Chapter 4 Work Experience

4.1 Introduction

This chapter examines the work characteristics of the sample. We begin with a discussion on the background of the respondents, which contains demographic characteristics and family background in Section 4.2. Section 4.3 provides information on respondents' human capital investment. Section 4.4 and Section 4.5 consist of the work patterns and motivation as well as work value respectively. Section 4.6 contains a summary of the discussion in this chapter.

4.2 Background

This section is divided into two parts. They are demographic characteristics and family background. It is to be noted that not all respondents answered all the questions.

4.2.1 Demographic characteristics

This section deals with the demographic characteristics of the respondents shown in Table 4.1 and Table 4.2. Table 4.1 contains information on categorical data like gender, ethnicity, location in which an individual grew up and marital status while Table 4.2 includes certain descriptive statistics on numerical data such as age and number of children.

4.2.1.1 Gender

The sample has slightly more females than males, with 53.2% of female and 46.8% of male.

4.2.1.2 Ethnicity

The sample consists of 69.0% Bumiputera, 26.6% of Chinese and 4.4% of Indians and others. The "others" refers to a Eurasian respondent. So, the term "Indian" is used to refer to this group of respondents who are either an Indian or a Eurasian. The proportion of gender in each ethnic group is almost equal, with the proportion of females being higher in the Bumiputera and Chinese. The opposite is true for the Indian.

Table 4.1 Certain categorical demographic characteristics by ethnicity

	Ethnic group			
	Bumiputera	Chinese	Indian	Total
Gender				
Female	641 (53.5)	249 (53.9)	35 (45.5)	925 (53.2)
Male	558 (46.5)	213 (46.1)	42 (54.5)	813 (46.8)
Total	1199 (100.0)	462 (100.0)	77 (100.0)	1738 (100.0)
Marital Status				
Single	872 (72.8)	388 (84.5)	69 (90.8)	1329 (76.7)
Married	325 (27.2)	71 (15.5)	7 (9.2)	403 (23.3)
Total	1197 (100.0)	459 (100.0)	76 (100.0)	1732 (100.0)
Location in which an individual grew up				
Rural	822 (68.7)	104 (22.6)	17 (22.1)	943 (54.4)
Small town	175 (14.6)	115 (24.9)	22 (28.6)	312 (18.0)
Large town	199 (16.6)	242 (52.5)	38 (49.4)	479 (27.6)
Total	1196 (100.0)	461 (100.0)	77 (100.0)	1734 (100.0)

Table 4.2 Descriptive statistics for certain numerical demographic variables

	Age	Number of children*
Sample size	1738	408
Minimum	23	0
Maximum	28	3
Mean	24.71	0.83
Median	24	1
Standard Deviation (SD)	1.06	0.79
Skewness (Statistics)	0.625	0.634
Skewness (Standard error/SE)	0.059	0.121

* Only applicable to married respondents.

4.2.1.3 Age

The average age of the respondents is 24.71, with small variation due to the design in the sample selection stage. All the respondents come from the 1989 Form 5 and Form 6 student cohort.

4.2.1.4 Marital status

Slightly less than one quarter of the respondents is married and others are mostly single, with a small number of them being widow or widower. A large proportion of them are still single as most of the respondents continue to further their studies after Form 5. A much higher percentage of the female respondents are married, compared to the males. Bumiputera has the highest percentage of married respondents, i.e. 27.2%. This agrees with Nor Haliza (2000) finding stating that Bumiputera women in Peninsular Malaysia has lower age at first marriage. Indian has the lowest proportion of married respondents.

4.2.1.5 Number of children

Among those who are married, they either have no children or have only a child. So, the effect of family burden is relatively limited compared to other studies conducted.

4.2.1.6 Location in which an individual grew up

Most of the respondents grew up in the rural area. Comparing the distribution within each ethnic group, a much higher proportion of Chinese and Indian respondents grew up in the urban area, compared to the Bumiputera. The percentage of Bumiputera who grew up in the rural area is much higher than that of other ethnic groups.

4.2.2 Family background

Family background is studied through a few aspects, i.e. parent's educational level, parent's occupational group, parent's income, family size and birth order, as presented in Table 4.3 and Table 4.4.

Most parents only finished primary school education. A higher percentage of Chinese and Indian parents received lower secondary or above education, compared to Bumiputera parents. On the other extreme, larger proportion of Bumiputera parents have no formal schooling, compared to the other two ethnic groups.

Over half of the respondents' parents work as agricultural and production workers. The Bumiputera parents mostly work in agricultural and production jobs. Beside working on these two types of jobs, sales jobs are also popular among Chinese parents. The Indian mainly work in clerical and production jobs.

Most parents earn RM1000 or less a month. A much higher percentage of the Bumiputera parents earn RM1000 or less, compared to the Chinese and Indian. The percentage of Chinese parents who earn more than RM1000 a month is the highest among all the ethnic groups.

On average, respondents come from a large family. They have six siblings including themselves, as shown in Table 4.4. Generally, the Bumiputera family size is bigger than the family size of the other two ethnic groups. The central 50% Bumiputera respondents has a bigger family size than the corresponding respondents in the other two ethnic groups, as shown in Figure 4.1. The distribution of family size for Chinese and

Indian looks similar. Nevertheless, there are more outlier in the Chinese's Distribution, compared to the Indian's distribution.

More than one quarter of the respondents is the eldest child in a family, with the Indian respondents having the highest percentage.

Table 4.3 Certain family background characteristics by ethnicity

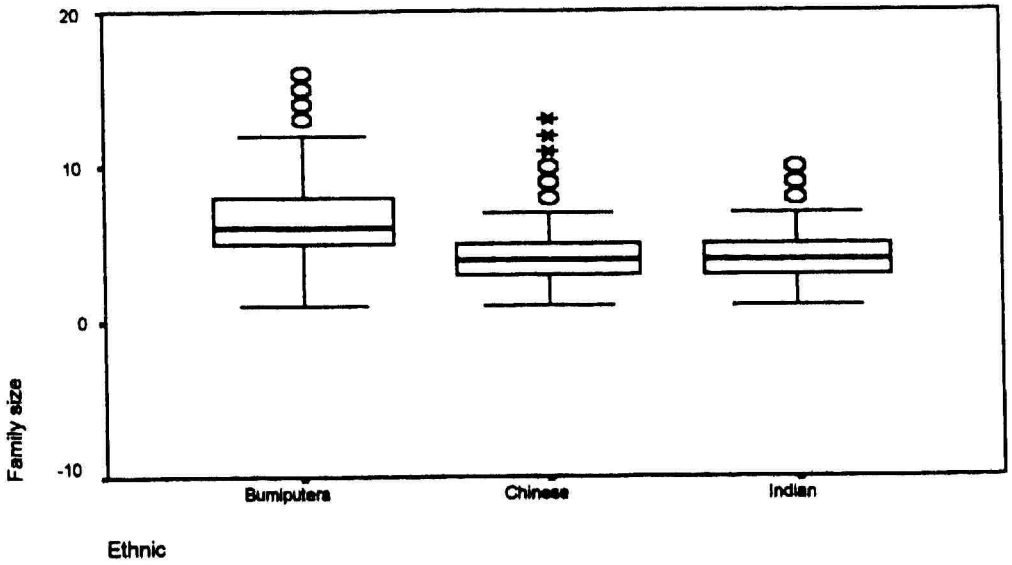
	Ethnic group			
	Bumiputera	Chinese	Indian	Total
Parent's education*				
No formal schooling	153 (13.0)	30 (6.6)	2 (2.6)	185 (10.8)
Primary	672 (57.0)	190 (41.8)	21 (27.3)	883 (51.6)
Lower secondary	203 (17.2)	111 (24.4)	29 (37.7)	343 (20.0)
Upper secondary	87 (7.4)	81 (17.8)	17 (22.1)	185 (10.8)
College/Polytechnic	35 (3.0)	21 (4.6)	7 (9.1)	63 (3.7)
University	29 (2.5)	22 (4.8)	1 (1.3)	52 (3.0)
Total	1179 (100.0)	455 (100.0)	77 (100.0)	1711 (100.0)
Parent's occupation*				
Professional	149 (13.2)	54 (12.1)	11 (15.5)	214 (13.0)
Administrative	7 (0.6)	38 (8.5)		45 (2.7)
Clerical	59 (5.2)	36 (8.1)	20 (28.2)	115 (7.0)
Sales	88 (7.8)	97 (21.7)	2 (2.8)	187 (11.4)
Service	135 (12.0)	17 (3.8)	6 (8.5)	157 (9.6)
Agriculture	435 (38.6)	97 (21.7)	14 (19.7)	546 (33.2)
Production	254 (22.5)	107 (24.0)	18 (25.4)	379 (23.1)
Total	1127 (100.0)	446 (100.0)	71 (100.0)	1644 (100.0)
Parent's income level*				
No income	20 (1.7)	23 (5.0)	1 (1.3)	44 (2.5)
RM500 and below	32 (2.7)	12 (2.6)	4 (5.2)	48 (2.8)
RM501 – RM1000	830 (69.3)	128 (27.6)	32 (41.6)	990 (57.0)
RM1001 – RM1500	206 (17.2)	151 (32.6)	25 (32.5)	382 (22.0)
RM1501 – RM2000	70 (5.8)	66 (14.3)	11 (14.3)	147 (8.5)
RM2001 – RM3000	12 (1.0)	39 (8.4)	4 (5.2)	55 (3.2)
More than RM3000	27 (2.3)	44 (9.5)		71 (4.1)
Total	1197 (100.0)	463 (100.0)	77 (100.0)	1737 (100.0)
Birth order				
Eldest	316 (26.5)	143 (31.0)	27 (35.5)	486 (28.1)
Not the eldest	877 (73.5)	319 (69.0)	49 (64.5)	1245 (71.9)
Total	1193 (100.0)	462 (100.0)	76 (100.0)	1731 (100.0)

