

Chapter 2 Human Capital

2.1 Definition of human capital

Investment in human capital aims at promoting economic prosperity, full employment and social cohesion. Human capital can be defined as “the knowledge, skills, competences and other attributes embodied in individuals that are relevant to economic activity” so as to enhance individual, social and economic well-being (Centre for Educational Research and Innovation, 1998:9). In other words, human capital focuses on economic behaviour of individuals and how they accumulate knowledge and skills so as to enable them to increase their productivity and their earnings. Human attributes refer not just the level to which an individual has been educated, but also the degree to which he or she can put a wide range of skills to productive use. In addition, ‘economic activity’ not only takes place through individuals in paid work, but also extends to non-market activities (i.e. voluntary and household work) which support individuals and employment (OECD, 1998:9; Schuller, 2000). Data relevant in this context focuses on the areas of education and health.

The aim of the study on human capital is to have a better understanding on what kinds of knowledge and skills are needed to be acquired by the youth so as to enhance their productivity in the labour market.

2.2 Measurement of human capital

There is increasing awareness of the importance of lifelong learning in a knowledge-intensive economy where socio-economic and technological changes call for adaptation and learning throughout life. Thus, simplified proxies for human capital formation, such as completed years and levels of schooling, are not sufficient to provide a reference for policy-makers. Participation in formal education is only a good proxy for the acquisition of economically-relevant knowledge, skills and competencies if all learning is similar in terms of quality and objectives. Furthermore, it is evident that demand for different skills is changing in the knowledge-based economies. There is an increasing demand for inter-personal communication, teamwork and problem-solving skills which are not reflected in completed educational levels. Moreover, the narrow focus on completed educational level and qualifications neglects the matter of depreciation of human capital through lack of use. Besides, it is recognized that human capital formation takes places in various settings including schools, organizations, labour market, communities and national institutions and cultures (Barro & Lee, 2000; Healy, *et*

al., 2001; Laroche & Merette, 2000; OECD, 1998). Therefore, human capital should be measured in broader perspectives (Healy, *et al.*, 2001:18; OECD, 1998:12) and it includes:

- learning within family and early childcare setting;
- formal education and training at different levels, such as early childhood, school-based compulsory education, tertiary education, vocational training;
- workplace training and informed learning at work through specific activities, such as Research and Development or taking part in different professional networks; and
- informal learning ‘on-the-job’ and in daily living and civic participation.

On the international level, the OECD and World Bank have made considerable efforts to constitute a common framework so as to enhance the comparability of data over time and across countries. The OECD conducted the International Adult Literacy Survey (IALS) and the Program for International Student Assessment (PISA) in order to identify and measure the skills and competence in an international context. The IALS identifies literacy skills to cover demands at work, in the home and in the community. Literacy domains are composed of Pros literacy³, document literacy⁴ and quantitative literacy⁵ and each literacy domain is divided into 5 different task levels (OECD, 1998:23). The PISA focuses on 15-year-olds’ capabilities in reading literacy, mathematics literacy, and science literacy. It also includes measures of general or cross-curricular competencies, such as learning strategies. The PISA is being implemented on a 3-year cycle starting in 2000 (Lemke, M, *et al.*, 2001).

Human capital can be measured in terms of stock indicators, investment indicators and indicators of returns to investment in human capital. There are 3 approaches measuring the stock of human capital and they include: (i) measuring educational attainment; (ii) direct testing on human capital attributes; and (iii) estimating the market value of human capital (i.e. looking at reward given on the labour market). As mentioned earlier, the limitations with educational attainment as a proxy for measuring human capital are: (i) school completion does not guarantee relevant skills, knowledge and competence; (ii) it neglects other forms of learning and training; and (iii) it ignores the issue of depreciation of skills through lack of use. Furthermore, it is evident that increased spending through expansion in education participation, such as achieving

³ The knowledge and skills that are required to understand and use information from newspapers, fiction and expository text.

⁴ The knowledge and skills that are required to locate and use the information contained in official forms, timetables, maps and charts.

⁵ The knowledge and skills that are required to apply mathematical operations in printed materials.

lower early school drop-out rate, may provide better returns than increased expenditure on each student every academic year (Healy, 2001:22). Table 2.1 summarizes examples of indicators of human capital.

Table 2.1: Indicators of human capital

| Dimension | Examples of Indicators |
|--|--|
| <i>EDUCATIONAL ATTAINMENT</i> | |
| Educational attainment | <ul style="list-style-type: none"> ■ Percentage of the population completed level of education (primary, secondary and tertiary education) |
| Educational attainment by gender | <ul style="list-style-type: none"> ■ Differences between men and women in various completed levels of education |
| University graduates as a proportion of the labour force | <ul style="list-style-type: none"> ■ Those in the labour force that hold university degrees |
| High school drop-out | <ul style="list-style-type: none"> ■ Dropout rate for secondary school students |
| <i>PUBLIC & PRIVATE INVESTMENT ON HUMAN CAPITAL</i> | |
| Share of national income devoted to education and training | <ul style="list-style-type: none"> ■ Total public and private spending on education as a percentage of Gross Domestic Product |
| Average spending per student by educational level | <ul style="list-style-type: none"> ■ Amount spent on each student |
| Spending on job-related training programmes for youth | <ul style="list-style-type: none"> ■ Public expenditures on labour market training programmes |
| Average duration of job-related training | <ul style="list-style-type: none"> ■ Annual hours of training undertaken -- for each person with any training; and average for all employees |
| Family computer ownership (for education and informal learning) | <ul style="list-style-type: none"> ■ Percentage of households with personal computer (PC) |
| Household expenditure on education | <ul style="list-style-type: none"> ■ Consumption expenditure in the domestic market on educational goods and services |
| <i>DIRECT MEASURES OF HUMAN CAPITAL</i> | |
| Proficiency on Information Technology (IT) | <ul style="list-style-type: none"> ■ Competence in and experience with IT |
| Language proficiency | <ul style="list-style-type: none"> ■ Proportion of youth able to speak selected languages/dialects ■ Results of international language tests |
| Problem-solving and teamwork skills | <ul style="list-style-type: none"> ■ Skill assessment results |
| <i>MARKET VALUE OF HUMAN CAPITAL (INDICATORS OF RETURNS TO INVESTMENT IN HUMAN CAPITAL)</i> | |
| Earning differentials associated with level of educational attainment | <ul style="list-style-type: none"> ■ Ratio of earnings at different levels of education |
| Unemployment associated with level of educational attainment | <ul style="list-style-type: none"> ■ Unemployment rates by educational attainment and by gender |
| Work absenteeism rates | <ul style="list-style-type: none"> ■ Absence rates of full-time workers by sex |
| Job satisfaction | <ul style="list-style-type: none"> ■ Percentage of respondents who reported "very satisfied" with their job |

Table 2.1 (Continued....)

| Dimensions | Examples of Indicators |
|--|---|
| <i>HEALTH CONDITIONS</i> | |
| Average number of disability days per person | ■ Total days lost due to illness/disability |
| Individual lifestyles | ■ Frequency of heavy drinking ■ Smoking prevalence ■ Drug use ■ Incidence of depression / extreme stress ■ Mental health conditions |
| Teen suicide | ■ Youth suicide rate |

Sources: Barro, R.J. & Lee, J.W. (2000)
 Healy, T. *et al.*, (2001)
 OECD (1998)
 The National Round Table on the Environment and the Economy (2001)

2.3 Data availability

Referring to the proposed framework, five aspects concerning the situation and development of human capital among the youth in Hong Kong will be presented and examined. These five aspects include i) educational attainment, ii) public and private investment on human capital, iii) direct measures of human capital, iv) market value of human capital, and v) health conditions.

For the dimension of educational attainment, all proposed indicators were collected. The discussion will focus on school attendance rates, educational attainment and dropout rate among the youth.

For the dimension of public and private investment on human capital, some suggested indicators, such as spending on job-related training programmes and average duration of job-related training, were not available during data collection period. The following discussion will focus on public expenditure on education, amount spent on each student and consumption expenditure on the domestic market on educational goods and services.

For the dimension of direct measure of human capital, there is lack of systematic and well-developed assessments on skills and competency of youth in Hong Kong. Thus, the data on IT and language proficiency, and problem-solving and teamwork skills are not available for the current study. Hong Kong Certificate of Education (HKCE) and Hong Kong Advanced Level (HKAL) examinations, for example, are not tools for assessing the language ability in terms of productive use. According to the Standing Committee on Language Education and Research (SCOLAR),

HKCE and HKAL examinations should be reformed to set each grade level against specified standards so as to assess language proficiency of students who completed form 5 and matriculation level of education. Therefore, the existing grading system of HKCE and HKAL examinations cannot be used to measure the language proficiency of the youth. In this study, the discussion will focus on the proportions of the youth who could speak Cantonese, English and Putonghua. Furthermore, two quantitative studies were used to measure the IT competence of youth. However, these two studies provided only subjective data.

