
Climbing the Ladder: Socioeconomic Mobility in Malaysia*

Muhammed Abdul Khalid

Centre for Policy Research and International Studies (CenPRIS)
University Sains Malaysia
11800 USM
Pulau Pinang, Malaysia
Muhammed.abdulkhalid@gmail.com

Abstract

This study investigates the existence and extent of intergenerational mobility in Malaysia in terms of educational attainment, occupational skills level, and income level. It compares the status of working adults born between the years 1945 and 1960 and their adult children born between 1975 and 1985, using non-linear transition matrix techniques. On average, the majority of adult children have better educational attainment and occupational skills level compared with their parents. Income mobility, in absolute and relative terms, is highest among children born to parents in the lowest income quintile. The results of a logistic regression model show that education, assets ownership, gender, and location matter for upward mobility. Moving forward, there will be difficulties for the children from poor families to move up the socioeconomic ladder because of changes in policies. An inclusive development approach is vital in enhancing socioeconomic mobility to promote social cohesion, economic growth, and greater equity for the next generation.

1. Introduction

Malaysia has progressed impressively since independence; in the span of nearly 60 years, the country has transformed from a primarily commodity-producing economy to an industrializing nation. Its GDP had increased from RM 5.1 billion in 1957 to about RM 1.2 trillion in 2015 (CEIC n.d.). Poverty had been reduced to less than 1 percent in 2014 from 51 percent in 1957 (DOS 2015; Ikemoto 1985); inequality, life expectancy, and other social as well as other economic indicators have also shown tremendous improvements during the same period.

* This study benefited tremendously from the insights and expertise of Kamal Salih, Jomo Kwame Sundaram, Wing Thye Woo, Suresh Narayanan, Shaufique Siddique, Ikmal Said, and Yusof Saari; useful comments and suggestions from the participants of the roundtable discussion on Socioeconomic Mobility in Malaysia hosted by Khazanah Research Institute 25 August 2016 in Kuala Lumpur; and participants from the Asian Economic Panel Meeting held at Sunway University 29 March 2017.

Nevertheless, we know little of how children from different economic classes have performed over time. Comparing income distribution or poverty across time cannot answer questions such as whether economic growth benefits those who were initially poor, if children from poorer parents will stay poor when they become adults, and if children from wealthy families will remain wealthy when they become adults. Mobility measures provide better insights as they reflect the equalization of opportunities over time and broaden the impact of economic benefits. Therefore, the discussions on poverty and inequality must also be juxtaposed with mobility. Societies characterized by low intergenerational mobility across generations imply unequal access of opportunity, and the existence of a glass ceiling or glass floor for children from either high- or low-income families. For instance, in the United States, almost half of children born to low-income parents become low-income adults. In the United Kingdom, the figure is four in ten, and in Canada, it is about one in three (Corak 2006). The converse holds, where children from wealthy families tend to grow up and become wealthy adults.

As such there is a need to look at the state of socioeconomic mobility in Malaysia, especially since the country has experienced phenomenal economic growth and structural transformation, particularly in the 1980s and 1990s. Because there are few studies in Malaysia on social and economic mobility, this study fills a major gap by undertaking primary research nationwide to investigate the existence and extent of intergenerational socioeconomic mobility.

There are a few reasons why the issue of social and intergenerational mobility should be examined further, particularly in Malaysia. First, mobility has an impact on inequality. Studies have shown that countries with a higher level of inequality tend to have lower levels of social mobility (Causa and Johansson 2010). Second, mobility is important for economic growth, and the lack of mobility could curb economic growth. Third, if inequality is found to arise from the lack of social mobility, this may have serious social policy implications, especially in Malaysia given its diverse ethnic, cultural, and religious population. It is argued that social mobility is one of the key drivers in maintaining moderation, peace, and unity in Malaysia (Shamsul 2014).

