

POVERTY IN A MALAY STATE IN MALAYSIA : A Socio-Demographic Study

CHE HASHIM BIN HASSAN

Head, Unit for the Enhancement of Academic Performance, University of Malaya.

hashim28153@um.edu.my

Abstract

Leete (2007:147) stated that the poverty rate in Malaysia was 5.7%. The state of Sabah has the highest poverty rate at 23%, followed by Terengganu (15%), Kelantan (11%), Sarawak (8%), and Kedah (7%). In view of the scarcity of natural resources compared to Terengganu and Sabah which are receiving oil royalties from the Federal Government, Kelantan is potentially the poorest state, and will have the highest incidence of poverty in the near future.

This study focuses on poverty level in the state of Kelantan. The main objectives of this study is to examine the relationship between poverty and various socio-demographic characteristics such as, educational attainment, age, number of children still living and family size of the respondents in one state which is potentially the poorest state in Malaysia. The findings if this study will provide the information on socio-demographic variables of poverty needed by policy makers to formulate a long term strategy, not only to minimize the number of poor people but to further reduce and eradicate hard core poverty in the state.

The data pertinent to this study was collected through a questionnaire survey on poverty conducted in late 2009. Inferential statistics such as One-Way ANOVA was used to determine the relative impact of, and relationship between socio-demographic variables such as education, age, children still living (fertility) and family size of respondents and its relationship with poverty. It was found that family size has a very strong relationship with poverty among the respondents.

Data collection for this study was funded by the Center for Poverty and Development Studies, Faculty of Economics and Administration, University of Malaya*.

Key Words : Poverty, Education, Age, Children Still Living, Family size, Subsidies and Skills.

**The author wishes to thanks The Centre for Poverty and Development Studies, Faculty of Economics and Administration, University of Malaya for the financial supports for the collection of data for this study.*

1.0 Introduction

This is a study of some socio-demographic variables associated with poverty in the state of Kelantan in Malaysia. In 2004, household poverty rate for the three poorest states of Sabah, Terengganu and Kelantan in Malaysia are 25.49, 15.54 and 10.45 respectively (UNDP, 2007: 68, Table 4.7). Besides steps taken by the Ministry of Women, Family and Community Development to eradicate poverty for the whole country, the state of Terengganu and Sabah complement this effort by giving supports to further reduce poverty in those states. The states of Terengganu and Sabah, the two states which are producing oil and received oil royalty from the federal government. These two states allocated huge amount of budget in order to further reduce poverty to a very low level. For the budget 2009, Terengganu has allocated RM230.9 million aimed at eradicating poverty to zero level by 2010 (Rosli Zakaria and Sean Augustin, 2008: 17). The number of hard core poor in Sabah fell by whopping 92 per cent in 2010 and leaving the number of hard core poor of only 1,415 households as compared to 18,294 the previous year (Julia Chan, NST, Feb 2, 2011: 21).

Kelantan is the northern-most state on the East Coast of Peninsular Malaysia. In 2010 population of Kelantan was estimated 1,459,994 (Malaysia, 2010: IV). Majority of population in Kelantan (95%) is Malays. All Malays by definition are Muslims. Kelantan is lacking in economic resources. The main economic activities of the people are in the agricultural sector. Most Kelantanese are fishermen, rubber tappers and paddy planters. In 2004, Kelantan was the state number three in poverty ranking in Malaysia. The state is currently ruled by an opposition party. The state is potentially going to be the poorest state in Malaysia in the near future.

This is a socio-demographic study of poverty in Kelantan, Malaysia. This study examines the relationship between some socio-demographic variables such as education, age, children still living (CSL), family size of the respondents and its relationship with level of their income. It is hoped that the findings of this study will provide a clue for policy makers to design a more effective policy to eradicate poverty as a long term measures.

2.0 Method

2.1 Background of poor people in Kelantan.

Sample selection for this study is based on the numbers of hardcore poor in Kelantan in 2002/2003. The data collected by the Kelantan Development Authority and presented in the following Table 1 below. The states is divided into 10 districts. It is divided in 2 regions. The northern region comprised the districts of Tumpat, Kota Baharu, Pasir Mas, Machang, Tanah Merah, Bachok and Pasir Puteh. The southern region includes the districts of Kuala Krai, Jeli and Gua Musang.