For the dimension of market value of human capital, only one indicator can be accessed (i.e. unemployment rate by educational attainment). Besides the unemployment rate by educational attainment, there are just some small-scale surveys on youth job satisfaction and employers' satisfaction on youth working performance.

For the dimension of health conditions, the following discussion only focuses on teen suicide rates and the employment status of the young persons with disability and chronic diseases. First, the available statistics data cannot present the effects of heavy drinking, smoking and drug use (substance abuse) in term of youth productivity. Nonetheless, the substance abuse of the youth in the past few years will be discussed in chapter 5. Second, some statistics data is difficult to be obtained such as total days lost due to illness/disability.

In addition, the development of human capital of the South Asian ethnic minority youth in Hong Kong should be addressed (Section 2.4.6). According to *the 2001 Population Census*, the number of the South Asian ethnic minority youth aged 15-24 was 43,038, including Filipinos, Indonesians, Indians, Thai, Nepalese, Pakistanis, Bangladeshis and Sri-Lankan. The percentage of the South Asian ethnic minorities in total youth population increased from 1.6 % in 1991 to 4.7% in 2001. The government's planning on the education system and development of human capital should also give concern to the needs of these ethnic minorities.

Table 2.2: Obtained indicators on human capital

| Dimensions | Obtained Indicators | Sources |
|---|--|--|
| <i>EDUCATIONAL ATTAINMENT</i> | | |
| Educational attainment | <ul style="list-style-type: none"> ■ School attendance rates ■ Youth by educational attainment (Highest level attended) ■ Population aged 15 and over with tertiary education | Census and Statistics Department |
| Educational attainment by gender | <ul style="list-style-type: none"> ■ Youth by educational attainment (Highest level attended) ■ Percentages of youth population aged 15-24 with tertiary or above educational levels in different places (for international comparisons) | Census and Statistics Department OECD |
| University graduates as a proportion of the labour force | <ul style="list-style-type: none"> ■ Students of programmes funded by University Grants Committee by level of study and sex | University Grants Committee |
| High school drop-out | <ul style="list-style-type: none"> ■ Statistics on dropout students aged between 6 and 15 | Education and Manpower Bureau |
| <i>PUBLIC & PRIVATE INVESTMENT ON HUMAN CAPITAL</i> | | |
| Share of national income devoted to education and training | <ul style="list-style-type: none"> ■ Total government/public expenditure on education as a percentage of GDP ■ Total public expenditure on education as a proportion of GDP in different countries (for international comparison) | Financial Services and the Treasury Bureau; Economic Development and Labour Bureau; Census and Statistics Department OECD |
| Average spending per student by educational level | <ul style="list-style-type: none"> ■ Amount spent on each student | Education and Manpower Bureau |
| Family computer ownership (for education and informal learning) | <ul style="list-style-type: none"> ■ Households with PC at home connected to the Internet by household size/member | Census and Statistics Department |
| Household expenditure on education | <ul style="list-style-type: none"> ■ Consumption expenditure in the domestic market on educational goods and services | Census and Statistics Department |
| <i>DIRECT MEASURES OF HUMAN CAPITAL</i> | | |
| Proficiency on IT | <ul style="list-style-type: none"> ■ Self-rated competence in and experience with IT ■ Employers' and scholars' views on the quality of university graduates | Leung (2000) |
| Language proficiency | <ul style="list-style-type: none"> ■ Proportion of youth able to speak selected language/dialects | Census and Statistics Department |

Table 2.2 (Continued....)

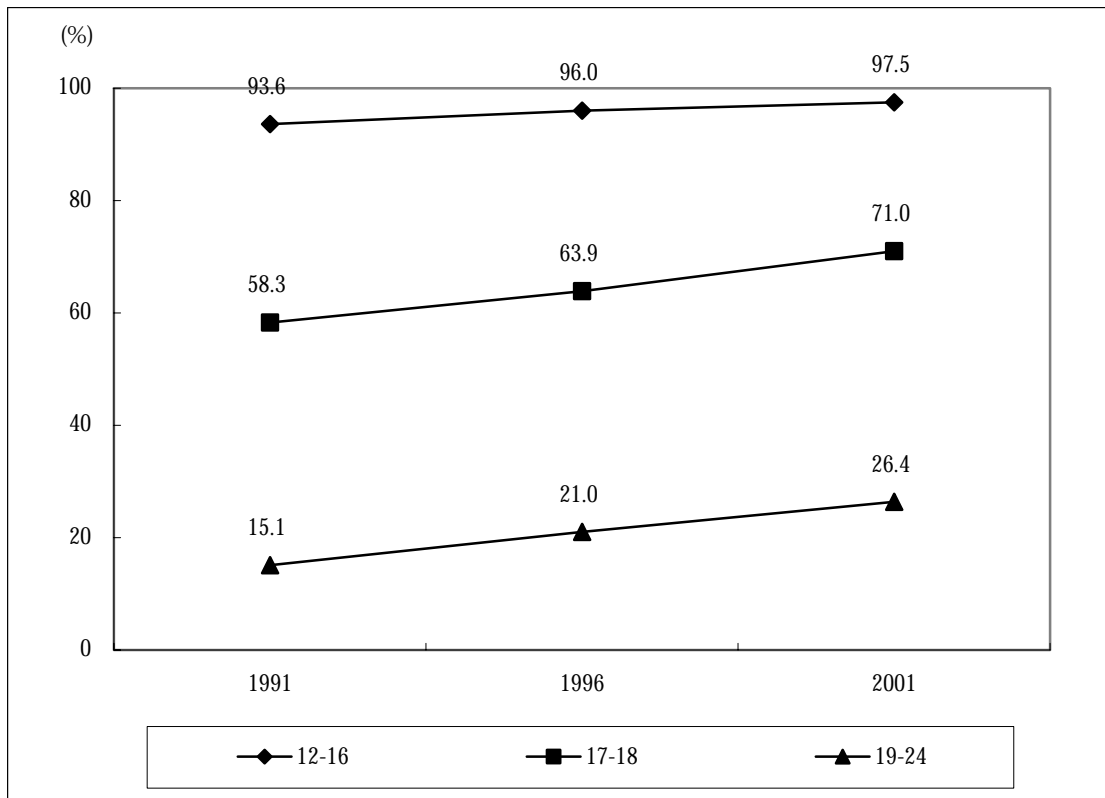
| Dimensions | Obtained Indicators | Sources |
|--|--|--|
| <i>THE MARKET VALUE OF HUMAN CAPITAL</i> | | |
| Unemployment associated with level of educational attainment | <ul style="list-style-type: none"> ■ Unemployment rate of youth aged 15-29 by educational attainment ■ Projected manpower resource balance by educational attainment in 2005 | Census and Statistics Department; Report on Manpower projection to 2005 |
| <i>HEALTH CONDITIONS</i> | | |
| Average number of disability days per person | <ul style="list-style-type: none"> ■ Percentages of employed young persons with disability and chronic diseases in 15-29 age group | Census and Statistics Department |
| Frequency of heavy drinking Smoking prevalence Drug use | <ul style="list-style-type: none"> ■ (See Chapter 5 Substance Abuse) | |
| Incidence of depression/extreme stress Mental health conditions | <ul style="list-style-type: none"> ■ Physical and Mental diseases of youth ■ Scope of seeking help by telephone counseling | The Department of Health; Hong Kong Federation of Youth Group |
| Teen suicide | <ul style="list-style-type: none"> ■ Suicide rates by age groups for the total population ■ Suicide rates for the 15-24 age bracket in different places ■ Percentage of suicide aged 0-39 by occupation | Shek and Tang (in press); Hong Kong Federation of Youth Groups |
| <i>DEVELOPMENT OF SOUTH ASIAN ETHNIC MINORITIES</i> | | |
| Social-demographic data | <ul style="list-style-type: none"> ■ Ethnic minorities by ethnicity and age group | Census and Statistics Department |
| Educational attainment | <ul style="list-style-type: none"> ■ School attendance rates of ethnic minorities by age group and sex | Census and Statistics Department |

2.4 Discussion

2.4.1 Educational attainment

There was a gradual trend that young people got higher level of educational attainment since 1991. As shown in figure 2.1, school attendance rates of youth aged 12 to 16 were relatively stable in the past decade, while attendance rates for those aged 17-18 and 19-24 had increased sharply. Attendance rates of elder youngsters had increased sharply as more and more post-secondary education opportunities were provided. School attendance rates for those aged 19 to 24 increased from 15.1% in 1996 and further rose to 26.4% in 2001.

