.
- Patton, M. (1990). *Qualitative Evaluation and Research Methods*. California: Sage Publication Inc.
- Pomerantz-Zhang, L. (1992). *Wu Tingfang: Reform and Modernization in Modern Chinese History*. Hong Kong: Hong Kong University Press.
- Powney, J. et. al. (1987). *Interviewing in Educational Research*. London: Routledge and Kegan.
- Postiglione, G. (1992). 'The decolonization of Hong Kong Education',
- Preston, J. and Plewis, I. (2001). *Evaluating the Benefits of Lifelong Learning: A Framework*. The Wider Benefits of Learning Papers: Number 2. London: Institute of Education, University of London.
- Psacharopoulos, G. (1973). *Returns to Education: An international comparison*. Amsterdam :Elsevier-Jossey Bass.
- Psacharopoulos, G. (1975). *Earnings and Education in OECD Countries*. Paris: OECD.
- Psacharopoulos, G. (1979). "On the weak versus strong version of the screening hypothesis". *Economics Letters* (4),181-5.

- Psacharopoulos, G. (1981). "Returns to education :an updated international comparison". *Comparative Education* 17 (3), 321-41.
- Psacharopoulos, G. and Sanyal, B. (1982). "Student expectations and graduate market performance in Egypt". *Higher Education*, 7 (3), 321-332.
- Psacharopoulos G. (1984). "The contribution of education to economic growth: international comparisons". In Kendrick, J.W. (ed.), *International Comparisons of Productivity and Cause*. Cambridge: M.A. Ballinger.
- Psacharopoulos, G. & Woodhall, M. (1985). *Education for Development: An Analysis of Investment Choice*. Washington: World Bank.
- Psacharopoulos, G. (1985). "Returns to education: a further international update and implications". *Journal of Human Resources*, 20 (4), 584-604.
- Psacharopoulos, G. and Woodhall, M. (1986). *Education for Development*, New York: Oxford University Press.
- Psacharopoulos, G. (1989). "Time trends of the returns to education: cross-national evidence", *Economics of Education Review*, Vol.12 (1), 71-80.
- Psacharopoulos, G. (1992). "Rates -of -return studies". In Clark and Neave (eds.) *The Encyclopaedia of Higher Education*. London: Pergamon Press.
- Psacharopoulos, G., et. al. (1994). "Education and earnings in Paraguay". *Economics of Education Review*, 13 (4), 321-327.
- Psacharopoulos, G. (1995). "Returns to investment in education: a global up-date". *World Development*, 22 (9), 1325 - 43.
- Psacharopoulos, G. (2000). "Economics of Education *a la* Euro". *European Journal of Education* , 35 (1), 81-95.
- Psacharopoulos, G., et. al. (1996). "Returns to education during economic boom and recession: Mexico 1984, 1989 and 1992". *Education Economics*, 4 (3), 219 - 230.

- Purcell, K. and Pitcher, J. (1996). *Great Expectations – the New Diversity of Graduate Skills and Aspirations*. A study undertaken on behalf of the Association of Graduate Careers Advisory Services (AGCAS) and Higher Education Careers Services Unit (CSU). The United Kingdom: AGCAS and CSU.
- Purcell, K. and Pitcher, J. (1998). "Diverse expectations and access to opportunities: is there a graduate labour market?". *Higher Education Quarterly*, 52 (2), 179-203.
- Roberston, D. (1999). "Knowledge societies, intellectual capital and economic growth". In H. Gary (ed.), *Universities and the Creation of Wealth*. Buckingham: Open University Press.
- Rouse, C. E. (1999). "Further estimates of the economic return to schooling from a new sample of twins". *Economics of Education Review*, (18)149-157.
- Rumberger, R. (1984). "High technology and job loss". *Technology in Society* 6:263-84.
- Rumberger, R. and Thomas, S. (1993). "The economic returns to college major, quality and performance: a multilevel analysis of recent graduates". *Economics of Education*, 12(1), 1-19.
- Sadlak, J.(1998). "Globalization and concurrent challenges for higher education", in Peter, Scott (ed.) *The Globalization of Higher Education*. Buckingham: Open University Press.
- Schultz, T. W. (1961). "Education and economic growth". In Henry, N.B. (ed.), *Social Forces Influencing American Education*. Chicago: University of Chicago Press.
- Schultz, T. W. (1961). "The concept of human capital: reply" in Mark, Blaug (ed.) (1968) *Economics of Education, Vol.1*. London: Penguin Books.
- Schultz, T. W. (1963). *The Economic Value of Education*. New York: Columbia University Press.
- Schultz, T.P. (1988). Education investments and returns. In T.N. Srinivassan, *Handbook of development economies*. Amsterdam: North Holland.
- Scott, P. (1995). *The Meanings of Mass Higher Education*. Buckingham: Open University Press.