2.2 Selection of Population Sample.

There are four districts, namely Tumpat, Kuala Krai, Gua Musang and Pasir Mas with the highest number of hardcore poor in the state. Districts of Tumpat and Pasir Mas are located in northern region, Gua Musang and Kuala Krai are located in the southern region of Kelantan. District Pasir Mas in the north and Kuala Krai in the south are chosen as district samples. In 2002/03, the number of hardcore poor in Pasir Mas and Kuala Krai were 1,713 and 1,896 persons respectively

Table 1

Kelantan – Classification of Head of Households by Poverty Status- Hard Core Poor and Poor Households, 2002/2003.

| Districts | No. of Head of Households of Hardcore Poor | No. of Head Households of the Poor | Total |
|------------------|---|---|---------------|
| Tumpat | 1,867 | 1,231 | 3,098 |
| Kuala Krai | 1,986 | 1,052 | 2,948 |
| Gua Musang | 2,159 | 466 | 2,655 |
| Pasir Mas | 1,713 | 805 | 2,518 |
| Machang | 907 | 770 | 1,677 |
| Kota Baharu | 1,042 | 546 | 1,588 |
| Pasir Puteh | 928 | 657 | 1,585 |
| Bachok | 907 | 624 | 1,531 |
| Tanah Merah | 731 | 674 | 1,405 |
| Jeli | 442 | 237 | 679 |
| Non-traceable | 235 | 40 | 275 |
| Total | 12,827 | 7,102 | 19,929 |

Source : Kelantan Development Authority, 2005 (Unpublished data).

2.3 Sampling

From the total number of hardcore poor of 1,713 for the district of Pasir Mas and 1,896 from the district of Kuala Krai, 16% of them were selected as respondents for the sample. Total number of sample were 577, of that, 274 from Pasir Mas and 303 from Kuala Krai. Selection of respondents was based on method of simple random sampling. However, three potential respondents from the district of Kuala Krai cannot be reached after three times visit to their houses, hence the final sample size for this survey was 574 respondents.

2.4 Instrumentation.

The survey questionnaire for this survey is divided into five parts. Part one comprises items related to the respondents (head of households), list of household members and socio-demographic and economic backgrounds of the head and household members. Part 2 includes the household expenditure following the specification proposed by the United Nations, that is, United Nations Statistical Papers, Series M, No. 84, Classification of individual Consumption According to Purpose (COICOP). Part 3, comprises items related to the health status of respondents. Part 4 covers the physical aspects of housing and basic facilities and part 5 includes the accessibility of the respondents to current issues.

3.0 Definition of Poverty

Leete (2007: 136) stated that :

“Poverty is easier to recognize than it is to measure. This is because it comprises multiple deprivations. Beyond material deprivation, measured in terms of a given level of income or consumption, a deeper characterization of poverty may include reference to a person’s health and education status, as with the human development index (HDI) used by UNDP.....Thus defining and measuring poverty are complex. Ultimately, the definition of poverty that is used tends to reflect the values and culture of the setting in which it is measured.”

Nevertheless, poverty in this area of study is defined based on the Poverty Line Income or PLI. In Malaysia, different PLI was applied for different years and states. In Peninsular Malaysia, PLI based on households income for the years 1990, 1995, 1999, 2002 and 2004 are RM370, RM425, RM510, RM529 and RM543 respectively (UNDP : 22, see, Table 2.1). In 2005, a most recent method to determined PLI for every states in

Malaysia, which took into consideration calorie values of food and daily calorie requirements, as well as the need for non-food items.

PLI for the rural population in Kelantan is RM352 for food and RM220 for non-food items. The total family monthly income is RM572.00 (UNDP :33, Table 2.8). In the global context, World Bank uses a standard called “international poverty standard” where people with income of less than USD\$1 a day is considered hardcore poor and income of less than USD\$2 a day is considered poor. With an assumption that the exchange rate USD\$1 equivalent to RM3.40 cents, translated into Malaysia context, a Malaysian whose income is less RM3.40 per day or less than RM102.00 per month is considered hardcore poor. Likewise, those with income less than USD\$2 or RM6.40 a day, or less than RM204.00 per month is considered poor (UNDP : 3).

Thus, if we were to compare PLI 2005 for Kelantan as stated above, with the international standard proposed by the World Bank, PLI for the state of Kelantan is slightly higher. PLI for Kelantan is RM572.00 for family of five persons and on average is RM114.40 per person. PLI for Kelantan is RM12.40 higher than the international PLI. This amount is considered reasonable, taking into consideration the fluctuation in exchange rates and possibility of unexpected increase in prices of food and non-food items, or inflation.

To sum up, even though there are limitations in defining poverty, the PLI proposed by the Economic Planning Unit of Malaysia for the state of Kelantan with a family income of RM572.00 per month, and on average of RM114.40 per person, is quite reasonable and will be used in this study.

3.1 Family Income

From a total of 574 respondents in this study, the mean monthly family income is RM393.82 and the median is RM400.00 per months. Average family size (mean) is 6.33 persons. Thus, the average income per person is RM62.21 per person per month. This average income is lower than the average income of PLI, that is, RM114.40 per person per month. This is because all selected respondents are those categorized as hardcore poor.

4.0 Analysis

For the purpose of this paper, four socio-demographic variables are selected to be the independent variables. They are; education, age, number of children still living and family size of the respondents. The dependent variable for the study is average households monthly income as reported by the respondents.

4.1 Educational Attainments

Table 1 below shows the descriptive statistics of mean income by level of educational attainment of respondents. The mean income for respondents with no formal education is the lowest and as the level of educational attainment increases, the mean income also increases.