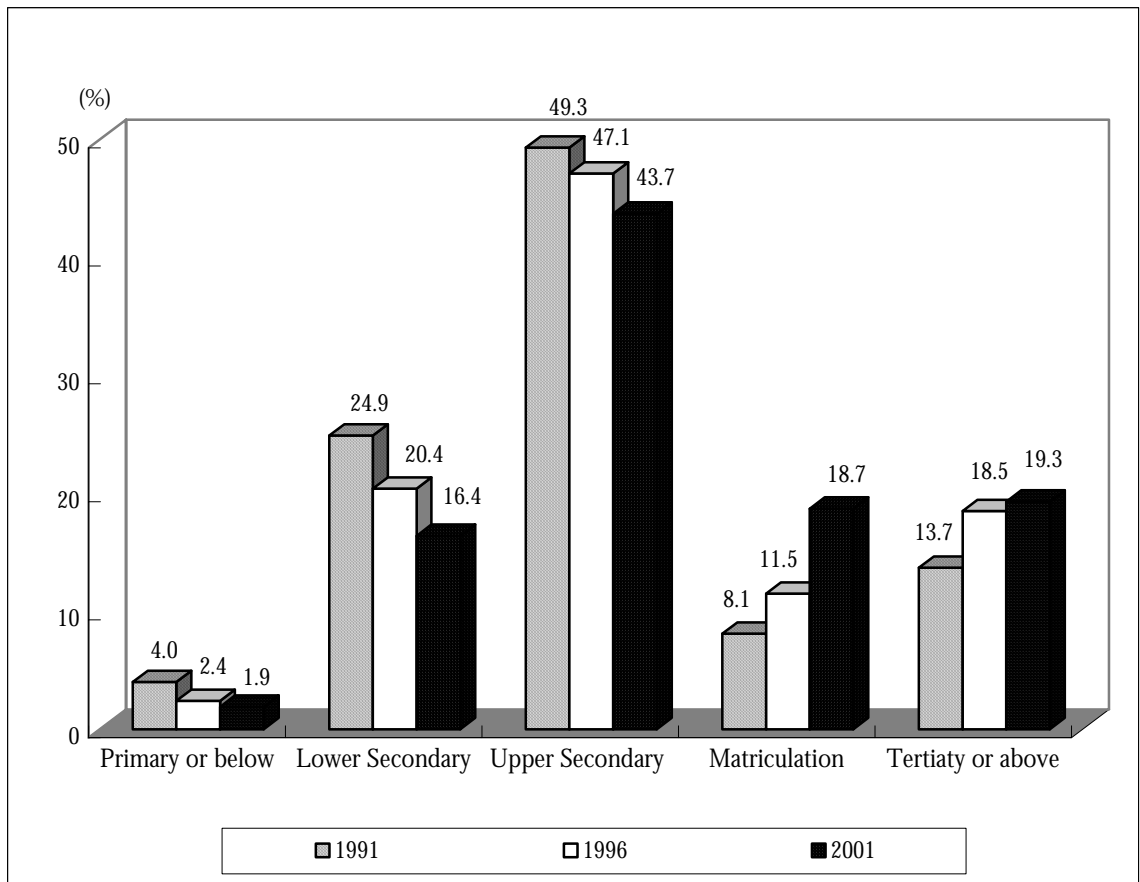
Figure 2.1: School attendance rates by age group (1991, 1996 and 2001)



Source: Census and Statistics Department (2001)

Generally speaking, nearly every youngster acquires at least lower secondary educational level in Hong Kong. As shown in figure 2.2, 98.1% of the youth population obtained at least lower secondary level or above in 2001. Furthermore, there were an increasing number of young people receiving tertiary or higher education. The percentage of youth population with matriculation or tertiary educational level rose from 21.8% in 1991 to 38.0% in 2001 (Figure 2.2).

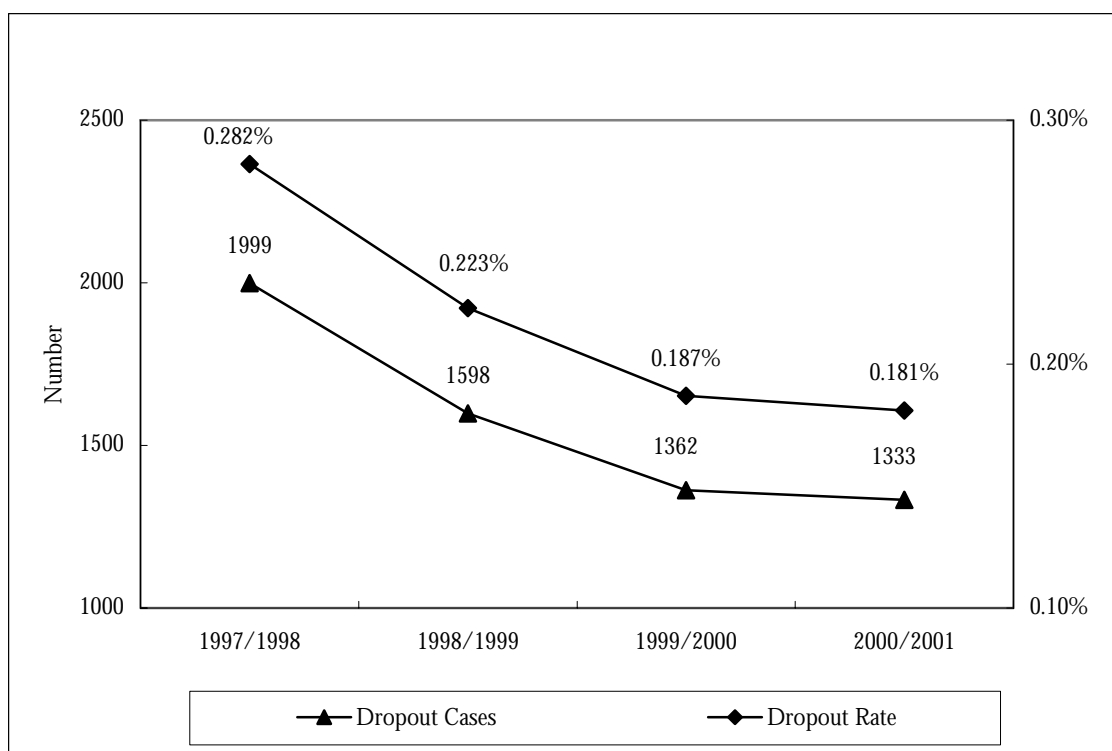
Figure 2.2: Youth aged 15-24 by educational attainment (highest level attended) (1991, 1996 and 2001)



Source: Census and Statistics Department (2001)

Analysis of the trends of school attendance rates and educational attainment reveals the improvement on youth educational level in Hong Kong. However, the issue of early school dropouts should not be ignored. The number of school dropouts aged 6 to 15 decreased 33.3% between 1997 and 2001 (Figure 2.3). In 2000/01 academic year, the dropout rate at Primary and Junior Secondary level is 0.181%. That means there were less than 2 dropout cases in every 1,000 students. Nonetheless, the government has to pay attention to these 1,333 early dropout cases (in 2001). It is because most school dropouts had experienced problems at school before dropping out. Being excluded from the education system, these youngsters may also face difficulties for seeking jobs in labour market. The unemployment rate of the youth with lower educational level was 11.9% in 2001, compared with 4.7% of youth with tertiary educational level (degree) (Refer to section 2.4.4).

Figure 2.3: Dropout students aged between 6 and 15 (1997/98- 2000/01)



Note: (1) Dropout Cases: Students leaving school – School Transfers – Those left HK – Those admitted to Boys’ and girls’ Home
 (2) Dropout rate: Dropout Cases/ Enrolment x 100%

Source: Education and Manpower Bureau (2001)

The percentage of the youth with tertiary or above levels in Hong Kong was lower than those in advanced Western countries. The percentage of youth population aged 15 to 24 with tertiary or above levels in Hong Kong was 19.3% in 2001, compared with 25% in the United Kingdom (UK) and 35% in the United States of America (USA) in 1999 respectively (OECD, 2001). On the other hand, the percentage of the youth with tertiary or above levels in Hong Kong was also below than those in advanced Asian countries, such as Japan (31% in 1999) and Republic of Korea (23% in 1999).