- Scott, P. (1998). *The Globalization of Higher Education*. Buckingham: Open University Press.
- Shive, G. (1992). "Educational expansion and the Labour force", in Gerard Postiglione (ed.) *Education and Society in Hong Kong: Toward One Country and Two Systems*. Hong Kong: Hong Kong University Press.
- Sianesi, B. and Van Reenen, J. (2000). "The returns to education: a review of the macro-economic literature". Centre for the Economics of Education Discussion Paper 6. London: Centre for the Economics of Education, University of London.
- Silver, H. and Silver, P. (1997). *Students*. Buckingham: Open University Press.
- Simpson, R. (1959). *Graduate Employment in Hong Kong and the Problem of University Expansion*. Hong Kong: Hong Kong University Press.
- Simpson, R. (1966a). *Perspectives in University Development*. Hong Kong: Hong Kong Council for Educational Research.
- Simpson, R. (1966b). *Manpower and Employment Problems*. Hong Kong: Hong Kong Council For Educational Research.
- Smith, A. (1776, reprinted in 1952). *Inquiry into the Nature and Causes of the Wealth of Nations*. Chicago : Encyclopaedia Britannica.
- Smith, C.T. (1984). *Chinese Christians, Elites, Middlemen and the Church in Hong Kong*. Hong Kong: Oxford University Press.
- Solmon, L. (1975). "The definition of college quality and its impact on earnings". *Explor. Econ. Res*, 2, 537-588.
- Solmon, L. (1985). "Quality of education and economic growth". *Economics of Education Review*, 4 (4), 273-290.
- Spence, D. (1973). "Job market signalling". *Quarterly Journal of Economics* 87 (August), 355-74.
- Spring, J. (1998). *Education and the Rise of the Global Economy*. New York: Lawrence Erlbaum Associates, Inc.

- Stager, D. (1996). "Returns to investment in Ontario university education, 1960 - 1990, and implications for tuition fee policy". *The Canadian Journal of Higher Education*, Vol. XXXVI-2, 1-21.
- Stiglitz, J. (1975). "The theory of 'screening, education and the distribution of income". *American Economic Review*, June.
- Sweeting, A. (1990). *Education in Hong Kong Pre-1841 to 1941: Fact and Opinion*. Hong Kong: Hong Kong University Press.
- Tabuman, P.J. and Wales, T.J. (1974). *Higher Education and Earnings: College as an Investment and a Screening Device*. New York: McGraw Hill.
- Teichler, U. (1988). *Changing pattern of the Higher Education System: the experience of three decades*. London: Jessica Kingsley.
- Teichler, U. (1992). "Occupational structures and higher education". In Clark and Neave (eds.) *The Encyclopaedia of Higher Education*. London: Pergamon Press.
- Teichler, U. (1999). "Higher education and changing job requirements", in Mary Henkel and Brenda Little (eds.), *Changing Relationships between Higher Education and the State*. London: Jessica Kingsley Publishers.
- Thurow, L. (1970). *Investment in Human Capital*. California: Belmont.
- Thurow, L. (1972). "Education and economic inequality." *The Public Interest* 28 (Summer), 66-81.
- Thurow, L. (1974). "Measuring the economic benefits of education". In Margaret. S. Gordon (ed.), *Higher Education and the labour Market*. New York: McGraw-Hill Book Company.
- Thurow, L. (1996). *The Future of Capitalism: How Today's Economic Forces Shape Tomorrow's World*. New York William Morrow & Company.
- Thurow, L. (1999). *Building Wealth*. New York: Harper Business.
- Trow, M. (1974). "Problems in the transition from elite to mass higher education.". In *OECD 1974, Policies for Higher Education*. Paris: OECD.