The rest of the paper is structured as follows. Section 2 presents the research objectives and literature review on mobility in Malaysia. The methodology and empirical strategy is explained in Section 3. Section 4 analyses key findings, and Section 5 discusses the determinants of mobility. Section 6 provides some policy implication before it concludes.

2. Research objectives and literature review

This paper attempts to identify the dynamics of mobility across generations in Malaysia. In other words, do Malaysian families experience upward absolute intragenerational mobility

and resilience from downward mobility? Specifically, it seeks to answer the following four questions:

1. Are children better off than their parents, be it in terms of income, educational attainment, or occupational status? To what extent does the current socioeconomic status depend on the initial socioeconomic conditions of a person?
2. Is the economic status of parents transmitted to their children, and how much of that status is transmitted?
3. What are the key factors that determine upward or downward socioeconomic mobility?

This paper is guided by Becker and Tomes (1979), based on theories on socioeconomic mobility, which explains mobility as a function of parental decisions to invest in their children, and public investments in human capital. This theory can explain intergenerational income mobility in Malaysia.

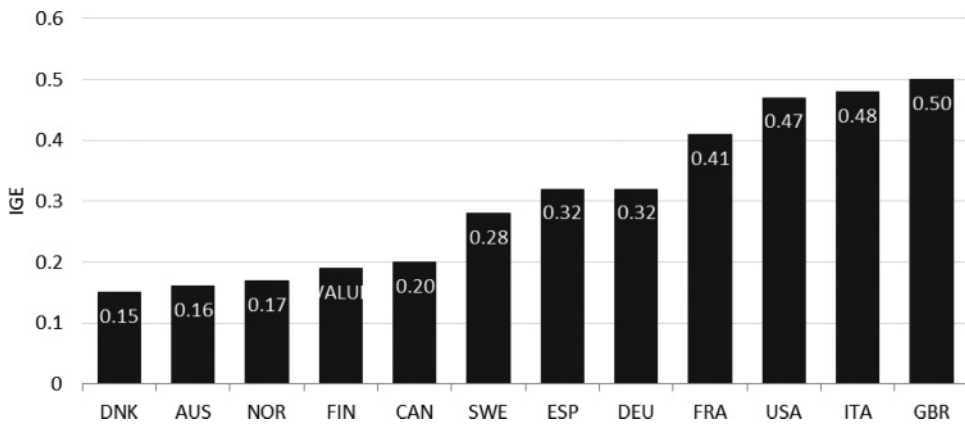
Studies on intergenerational mobility are relatively scarce, at least when compared with studies on income inequality or poverty. Most studies use an intergenerational elasticity (IGE) model (e.g., Atkinson 1981; Becker and Tomes 1986; Solon 1992), or a transition matrix approach (e.g., Corak 2006; Jäntti et al. 2006) in analyzing or measuring intergenerational mobility.

Studies using IGE show that mobility is low in France, Italy, the UK, and the United States, whereas it is higher in Denmark, Norway, Finland, Australia, and Canada (Figure 1; see also Corak 2006). Intergenerational mobility in the United States is at 0.5, which means that about 50 percent of the advantage of American parental earnings is passed on to their children.¹ In comparison, only about 20 percent of Nordic children's income is influenced by their parents' income advantage. Studies with IGE also compare changes in mobility over time, as in Blanden and Machin (2007), where birth cohorts between 1970 and 2000 in the UK were compared for the relationships between parental income and intermediate outcomes in education. There are not many studies on intergenerational mobility in the developing world or non-Western countries, except perhaps for South Africa, which appears to have a low level of social mobility, at 0.61 (Ng, Shen, and Ho 2008), and Brazil, which has an intergenerational elasticity of 0.58 (Ferreira and Veloso 2006). Ng, Shen, and Ho (2008), in analyzing intergenerational mobility in Singapore (comparing children aged 23 to 29 years in 2003 with their parents), find that earning elasticity is at 0.45, which puts Singapore behind countries such as the Nordic countries, and closer to the United States and the UK.