Table 2.3: Percentages of youth population aged 15-24 with tertiary or above educational levels in different places (1999)

| Year | Canada | U.S.A. | Japan | U.K. | Republic of Korea | France | Hong Kong (2001) |
|------|--------|--------|-------|------|-------------------|--------|------------------|
| 1999 | 39% | 35% | 31% | 25% | 23% | 21% | 19.3% |

Sources: OECD (2001b)

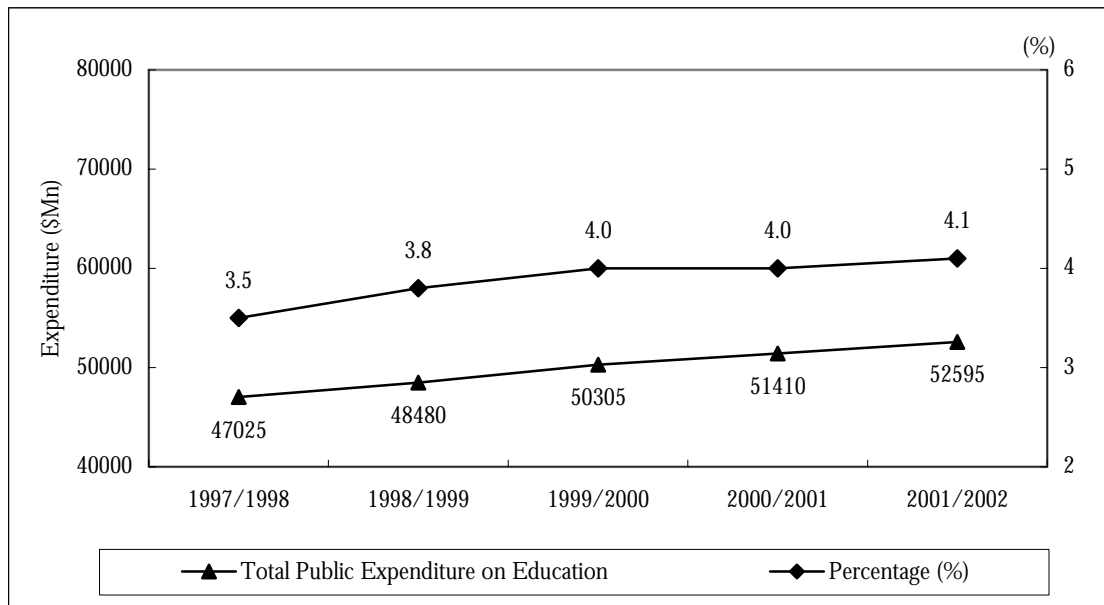
Hong Kong: Census and Statistics Department (2001)

2.4.2 Public and private investment on human capital

Both public and private spending on education increased in the past decades, including the proportion and the actual amount of investment. Besides, more and more job-related training programmes have been launched for the youth.

The government has increased its total expenditure on education. As shown in figure 2.4, the total amount of government expenditure on education had been increased gradually. In term of public spending on education as a percentage of GDP, the percentage also rose from 3.5% in 1997/98 to 4.1% in 2001/02.

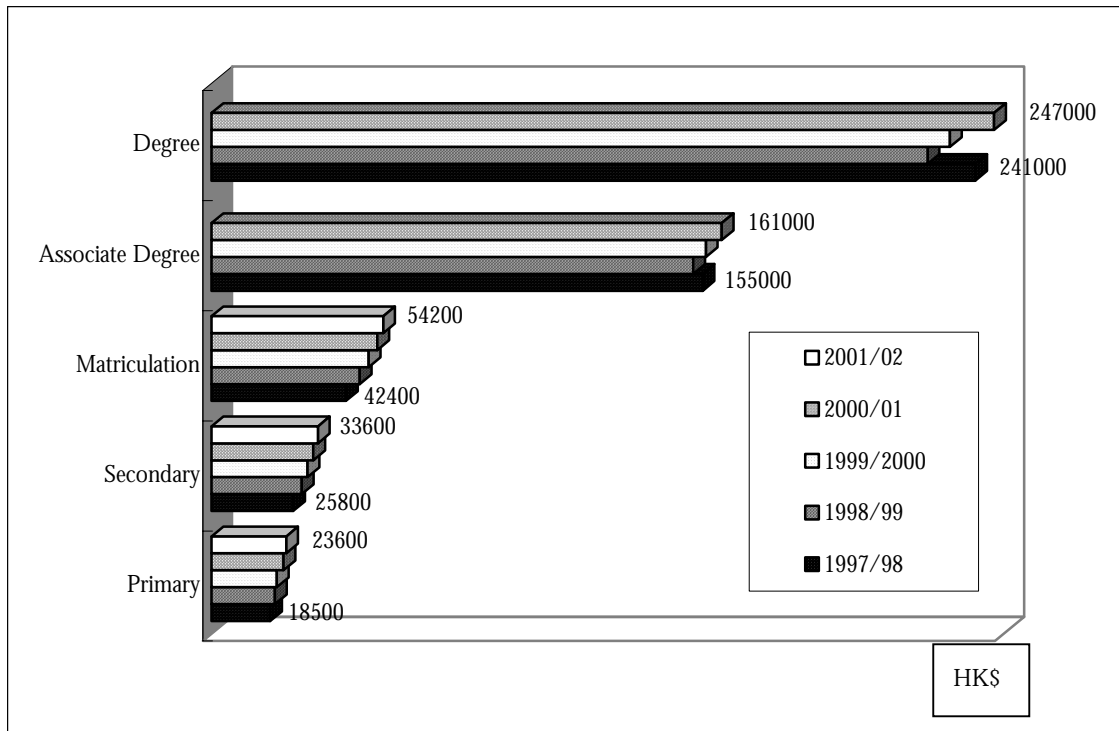
Figure 2.4: Total public expenditure on education as a percentage of GDP (1997/98 – 2001/02)



Sources: Financial Services and the Treasury Bureau (2002)
Education and Manpower Bureau (2002)

Apart from total public expenditure, the government had also increased the amount spent on each student for all educational levels from academic year 1997/98 to 2001/02 (Figure 2.5). According to the Education and Manpower Bureau, the amount spent on each student studying at primary, secondary, and matriculation levels has been increased since 1997/98. The amount spent on each student studying at associate degree and degree levels also increased between 1997/98 and 2000/01.

Figure 2.5: Amount spent on each student (1997/98 – 2001/02)



Note: The data on the amount spent on each student studying at associate degree and degree levels in 2001/02 was not available.

Source: Education and Manpower Bureau (2002)

In addition, there was also the development of youth pre-employment training programmes. The government had launched “Youth Pre-employment Training Programme” and “Youth Work Experience and Training Scheme” for the school leavers, who do not obtain high educational levels and much working experience. Moreover, some other small projects are being carried out by the non-government organizations in order to match the special needs on training youth. However, the data on the spending on the job-related training programmes were not collected during the data collection period for further discussion.

Although the government had gradually increased its public expenditure on education and established several youth pre-employment training programmes, the total public expenditure as a proportion of GDP in Hong Kong was still smaller than those in western countries. As shown in table 2.4, total public expenditure as a proportion of GDP in Hong Kong was 3.8% in 1998, which was higher than that in Japan (3.6%) and Singapore (3.5%), but lower than that in France (5.9%), Canada (5.5%), the U.S.A. (4.8%) and the U.K. (4.7%).