- Trow, M. (1989). "American higher education – past, present and future". *Studies in Higher Education*, 14 (1), 5-22.
- Tuckman, B.W. (1972). *Conducting Educational Research*. New York: Harcourt Brace Jovanoich.
- University of Hong Kong (1995). *Employment Competitiveness of Recent Graduates*. Hong Kong: Hong Kong University Press.
- University of Hong Kong(1995). *Destination and Remuneration of 1995 Bachelor's Degree Graduates Report – 1995*. Hong Kong: Hong Kong University Press.
- Vaisey, J. (1958). *The Costs of Education*. London: Allen and Unwin.
- Vaisey, J. (1962). *The Economics of Education*. New York: Free Press.
- Velloso, J. (1995). "Income Distribution and Education". In Carnoy Martin (ed.), *International Encyclopaedia of Economics of Education*. London: Pergamon Press.
- Vila, L. (2000). "The non-monetary benefits of education". *European Journal of Education*, 35 (1), 21-32.
- Wagner, A. (1996). "Financing higher education: new approaches, new issues". *Higher Education Management*, 8 (1), 7-17.
- Wagner, A. (1999). "Tertiary education and lifelong learning: perspectives, findings, and issues from OECD work". *Higher Education Management*, (11), 55-67.
- Wagner, A., et. al. (2000). "Tertiary education: new patterns of learning and earnings". *European Journal of Education*, 35 (1), 45-59.
- Weale, M. (1992). "Externalities from education". In Hahn (ed.), *The Market: Practice and Policy*. London: Macmillan.
- Wei, X., et. al. (1999). "Education and earnings in Rural China". *Education Economics*, 7 (2) 167-187.
- Weisbrod, B.A. (1964). *External Benefits of Public Education: An Economists Analysis*. Princeton, N.J: Industrial Relations section, Princeton University.
- Weisberg, J. (1995). "Returns to education in Israel: 1974 and 1983". *Economics of Education Review*, 14 (2), 145-154.

- Welch, F. (1966). "Measurement of the quality of schooling". *American Economic Review*, May, 379-92.
- Wider Benefits of Learning Team (2000). *Modelling and Measuring the Wider Benefits of Learning: an initial synthesis*. London: The Centre for Research on the Wider Benefits of Learning, University of London.
- Wiersma, W.(1986). *Research Methods in Education – An Introduction*. Boston: Allyn and Bacon.
- Wiersma, W. (1986). *Research Methods in Education -- An Introduction*. Boston: AAYN and Bacon, Inc.
- Williams, G. (1973). "The economics of the graduate labour market". In Williams, G & Greenway, H. (eds.), *Pattern of Change in Graduate Employment*. London: Open University Press.
- Williams, G. (1974). "The economic approach". In Clark R. Burton (ed.), *Perspectives on Higher education: eight disciplinary*. New York: McGraw Hill Publication.
- Williams, G. (1977). *Towards Lifelong Education: a New Role for Higher Education Institutions*. Paris: UNESCO.
- Williams, G. and Gordon A. (1981). "Perceived earnings functions and ex ante rates of return to post compulsory education in England". *Higher Education*, 10, 199-227.
- Williams, G. (1985). "Graduate employment and vocationalism in higher education". *European Journal of Education*, 20 (2 - 3), 181 - 192.
- Williams, G. (1987). "Changing patterns of educational finance and anticipated effects of institutional behaviour and educational outcomes". In Thomas and T. Simkins (eds.) *Economics and the Management of Education: Emerging Themes*. London: Falmer Press.
- Williams, G. (1990). "Quality and resource allocation". In Cari Loder (ed.) *Quality Assurance and Accountability in Higher Education*. London: The Institute of Education , University of London.
- Williams, G. (1994). *Reforms and Potential Reforms in Higher Education Finance*, Paper presented at Twelfth General Conference of IMHE Member Institutions. Paris: OECD.

- Williams, G. (1996a). "The many faces of privatisation". *Higher Education Management*, November, 1996, 8 (3), 39- 56.
- Williams, G. (1996b). *Paying for Education Beyond Eighteen – An Examination of Issues and Options*. London: The Council for Industry and Higher Education.
- Williams, G. (1996c). *Resources for Higher Education in OECD Countries*. London: Centre for Higher Education studies, Institute of Education.
- Williams, G. (1997). "Book reviews on recent developments in the economics of education". *Education Economics*, 5 (2), 185-187.
- Williams, G. (1998). "Current debates on the funding of mass higher education in the United Kingdom". *European Journal of Education*, 33 (1), 77-87.
- Williams, G. (1999). "State finance of higher education: an overview of theoretical and empirical issues", in Mary Henkel and Brenda Little (eds.), *Changing Relationships Between Higher Education and the State*. London: Jessica Kingsley Publishers.
- Williams, G. (2001). "Economic Benefits of Higher Education – A Short Review of Literature". A draft paper, Centre for Higher Education Studies, Institute of Education, University of London.
- Wong, K. F. (1992). "Private and social rates of return to investment in education". In Chung Yue Ping and Wong Yue-chim (eds.) *The Economics and Financing of Hong Kong Education*. Hong Kong: The Chinese University Press.
- Wong, K. C. (1989). *Perceived Earnings Functions and Ex ante Rates of Return to Higher Education - A Case Study of Hong Kong*. Ph.D Thesis, Institute of Education, University of London.
- Wong, Y.T. (1995). "Labour and employment", in Stephen Cheung and Stephen Sze (eds.), *The Other Hong Kong Report -1995*. Hong Kong: The Chinese University Press.
- Wong, Y.T. (1997). "Labour and employment", in Joseph Cheng (ed.), *The Other Hong Kong Report -1995*. Hong Kong: The Chinese University Press.