* For respondents whose guardian is both father and mother, father's information is used. For respondents with single parent, the single parent's information is used. If the respondents' present guardian is not their parent, then the guardian's information is taken.

Table 4.4 Descriptive statistics for family size by ethnicity

	Ethnic group			
	Bumiputera	Chinese	Indian	Total
Sample size	1197	462	76	1736
Minimum	1	1	1	1
Maximum	16	13	10	16
Mean	6.35	4.44	4.13	5.74
Median	6	4	4	5
SD	2.57	2.09	1.88	2.59
Skewness (Statistics)	0.431	1.177	0.805	0.607
Skewness (SE)	0.071	0.114	0.275	0.059

Figure 4.1 Box plot for family size by ethnicity



4.3 Human capital investment

4.3.1 Formal education and vocational training

The minimum length of formal education is 11 years as all the respondents finished Form 5. Most respondents continued to study for another two years after finishing Form 5, as shown in Table 4.5. The lowest 25% observation in the Bumiputera's distribution received only 11 years of education, which indicates that they do not further their education after Form 5. This is shown in Figure 4.2. The amount of education received by

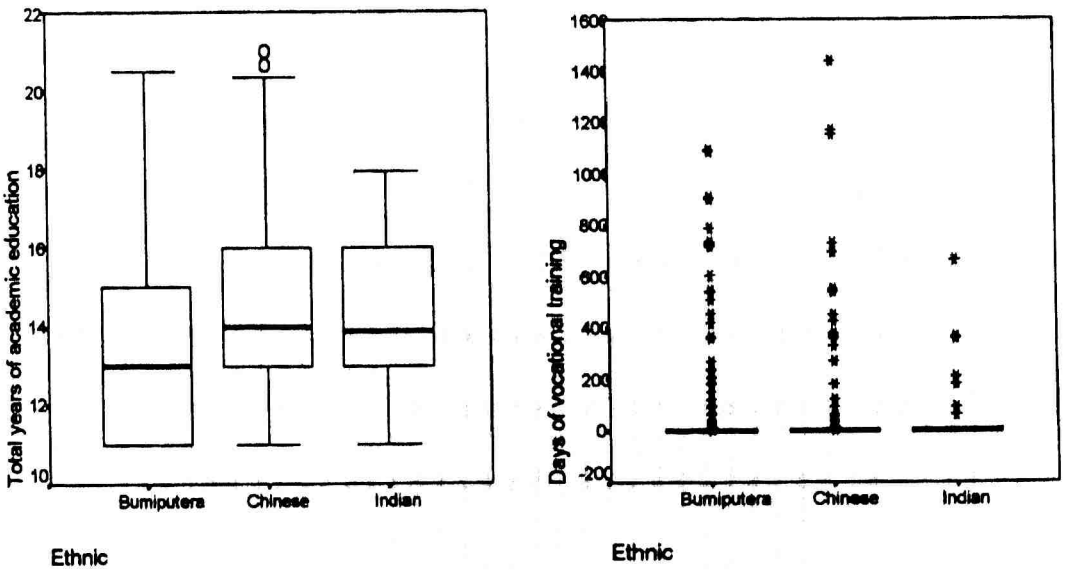
the higher 75% observation in the Chinese and Indian groups are more than what is pursued by the lower 50% in the Bumiputera category. The distributions for Chinese and Indian look alike with the Chinese having a much wide spread distribution.

As for vocational training, on average, the respondents receive about 52 days of vocational training, as shown in Table 4.5. However, the median for each ethnic group is zero. The distribution for each group is very diverse, as shown in Figure 4.2. Half of the respondents do not receive any vocational training.

Table 4.5 Descriptive statistics for amount of formal education and vocational training by ethnicity

	Years of formal education				Days of vocational training			
	Ethnic group							
	Bumi-putera	Chinese	Indian	Total	Bumi-putera	Chinese	Indian	Total
Sample size	1149	462	76	1738	1190	459	74	1723
Minimum	11	11	11	11	0	0	0	0
Maximum	20.49	21	17.93	21	1095	1440	665	1440
Mean	13.36	14.40	14.20	13.68	53.91	45.48	60.44	51.95
Median	13	14	13.94	13	0	0	0	0
SD	2.21	2.16	2.16	2.24	155.41	161.70	124.53	155.89
Skewness (Statistics)	0.681	0.239	0.005	0.500	3.696	4.973	2.204	4.039
Skewness (SE)	0.071	0.114	0.275	0.059	0.071	0.114	0.278	0.059

Figure 4.2 Box plots for years of academic education and days of vocational training by ethnicity



As for the highest qualification acquired, secondary schooling is the furthest most respondents received, as indicated in Table 4.6. The proportion is especially high among the Bumiputera and relatively low among Chinese and Indian. Chinese has the highest percentage of respondents who have finished tertiary education, which is more than 30%. This is followed by the Indian and Bumiputera.

Table 4.6 Highest qualification acquired and pre-university result by ethnicity

	Ethnic group			
	Bumiputera	Chinese	Indian	Total
Highest qualification acquired				
Secondary school	599 (50.0)	120 (26.0)	24 (31.2)	743 (42.8)
Certificate	245 (20.5)	40 (8.7)	11 (14.3)	296 (17.0)
Diploma	150 (12.5)	87 (18.8)	15 (19.5)	252 (14.5)
Professional or Semi-professional courses	19 (1.6)	70 (15.2)	10 (13.0)	99 (5.7)
Degree or higher	185 (15.4)	145 (31.4)	17 (22.1)	347 (20.0)
Total	1198 (100.0)	462 (100.0)	77 (100.0)	1737 (100.0)
Pre-university result				
Poor	157 (28.6)	42 (14.0)	7 (14.9)	206 (23.0)
Average	230 (41.9)	85 (28.4)	17 (36.2)	332 (37.1)
Above average	132 (24.0)	110 (36.8)	18 (38.3)	260 (29.1)
Excellent	30 (5.5)	62 (20.7)	5 (10.6)	97 (10.8)
Total	549 (100.0)	299 (100.0)	47 (100.0)	895 (100.0)

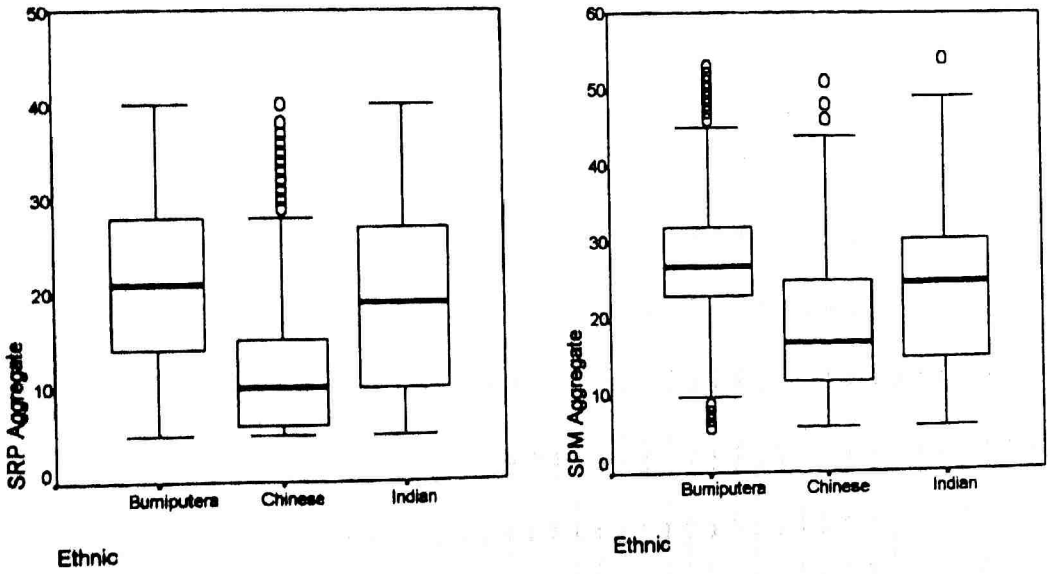
The average SRP aggregate is 18.87, as shown in Table 4.7. The average aggregate for Chinese is about six points lower than the Indian and nine points lower than the Bumiputera. The distribution of SRP aggregate for Chinese is different from the distribution for other two groups. Outlier is only found in the Chinese's distribution, as shown in Figure 4.3. The best performed 75% Chinese (lower 75% of the observation) scored SRP aggregate 15 points or below (the lower, the better result) while only slightly more than 25% of the Bumiputera can achieve this score. The distribution for Bumiputera and Indian looks alike, except the inter-quartile range for Indian is wider.