Table 1
Mean Income by Level of Educational Attainments

| Educational Levels | Mean | Std. Deviation | N |
|------------------------|-----------------|-----------------|------------|
| No Formal Education | 342.0000 | 94.29563 | 25 |
| Primary School | 383.4520 | 80.63479 | 281 |
| Lower Secondary School | 397.1074 | 83.24100 | 121 |
| Secondary School | 419.7279 | 75.97716 | 147 |
| Total | 393.8153 | 82.55882 | 574 |

Table 2 below shows the result of the tests of between-subjects effect on monthly income by level of educational attainment of the respondents. The result of the one-way ANOVA test shows that on the whole there are significant differences in mean income

Table 2
Tests of Between-Subjects Effects of Income by Level of Educational Attainments

| Source | Type III Sum of Square | df | Mean Square | F | Sig. |
|-----------------|-------------------------|-----|-------------|----------|------|
| Corrected Model | 197316.105 ^a | 3 | 65772.035 | 10.110 | .000 |
| Intercept | 40573363.68 | 1 | 40573363.68 | 6236.622 | .000 |
| EDUSTAT | 197316.105 | 3 | 65772.035 | 10.110 | .000 |
| Error | 3708228.320 | 570 | 6505.664 | | |
| Total | 92927500.00 | 574 | | | |
| Corrected Total | 3905544.425 | 573 | | | |

a R Squared = .051 (Adjusted R Squared = .046)

according to levels of educational attainment of respondents where $F(3, 570) = 10.11$, $p < .05$. The value of R^2 is .051 and adjusted R^2 is .046. This shows that 4.6 per cent of mean income of respondents is determined by their level of educational attainment.

Table 3 below shows the result of pairwise comparisons of means according to levels of educational attainment of respondents. It shows that the different value of

Table 3
Pairwise Comparisons of Income by Level of Educational Attainments

| (I) Educational Status | (J) Educational Status | Mean Difference (I-J) | Std Error | Sig. ^a | 95% Confidence Interval for Difference ^a . | |
|------------------------|------------------------|-----------------------|-----------|-------------------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| No Formal Education | Primary School | -41.452 | 16.834 | .085 | -86.020 | 3.116 |
| | Lower Secondary School | -55.107* | 17.720 | .012 | -102.021 | -8.194 |
| | Secondary School | -77.728* | 17.449 | .000 | -123.925 | -31.531 |
| Primary School | No Formal Education | 41.452 | 16.834 | .085 | -3.116 | 86.020 |
| | Lower Secondary School | -13.655 | 8.770 | .720 | -36.875 | 9.564 |
| | Secondary School | -36.276* | 8.210 | .000 | -58.013 | -14.539 |
| Lower Secondary School | No Formal Education | 55.107* | 17.720 | .012 | 8.194 | 102.021 |
| | Primary School | 13.655 | 8.770 | .720 | -9.564 | 36.875 |
| | Secondary School | -22.620 | 9.901 | .136 | -48.832 | 3.591 |
| Secondary School | No Formal Education | 77.728* | 17.449 | .000 | 31.531 | 123.925 |
| | Primary School | 36.276* | 8.210 | .000 | 14.539 | 58.013 |
| | Lower Secondary School | 22.620 | 9.901 | .136 | -3.591 | 48.832 |

Based on estimated marginal means

* The mean difference is significant at the .05 level.

^a Adjustment for multiple comparisons: Bonferroni.

mean of respondents with no formal education and primary school is not significant. The difference is – 41.452 and $p > .05$. Whereas, the differences with that of lower secondary and secondary school respondents are statistically significant. The differences in mean are -55.107 and -77.728 at $p < .05$ respectively.

There is a significant difference in mean monthly income for the pair of respondents with primary and secondary schools education. The difference is -36.276 and $p < .05$.

It should be noted here that the positive value for the column mean difference (I-J) indicates that the value of mean monthly income in column (J) is higher than that of the value in column (i), vice-versa.

Table 4 below shows the result of Univariate tests. The test confirmed that there is at least one pair as shown in Table 3 above indicates a significant different. The value of $F(3, 570) = 10.11, p < .05$.

Table 4
Univariate Tests

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------|----------------|-----|-------------|--------|------|
| Contrast | 197316.105 | 3 | 65772.035 | 10.110 | .000 |
| Error | 3708228.320 | 570 | 6505.664 | | |

The F tests the effect of educational status. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

4.2 Age of Respondents

Age of respondents is divided into five categories. The mean monthly income for each category is shown in Table 5 below:

Table 5
Mean Income by Age Groups of Respondents.

| Age Groups | Mean | Std Deviation | N |
|--------------|-----------------|------------------|------------|
| 30-39 | 465.3846 | 62.87962 | 26 |
| 40-49 | 415.1741 | 71.97982 | 201 |
| 50-59 | 384.7273 | 77.14936 | 275 |
| 60-69 | 349.0196 | 111.57517 | 51 |
| 70 + | 328.5714 | 62.39277 | 21 |
| Total | 393.8153 | 82.55882 | 574 |

Table 5 above shows that respondents aged between 30 to 39 years having the highest average income of RM465.38 per month, and as age increases, the monthly income decreases. For respondents aged 70 and over, the mean monthly income is RM329, and is the lowest.