- Woodhall, M. (1970). *Cost-Benefit Analysis in Educational Planning*. Paris: UNESCO/International Institute of Educational Planning.
- Woodhall, M. (1988). "Designing a student loan program for a developing country: the relevance of international experience". *Economics of Education Review*, 7 (1), 153-161.
- Woodhall, M. (1989). *Financial Support for Students: Grants, Loans or Graduate Tax*. London: Kogan Page.
- Woodhall, M. (1992). "Economic development and higher education", in Clark and Neave (eds.) *The Encyclopaedia of Higher Education*. London: Pergamon Press.
- Woodhall, M. (1995a). "Student loans". In Carnoy, Martin (ed.). *International Encyclopaedia of Economics of Education*. Cambridge: Pergamon Press.
- Woodhall, M. (1995b). "Student fees". In Carnoy, Martin (ed.). *International Encyclopaedia of Economics of Education*. Cambridge: Pergamon Press.
- Woodhall, M. (1998). "Human capital concepts". In A.H. Halsey, Huge Lauder, Phillip Brown and Amy Wells (eds.) *Education - Culture, Economy, and Society*. Oxford: Oxford University Press.
- Yip, H. K. (1981). *Educational Planning in Hong Kong*, University of Hong Kong. Unpublished M. Soc.Sc dissertation, the University of Hong Kong, Hong Kong.
- Yung, M. S. (1999). "21st century teachers: education reform in Post-Capitalist society (the case of Hong Kong)". A paper presented at the International Conference on 21st century education reform: teachers and social changes held at the Hong Kong Baptist University, October, 1999.

Governments and International Organisations' Documents

The United Kingdom

- Blackstone, Baroness (1998). *Lifelong Learning, Employment and Citizenship --- For the Many not the Few*. Opening address at the Conference of the Learning Age: Towards a Europe of Knowledge.

Blair, T. (1995). "A Young Nation", Speech by the Rt Hon Tony Blair, Leader of the Labour Party, at Labour Party Annual Conference, October, 3, 1995.

Blair, T. (1997). "Foreword by the Prime Minister," *Connecting the Learning Society*,
<http://www.open.gov.uk/dfee/grid/forward.htm>.

Blunkett, D. (2000). *Speech on Higher Education*, 15th February, 2000 at Maritime Greenwich University.

Robbins, L. Lord (1963). *Higher Education Report*, London: Her Majesty's Stationary Office.

Department of Education and Science(1972). *The White paper on Education*. London: Department of Education and Science.

Department of Education and Science (1978). *Higher Education into the 1990s -- A Discussion Document*. London: Department of Education and Science.

Department of Education and Science(1985). *The Development of Higher Education into the 1990s*. A White Paper presented to Parliament. London: Her Majesty's Stationary Office.

Department of Education and Science (1986). *Projections of Demand for Higher Education in Great Britain 1986 - 2000*. London: Department of Education and Science.

Department of Education and Science (1991). *Higher Education : A New Framework*. London: Her Majesty's Stationary Office.

Department of Education and Employment (1998) *The Learning Age*, a government green paper. London: Department of Education and Employment.

Dearing, R. Lord (1997). *The National Committee of Inquiry into Higher Education: Higher Education in the Learning Society*. London: The Secretaries of State for Education and Employment, Wales, Scotland, and Northern Ireland.

The United Nations

UNESCO (1996). *Learning---the Treasure within*. Report of the International Commission on Education for the 21st Century. Paris: UNESCO.

UNESCO (1998). *World Declaration on Higher Education for the Twenty-first Century: Vision and Action and Framework for priority Action for Change and Development in Higher Education*. Paris: UNESCO.

World Bank

World Bank (1991). *World Development Report, 1991*. New York: Oxford University Press.

World Bank (1995). *Priorities and Strategies for Education: A World Bank Review*. Washington DC: World Bank.

World Bank (1999a). *World Bank Annual Report*. Washington DC: World Bank.

World Bank (1999b). *Social Policy and Income in Korea*. Washington DC: World Bank.

OECD

Organisation for Economic Co-operation and Development (1993). *Initial Source of Funding of Tertiary Education in 1991*. Paris: OECD.

Organisation for Economic Co-operation and Development (1993). *Education at a Glance: OECD indicators*. Paris: OECD.