The average SPM aggregate is 25, as shown in Table 4.7. Generally, Chinese has better result in SPM, as shown in Figure 4.3. The median for this category is much lower than the other two ethnic groups while the Bumiputera and Indian almost have the same level of median. On the other hand, less than one percent of the respondents took NITTCB in stead of SPM. Among those who took NITTCB, 97% of them were Bumiputera.

Table 4.7 Descriptive statistics for SRP and SPM aggregates by ethnicity

	SRP aggregate				SPM aggregate			
	Ethnic group							
	Bumi-putera	Chinese	Indian	Total	Bumi-putera	Chinese	Indian	Total
Sample size	1171	457	76	1705	1160	455	73	1688
Minimum	5	5	5	5	6	6	6	6
Maximum	40	40	40	40	53	51	54	54
Mean	21.47	12.21	18.87	18.87	27.71	19.22	24.44	25.28
Median	21	10	19	18	27	17	25	26
SD	8.43	7.86	9.29	9.29	7.90	9.21	11.40	9.23
Skewness (Statistics)	0.185	1.417	0.322	0.322	0.272	0.887	0.594	0.187
Skewness (SE)	0.071	0.114	0.059	0.059	0.072	0.114	0.281	0.060

Figure 4.3 Box plots for SRP and SPM aggregates by ethnicity



Marginally more than half of the respondents took up pre-university programmes. Among those who took the programmes, Chinese had the highest proportion who had excellent performance while Bumiputera had the highest proportion who performed poorly, as shown in Table 4.6.

4.3.2 Training provided by employer and job tenure

Slightly more than one quarter of the respondents receives training in their work place. This proportion is much lower than the percentage who receive training, as recorded in the second stage (Lee, 2000). The low proportion who receives training may indicate that the training provided by employers is limited in Malaysia and the value of the training is not appreciated by certain industries, as found by Jomo (1997).

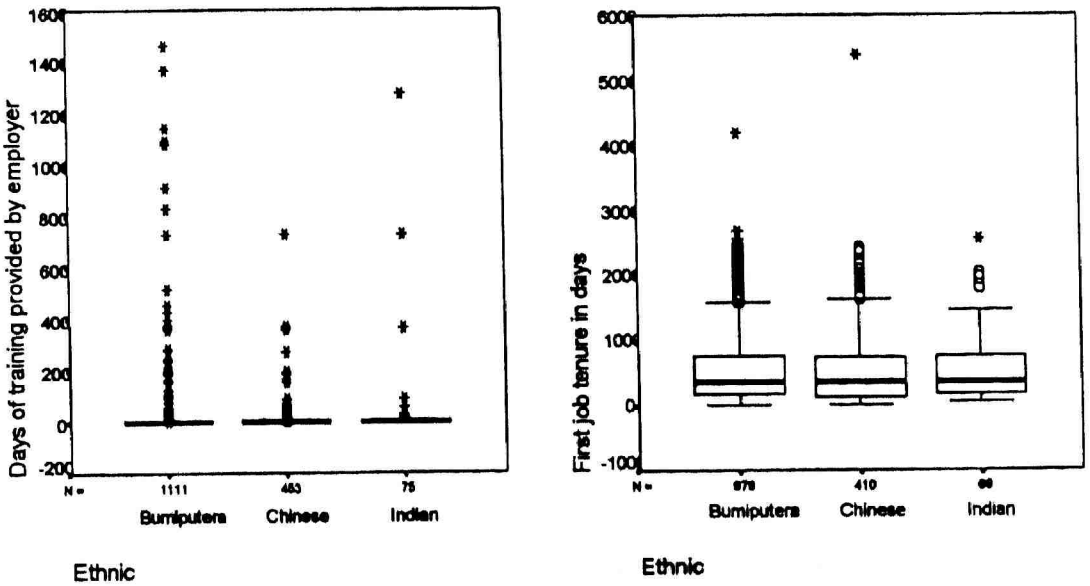
Table 4.8 shows that respondents receive less than one month of training, on average. The median for all the ethnic groups is zero. Data shows that Indian receives the most training, followed by Bumiputera and Chinese. The dispersion of all the distributions for each ethnic group are large, as shown in Figure 4.4. The distribution for all groups has a very wide range and is skewed. Half of the respondents do not receive any training.

For first job tenure, on average, the first job last for one and a half year. The median for the first job tenure is about one year for all ethnic group. This is shown in Table 4.8. The average first job tenure for the Chinese is the shortest while the Bumiputera and Indian have almost the same average length. As shown in the Figure 4.4, the distributions of first job tenure for each ethnic group look similar.

Table 4.8 Descriptive statistics for days of training provided by employer and first job tenure by ethnicity

	Days of training provided by employer				First job tenure in days			
	Ethnic group							
	Bumi-putera	Chinese	Indian	Total	Bumi-putera	Chinese	Indian	Total
Sample size	1111	453	75	1639	978	410	69	1457
Minimum	0	0	0	. 0	8	7	45	7
Maximum	1460	730	1275	1460	4200	5400	2555	5400
Mean	29.59	17.16	43.58	26.79	582.47	481.69	589.05	554.41
Median	0	0	0	0	365	360	365	365
SD	136.37	62.92	191.53	124.08	574.75	516.38	556.94	559.57
Skewness (Statistics)	7.434	6.925	5.545	7.913	1.596	2.548	1.611	1.813
Skewness (SE)	0.073	0.115	0.277	0.060	0.078	0.121	0.289	0.064

Figure 4.4 Box plots for days for training provided by employer and first job tenure by ethnicity



4.4 Work patterns

4.4.1 First job

In studying the first job, various aspects are inspected, i.e. occupational group, the ISEI score, starting monthly income, tenure, number of subordinates under supervision, job

search duration, status of job, dream job for the individual and source of information to find the job.

Most of the respondents were either working as professionals or clerical workers in their first job, as shown in Table 4.9. The next popular occupational group is production work. Bumiputera is more likely to work in production job. As for the Chinese, besides working as professional workers, clerical work is also common. Indian has the highest percentage of respondents working as professional workers in their first job.

Table 4.9 First job occupational group by ethnicity

	Ethnic group			
	Bumiputera	Chinese	Indian	Total
Professional	302 (29.6)	183 (42.8)	37 (52.9)	522 (34.4)
Administrative	10 (1.0)	21 (4.9)	1 (1.4)	32 (2.1)
Clerical	241 (23.6)	148 (34.6)	17 (24.3)	406 (26.7)
Sales	56 (5.5)	44 (10.3)	4 (5.7)	104 (6.8)
Service	39 (3.8)	4 (0.9)		43 (2.8)
Agriculture	12 (1.2)			12 (0.8)
Production	361 (35.4)	28 (6.5)	11 (15.7)	400 (26.3)
Total	1021 (100.0)	428 (100.0)	70 (100.0)	1519 (100.0)

Table 4.10 shows that the average ISEI score for the first job is 52, with the Indian having the highest average score followed by Chinese and Bumiputera. On average, the ISEI score for the Bumiputera is generally lower while the ISEI score for Chinese and Indian is almost the same. The higher 75% Chinese respondents have first jobs with higher status than the lower 50% Bumiputera, as shown in Figure 4.5.

The average monthly starting income is around RM824, as shown in Table 4.10. Chinese respondents, on average, have a starting monthly income above RM1000. The Bumiputera had an average starting income slightly below RM700. The distribution for Bumiputera is more concentrated and the starting income is generally lower than the

other two ethnic groups. This is shown in Figure 4.5. The income commanded by the higher 50% Chinese respondents is higher than what is received by the lower 75% Bumiputera respondents.