Table 2.4: Total public expenditure on education as a proportion of GDP in different countries (1998)

| Year | France | Canada | U.S.A. | U.K. | Republic of Korea | Hong Kong | Japan | Singapore |
|------|--------|--------|--------|------|-------------------|-----------|-------|-----------|
| 1998 | 5.9% | 5.5% | 4.8% | 4.7% | 4.1% | 3.8% | 3.6% | 3.5% |

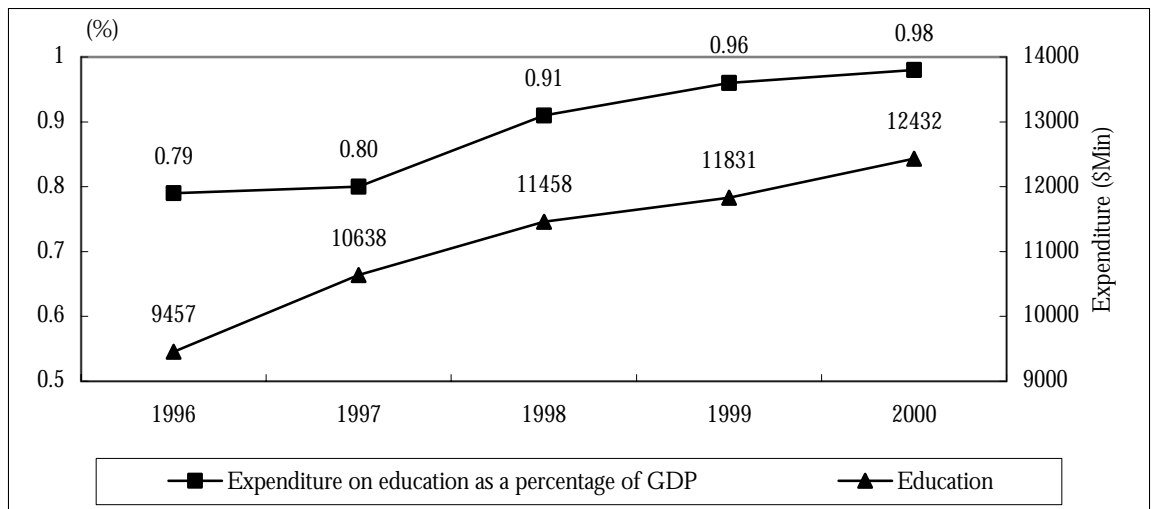
Sources: OECD (2001b)

Singapore: Ministry of Education (2002)

Hong Kong: Financial Services and the Treasury Bureau (2002); Education and Manpower Bureau (2002)

On the other hand, the private household expenditure on education had also been increased. As shown in figure 2.6, there was 16.9% increase in the consumption expenditure in the domestic market on education in the past four years (from 10.6 billions in 1997 to 12.4 billions in 2000). The consumption expenditure measures the total spending on goods and services for educational use, such as examination fees and private tuition fees. The findings reflect that there was an increasing trend of private investment on human capital.

Figure 2.6: Consumption expenditure in the domestic market on educational goods and services (1996 – 2000)



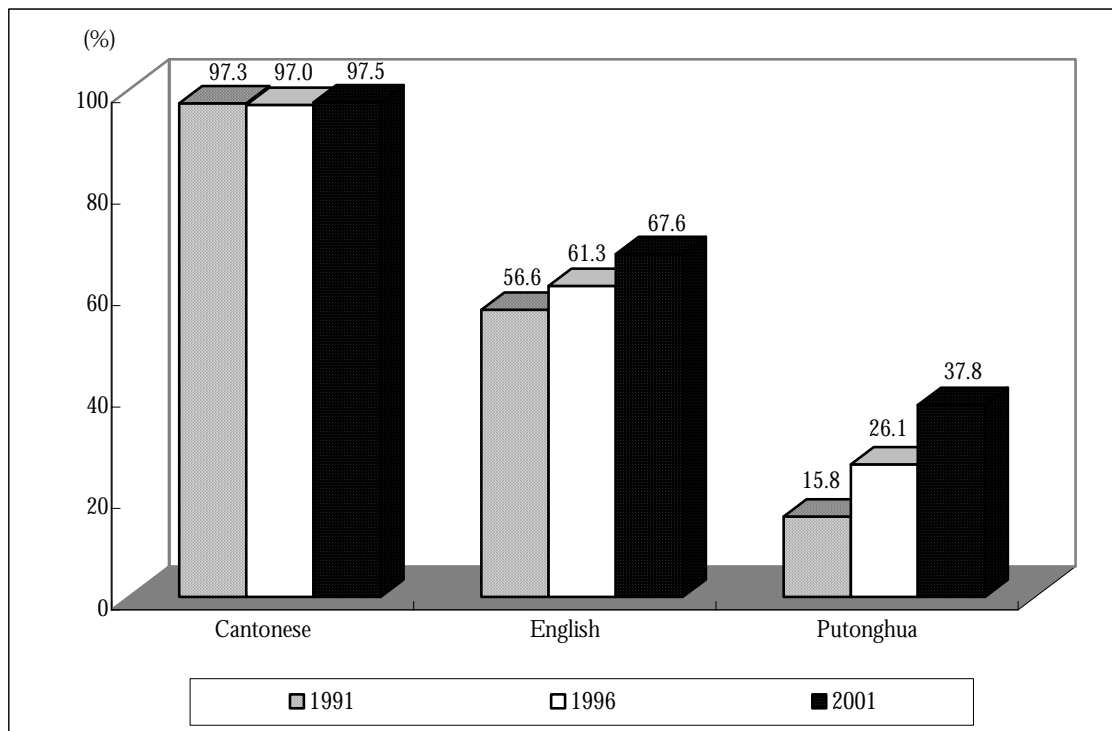
Source: Census and Statistics Department (2001a)

The growth rate of private expenditure on education is higher than public expenditure between 1997 and 2000. The growth rate of government expenditure on education was 9.3%, while the growth rate of consumption expenditure in the domestic market on education (reflects private expenditure) was 16.9% respectively (Figure 2.4 & 2.6). Under the conditions of government budget deficit, it is more likely that there will be expanding private investment on human capital instead.

2.4.3 Direct measures of human capital

Cantonese was still the most commonly used language among the youth since 97.5% of them claimed that they spoke Cantonese as usual language or another language/dialect in 2001 (Figure 2.7). On the other hand, the proportion of the youth who could speak English increased from 56.6% in 1991 to 67.6% in 2001. The proportion of the youth who could speak Putonghua increased significantly from 15.8% in 1991 to 37.8% in 2001. This indicates that there are more youngsters who could speak Cantonese, English and Putonghua nowadays, leading to the ideal of “bilingual and trilingualism”.

Figure 2.7: Proportion of youth able to speak selected languages/dialects (1991, 1996 and 2001)



Note: (1) The figures exclude mute persons.
(2) The figures are total percentages either as the usual language or as another language/dialects.
Source: Census and Statistics Department (2001)

The findings of *the Study on the Influence of Information Technology on Youth* (Commission of Youth, 2001) indicated that the youth considered themselves as being capable of using computers and accessing the web (Table 2.5). The study asked respondents to self-rate their own knowledge about computers and the Internet. The means of working youth and students on competence in computer use were 4.09 and 4.13 respectively (1= know nothing at all and 7= know a lot). Besides, the means of

working youth and students on competence in the Internet access were 4.64 and 4.60 respectively. Those students aged 20 to 24 had significantly higher IT competence than other groups, especially compared with their parents.

As for the length of experience of using the Internet, students and working youth had longer history using the Internet than their parents (Table 2.5). The mean length of experience using the Internet was over 4 months for all age groups. Students aged 20 to 24 had much the Internet experience. Since the study was conducted in 2001, it is expected that the length of experience using the Internet among the youth will be even longer now with increase in accessibility of the Internet facilities.

Table 2.5: Self-rated competence in and experience with IT (2001)

| | Age (years) | | | | | |
|---------------------------------------|-------------|---------|---------|---------|-------------------------------------|-------------------------------|
| | Parents | 13 – 15 | 16 - 19 | 20 – 24 | 16 – 24 (Vocational training) | 16 - 24 (Working youth) |
| Competence in computer use | 1.97 | 4.2 | 4.4 | 4.76 | 4.41 | 4.05 |
| Competence in the Internet access | 3.49 | 4.76 | 4.9 | 5.43 | 4.91 | 4.62 |
| Experience with computer (months) | 54.07 | 28.97 | 38.31 | 59.39 | 52.09 | 46.87 |
| Experience with the Internet (months) | 3.49 | 4.76 | 4.90 | 5.43 | 4.91 | 4.62 |

Source: Commission on Youth (2001)

Leung (2000) conducted *the Survey of Employers' and Scholars' Views on the Quality of University Graduates*. The survey found that employers and scholars gave highest scores⁶ on “IT competency” (Employer mean =3.79, Scholar mean =3.78) and “Ability of adopting new techniques” (Employer mean =3.34, Scholar mean =3.38) to the university graduates. In other words, the findings showed that university graduates have acquired skills and competence to match with the knowledge-based economy. Youth with high qualification could more easily fulfill employers' requirements. On the other hand, youth with low educational attainment may find difficulties in meeting the labour market requirements.