Organisation for Economic Co-operation and Development (1996). *Education at a Glance: OECD indicators*. Paris: OECD.

Organisation for Economic Co-operation and Development (1996). *Lifelong Education for All*. Paris: OECD.

Organisation for Economic Co-operation and Development (1998a). *Education Policy Analysis*. Paris: OECD.

Organisation for Economic Co-operation and Development (1998b). *Redefining Tertiary Education*. Paris: OECD.

- Organisation for Economic Co-operation and Development (1999a).
(reprinted in 1999). *Human Capital Investment: An International Comparison*. Paris: OECD.
- Organisation for Economic Co-operation and Development (1999b).
Preparing Youth For the 21st Century: The Transition from Education to the Labour Market. Paris: OECD.
- Organisation for Economic Co-operation and Development (1999c).
Education Policy Analysis. Paris: OECD.
- Organisation for Economic Co-operation and Development (1999d).
OECD Science, Technology and Industry Scoreboard 1999--- Bench Marking Knowledge-Based Economies. Paris: OECD.
- Organisation for Economic Co-operation and Development (1999e).
OECD in Figures. Paris: OECD.
- Organisation for Economic Co-operation and Development (1999f).
OECD---Japan Outlook. Paris: OECD.
- Organisation for Economic Co-operation and Development (2000).
Education at a Glance. Paris: OECD.
- Organisation for Economic Co-operation and Development (2001a).
Education Policy Analysis. Paris: OECD.
- Organisation for Economic Co-operation and Development (2001b).
The Well-being of Nations: the role of human and social capital. Paris: OECD.

Hong Kong

- Board of Education (1997). *Joint University Programmes Admissions System*. Hong Kong: Government Printer.
- Education Commission (1986). *Education Commission Report No 2*,
Hong Kong: Government Printer.
- Education Commission (1988). *Education Commission Report No 3: The Structure of Tertiary Education and the Future of Private Schools*. Hong Kong: Government Printer.

- Education Commission (1990). *Education Commission Report No 4: The Curriculum and Behavioural Problems in Schools*. Hong Kong: Government Printer.
- Education Commission (1992). *Education Commission Report No. 5: The Teaching Profession*. Hong Kong: Government Printer.
- Education Commission (1997). *Education Commission Report No.7 : Quality School Education*. Hong Kong: Government Printer.
- Education Commission (1999). *Review of Education System: Framework for Education Reform --- Learning for Life*. Hong Kong: Government Printer.
- Education Department (1978). *Education Ordinance*. Hong Kong: Government printer.
- Education Department (1996). *Salary Scale of Teachers*. Hong Kong: Government printer.
- Education Department (1998). *Enrolment Survey*. Hong Kong: Government Printer.
- Education Department (1999). *Secondary Six Admission Procedure*. Hong Kong: Government printer.
- Education Department (2002). *Statistics*. Hong Kong: Government printer.
- Education and Manpower Branch (1991). *Manpower Outlook in the 1990's – An Updated Projection of Manpower Supply and Requirements*. Hong Kong: Government Printer.
- Education and Manpower Branch (1992). *Manpower Outlook in the 1990's – A Revised Projection of Manpower Supply and Requirements*. Hong Kong: Government Printer.
- Education and Manpower Branch (1994). *Manpower 2001 Revisited, A Revised Projection of Manpower Supply and Requirements for 2001*. Hong Kong : Government Printer.
- Education and Manpower Branch (1996). *“Extra Fund Needed for Extra Language Training for the Undergraduates in the Seven UGC Funded Institutions”*. Press Release in November, 1996.

- Education and Manpower Bureau (1997). *Degree and Sub-degree Tuition Fees Rate, 1997-2001*. Press Release in 15th July, 1997.
- Ernst & Young (1996). *Hong Kong Government Student Financial Assistance Agency Report: Consultancy Study on the Local student Finance Scheme*. Hong Kong: Ernst & Young Management Consultancy Ltd.
- Home Affairs Department & University and Polytechnics Grants Committee (1978). *Report of Opinion Survey on Green Paper on Senior Secondary and Tertiary Education*. Hong Kong: Hong Kong University Press.
- Hong Kong Examination Authority (1998). *Examination Result*. Hong Kong Government Internet Home Page.
- Hong Kong Government (1996). *Hong Kong Year Book 1996*. Hong Kong: Government Printer.
- Hong Kong Census and Statistics Department (1995). *Quarterly Report of General Household Survey, October to December 1995*. Hong Kong: Government Printer.
- Hong Kong Census and Statistics Department (1999). *Quarterly Report of General Household Survey, January to March 1999*. Hong Kong: Government Printer.
- Hong Kong Census and Statistics Department (2000). *Hong Kong in Figures, 1992-99*. Hong Kong: Government Printer.
- Hong Kong Census and Statistics Department (2000). *Hong Kong in Figures, 2000 Edition*. Hong Kong: Government Printer.
- Tung C. H. (1997). *Annual Policy Address*. Hong Kong: Government of the Hong Kong Special Administrative Region.
- Tung C. H. (2000). *Annual Policy Address*. Hong Kong: Government of the Hong Kong Special Administrative Region.
- University and Polytechnics Grants Committee (1966). *Annual Report*. Hong Kong: Hong Kong Government Printer.
- University and Polytechnics Grants Committee (1989). *Interim Report for the 1988-91 Triennium, July 1988 to December 1989*. Hong Kong: Hong Kong Government printer.