Whereas the IGE approach does not provide the direction of mobility, or the progress by income classes, the transition matrices approach provides better insights. Pew (2009), in

¹ The higher the value, the greater is the persistence of earnings across generations.

Figure 1. Intergenerational earnings elasticity across OECD countries (estimates from various studies)



Source: Causa and Asa (2010, 185).

Note: The height of each bar measures the extent to which sons' earnings levels reflect those of their fathers. The estimates are the best point estimate of the intergenerational earnings elasticity resulting from a meta-analysis carried out by Corak (2006) and supplemented with additional countries from D'Addio (2007). The higher the value, the greater is the persistence of earnings across generations, and the lower is the intergenerational earnings mobility.

analyzing the mobility between whites and blacks in the United States using transitional matrices, finds that blacks have a harder time exceeding their parents' income. About one in two blacks raised at the bottom of the family income ladder remain stuck at the bottom as adults compared with one in three whites. The study also shows that the ability to move up the ladder among the poor is the hardest; a child born in the poorest fifth of society has only a 9 percent chance of making it to the top fifth. Not surprisingly, the study finds that sons raised by the top and bottom decile fathers are more likely to be at the same decile as their fathers. Findings from Barone and Mocetti (2016) also suggest that the earnings advantage between parent and child could last a long time. In their study of mobility in Florence, using taxpayers' data from 1427 to 2011, they find that those at the top of the socioeconomic ladder today are in fact descendants of those among the top income earners six centuries ago.

The literature on socioeconomic mobility in Malaysia at the national level is relatively limited, compared with poverty or income studies, perhaps because of unavailability of data. To the best of our knowledge, there are no longitudinal data on income in Malaysia. Several case studies, however, have been undertaken to analyze the extent of socioeconomic mobility in Malaysia. Syed Husin Ali (1964) pioneered a mobility study in Kampong Bagan in the Batu Pahat district in 1960. He found that upward socioeconomic mobility was difficult to attain. The farming village on average experienced low income, lacked

savings, had limited access to loans, lacked capital ownership, and attained low formal education. The vicinity had only one primary Malay school, and those who could afford to send their children to the English school, which was far from the village, were mostly landowners, who were the only group with upward socioeconomic mobility. Another case study was undertaken by Wan Hashim Wan Teh (1980), in which he undertook a cross-sectional study focusing mainly on fishermen in Pulau Pangkor, and his findings showed mobility for fishermen was rather limited. The most recent study on social mobility in Malaysia was undertaken by Nor Hayati Sa'at (2010), in which she interviewed 300 households of the coastal community in Kuala Terengganu and found that 32 percent improved their intragenerational socioeconomic standing, 55 percent remained stagnant, and 13 percent deteriorated.

This study, therefore, provides the first largescale and updated representative study of intergenerational social mobility in Malaysia, focusing not only on income mobility between recent generations, but also on educational and occupation motilities over the period. The novelty of this research is that it analyzes mobility in three dimensions—namely, education, occupation, and income—and investigates the overall state of Malaysian socioeconomic mobility across these three dimensions.

3. Key concepts, data, and methodology

3.1 Key concepts

Socioeconomic mobility measures the movement of individuals or groups in social or economic positions over time, and it can be measured in absolute or relative terms. *Absolute mobility* examines an individual or group's absolute income growth in real terms, and *relative mobility* measures whether adults have moved up, or down, or stayed in the same position on the income or wealth distribution of their generation or their parents' position. Measurements of mobility also distinguish between intergenerational and intragenerational mobility. *Intergenerational mobility*, which is the focus of this study, is defined as the relationship between the socioeconomic status of the parents and that of their children as adults, or changes between generations. *Intragenerational mobility* studies how the distribution of individual status changes among a group of individuals over a given period of their lifetime, that is, within the same generation.