Table 4.10 Descriptive statistics for first job ISEI score and starting monthly income by ethnicity

	ISEI score				Starting monthly income			
	Ethnic group							
	Bumi-putera	Chinese	Indian	Total	Bumi-putera	Chinese	Indian	Total
Sample size	1020	428	72	1520	999	413	69	1480
Minimum	16	23	35	16	100	160	150	100
Maximum	85	85	88	88	5000	6500	7000	7000
Mean	49.71	57.32	59.13	52.30	696.80	1105.02	986.78	824.09
Median	45	58	61	54	550	900	700	600
SD	13.92	11.78	13.00	13.81	459.20	786.78	975.10	626.34
Skewness (Statistics)	0.249	-0.374	-0.234	0.013	2.287	2.303	4.541	3.115
Skewness (SE)	0.077	0.118	0.283	0.063	0.077	0.120	0.289	0.064

Figure 4.5 Box plots for first job ISEI score and starting income by ethnicity

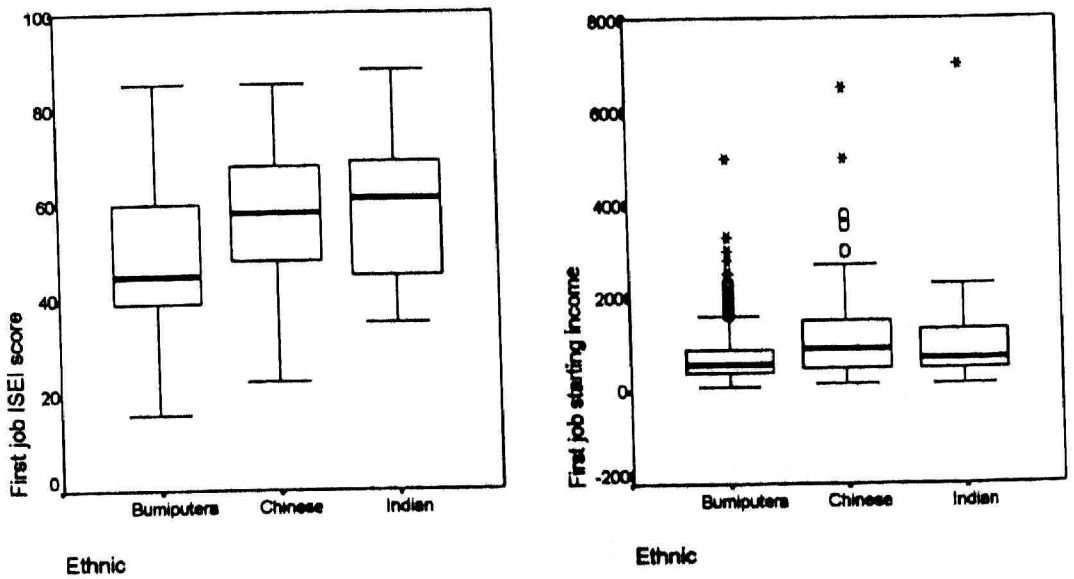


Table 4.11 shows that most of the respondents do not have any subordinate working under their supervision. Among those who have subordinates, they have, on

average, 24 people working under them. Using median as a measure of central tendency, the number of subordinates is about 5 persons.

The job search duration to get the first job has a wide range, from one day to six years. This is shown in Table 4.11. On average, it takes more than two months to find the first job. The median for the number of days to find the first job is only three weeks.

Table 4.11 Descriptive statistics for certain first job characteristics: number of subordinates under supervision and job search duration

	Number of subordinates	Job search duration
Sample size	346	1249
Minimum	1	1
Maximum	900	2338
Mean	23.99	76.69
Median	5	21
SD	91.92	175.98
Skewness (Statistics)	7.514	5.265
Skewness (SE)	0.131	0.069

The majority of the respondents work on a permanent basis in their first job, as shown in Table 4.12. About 20% of them work as temporary workers in first job.

More than half of the respondents agreed that their first job was not their dream job, as shown in Table 4.12. This might not be surprising as it took time to find an individual's dream job and explore the choices available in the labour market.

The popular sources of information to find the first job are friends, newspaper and family members. This is shown in Table 4.12. Examples of other sources are labour office, counsellor, employment agencies and schools.

Majority of the respondents leave their first job for various reasons. Among the common reasons are personal reasons (e.g. marriage, migration, not allowed to work), better offer and unsatisfactory job environment in the first job (e.g. boring job, routine job, difficult job).

Table 4.12 Distribution for first job status, whether the job is the dream job or not and source of information to find the job

	Frequency	Valid percentage
Job status		
Permanent	892	59.1
Part time	155	10.3
Contract	92	6.1
Temporary	313	20.8
Work for your own	18	1.2
Employer	18	1.2
Family workers	21	1.4
Total	1508	100.0
Is it your dream job?		
Yes	478	31.8
No	786	52.2
Not sure	241	16.0
Total	1505	100.0
Source of information to find the job		
Family members	255	17.1
Friend	553	37.1
Newspaper	415	27.9
Others or combination of the above	267	17.9
Total	1490	100.0

4.4.2 Current job

The discussions of the current job are divided into a few categories. They are occupational group, ISEI score, industry group, starting monthly income, average current monthly income, tenure, number of subordinates under supervision, job search duration, job status, ownership of the company, dream job for the individual, source of information to find the job and labour union membership.

In term of occupation categories, slightly less than half of the respondents are working as professional workers, as shown in Table 4.13. The next popular job is clerical work. Within ethnic groups, less proportion of Bumiputera and Chinese work in

administrative and production work respectively. Higher percentage of Chinese work in sales and no Chinese or Indian works in the agricultural field.

Table 4.13 Current job occupational group by ethnicity

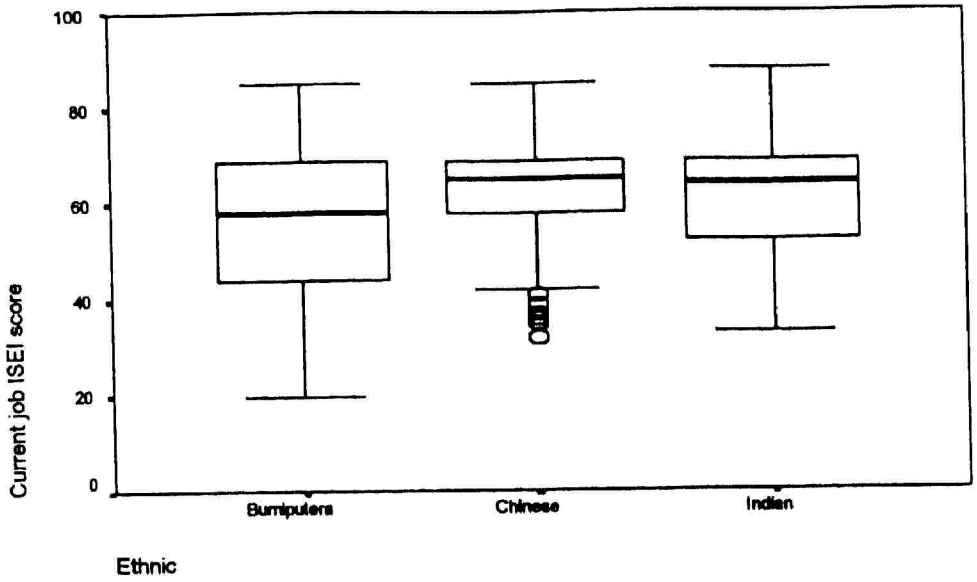
	Ethnic group			
	Bumiputera	Chinese	Indian	Total
Professional	398 (46.2)	197 (49.0)	28 (48.3)	623 (47.2)
Administrative	29 (3.4)	51 (12.7)	4 (6.9)	84 (6.4)
Clerical	206 (23.9)	91 (22.6)	12 (20.7)	309 (23.4)
Sales	38 (4.4)	40 (10.0)	1 (1.7)	79 (6.0)
Service	25 (2.9)	9 (2.2)	1 (1.7)	35 (2.6)
Agriculture	7 (0.8)			7 (0.5)
Production	158 (18.4)	14 (4.5)	12 (20.7)	184 (13.9)
Total	861 (100.0)	402 (100.0)	58 (100.0)	1321 (100.0)

The average ISEI score is 57.85, with the Chinese attaining the highest average ISEI score, followed by Indian. This is shown in Table 4.14. The average ISEI score for the current job is higher than the first job average ISEI score ($t = -15.662$, p-value = 0.000). Bumiputera has a lower average ISEI score and a wider range while the distribution for Chinese is more concentrated, as shown in Figure 4.6. The status for the higher 75% Chinese respondents is higher than the status for the lower 50% Bumiputera respondents.