Table 6 below shows the result of tests between-subject effects of monthly income and age groups of respondents. The result of the one-way ANOVA test shows that on the whole there are significant differences in family mean monthly income of the respondents according to age groups, where $F(4, 569) = 18.029$, $p < .05$. The value of R^2 is .112 and adjusted R^2 is .106. This indicates that about 10.6 per cent of the family mean income is determined by the age of respondents.

Table 6
Tests of Between-Subjects Effects of Income and Age Groups of Respondents.

| Source | Type III Sum of Square | df | Mean Square | F | Sig. |
|------------------|-------------------------|-----|--------------|----------|------|
| Corrected Model | 439316.697 ^a | 4 | 109829.174 | 18.029 | .000 |
| Intercept | 33025144.181 | 1 | 33025144.181 | 5421.256 | .000 |
| AGEGROUPS | 439316.697 | 4 | 109829.174 | 18.029 | .000 |
| Error | 3466227.728 | 569 | 6091.789 | | |
| Total | 92927500.000 | 574 | | | |
| Corrected Total | 3905544.425 | 573 | | | |

a R Squared = .112 (Adjusted R Squared = .106)

Table 7 below shows the pairwise comparisons of means income by age groups of respondents. The differences in means income by age groups of respondents clearly shows that the 30-39 years age group has the highest mean monthly income. There are significant differences of mean monthly income for respondents in age group 30-39 years compared to that of respondents in age groups 40-49, 50-59, 60-69 and 70 years on over. The difference is smallest for respondents in age group 40-49 years, and as the age groups get older, the difference increases.

In summary, it can be concluded that among the hardcore poor respondents in this study, the youngest age group of respondents has the highest mean monthly income and the differences are statistically significant with that of the older age groups. The differences between age group 30-39 and 40-49 years is smallest and the gap gets higher and higher as the age groups get older.

Table 7
Pairwise Comparisons of Income by Age Groups of Respondents

| (I) Age Groups | (J) Age Groups | Mean Difference (I-J) | Std Error | Sig. | 95% Confidence Interval for Difference ^a . | |
|----------------|----------------|-----------------------|-----------|-------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 30-39 | 40-49 | 50.210* | 16.267 | .021 | 4.370 | 96.051 |
| | 50-59 | 80.657* | 16.014 | .000 | 35.529 | 125.785 |
| | 60-69 | 116.365* | 18.808 | .000 | 63.363 | 169.367 |
| | 70 + | 136.813* | 22.899 | .000 | 72.282 | 201.344 |
| 40-49 | 30-39 | -50.210* | 16.267 | .021 | -96.051 | -4.370 |
| | 50-59 | 30.447* | 7.243 | .000 | 10.036 | 50.857 |
| | 60-69 | 66.155* | 12.237 | .000 | 31.669 | 100.640 |
| | 70 + | 86.603* | 17.900 | .000 | 36.161 | 137.044 |
| 50-59 | 30-39 | -80.657* | 16.014 | .000 | -125.785 | -35.529 |
| | 40-49 | -30.447* | 7.243 | .000 | -50.857 | -10.036 |
| | 60-69 | 35.708* | 11.900 | .028 | 2.174 | 69.241 |
| | 70 + | 56.156* | 17.670 | .016 | 6.361 | 105.951 |
| 60-69 | 30-39 | -116.365* | 18.808 | .000 | -169.367 | -63.363 |
| | 40-49 | -66.155* | 12.237 | .000 | -100.640 | -31.669 |
| | 50-59 | -35.708* | 11.900 | .028 | -69.241 | -2.174 |
| | 70 + | 20.448 | 20.237 | 1.000 | -36.580 | 77.476 |
| 70 + | 30-39 | -136.813* | 22.899 | .000 | -201.344 | -72.282 |
| | 40-49 | -86.603* | 17.900 | .000 | -137.044 | -36.161 |
| | 50-59 | -56.156* | 17.670 | .016 | -105.951 | -6.361 |
| | 60-69 | -20.448 | 20.237 | 1.000 | -77.476 | 36.580 |

Based on estimated marginal means

* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Bonferroni.

The Univariate tests is also carried out. The result of the tests confirmed the result of pairwise comparisons as shown in Table 3 above. This confirmed that there is at least a significant difference in average income of the pair of age groups of respondents where $F(4, 569) = 18.029, p < .05$.