3.2 Data

For this study, structured and semistructured interviews are the main techniques used to collect the primary data. A total of 4,999 heads of family were interviewed via random sampling² to collect the socioeconomic data of the head of the family and their adult

2 Mean age of parents = 62 years old, mean age of children = 32 years old; gender of children: male = 53 percent; female = 47 percent; ethnic group: Bumiputera parent-child pair = 84 percent, Chinese parent-child pair = 11 percent, Indian parent-child pair: 5 percent.

children. Given that this study is interested in generational mobility, the focus is on the respondents who are the heads of family at the age of 35 and who were born between the years 1945–60, those who are currently between 55 and 69 years old). This age group is chosen based on Böhlmark and Lindquist (2006) and Bjorklund, Roine, and Waldenstrom (2008), where it is suggested that income measured around this age may act as a good proxy of permanent income. Several intergenerational studies also use the age of 35 in comparing income between two different cohorts, such as Cordone, Jorda, and Sanna (2014), who compare socioeconomic status of Swedish parent–child pairs at age 35, and Blanden and Machin (F2007), who investigate mobility between two generations in Britain. In summary, this study compares those parents who worked between the years 1980 and 1995, and their adult children who are currently working. A two-tiered questionnaire structure was adopted that include the head of family (the respondent), and the eldest son/ daughter (working age) of the family. In this manner, the survey attempts to capture the intergenerational mobility profile of a single family.

There are two main limitations in undertaking this approach. First, the study uses retrospective data, where the head of family must recall their income about 30 years ago. Second, the children’s data are gathered from information provided by the head of family or members of the family who were present during the interview, and not necessarily from the adult children. Nonetheless, the retrospective approach is not new as other studies on social mobility have also adopted the same method. In fact, the approach “has been the basis of a large and successful literature on intergenerational social mobility” (Song and Mare 2014, 2). Solon (1992), for instance, uses the popular U.S. Panel Study of Income Dynamics in measuring intergenerational mobility in the United States, and Gershuny (2002) uses portions of retrospective employment status and occupational history collected in the early waves of British Household Panel Study (BHPS). Khor and Pencavel (2008), in measuring income mobility, inequality, and social welfare for households in China, also use retrospective data collected from rural households. Large panels for longitudinal studies are uncommon in developing countries, thus giving credence to the use of retrospective data.

Data collection was carried out during the period November 2014 to August 2015, using the personal interview approach.³ The enumerators visit selected households to collect socioeconomic information from the head of family using a set of questionnaires, and quality checks are made by the enumerator team and cross-checked by the author and research team. The survey covered all states in Malaysia and included urban and rural areas. The selection of the sample was determined by the Department of Statistics to ensure randomness and representativeness. Two-stage stratified sampling design was adopted; primary (covering all states), and secondary (urban and rural). Post-stratification was performed to

3 The response rate was 80 percent.

obtain nationally representative ethnicity figures. The survey weights (adjusted and final weights) were computed with the assistance from the Department of Statistics to statistically adjust for the likelihood of sample mis-selection and non-random attrition from the study, to reduce the possible bias in the sample. The descriptive statistics from the sample is shown in Appendix A.

3.3 Methodologies

This paper investigates the intergenerational mobility question by adopting transition matrices because the IGE approach does not differentiate between upward and downward mobility, and mobility by income class. To answer our research questions, the transition matrix approach is a better method because we can make comparisons between children's and parents' income in relative terms. One is considered upwardly mobile if they are in a higher income quantile than their parents. This approach is replicated in measuring occupational and educational mobility. This study then uses a logistic regression (logit) analysis model to calculate the determinants of upward income mobility, drawing from the same approach used by Pew (2009). A logistic regression analysis calculates mobility in a specific part of the income distribution, and investigates the influence of one or more independent variables such as the level of education, ethnicity, strata, family structures, educational opportunities (government scholarships), and savings on a dichotomous dependent variable, y , which represents upward relative income mobility.