Table 4.14 Descriptive statistics for current job ISEI score by ethnicity

	Ethnic group			
	Bumiputera	Chinese	Indian	Total
Sample size	861	402	59	1322
Minimum	20	32	33	20
Maximum	85	85	88	88
Mean	55.78	62.03	59.74	57.85
Median	58	65	64	60
Standard Deviation	13.71	10.07	13.00	12.99
Skewness (Statistics)	-0.341	-0.873	-0.212	-0.538
Skewness (Standard error)	0.083	0.122	0.311	0.067

Figure 4.6 Box plot for current job ISEI score by ethnicity



Looking into the distribution in term of types of industries, most of the respondents are in the community, social and personal services industry, followed by manufacturing and financing, insurance, real estate and business services. This is shown in Table 4.15. Bumiputera were more likely to be working in the community, social and personal services industry than Chinese and Indian. More than one third of the Chinese and Indian involve in financing, insurance, real estate and business services and manufacturing industry respectively.

Table 4.15 Current occupation industry by ethnicity

	Ethnic group			
	Bumiputera	Chinese	Indian	Total
Manufacturing	238 (26.2)	101 (24.8)	25 (37.3)	364 (26.3)
Construction	39 (4.3)	18 (4.4)	1 (1.5)	58 (4.2)
Wholesale, retail trade, restaurants and hotels	74 (8.1)	37 (9.1)	4 (7.5)	116 (8.4)
Transport, storage and communication	41 (4.5)	22 (5.4)	3 (4.5)	66 (4.8)
Financing, insurance, real estate and business services	126 (13.9)	154 (37.8)	17 (25.4)	297 (21.5)
Community, social and personal services	370 (40.7)	64 (15.7)	15 (22.4)	449 (32.5)
Others*	21 (2.3)	11 (2.7)	1 (1.5)	33 (2.4)
Total	909 (100.0)	407 (100.0)	67 (100.0)	1383 (100.0)

* 'Others' refers to agriculture, forestry, hunting and fishing, mining and quarrying and electricity, gas and water.

The starting monthly income for the current job is about RM1295 with a very wide range, as shown in Table 4.16. The higher 50% observation for the Chinese and Indian categories has higher starting income than the lower 75% Bumiputera respondents. This is shown in Figure 4.7. The starting monthly income for the current job is higher than the starting monthly income for the first job (t = 16.803, p-value = 0.000).

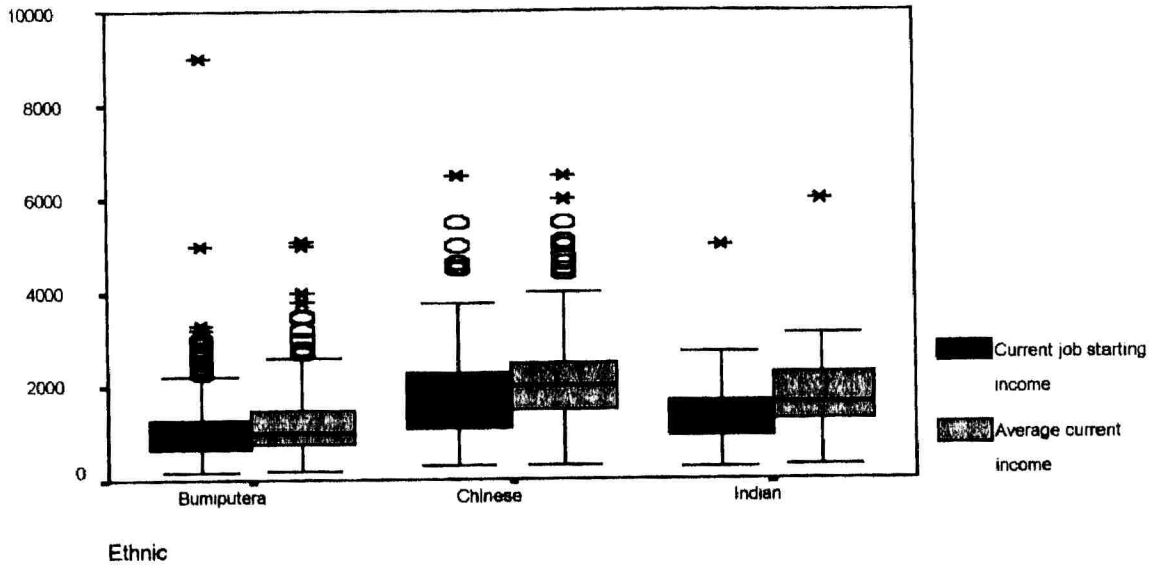
As for the current monthly income, the average is about RM1480. This is shown in Table 4.16. As in the case for starting monthly income, the same pattern can be observed. Generally, the income for Bumiputera is lower than the income for Chinese and Indian. Chinese has an average monthly income above RM2000. In term of interquartile range, stating income and current income distribution overlap the most for the Bumiputera and the least for Indian. This is shown in Figure 4.7.

Table 4.16 Descriptive statistics for current job starting monthly income and current monthly income by ethnicity

	Starting monthly income				Current monthly income			
	Ethnic group							
	Bumi-putera	Chinese	Indian	Total	Bumi-putera	Chinese	Indian	Total
Sample size	753	357	53	1164	862	399	65	1326
Minimum	150	300	250	150	200	300	300	200
Maximum*	9009	9009	7000	9009	5100	6500	6000	6500
Mean	1038.26	1788.41	1613.48	1294.91	1153.18	2131.92	1788.97	1478.97
Median	886	1700	1500	1093.31	1000	2000	1627.02	1300
SD	678.19	1069.60	1144.64	910.58	599.09	1019.02	866.92	885.28
Skewness (Statistics)	5.305	2.645	3.213	3.497	1.768	1.293	1.753	1.716
Skewness (SE)	0.089	0.129	0.327	0.072	0.083	0.122	0.297	0.067

* It is noted that these are rather high starting income. This may be due to attitude of the respondent while they answered the questionnaire. The respondents might not be serious in answering the questions.

Figure 4.7 Box plot for current job starting and current income by ethnicity



The length of service in the current job has a wide distribution, ranging from one week to few years. This is shown in Table 4.17. In addition, the distribution is skewed. On average, respondents started working in the current job less than two years ago.

About 42% of the respondents do not have any subordinates under their supervision. Among those who have workers under their supervision, they have about 20 persons on average, as shown in Table 4.17. The distribution is widely spread. The median for the number of subordinates is 4 persons.

On average, it took around three months for the respondents to find the current job, as shown in Table 4.17. The range is from one day to six years. The distribution is positively skewed and the variation is relatively large. The median for the number of days to find the current job is about one month.

Table 4.17 Descriptive statistics for certain current job characteristics: tenure, number of subordinates under supervision and job search duration

	Tenure in days	Number of subordinates	Job search duration
Sample size	1081	383	725
Minimum	7	1	1
Maximum	5551	900	2338
Mean	718.71	19.68	107.67
Median	545	4	28
SD	631.92	79.43	230.73
Skewness (Statistics)	1.627	8.976	4.145
Skewness (SE)	0.074	0.125	0.091

Table 4.18 shows that most of the respondents are working permanently for the current job while a small minority is working on a part time or temporary basis. About 3% of the respondents are working on a contractual basis.

About 70% of the respondents are working for locally owned companies. This is shown in Table 4.18. Less than 1% of the respondents work in a government agency. Foreign companies and companies owned by partnership between local and foreign partners are more popular choices than government agencies.

Slightly more than half of the respondents find that their current jobs are their dream job, as shown in Table 4.18. However, about one quarter of them is still unsure whether it is their dream job or not. This may indicate that they may job hop to find other jobs or explore jobs that are available. Slightly less than a quarter of them feel that their current jobs are not the jobs they dreamed.

The most popular source of information for the respondents to find their current job is the newspaper, followed by friends and family members. This is shown in Table 4.18. About 40% of the respondents find their jobs using newspaper.

Table 4.18 Distribution for current job status, whether the job is the dream job or not, source of information to find the job and labour union membership

	Frequency	Valid percentage
*Job status**		
Permanent	1037	86.1
Part time	14	1.2
Contract	37	3.0
Temporary	49	4.1
Work for your own	33	2.7
Employer	17	1.4
Family workers	17	1.4
Total	1204	100.0
Ownership of the company		
Local	955	69.4
Foreign	237	17.2
Partnership between local and foreign	173	12.6
Government	12	0.9
Total	1377	100.0
Is it your dream job?		
Yes	590	52.5
No	260	23.1
Not sure	273	24.3
Total	1122	100.0
Source of information to find the job		
Family members	132	12.3
Friend	290	27.0
Newspaper	432	40.2
Others or combination of the above	220	20.5
Total	1074	100.0
Any labour union in the place you work?		
Yes	535	39.8
No	810	60.2
Total	1345	100.0
Are you a member in the labour union in your place?		
Yes	360	69.0
No	169	31.0
Total	529	100.0
Are you a member in other labour union?		
Yes	66	5.2
No	1208	94.8
Total	1274	100.0

* The job status category is not commonly collected. It is based on the data collected.