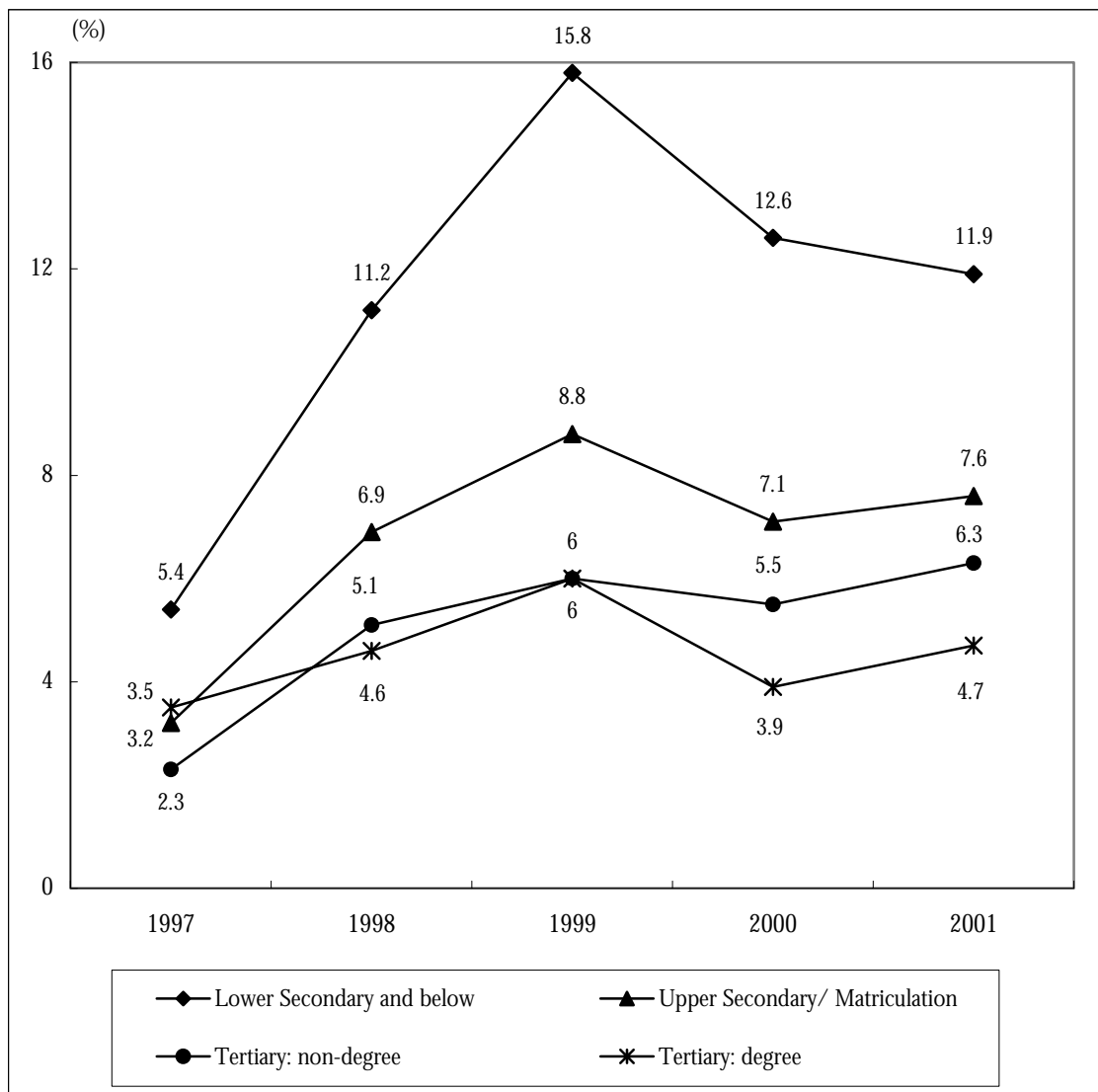
2.4.4 Market value of human capital

Figure 2.8 shows that youth with lower educational levels is more likely to be unemployed. The unemployment rate of the youth with lower secondary and below was

⁶ The survey asked 331 employers and 332 scholars to value the quality of university graduates with 17 indicators. The score is between 5 (very good) and 1 (very bad).

11.9% in 2001, while it was with 4.7% of amongst those with tertiary education level (degree). The findings indicated that education and vocational training were ways to alleviate youth unemployment problem. To a large extent, the development of human capital plays a role on enhancing productivity of the youth.

Figure 2.8: Unemployment rate of youth aged 15-29 by educational attainment (1997 – 2001)

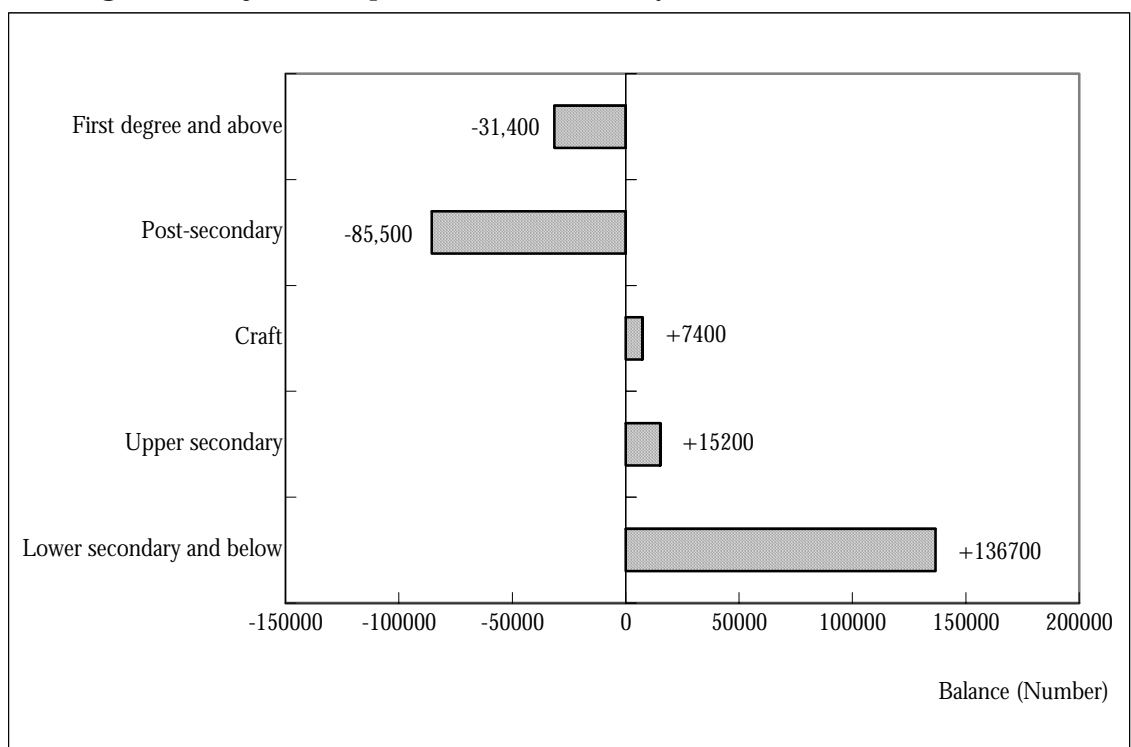


Source: Census and Statistics Department (2001)

As mentioned in section 2.4.1, the percentage of youth population with matriculation, tertiary or above educational levels had increased continuously in the past decade. However, it is still expected that there will be shortfalls of manpower supply with such educational attainment levels in 2005 (Report on Manpower Projection to 2005, 2000). As shown in figure 2.9, manpower resource balance at post-secondary level and degree level is projected to fall short in 2005. Manpower requirement at

post-secondary level is projected to be more than the corresponding manpower supply by 85,500, while manpower requirement at degree and above level is projected to be more than the corresponding manpower supply by 31,400. On the other hand, it is expected to show surplus of projected manpower resource balance at the educational levels of lower secondary and below (+136,700), upper secondary (+15,200), and craft (+7,400). In other words, it is estimated that labour market in Hong Kong demands working population with higher level of educational attainment by 2005. Youth with lower educational level and working experience will find difficulties in matching with the future demand in the labour market.

Figure 2.9: Projected manpower resource balance by educational attainment in 2005



Note: (+) Surplus in manpower supply against requirement
 (-) Shortfall in manpower supply against requirement.

The figures excluded foreign domestic helpers and Hong Kong residents working and employed by business outside Hong Kong

Post-secondary and First degree and above included attainment through continuing education.