4. Key findings

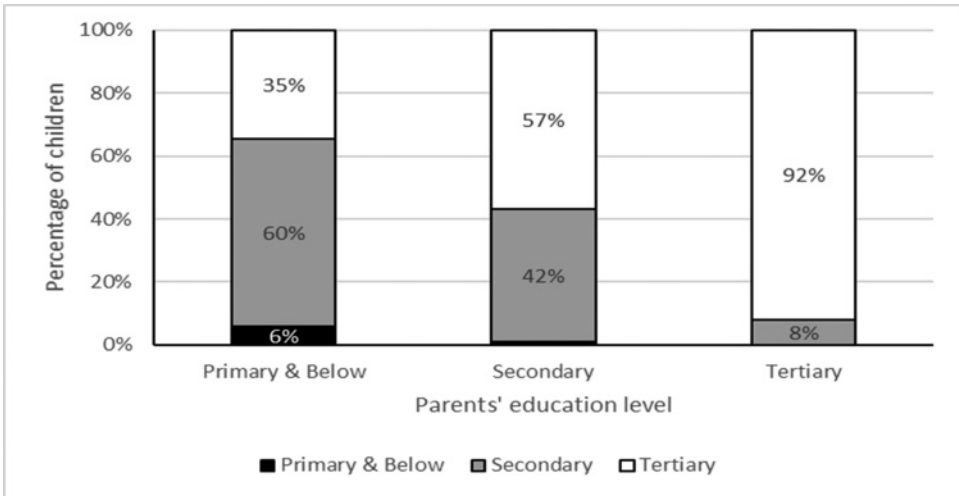
4.1 Education mobility

We find that the current adult children's educational attainment is better than their parents, across all ethnic groups. About 62 percent of children had higher educational levels compared with their parents, 36 percent had the same educational level, and only 2 percent had a lower educational attainment than their parents.

In fact, educational mobility⁴ occurred, regardless of the parents' educational level. As shown in Figure 2, about 35 percent of children raised by parents with either primary education or less had attained tertiary education, and nearly 60 percent had secondary education. At the opposite end, 92 percent of children with tertiary-educated parents also had tertiary education, and 8 percent only had secondary education. None of the children with tertiary-educated parents had a lower educational attainment than secondary education.

4 Occupational mobility is defined by at least one level change in education level of children compared with their parents. Occupations are classified according to the Malaysia Standard Classification of Occupation 2008 (MASCO-08) and the Department of Statistics Malaysia. Accordingly, managers and professionals, for instance, are considered high-skill; clerical workers are considered mid-skill; and elementary occupations are considered low-skill.

Figure 2. Overall educational mobility, by parents' educational level



The rate of upward educational mobility is less among Indians, however, compared with the other ethnic groups (Figure 3). For instance, whereas 37 percent of Bumiputera children and 39 percent of Chinese children raised by parents with either primary education or less had tertiary education, only 10 percent of Indian children had tertiary education. The ethnic effect is significant—our logistic regression in measuring upward educational mobility shows that all things equal, an Indian child, regardless of gender, born to parents in the bottom 40 percent of income distribution is 0.3 times less likely to attain tertiary education compared with Bumiputera children. This is possibly because of a lack of financial assistance, as those who received financial assistance from the government (i.e., scholarships) are four times more likely to attain tertiary education compared to those who did not.

4.2 Occupation mobility

As shown in Figure 4, about 37 percent of children work in higher-skilled jobs than their parents, and 48 percent of children work in jobs with similar skills as their parents. Not every child has better occupations skill than their parents, however, as 15 percent of the children have lower skills than their parents. Analysis by ethnicity shows that the incidence of children having better skills than their parents is highest among the Indians, at 43 percent, compared with the Chinese (41 percent), and the Bumiputera (37 percent) ethnic groups. The number of Indian children who have lower skills than their parents is also lower when compared with other ethnic groups.