More than half of the respondents do not have labour union in the place they work, as shown in Table 4.18. For those who have, most of them join as a member. When asked whether they join any other labour union, 95% do not join any of them.

4.4.3 Other work related issues

Other issues are years of working experience, number of jobs held and job changing pattern.

On average, the respondents have accumulated around 3.6 years of working experience while about 2% of the respondents join the work force for a year or less. This is shown in Table 4.19. The distribution has a wide range, from one week to 15 years. For those who have more than seven years of working experience, they might start working on a part time basis when they were studying.

The average number of jobs held is 2.66, with a wide range from 1 to 20 jobs. This is shown in Table 4.19. Most of the respondents held more than one job. The distribution is positively skewed.

Table 4.19 Descriptive statistics for days of working experience and number of jobs held

	Total days of working experience	Number of jobs held
Sample size	1296	1301
Minimum	7	1
Maximum	5628	20
Mean	1321.81	2.66
Median	1250	2
Standard Deviation	771.48	1.72
Skewness (Statistics)	0.656	3.303
Skewness (Standard error)	0.068	0.068

About half of the respondents do not work in the same occupation and employer since they joined the work force. This is shown in Table 4.20. Slightly less than one third

of the respondents are still working in the same occupation with the same employer, implying no obvious career advancement in term of occupation rank. Only a small proportion changed jobs without changing employer.

Table 4.20 Distribution for job changing pattern

	Frequency	Valid percentage
Change occupation with same employer	13	1.1
Change occupation with different employer	625	51.4
Same occupation with different employer	184	15.2
Same occupation with same employer	384	32.4
Total	1217	100.0

4.4.4 Unemployment

There are two groups of the unemployed. They are respondents who have never worked before and respondents who are not working while the third stage survey is conducted. In the sample, 98 persons never worked after they left school. When the survey was conducted, 330 respondents were not working currently. Certain demographic characteristics and current activity are shown in Table 4.21 for these two groups.

Among those who have never worked before, over 60% of them are females. Close to 90% of them are Bumiputera while the Chinese take up 9%. Majority of them are still single. As to their current activities, more than 60% of them are currently studying while about 13% of them are working as housewife. Another 13% of them are currently unemployed.

Among those who are not working currently, over two third of them are females. Over 80% of them are Bumiputera while Chinese takes up 14%. Majority of them are still single. Over half of them are currently studying while more than one quarter of them is working as housewife. Most of those who are married are housewives. Slightly more than 10% of them are unemployed.

Table 4.21 Distribution for certain demographic characteristics and current activity among those that never work before and those that are not working currently

	Never work before		Not working currently	
	Frequency	Valid percentage	Frequency	Valid percentage
Gender				
Female	63	63.6	227	68.9
Male	36	36.4	102	31.1
Total	98	100.0	330	100.0
Ethnic				
Bumiputera	88	89.9	273	82.8
Chinese	9	9.0	48	14.4
Indian	1	1.1	9	2.8
Total	98	100.0	330	100.0
Marital status				
Single	84	85.4	232	70.8
Married	14	14.6	96	29.2
Total	65	100.0	328	100.0
Current activity				
Student	64	65.5	174	53.8
Housewife	13	12.8	89	27.5
Unemployed	13	13.3	39	12.0
Others*	8	8.4	21	6.7
Total	98	100.0	323	100.0

* It includes those that are waiting for result.

4.5 Motivation and work value

This section examines the motivation and work value. Principal components analysis is used to reduce the large number of variables measuring motivation, work value in school and work value in labour force. The principal component scores used in this study are different from the result in Easvaralingam (2000), as no rotation is done on the principal components.

4.5.1 Checking on the correlation and sampling adequacy

Assessing the correlation matrix

Three correlation matrices are examined, one for motivation, one for work value in school and one for work value in labour market. Evaluation is based on the proportion of pairs of correlation larger than 0.3 (refer to Hair et al., 1998).

For motivation, less than 30% of the combinations have correlation more than 0.3 and none of the correlation has a value greater than 0.4. All the correlation are statistically significant. The determinant, which indicates the existence of linear dependency among the variables, is 0.448.

For work value in school, less than 13% of the pairs have a correlation more than the 0.3 benchmark and a small number of them are not statistically significant (3 pairs). Only one pair has a correlation more than 0.5. It is the correlation between 'able to help community' and 'work with people'. Besides, the determinant of the matrix is 0.06967, which can be considered close to zero, pointing that there is correlation among those variables.

For work value in labour market, slightly more than 30% of the pairs have a correlation greater than 0.3 and all the correlation are significant at 5% level. In addition, none of the pair has a correlation of greater than 0.5. The determinant of this correlation matrix is 0.005847, which is close to zero, indicating existence of dependency among the variables in the matrix.

Kaiser-Meyer-Olkin Measure of sampling adequacy and Bartlett test of sphericity

Table 4.22 shows that all the Kaiser-Meyer-Olkin value is close to or above 0.8, indicating adequate intercorrelation among variables to conduct principal components analysis. This is well supported by the individual measure of sampling adequacy. For motivation and work value in school, all the values are greater than 0.7. For work value in labour market, all the variables have individual measure of sampling adequacy above 0.8.

The analyses above are further supported by the Bartlett test of sphericity, as shown in Table 4.22. Using this test, the null hypothesis stating that the population correlation matrix is an identity matrix (indicating all the variables are not correlated) is rejected for all the three cases at 1% significance level. The variables studied are intercorrelated for each case.

Table 4.22 Result of Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett test of sphericity

	Motivation	Work value in school	Work value in labour market
Kaiser-Meyer-Olkin measure of sampling adequacy	0.781	0.794	0.910
Bartlett test of sphericity (p-value)	1344.189 (0.000)	4181.755 (0.000)	8640.864 (0.000)

4.5.2 Estimation of principal components and principal component scores

For motivation, 1 component is extracted. For work value in school, 5 components are extracted while 4 components are extracted for the work value in labour market.

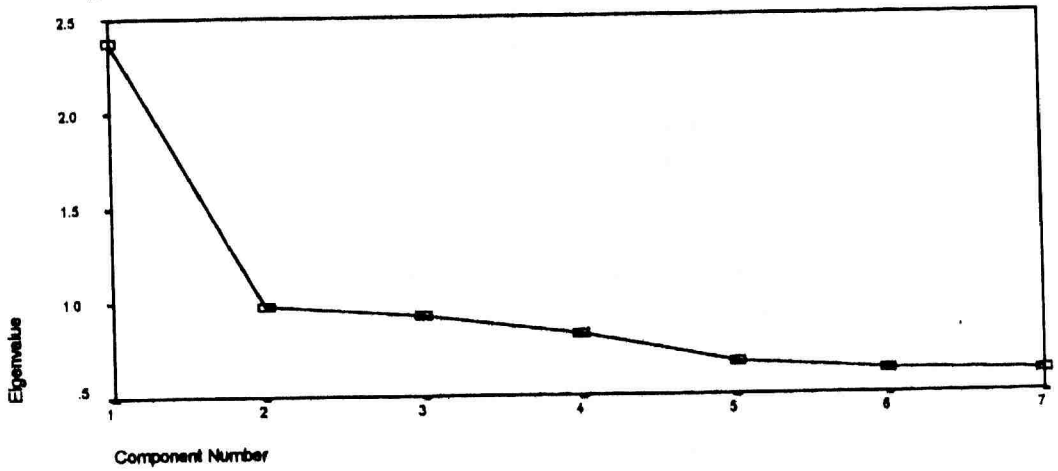
For motivation, only one component is extracted and all the variables considered have high loading in this component. It is shown in Table 4.23. Variables like competing with peers and aiming success in examination have high loading, compared to factors like

improve job qualifications. The component extracted explains over one third of the variance. In the scree plot, there is a drop after the first component, as shown in Figure 4.8.