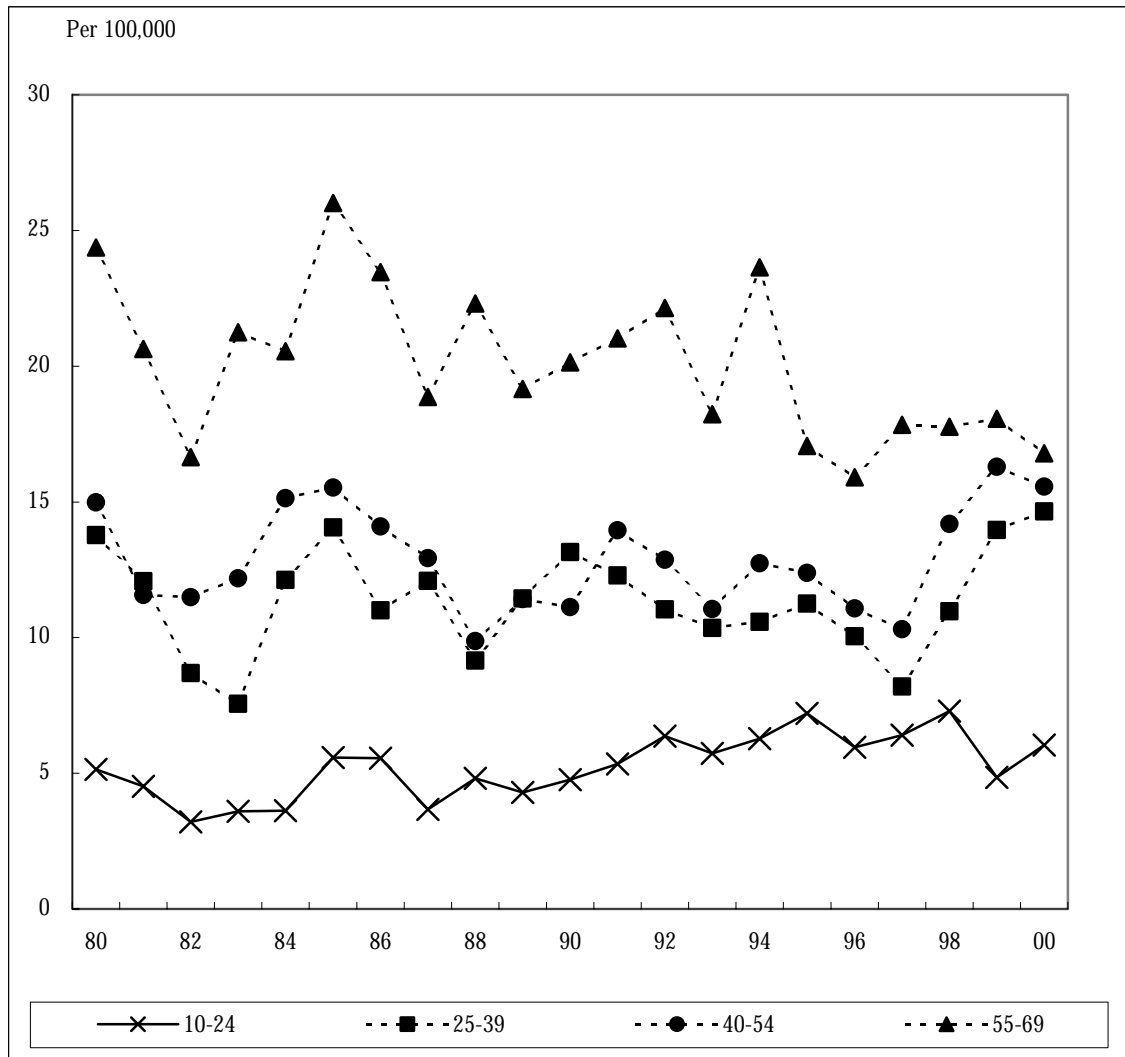
Post-secondary included matriculation, technician and sub-degree education.

Source: Financial Services Bureau; Education and Manpower Bureau; Census and Statistics Department; Labour Department (2000)

2.4.5 Health conditions

Owing to limitations in the data available, only teen suicide, the employment status of young persons with disability and chronic diseases, as well as youth mental health condition, will be discussed in paragraphs that follow.

Figure 2.10: Suicide rates by age groups for the total population (1980 – 2000)



Source: Shek and Tang (in press)

Adolescent suicide cannot be described as prevalent in Hong Kong. As shown in figure 2.10, youth suicide rate aged 10 to 24 was lower than other adult age groups in Hong Kong. Moreover, Hong Kong's youth suicide rate was lower than some western countries and some Asian cities (Table 2.6).

Table 2.6: Suicide rates for the 15-24 age bracket in different places (1995 - 2000)

| Year | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| U.K. | 6.7 | 6.1 | 6.8 | 10.9 | 9.7 | 10.3 |
| U.S.A. | 13.3 | 12.0 | 11.4 | 11.1 | 12.7 | / |
| Canada | 15.0 | 14.4 | 13.7 | / | / | / |
| Republic of Korea | 9.5 | 11.8 | 10.3 | 24.9 | 19.9 | 17.3 |
| Japan | 8.4 | 8.5 | 8.5 | / | / | / |
| Singapore | 11.9 | 9.0 | 8.8 | / | / | / |
| Taiwan | 3.9 | 4.2 | / | 4.2 | / | / |
| Hong Kong | 8.9 | 9.7 | 8.7 | 10.3 | 6.1 | 7.7 |

Note: Suicide rate was calculated by the number of suicide per 100, 000 youth population.

Source: Shek and Tang (in press)

According to the Study on *Adolescent Suicide in Hong Kong* (Shek and Tang, in press), it was found that there were two main protective factors reducing youth suicide rate in Hong Kong. First, traditional Chinese beliefs helped to inhibit suicide behavior, such as Confucian teaching, the Buddhist and Taoist thoughts. Second, the pragmatic cultural values in Hong Kong provided buffer against suicide, such as “if you can keep a mountain, you don’t have to worry that there is not enough log”. The cultural values in Hong Kong function as protective factors for young people.

Although youth suicide rate was not high, the study also reported a significant trend that youth suicide rates in the 1990s (mean=5.96) were higher than those in the 1980s (mean=4.40) (Shek and Tang, in press). “Abundance of economic opportunities” explained the rising trend of suicide rates in the 1990s (Shek, 1995). The findings of the study conducted by the Hong Kong Federation of Youth Groups concerning the trends of youth suicide cases were consistent with Shek’s study (1995). As shown in table 2.7, more than 40% of suicide cases were unemployed between 1996 and 2000. These findings indicated the importance of the government providing opportunities, such as provisions of retraining programmes and life-long education, to enhance the competences of the unemployed.

Table 2.7: Percentage of suicide aged 0-39 by occupation (1996 – 2000)

| | (%) | | | | |
|------------------------|--------|--------|--------|--------|--------|
| Categories | 1996 | 1997 | 1998 | 1999 | 2000 |
| Unemployed | 45.7 | 42.1 | 47.0 | 44.4 | 44.7 |
| Student | 8.2 | 8.3 | 6.0 | 6.6 | 7.4 |
| Housewife | 7.3 | 4.6 | 5.4 | 6.9 | 7.1 |
| White color | 9.5 | 10.2 | 6.8 | 6.6 | 5.3 |
| Blue color | 8.2 | 4.2 | 3.6 | 3.6 | 4.1 |
| Disciplinary personnel | 0.9 | 0.0 | 1.5 | 1.2 | 1.5 |
| Teacher | 0.9 | 0.5 | 0.3 | 0.9 | 0.9 |
| Businessmen | 2.8 | 2.8 | 1.8 | 1.5 | 0.9 |
| Patient | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 |
| Other | 16.1 | 27.3 | 27.7 | 28.1 | 27.8 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Source: Hong Kong Federation of Youth Groups (2001)

According to *Survey on Persons with Disability and Chronic Diseases* (2001), there were 13.2 thousands of young persons aged 15 to 29 with disabilities⁷ (excluding mentally handicapped persons) and 29.6 thousands of young persons with chronic diseases⁸ in 2000. A less proportion of young persons with disabilities or chronic diseases was employed than that of the overall youth population. The percentages of employed young persons aged 15 to 29 with disabilities and with chronic diseases were 8.6% and 6.5% respectively in 2000, compared with 25.0% of the total youth population. This is partly due to the fact that their readiness to participate in economic activities is lower than that of the general population. According to a survey conducted by the Census and Statistics Department in 2000, 22.9% of people with disabilities aged 15 and over were economically active, as against 60.5% for the total population. The corresponding figures for people with chronic diseases were 28.7%.

Concerning issue on youth mental health condition, the rates of psychological problem detected by Student Health Service were between 5.6% and 6% during the period of 1997/98 and 2000/01. In school year of 2001/02, 4.3% of students screened were found to suffer from psychological problems. Nonetheless, the issue of youth mental health condition should not be ignored.