Figure 3. Educational mobility, by ethnicity and parents' educational level

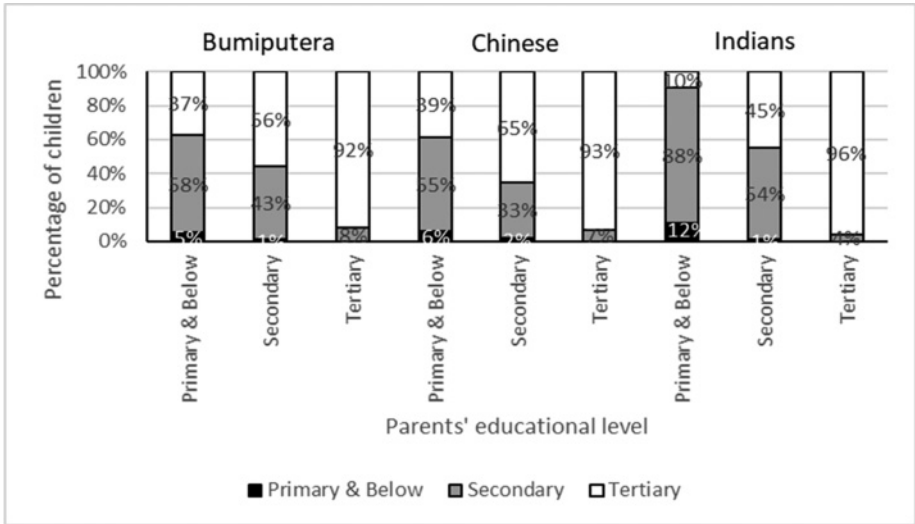


Figure 4. Overall occupational skill mobility, by parents' occupational skill level and by ethnic group

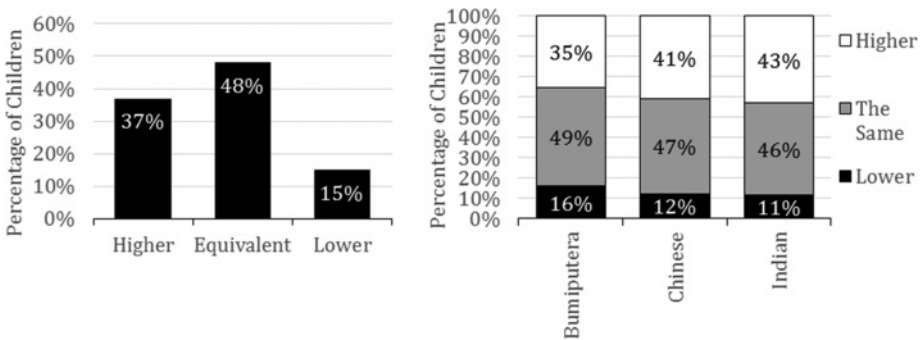
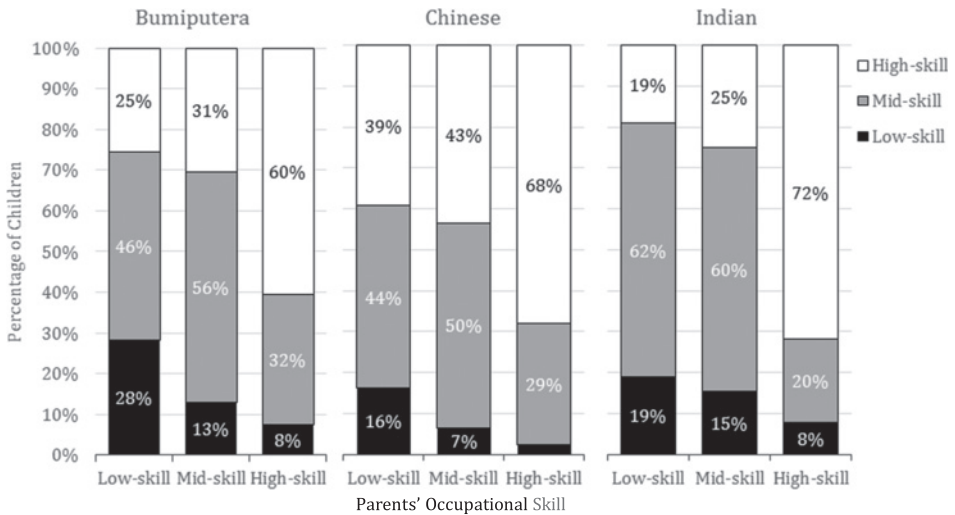