- University Grants Committee (1994). *Interim Report for the 1993-96 Triennium, July 1993 to December 1996*. Hong Kong: Hong Kong Government printer.
- University Grants Committee (1996a). *Statistical Report : UGC funded institutions 1995. Internet home page information*. Hong Kong: Hong Kong Government Printer. www.ugc.edu.hk.
- University Grants Committee (1996b). *Preparation of Students for Tertiary Education (Final Report), a Report Prepared by POSTE Team, Faculty of Education, University of Hong Kong*. Hong Kong: Government Printer
- University Grants Committee (1996c). *Higher Education in Hong Kong: A Report by the University Grant Committee*. Hong Kong: Hong Kong Government Printer.
- University Grants Committee (1998). *Statistics*. Hong Kong: Internet home page of UGC, www.ugc.edu.hk.
- University Grants Committee (1999). *Higher Education in Hong Kong, Supplement*. Hong Kong: Hong Kong Government Printer.
- Wilson, D. (1989). *The Governor Speech: 1989*. Hong Kong: Hong Kong Government Printer..

(Appendix One)
Interview Guide

Age:

Gender:

Present education institution:

Degree programme:

Year attending:

1. In what ways are your A level courses related to your present degree course?
2. Is the present degree course the most preferred course?
3. If not, what was your most preferred programme? why were you not able to follow this programme?
4. In deciding your university programme you should study, how would you collect information before making such a decision?
5. Was any advice from parents, teachers, careers master, etc. particularly important in helping you to make your course or institution?
- 6.. If yes, what are they?

7. At the same time, do you have a rank table of all the higher education institutions in Hong Kong?
8. How do you rank them and why?
9. How did you support the cost of your higher education?
10. Have you suffered any financial hardship as a result of being on your course?
11. Did you apply for a student loan?
12. If yes, can your present student loan sufficiently cover all the expenses of the degree programme?
13. What is your impression or feeling about the present student loan interest rate and the repayment arrangement?
14. Do you think language proficiency should be taken as the prerequisite for student loans or government subsidy?
15. Looking back, can you describe your reasons for entering higher education?

16. Is there any career related reasons you had for entering higher education?

The following are prompts of the previous question.

I needed more time to decide about my future occupation.

I was inclined to a particular occupation and this was the training I needed.

I had decided on my occupation and this was the training I needed.

I wanted to acquire more general skills to qualify for a variety of jobs.

17. Do you think you will choose a career related to what you are studying?

18. What are the reasons for your first choice of employment? Please give your main reasons first?

The following 17 reasons are prompts only if respondents are not able to give his/her own opinion.

1. Good working condition
2. Job satisfaction
3. A high future salary
4. Personal interest
5. prospects of promotion and long term career development
6. A chance to serve the future SAR government
7. Overseas exposure (Travelling in overseas)
8. Serving the public of the globe
9. Further study opportunities
10. Opportunity to emigrate
11. Opportunity in gaining unexpected profit
12. A high starting salary
13. Long term job security
14. Probability of eventual self-employment
15. A chance to serve my motherland China
16. The opportunity to be creative and original
17. A chance to help others

19. In terms of job competition and remuneration, how do you think the increase in supply of graduates by the expansion in higher education will affect the present future labour market?
20. How much do you know about the present first employment opportunities (time for job finding etc.) and situation (such as salary and promotion prospect) of the career related to your present degree programme?
21. What is your view about the first employment opportunity and situation of this career at the time of your graduation?
22. The social and political situation of Hong Kong is going to change a lot after the 1997 change of sovereignty. In what way do you think it will affect the future employment opportunities of new graduates?
23. How will this affect your choice of future career and first employment upon your graduation?
24. There are also sayings that higher education students in Hong Kong will face job competition from higher education graduates from the globe, how would you anticipate the situation?