4.3 Children Still Living (CSL)

The second independent socio-demographic variable is the number of children still living (CSL) to respondents. This variable correlates with the differences in average family income. Table 8 below shows the statistics descriptive of the mean average income by number of CSL. The mean average income is lowest for respondents with CSL of 0-2 persons. The means increases as the number of CLS increases. By dividing the mean average income with the mid-point of CLS to get the average mean income per person, it is clear that respondents with smaller family size have higher average

Table 8
Mean Income by Number of Children Still Living (CSL).

| No. of Children (CSL) | Mean | Std. Deviation | N |
|-----------------------|-----------------|-----------------|------------|
| 0-2 | 305.4348 | 99.01081 | 46 |
| 3-4 | 385.0000 | 92.12589 | 40 |
| 5-6 | 393.4673 | 73.04722 | 199 |
| 7-8 | 408.7065 | 75.90335 | 201 |
| 9-10 | 399.3151 | 74.76498 | 73 |
| 11 + | 466.6667 | 48.79500 | 15 |
| Total | 393.8153 | 82.55882 | 574 |

Income, and as the number of children living with family increases, the average income decreases. The bigger the size of the family, the smaller the mean income per person (further details, see analysis of family size, p.16-19).

Table 9 below shows the result of between-subjects effects of number of CSL and the average monthly income of the family of respondents. The result of one-way ANOVA test indicates that on the whole the differences in mean monthly income of

respondents are statistically significant by the size of CSL of the family. The value of $F(5, 568) = 16.253$, $p < .05$. The value of R^2 is .125 and adjusted R^2 is .117. This indicates that 11.7 per cent of the family mean monthly income is determined by the number of CSL.

Table 9
Tests of Between-Subjects Effects of Children Still Living

| Source | Type III Sum of Square | df | Mean Square | F | Sig. |
|-----------------|------------------------|-----|--------------|----------|------|
| Corrected Model | 488832.815 | 5 | 97766.563 | 16.253 | .000 |
| Intercept | 40574460.473 | 1 | 40574460.473 | 6745.168 | .000 |
| CSL | 488832.815 | 5 | 97766.563 | 16.253 | .000 |
| Error | 3416711.610 | 568 | 6015.337 | | |
| Total | 92927500.000 | 574 | | | |
| Corrected Total | 3905544.425 | 573 | | | |

a R Squared = .125 (Adjusted R Squared = .117)

Table 10 below shows the pairwise comparisons of mean monthly income by number of CSL of the respondents. The positive (+) values in column mean difference (I-J) indicates that the value of mean in column J is higher than the value in column (I), vice-versa. The Table clearly shows that there are significant differences in mean monthly income of families with 0-2 persons CSL compare to that of 3-4....9-10 and 11 and over. For respondents with 3-4 CSL, there is no significant difference with that of with 5-6, 7-8 and 9-10 number of CSL, but there is a significant difference with that of 11 and over. For the respondents with number of CSL of 9-10, there is a significant difference compared to that of CSL 11 and over.

Table 10
Pairwise Comparisons of Income by Number of CSL.

| (I) No. of CSL | (J) No. of CSL | Mean Difference (I-J) | Std Error | Sig. ^a | 95% Confidence Interval for Difference ^a . | |
|-------------------|-------------------|-----------------------------|-----------|-------------------|--|-------------|
| | | | | | Lower Bound | Upper Bound |
| 0-2 | 3-4 | -79.565* | 16.768 | .000 | -128.991 | -30.140 |
| | 5-6 | -88.033* | 12.688 | .000 | -125.434 | -50.631 |
| | 7-8 | -103.272* | 12.677 | .000 | -140.638 | -65.905 |
| | 9-10 | -93.880* | 14.600 | .000 | -136.917 | -50.843 |
| | 11 + | -161.232* | 23.061 | .000 | -229.207 | -93.257 |
| 3-4 | 0-2 | 79.565* | 16.768 | .000 | 30.140 | 128.991 |
| | 5-6 | -8.467 | 13.439 | 1.000 | -48.082 | 31.147 |
| | 7-8 | -23.706 | 13.428 | 1.000 | -63.288 | 15.875 |
| | 9-10 | -14.315 | 15.257 | 1.000 | -59.289 | 30.658 |
| | 11 + | -81.667* | 23.482 | .008 | -150.884 | -12.449 |
| 5-6 | 0-2 | 88.033* | 12.688 | .000 | 50.631 | 125.434 |
| | 3-4 | 8.467 | 13.439 | 1.000 | -31.147 | 48.082 |
| | 7-8 | -15.239 | 7.756 | .749 | -38.101 | 7.623 |
| | 9-10 | -5.848 | 10.613 | 1.000 | -37.131 | 25.435 |
| | 11 + | -73.199* | 20.767 | .007 | -134.412 | -11.986 |
| 7-8 | 0-2 | 103.272* | 12.677 | .000 | 65.905 | 140.638 |
| | 3-4 | 23.706 | 13.428 | 1.000 | -15.875 | 63.288 |
| | 5-6 | 15.239 | 7.756 | .749 | -7.623 | 38.101 |
| | 9-10 | 9.391 | 10.599 | 1.000 | -21.850 | 40.632 |
| | 11 + | -57.960 | 20.759 | .081 | -119.152 | 3.231 |
| 9-10 | 0-2 | 93.880* | 14.600 | .000 | 50.843 | 136.917 |
| | 3-4 | 14.315 | 15.257 | 1.000 | -30.658 | 59.289 |
| | 5-6 | 5.848 | 10.613 | 1.000 | -25.435 | 37.131 |
| | 7-8 | -9.391 | 10.599 | 1.000 | -40.632 | 21.850 |
| | 11 + | -67.352* | 21.987 | .034 | -132.162 | -2.541 |
| 11 + | 0-2 | 161.232* | 23.061 | .000 | 93.257 | 229.207 |
| | 3-4 | 81.667* | 23.482 | .008 | 12.449 | 150.884 |
| | 5-6 | 73.199* | 20.767 | .007 | 11.986 | 134.412 |
| | 7-8 | 57.960 | 20.759 | .081 | -3.231 | 119.152 |
| | 9-10 | 67.352* | 21.987 | .034 | 2.541 | 132.162 |