Table 4.23 Motivation - component and loading for each variable and total variance explained

Variables	Component 1
Like to do well to please teacher	0.635
Examination success is my aim	0.692
Study hard to compete with friends	0.687
Care doing well	0.392
Studying gives personal satisfaction	0.475
Work hard to please parents	0.662
Improve job qualifications	0.450
Total variance explained	
Total	2.374
% of variance	33.921

Figure 4.8 Motivation - scree plot for principal component analysis



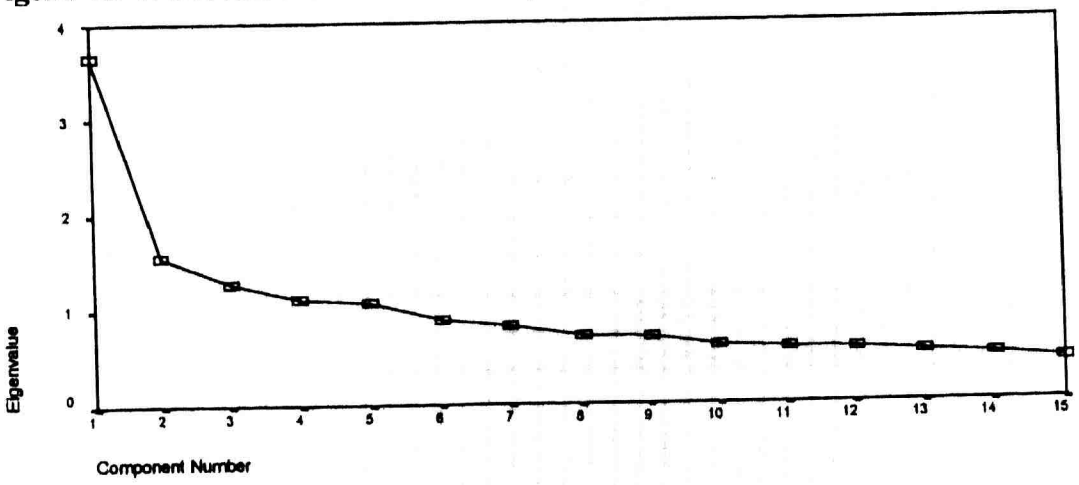
For work value in school, all the variables have loading above 0.3 in the first component, as shown in Table 4.24. The 'opportunity to improve competence' and 'secure future' have high loading. Factors like 'proximity to spouse's working place' and 'no supervision' have low loading. The first component explained more than half of the variance explained by all the other components. Figure 4.9 shows that there is a clear drop in the scree plot and the points tend to level off after the first component. In

addition, the individual variance explained by other components are less than or only slightly more than 10%. Hence, only the first component is included for further analysis.

Table 4.24 Work value in school - components and loading for each variable and total variance explained

	Component				
Variables	1	2	3	4	5
Improving competence	0.626	-0.275	-0.00462	-0.165	-0.0863
Secure future	0.558	0.205	0.215	-0.389	-0.368
Creative work	0.557	-0.131	-0.503	0.0623	0.124
Work with people	0.548	-0.406	0.285	0.253	0.0805
Use skill learnt	0.521	-0.148	-0.147	-0.284	0.408
Further studies opportunity	0.511	-0.322	0.134	-0.171	-0.0912
Interesting work	0.484	0.349	-0.379	-0.0722	-0.101
Time with family	0.467	0.398	0.297	-0.0211	0.403
Supervise others	0.456	-0.00367	0.209	0.428	-0.137
Able to help community	0.496	-0.552	0.247	0.0455	0.0192
No supervision	0.301	0.447	-0.0420	0.409	0.0296
Using special talent	0.534	0.01542	-0.599	-0.00247	0.109
Opportunity to travel	0.475	0.151	-0.00377	0.546	-0.226
Proximity to spouse's working place	0.303	0.419	0.370	-.108	0.507
Good income	0.464	0.374	0.137	-0.297	-0.472
Total variance explained					
Total	3.661	1.548	1.274	1.113	1.075
% of variance	24.404	10.303	8.492	7.423	7.166
Cummulative %	24.404	34.727	43.219	50.642	57.808

Figure 4.9 Work value in school - scree plot for principal component analysis



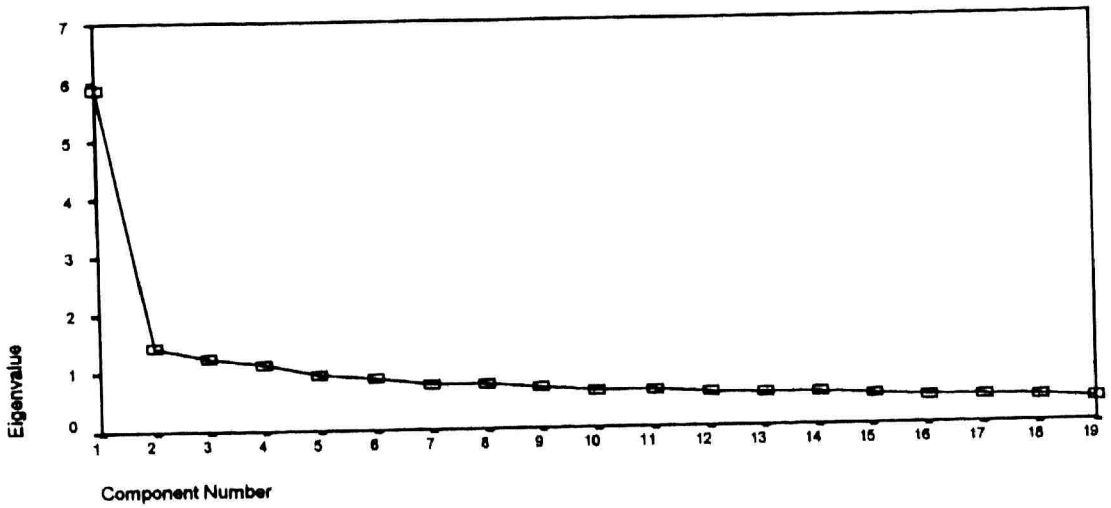
For work value in labour market, all the variables in the first component have high loading in the first component, above or close to 0.5, except a few variables. This is

shown in Table 4.25. 'Minimum stress and tension' and 'sufficient free time for myself and family' have low loading, compared to other variables. Variables relating to prestigious job environment, good income and jobs which allow an individual to make contributions have high loading. The total variance explained by the first component (30.9%) is more than half the total variance explained by all the components. The points in the scree plot start to level off after the first component, as shown in Figure 4.10. The individual variance explained by other components is less than 10%. So, only the first component is considered.

Table 4.25 Work value in labour market - components and loading for each variable and total variance explained

	Component			
Variables	1	2	3	4
Occupation in prestige firm	0.655	-0.282	0.09576	-0.254
Clear working requirement	0.641	-0.0272	-0.08948	-0.251
Really contribute to the success of company	0.639	0.02999	-0.397	0.104
Work with co-operative people	0.635	0.279	-0.101	0.09148
Good relation with head	0.609	0.251	-0.01290	-0.117
Opportunity to hold high position	0.605	-0.440	0.156	0.06533
Opportunity to help other people	0.603	0.223	-0.244	-0.279
Occupation with variety and adventurous element	0.603	-0.293	-0.230	0.02109
Opportunity to serve the government	0.582	0.189	-0.06252	-0.351
Involved in decision making	0.563	0.148	-0.278	0.285
Opportunity to get good pay	0.538	-0.399	0.277	0.277
Challenging job and gives satisfaction	0.529	-0.08174	-0.372	0.165
Enable to stay in dream area	0.527	-0.408	0.316	0.155
Promising job	0.525	0.319	0.275	-0.229
Work in big organisation	0.503	-0.265	0.177	-0.391
Good working environment	0.494	0.279	0.343	0.07742
Minimum stress and tension	0.362	0.207	0.254	0.207
Sufficient free time for myself and family	0.323	0.446	0.468	0.187
Freedom to use own approach in work	0.494	0.09893	-0.122	0.525
Total variance explained				
Total	5.868	1.442	1.242	1.140
% of variance	30.885	7.590	6.535	6.002
Cummulative %	30.885	38.476	45.010	51.012

Figure 4.10 Work value in labour market - scree plot for principal component analysis



4.5.3 The principal component scores

For motivation, a low principal component score shows that the respondents agree more with the statements considered in the principal component analysis. Individuals with low principal component score view examination success as their aim and they try to excel in their studies to please their teachers and parents and to compete with their friends.

For work value in school, low principal component score indicates that the factors considered are important in providing job satisfaction. Individuals with low principal component score view that jobs which provide opportunity to improve oneself, secure future and creative, give them job satisfaction.

For work value in labour market, low principal component score indicates that the characteristics considered in the principal component analysis are high in importance when an individual is considering his ideal job. Individuals with low principal score view that jobs, which have high prestige, clear working requirement and enable them to contribute to the success of the firm and to hold high position, are their ideal jobs.