25. How important is the consideration of the future situation after 1st July, 1997 a factor in deciding your preferred career choice?

26. Finally, do you have confidence on the future development of Hong Kong despite her return to China on 1st July, 1997?

Yes. No. Don't know.

27. If no, what are the most worrying factors that make you feel not confident?

28. If yes, what are the most favourable factors that make you feel confident?

-End-

(Appendix Two)
Expectations for Economic and Other Benefits From
Higher Education in Hong Kong
(March, 1999)

The information you give us will be treated in the strictest confidence. No information about any individual will be published or passed on to either the educational institutions in question, or to a third party.

- 1. As an undergraduate student in Hong Kong, which of the following statements applies to you? (Please circle more than one if appropriate)**
- a. My degree programme will enable me to get the kind of job or training opportunity I wanted.
 - b. My degree programme will enable me to go on to the postgraduate course I wanted.
 - c. My degree programme will enable me to get a good job, although it isn't exactly what I hoped for.
 - d. My degree programme will enable me to find a better job than I would have been able to otherwise.
 - e. I now believe that finding (or remaining in) employment would have been a better use of my time than undergraduate study.
 - f. I did not undertake my programme or degree for employment-related reasons.
 - g. The degree programme/courses that I enrolled in is my most preferred programme.
 - h. I have no choice, since the placement is decided by JUPAS.
 - i. I have to enter this programme because my parents want me to do so.
- 2. Why did you decide to do the course that you are doing?**
- a. To develop a broader range of skills and /or knowledge.
 - b. To develop more specialised skills and/or knowledge.
 - c. To prepare for my career.
 - d. I thought it would improve my job prospects.

c. Work only during the summer.

d. Other please specify _____.

8. In terms of the graduate labour market, which of the following statements applies to you?

a. The graduate labour market is very competitive.

b. There are few suitable jobs available.

c. I will apply for post graduate study only if I cannot find a suitable job.

d. I do not think I will have problems finding a job.

e. My studies have nothing to do with my career.

f. I expect a low economic return in the next few years but a higher return over the long run.

g. When the economy recovers, there will be plenty of good jobs.

h. There is an oversupply of undergraduates.

9. What is your view about first employment opportunities and the situation of your career at the time of your graduation?

a. I will get exactly what I want.

b. I will take the best out of several job offers.

c. I will take the first offer I receive in order to gain experience so that I may obtain the type of job I really want.

d. I will take the job to broaden my experience and to develop more general skills.

e. I will take the job to pay off my debts.

f. I will take anything that is available, rather than be unemployed.

f. Other (Please specify) _____

10. Do you think the possession of a degree is a requirement for obtaining a job in the future?

1. Yes

2. No

3. Unsure

11. Out of the competence listed, which do you think are regarded by your future employer as the most important?

a. Very much b. Quite a lot c. A little d. Very little
e. Not at all

(Please circle one answer only)

a. Ability to apply knowledge	a	b	c	d	e
b. Ability to prioritise tasks	a	b	c	d	e
c. Ability to use numerical data	a	b	c	d	e
d. Ability to work in a team	a	b	c	d	e
e. Awareness of strengths/weaknesses	a	b	c	d	e
f. Computer literacy	a	b	c	d	e
g. Creativity	a	b	c	d	e
h. Critical analysis	a	b	c	d	e
i. Desire to go on learning	a	b	c	d	e
j. Entrepreneurial skills	a	b	c	d	e
k. Independence	a	b	c	d	e
l. Interpersonal skills	a	b	c	d	e
m. Knowledge of international affairs	a	b	c	d	e
n. Leadership skills	a	b	c	d	e
o. Logical thinking	a	b	c	d	e
p. Presentation skills	a	b	c	d	e
q. Problem-solving skills	a	b	c	d	e
r. Research skills	a	b	c	d	e
s. Self-confidence	a	b	c	d	e
t. Self-discipline	a	b	c	d	e
u. Self-reliance	a	b	c	d	e
v. Specialist knowledge	a	b	c	d	e
w. Spoken communication	a	b	c	d	e
x. Time management	a	b	c	d	e
y. Written communication	a	b	c	d	e

12. Which changes in occupation do you expect to make within the next five years?

(Please tick **ALL** that apply)

a. Change my employer	
b. Change my field of responsibilities	
c. Achieve a higher position	
d. Achieve more secure employment	
e. Achieve a better use of my qualifications	
f. Change to a completely different job or career	
g. Move to a more demanding job	
h. Move to a less demanding job	
i. Take a career break for personal development	
j. Take a career break for family-related reasons	
k. Undertake further full-time study	
l. Study part-time for additional qualifications	
m. Become self-employed	
n. No major change	
o. Other (please specify):	