Based on estimated marginal means

* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Bonferroni.

A Univariate tests is also carried out to confirm the differences in pairwise comparisons as shown in Table 10 above. The F test the effect of number of CSL is based

on the linearly independent pairwise comparisons among the estimated marginal means. The result of the tests indicates that at least one pair shows a significant difference where $F(5, 568) = 16.253, p < .05$.

4.4 Family Size

The higher the number of CSL in the family, the higher the mean monthly family income. But if we were to compare the mean monthly family income per person per household, the reverse is established. The following analysis is the effects of family size on mean monthly income of respondents.

Table 11 below shows the descriptive statistics of mean monthly income by family size of the respondents. It is clearly shown that the average income of a family member is highest (76.9) among the respondents with family size 3-4 persons or a family has 1-2 children. As the family size increases, the mean monthly individual income decreases. Respondents with a family size of 13 and above or family having at least 11 children, has the lowest with mean monthly income per person of \$33.88 cents only.

Table 11
Mean Income by Family Size.

| Family Size | Mean | Std. Deviation | N |
|--------------|----------------|-----------------|------------|
| 3-4 | 76.9022 | 24.99547 | 46 |
| 5-6 | 72.2500 | 17.28573 | 40 |
| 7-8 | 53.2364 | 10.94847 | 199 |
| 9-10 | 43.6844 | 8.82278 | 201 |
| 11-12 | 36.1509 | 6.71510 | 73 |
| 13 + | 33.8828 | 4.03049 | 15 |
| Total | 50.4344 | 16.89354 | 574 |

Table 12 below shows the tests of between-subjects effects of family size on mean monthly income of the respondents. The result of the one-way ANOVA test shows

that on the whole the difference in mean monthly income is significant in term of family size of the respondents, where $F(5, 568) = 111.454$, $p < .05$. The value of R^2 is .495 and adjusted R^2 is .491. This indicates that the difference in mean monthly income is 49.1 per cent determined by family size.

Table 12
Tests of Between-Subjects Effects of Family Size on Mean Income

| Source | Type III Sum of Square | df | Mean Square | F | Sig. |
|-----------------|------------------------|-----|-------------|----------|------|
| Corrected Model | 80985.088 ^a | 5 | 16197.018 | 111.454 | .000 |
| Intercept | 728811.017 | 1 | 728811.017 | 5015.061 | .000 |
| Family Size | 80985.088 | 5 | 16197.018 | 111.454 | .000 |
| Error | 82544.294 | 568 | 145.324 | | |
| Total | 1623573.718 | 574 | | | |
| Corrected Total | 163529.381 | 573 | | | |

a R Squared = .495 (Adjusted R Squared = .491)

Table 13 below shows the pairwise comparisons of mean individual monthly income by family size of the respondents. It shows that there is no significant difference in mean individual monthly income between family with 3-4 and 5-6 children although the former has slightly higher income. There are significant differences between family with 3-4 children compare to that of 7-8, 9-10, 11-12 and 13 and more children and the differences are 23.666, 33.218, 40.751 and 43.019 respectively. All values at $p < .05$. The same pattern is also true for respondents with 5-6 and 7-8 children when compared to that of the respondents in groups with more children. Respondents with 5-6 children have significantly higher monthly income than respondents with number of children of 7-8, 9-10 and 11-12 and 13 and more children. For the respondents with 7-8 children,