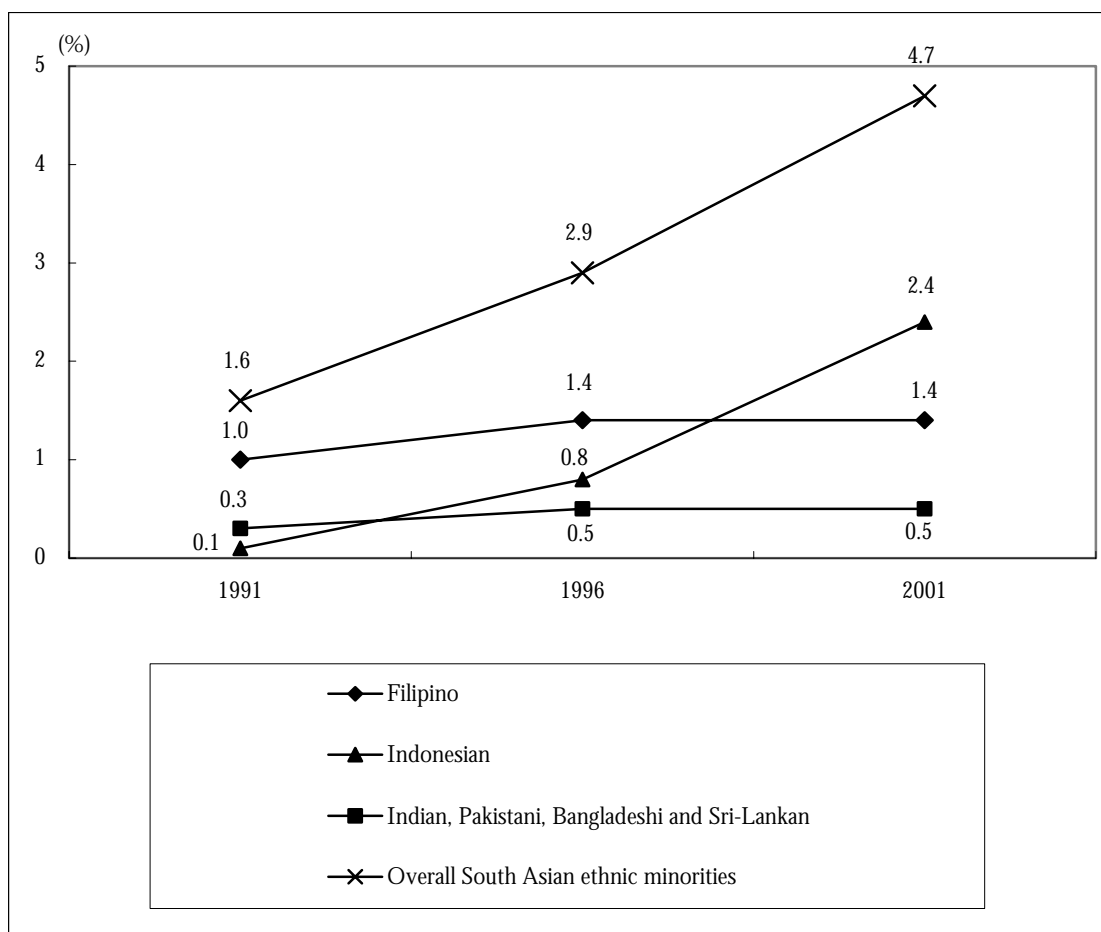
⁷ The selected types of disability include (1) restriction in body movement, (2) seeing difficulty, (3) hearing difficulty, (4) speech difficulty, (5) mental illness, and (6) autism.

⁸ The selected types of chronic diseases include (1) hypertension, (2) diabetes mellitus and (3) heart diseases.

2.4.6 Development of human capital of South Asian ethnic minorities

In this study, South Asian ethnic minorities refer to those come from the South and Southeast Asia, including Filipinos, Indonesians, Indians, Thai, Nepalese and Pakistanis. Figure 2.11 indicated that the percentage of overall South Asian ethnic minorities in the total youth population aged 15 to 24 increased from 1.6% in 1991 to 4.7% in 2001. There were 43,038 persons in the youth ethnic population aged 15 to 24 in 2001, including Filipinos, Indonesians, Indians, Pakistanis, Bangladeshis and Sri-Lankan, Thai and Nepalese. The concern is the young ethnic minorities' difficulties and limited opportunities, such as education and training to develop their human capital.

Figure 2.11: Percentages of main youth ethnic groups and overall South Asian ethnic minorities in total youth population (1991, 1996, 2001)



Note: Overall South Asian ethnic minority youth includes Filipinos, Indonesians, Indians, Thai, Nepalese, Pakistanis, Bangladeshis and Sri-Lankan.

Source: Census and Statistics Department (2001b)

As shown in table 2.8, school attendance rates of the young ethnic minorities aged 6-11 (99.3%) and 12-16 (96.3%) in 2001 were very close to those of the total youth population (99.9% and 97.3% respectively). It can be explained by the government's

policy to provide all eligible local children, including ethnic minority children, nine-year free and universal basic education. However, school attendance rates of the young ethnic minorities aged 17-18 and 19-24 were 54.7% and 3.7% respectively, which were lower than those of the total youth population in 2001.

Table 2.8: School Attendance rates for ethnic minorities and whole population by age groups (2001)

| | Age Groups | | | |
|-------------------|------------|------------|------------|------------|
| | Aged 6-11 | Aged 12-16 | Aged 17-18 | Aged 19-24 |
| Ethnic minorities | 99.3 % | 96.3% | 54.7 % | 3.7 % |
| Whole Population | 99.9% | 97.5% | 71.0 % | 26.4 % |

Source: Census and Statistics Department (2001b)

In addition, young ethnic minorities are receiving limited services to develop human capital. The young new arrivals from the Mainland China seem to be in a better position - a “Full-time Initiation Programme for Children Newly Arrived from the Mainland” is provided. Other ethnic minority youth would only have limited choices if they do not understand Chinese languages and cannot benefit from mainstream education. This is especially so if they come to Hong Kong at a later development stage. This will hinder the young ethnic minorities’ entry into/staying in the workforce. Furthermore, the young ethnic minorities were only offered limited channels for occupational training. Since only 11.2% of ethnic minorities speak fluently in Cantonese, the existing vocational training courses cannot entertain this group. For example, “Youth Pre-employment Training Programmes”, which provides training for the youth aged 15 to 19, is conducted in Cantonese.

2.5 Summary

The proposed indicators of human capital focus on the dimensions relating with youth’s education, economical productivity and health conditions. Several phenomena can be observed:

- There was an increasing proportion of the youth with higher educational level. The percentage of youth with matriculation or tertiary educational level increased from 21.8% in 1991 to 38.0% in 2001.
- The number of school dropouts at primary and junior secondary level had decreased. There were 1,333 school dropout cases in 2000/01, compared with 1,999 in 1997/1998 and 1,362 in 1999/2000.

- The government had increased its total public expenditure on education. Total public expenditure on education as a percentage of GDP increased from 3.5% in 1997/98 to 4.1% in 2001/02.
- Private consumption expenditure spending on goods and services for educational use increased 16.9% between 1997 and 2000.
- The unemployment rate of youth with lower secondary and below level was 2 times higher than that of those with tertiary level (degree). In other words, youth with lower educational levels are more likely to be unemployed.
- Youth suicide rates were lower than those of other adult age groups in Hong Kong, as well as the youth suicide rates of western some countries and Asian countries.
- The percentage of ethnic minorities in total youth population increased from 1.6% in 1991 to 4.7% in 2001. But the school attendance rates among ethnic minorities aged 17-18 and 19-24 were 54.7% and 3.7% respectively, compared with 71.0% and 26.4% of the same age groups in the whole population.

Generally speaking, investment in human capital was increased between 1997 and 2001, including public and private expenditure on education. The growth rate of private expenditure on education was larger than that of public expenditure. As a result, educational attainment of youth population in Hong Kong had improved in the past decade. On the other hand, the findings indicated that there were still 1,333 early dropouts with low educational attainment in the academic year 2000/01. Since the unemployment rate of the youth with lower educational attainment was found to be higher, these early dropouts would certainly face difficulties in entering and staying in the labour market. In addition, the percentage of the South Asian ethnic minority youth had increased in the past decade. However, their school attendance rates of the youth ethnic minorities aged 17 to 24 were lower than those with the same age group in population. The human capital of South Asian ethnic minority youth should be developed too.

The obtained data enabled us to grasp the situation of human capital in the dimensions of educational attainment, private and public investment on human capital, direct measures of human capital, market value of human capital and health conditions. However, some dimensions were not examined due to data availability. There is a lack of statistics data assessing the skills and competency of youth in Hong Kong. It is important to establish systematic and well-developed assessments to identify the proficiency and competency in language and IT of the youth.