A simple comparison of the scores versus ethnicity is made to give an insight to the distribution of the scores in each ethnic group.

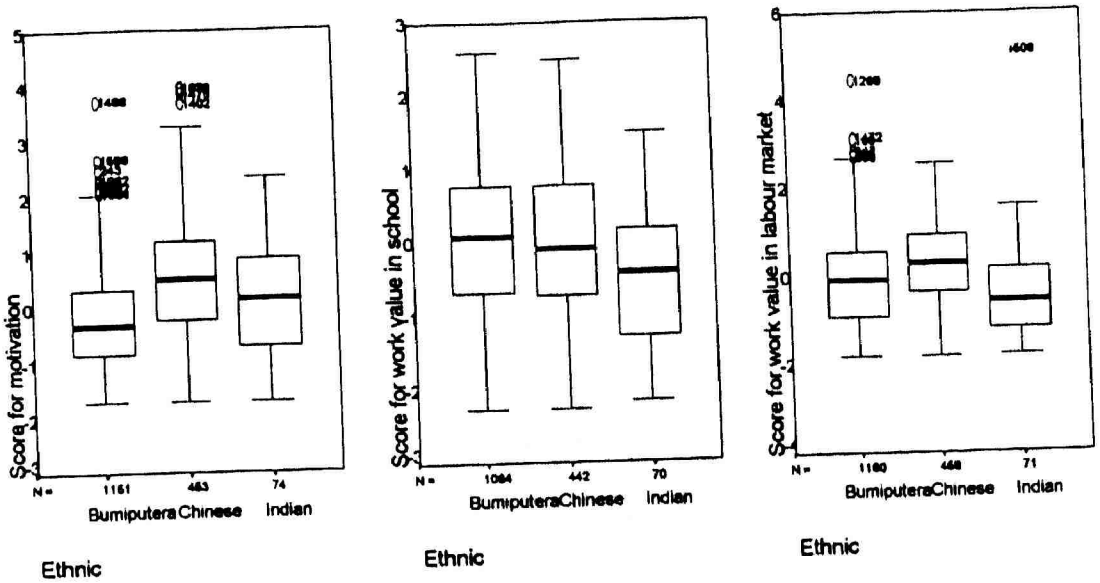
As shown in the plot on the left side in Figure 4.11, the distributions of the principal component score for motivation for each ethnic group overlaps one another. Chinese has the highest median principal component score for motivation, followed by Indian and Bumiputera. The median for Bumiputera is in the negative range. Generally, Chinese appears to study hard to satisfy themselves while Bumiputera appears to study hard to please others.

As shown in the plot in the centre in Figure 4.11, the distributions of principal component score for work value in school for Bumiputera and Chinese look similar. The median for Bumiputera and Chinese is around zero while the median for Indian is negative. Generally, Bumiputera and Chinese appear to view that jobs, which provide opportunity to improve, secure future and creative, give less job satisfaction. Indian appears to view these qualities are important for job satisfaction. Bumiputera and Chinese appear to find that jobs, which enable them to help the community and to spend time with family, give more job satisfaction.

As shown in the plot on the right side in Figure 4.11, the distribution of the principal component score for work value in labour market for each ethnic group overlaps. The median for Indian is negative while the median for Bumiputera is near to zero. The median for Chinese is positive. Generally, Indian and Bumiputera appear to view that jobs, which are prestigious, have clear working requirement and enable them to contribute to the firm and hold high position, are their ideal jobs. Chinese appears to view

that jobs, which provide good working environment, freedom in work and have minimum stress, are their ideal jobs.

Figure 4.11 Box plots for principal component scores for motivation, work value in school and in labour market by ethnicity



4.6 Summary

There are around 70% Bumiputera, 25% Chinese and 5% Indian in the sample. The proportion of gender groups is more or less even. All the respondents are in their 20s, which is the prime time for involvement in the labour force. The tight age range limits the study of the effect of age on career advancement for an individual. Majority of the respondents grew up in rural area. The distribution of location for Bumiputera is different from the non-Bumiputera. Less non-Bumiputera grew up in the rural area. This may be due to the historical reason and also the occupation and economic sector involved by their parents. Most of the respondents are single. However, the proportion of married is higher for female and for Bumiputera. Among the married respondents, on average, they have

one child. So, the effect of family burden on career advancement is expected to be limited for this sample.

Most of the respondents' parents do not receive education higher than primary school. Bumiputera parents are least educated while Indian parents are most highly educated. Most of the Bumiputera parents worked in the agricultural field while Chinese parents involved more in production and transportation beside involving in sales. Clerical work is more common among Indian. The limited education received by Bumiputera may explain why most of them involved in agriculture and lived in rural area. Most of the respondents come from the low income group. The percentage is especially high among Bumiputera while the Chinese come from families, which are better off. On average, most of the respondents come from large family. The family size for Bumiputera is bigger than the non-Bumiputera on average. Big family size may be considered as an obstacle to pursue better education, as the family resources are more limited with a bigger family to support. The situation for Bumiputera with large family is worsened as the Bumiputera generally have low income.

On the average, the amount of formal education received by the Bumiputera is less than the non-Bumiputera. The limited education may in turn become an obstacle for the Bumiputera to advance in their career. On the other hand, vocational training is less popular. The distribution for each ethnic group does not vary very much.

As for the highest qualification acquired, most Bumiputera do not further their education after secondary school while most of the Chinese have professional or tertiary education. The relatively low level of education for Bumiputera may be due to the inadequate family resources and large family size. On average, Chinese is the best-

)erformed ethnic category while the Bumiputera fares the worst, using SRP, SPM and)re-university programmes result as a benchmark.

Training provided by employer is uncommon among employers as the proportion who receives training is relatively small. Around three quarters of the respondents do not receive training. As to job tenure, on average, most of the respondents remain in the first job for about for one and a half-year

Most of the respondents join the work force as professional. The percentage is higher among non-Bumiputera in view of the higher education level achieved. Among Bumiputera, production is more popular than professional job. A substantial proportion of respondents join the workforce as clerical workers. In term of average ISEI score for the first job, Bumiputera ranked the lowest while Indian ranked the highest. In term of starting salary, on average, Chinese commanded the highest pay while Bumiputera received the lowest income. On average, Bumiputera start off their career with a lower ISEI score job and command a lower starting pay than the non-Bumiputera.

Most of the respondents do not regard their first job as their dream job. The short tenure in the first job may indicate that most of the respondents have high rate of mobility and do not stay in the same job for too long. They have a high tendency to change job, which may be due to they are still new to the work force. During this time, they are trying out new jobs and try to better understand what they want in their dream job. Most of the respondents do not have any subordinate working under their supervision as they have started in a junior position.

A higher proportion of respondents work as professionals in the current job, compared to their first job. The same pattern can be observed in the administrative group.

On the other hand, there is a lower proportion of respondents working in clerical, sales, service, agricultural as well as production jobs. This is an indication of the mobility pattern among respondents. Most of the respondents have moved to professional and administrative work. Based on the ISEI score, on average, Chinese has the highest status while Bumiputera has the lowest status. Comparing with the status of first job, on average, all the respondents achieved career advancement. Every ethnic group, on average, moved upwards along the scale, with the Indian having limited upward movement.

In term of starting monthly income for the current job, Chinese has the highest average pay while the Bumiputera has the lowest. The same pattern can be observed for the current income, with the Chinese commanding a pay above RM2000 on average. Comparing the starting income of the first job, there is a huge jump in income for most of the respondents. The average current income for each ethnic groups almost double the average starting income for the first job for the respective groups. This implies an upward movement in career in term of upward income mobility.

On average, the respondents have worked in the current job for two years and most of them find that the current job is their dream job. More respondents have subordinates working under their supervision, compared to their first job. This may hint that more respondents have climbed to more senior management positions and have more responsibilities assigned to them.

On average, most of the respondents have less than four years of working experience and they have held three jobs since they started working. Most of the respondents have changed their occupation and employer before while less than one third

still work in the same occupation with the same employer. This suggests that this sample of respondents is mobile and there is a tendency to change job frequently.

For those who have never worked before or not working currently, most of them are female, Bumiputera and single. Majority of them are studying or working as a housewife currently.

In general, for motivation, Chinese appears to be more inclined to work hard for themselves while Bumiputera appears to be more inclined to work hard to please others. For work value in school, Bumiputera and Chinese appear to feel that jobs, which can help others and enable them to spend time with family, give job satisfaction. For work value in labour market, Indian and Bumiputera appear to feel that prestigious jobs with bright prospect to hold high positions are their ideal jobs.

In short, job change is prevalent and there is a clear shift in career development in this sample. It is useful to explore the different job changing patterns and the factors driving the success of career advancement for an individual.