Table 13
Pairwise Comparisons of Average Individual Income by Family Size

| (I) Family Size | (J) Family Size | Mean Difference (I-J) | Std Error | Sig. ^a | 95% Confidence Interval for Difference ^a . | |
|-----------------|-----------------|-----------------------|-----------|-------------------|---|-------------|
| | | | | | Lower Bound | Upper Bound |
| 3-4 | 5-6 | 4.652 | 2.606 | 1.000 | -3.030 | 12.334 |
| | 7-8 | 23.666* | 1.972 | .000 | 17.852 | 29.479 |
| | 9-10 | 33.218* | 1.970 | .000 | 27.410 | 39.026 |
| | 11-12 | 40.751* | 2.269 | .000 | 34.062 | 47.441 |
| | 13 + | 43.019* | 3.584 | .000 | 32.454 | 53.585 |
| 5-6 | 3-4 | -4.652 | 2.606 | 1.000 | -12.334 | 3.030 |
| | 7-8 | 19.014* | 2.089 | .000 | 12.856 | 25.171 |
| | 9-10 | 28.566* | 2.087 | .000 | 22.413 | 34.718 |
| | 11-12 | 36.099* | 2.371 | .000 | 29.109 | 43.089 |
| | 13 + | 38.367* | 3.650 | .000 | 27.609 | 49.126 |
| 7-8 | 3-4 | -23.666* | 1.972 | .000 | -29.479 | -17.852 |
| | 5-6 | -19.014* | 2.089 | .000 | -25.171 | -12.856 |
| | 9-10 | 9.552* | 1.206 | .000 | 5.999 | 13.106 |
| | 11-12 | 17.086* | 1.650 | .000 | 12.223 | 21.948 |
| | 13 + | 19.354* | 3.228 | .000 | 9.839 | 28.868 |
| 9-10 | 3-4 | -33.218* | 1.970 | .000 | -39.026 | -27.410 |
| | 5-6 | -28.566* | 2.087 | .000 | -34.718 | -22.413 |
| | 7-8 | -9.552* | 1.206 | .000 | -13.106 | -5.999 |
| | 11-12 | 7.533* | 1.647 | .000 | 2.678 | 12.389 |
| | 13 + | 9.802* | 3.227 | .037 | .290 | 19.313 |
| 11-12 | 3-4 | -40.751* | 2.269 | .000 | -47.441 | -34.062 |
| | 5-6 | -36.099* | 2.371 | .000 | -43.089 | -29.109 |
| | 7-8 | -17.086* | 1.650 | .000 | -21.948 | -12.223 |
| | 9-10 | -7.533* | 1.647 | .000 | -12.389 | -2.678 |
| | 13 + | 2.268 | 3.417 | 1.000 | -7.805 | 12.342 |
| 13 + | 3-4 | -43.019* | 3.584 | .000 | -53.585 | -32.454 |
| | 5-6 | -38.367* | 3.650 | .000 | -49.126 | -27.609 |
| | 7-8 | -19.354* | 3.228 | .000 | -28.868 | -9.839 |
| | 9-10 | -9.802* | 3.227 | .037 | -19.313 | -.290 |
| | 11-12 | -2.268 | 3.417 | 1.000 | -12.342 | 7.805 |

Based on estimated marginal means

* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Bonferroni.

their monthly income is significantly higher than that of 9-10,11-12 and 13 and more children. For respondents with 9-10 children, their monthly income is significantly higher

than that of 11-12 and 13 and more children. There is no significant difference between respondents with 11-12 and 13 and more family size.

The Univariate tests the effect of family size on average individual monthly income of member of households confirmed that at least one pair in the pairwise comparison as shown in Table 13 above, produced a significant difference. The value of $F(5, 568) = 111.454, p < .05$.

5.0 Conclusion

5.1 General Findings

The analysis of the impact of educational attainment on the average monthly income of respondents shows that respondents with no formal education have the lowest average monthly income. As the level of educational attainment increases, the average monthly income also increases. The 4.6 per cent changes in average monthly income is attributable to this factor.

The impact of demographic factor of age, on average income is slightly stronger. Respondents in the youngest age group of 30-39 have the highest average monthly income, that is, RM465.38. When the age groups get older, the average monthly incomes decreases. The impact of age on average monthly income is 10.6 per cent.

The impact of the other demographic factor, the number of CSL, is slightly bigger. The family with the smallest number of CSL has the lowest average monthly income, and as the number of CSL increases, the average monthly income also increases. This shows that family with a bigger number of CSL, their children work to help parents generate extra income. This is in line with the Wealth Flows Theory as proposed by Caldwell (1976: 321-366). In the traditional peasant societies, children are regarded an asset to the family and parents gained

economic benefits from their children. The impact of this variable on average monthly income is 11.7 per cent.

To get a clearer picture of the effect of fertility on average monthly income is to compute the average individual monthly income by family size of the respondents. Family with the smallest family size (3-4) or family with only one or two children has the highest average individual monthly income of RM76.9. As the family size increases, the average individual monthly income decreases. Respondents with the biggest family size of 13 and more, have an average monthly income of RM33.88 only. The result of tests between-subject effects of family size on average monthly income is very strong where the value of $F(5, 568) = 111.454, p < .05$. The value of adjusted R^2 is .491. This indicates that 49.1 per cent of family average income is determined by the family size. This is the strongest of all socio-demographic variables studied.