13. As far as long-term values are concerned, how important to you are the following?

(PLEASE TICK **ONE** BOX IN EACH ROW)

	Very Important	Important	Not Sure	Not Very Important	Positively Not Important
a. Career development					
b. Personal development and growth					
c. Family development					
d. Job satisfaction					
e. Being valued by my employer					
f. Doing socially significant work					
g. Gaining international experience					
h. Rewarding leisure/travel					
i. Involvement in local community issues					
j. Concern with ecological issues					
k. Concern with current affairs					

Other(Please specify)_____

14. How far do you agree or disagree with the following statements?
(please take *one* box in each row)

	Agree strongly	Agree somewhat	Not sure	Disagree somewhat	Disagree strongly
a. I am extremely ambitious					
b. I do not expect to get my main fulfilment from work					
c. I live to work					
d. I work to live					
e. I expect to work continuously until retirement age					
f. I expect to take career breaks for family reasons					
g. I shall expect my partner to take career breaks for family reasons					
h. Women cannot combine a career with children					
i. I expect to change my career several times in the course of my working life					
j. Jobs for life are a thing of the past					

Personal Details

a. Your age NOW _____ years

b. Your sex (Please circle): Male

Female

c. Type of undergraduate course, eg. BSc (Hons) _____

d. Subject/title eg. English/ History _____

e. Institutions where you studied _____
(For example, HKU or CUHK)

f. Thinking back to when you were 14 years old, what occupations did your parents have?

Job title

Father _____

Mother _____

Economic status

	Father	Mother
1. Employee		
2. Self-employed		
3. Unemployed		
4. Not seeking paid work		
5. Other		

- g. Finally, please include any further comments that you have about the graduate labour market with reference to your perceptions of the costs and benefits of higher education either to you personally or else over a more broad spectrum.

(Appendix Three)

**List of persons who kindly assisted the distribution and
collection of questionnaires in March - April, 1999**

Professor Stephen, Ng Sheung Cheung
Head,
School of Economics and Finance,
University of Hong Kong

Professor Andrew, Kam Cheung Wong
Head,
Department of Education,
University of Hong Kong

Mr. Kung Shing Chan
Chairman,
Engineering Society,
University of Hong Kong

Professor L.Y.S. Chan
Head,
Department of History,
University of Hong Kong

Ms. Lousier Li
Careers Education and Placement Centre,
University of Hong Kong

Professor John Spinks
Head,
Department of Psychology
University of Hong Kong

Professor Benny Tai
Law School,
University of Hong Kong

Professor Kong Yue Chan
Department of Chemistry,
University of Hong Kong

Ms. Frances Leung

Secretary of External Affairs,
Medical Student Society,
University of Hong Kong

Ms. Mei Ling Wong
Student Representative
Lee Ming Tat Hall,
University of Hong Kong

Professor Thomas Tse
Assistant Professor
School of Education
The Chinese University of Hong Kong

Professor Gary Wing Kin Wong
Associate Professor,
Department of Paediatrics,
Faculty of Medicine,
The Chinese University of Hong Kong

Mr. Ka Ming Lai
Vice Chairman,
Student Union,
The Chinese University of Hong Kong

Ms. Pauline Yeung
Secretary,
Department of Marketing,
The Hong Kong Baptist University

Mr. Ka Ming Mak
Student representative,
Department of Journalism
The Hong Kong Baptist University

Ms. Flora Tang
Student Union Office,
The Hong Kong University of Science and Technology

Mr. Chun Yue Ho
Chairman,
Economic Society,
The Hong Kong University of Science and Technology
Professor Wai Ming To
Department of Mechanical Engineering,
The University of Science and Technology

Mr. Kai Cheung Cheng
Students' Union Executive Committee,
Faculty of Applied Science and Textile Students' Association,
Communication Students' Association
The Hong Kong Polytechnic University

Professor Pang Kwong Lee
Assistant Professor,
Department of Political Science,
Lingnan University

Professor Anthony, Bing Leung Cheung
Head,
Department of Social and Public Administration,
The City University of Hong Kong

Professor Paul K.S. Lam
Department of Biology and Chemistry,
The City University of Hong Kong

Professor K Venuvinod Patri
Head,
Dept of Manufacturing Engineering and Engineering
Management Science,
The City University of Hong Kong

Ms. Wendy Li
Secretary,
School of Law,
The City University of Hong Kong

Ms. Sylvia Tang
Lecturer,
Department of Educational Administration and Professional
Support,
The Hong Kong Institute of Education