5.2 Implications of the Study for Policy formulation.

Che Hashim Hassan (2010 : 42, Table 25) shows that from 2001 to October 2009, the government through State Department of Social Welfare spent RM 200,851.992 million to carry out programs to eradicate poverty in the state. Of that amount, 33.83 per cent is spent on subsidies for children, 26.57 per cent for the aged, 18.51 per cent for general subsidies, 14.15 per cent for handicapped citizens, 1.72 per cent for citizens with chronic diseases, 0.22 per cent for the handicapped with no jobs and others (computed from data provided by the Department of Social Welfare of Kelantan, 2010, unpublished data). Hence, a large amount of money spent by giving all kind of subsidies to the poor in the state.

It is usual to give a direct subsidies to the poor. But this is not a suitable long term strategy to eradicate poverty in the state. When they have used up the subsidy money, they will come back and ask for more. This will never ends. For the aged parents, the children should be

held responsible to look after them. Direct subsidy seems fit to be given to the aged and handicapped persons who are poor and have no children or relative to look after them.

The study suggest that education, age, number of CSL have a strong relationship with the average monthly income of the households. The most important factor is family size. This is to suggest that efforts or programs should be aimed at encouraging people to have a smaller family. There are at least two ways of doing this, first, to encourage people to practice family planning to limit the number of birth, and second, to encourage the younger citizen to pursue higher education. Attendance at institutions of higher education will delay their marriage and reduced their fertility level. This is important, because educated women normally changing their attitudes and values in favor of smaller family, and they are also exposed to family planning practices and practice them in order to achieve their ideal family size. Furthermore, educated women will have the opportunity to work with higher salaries and get out of their family poverty trap. Subsidies should be in the form of practical programs to encourage young girls to acquire a higher level of education as possible. Building more hostels in rural areas, provide more scholarships for excellent rural students.. Campaigns and publicity are also important to encourage the young girls to pursue education to the highest level possible.

Malthus (cited in Lucas, et al., 1980 : 28) criticized the 18th century Poor Law in England because assistance was freely given to large families. Malthus believed that man was naturally lazy, and would only work if he needed to support his family. Based on this critic, what the government of Malaysia is doing, for instance, program on helping poor master IT skills under its 1Azam program called 1Azam Komuniti IT (1Azamkit) is considered reasonable. This program would focus on helping the younger generation from hardcore poor families and the disabled to master information technology skills so that they will be able to surf the internet for information, look for jobs and venture into online businesses (Alagesh, 2011 : 13). The

government should also build more colleges or centers for training young school dropouts to acquire the hands on knowledge so that they can work and earn a decent income in order to get out of their family poverty trap. This is a long term measure to eradicate poverty. As Lao Tze said "Give a man a fish you will feed him for a day. Teach him how to fish and you feed him for a life time" <http://www.slideshare.net/ruohoo1997/lao-tze-quotes> .

References

Alagesh, T.N. (2011). "Helping poor master IT skills". New Straits Times, Wednesday, February 9, 2011.

Caldwell, J.C. (1976). " Towards a restatement of demographic transition theory", Population and Development Review, Vol.2, nos. 3 and 4 (September and December) : 321-366.

Che Hashim Hassan (2010). "Kemiskinan Di Negeri Kelantan : Satu Kajian Demografik dan Sosio-ekonomi (Poverty in Kelantan : A Demographic and Socio-economic Study), A report submitted to the Centre for Poverty and Development Studies, Faculty of Economics and Administration, University of Malaya, Jan 2010.

Department of Social Welfare, Kelantan(2010). "Total number of expenditure according to subsidy schemes for the state of Kelantan", 2001-Oct 2009 (Unpublished data).

Julia Chan (2011). "Hardcore poor numbers down", The New Straits Times, February 2, 2011: 21.

Kelantan Development Authority (2005). "Hardcore Poor and Poor People in Kelantan". Unpublished paper.

Leete, R. (2007). Malaysia from Kampung to Twin Tower, 50 Years of Economics and Social Development. Kuala Lumpur : Oxford Fajar Sdn Bhd.

Lucas, D. P.F McDonald, E. Young and C. Young (1980). Beginning Population Studies, Canberra : The Australian National University.

Malaysia (2010). Banci Penduduk dan Perumahan Malaysia, Laporan Kiraan Permulaan (Population and Housing Census of Malaysia 2010, Preliminary Count Report). Kuala Lumpur: Department of Statistics.

UNDP (2007). MALAYSIA, Measuring and Monitoring Poverty and Inequality. Kuala Lumpur : United Nations Development Programme (UNDP) Malaysia.

Rosli Zakaria and Sean Augustin (2008). "Budget boost for education, poverty" ,
The New Straits Times, Monday December 15, 2008: 17.

WEBSITES

1. <http://www.slideshare.net/ruohoo1997/lao-tze-quotes>