Figure 5 shows that there is occupational mobility in Malaysia, particularly for children born to low-skilled parents, regardless of ethnicity, although the occupational mobility among Indian children born to low-skilled parents was lower compared with the other ethnic groups. About 19 percent of Indian children with low-skilled parents had high-skilled jobs, compared with the Bumiputera (25 percent), and Chinese (39 percent) groups. This is consistent with the lower educational mobility among Indian children born to parents with

Figure 5. Overall occupational skill mobility, by ethnicity and by parents' occupational skill level

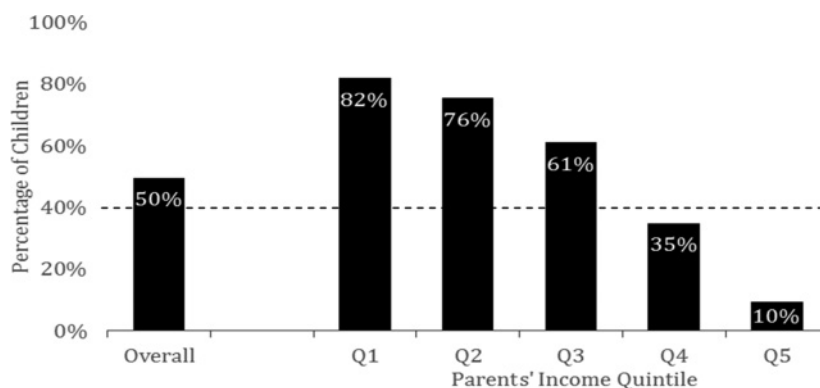
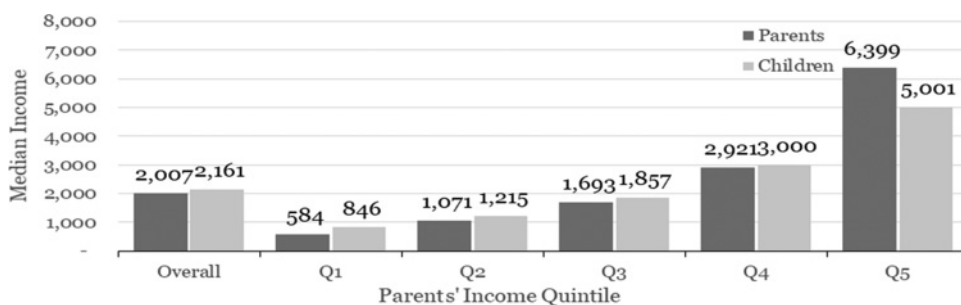


no formal education. Our logistic regression finds that children who attained tertiary education had the most odds, at about 11 times, to have high-skilled jobs compared with those without tertiary education. As shown earlier, the upward education mobility among children born to parents without formal education was the lowest among Indians, compared with the other ethnic groups, and this translated to lower occupational mobility for Indian children born to low-skilled parents.

At the same time, however, the share of children born to high-skilled parents who also had high-skilled jobs was the highest among Indians. While the national average of high-skilled parents that also obtained similar skilled jobs was 63 percent, the figure among the Indian ethnic group was 72 percent. This is higher than among Chinese (68 percent), and Bumiputera (60 percent). The share of mid-skilled children that had mid-skilled parents was also the highest among the Indian group, at 60 percent, followed by the Bumiputera (56 percent), and the Chinese (50 percent). It is highly plausible that if the Indian ethnic group is decomposed into sub-ethnic groups (rather than treating Indians as one homogenous groups in this study), it may well be that certain sub-ethnic groups experienced better mobility compared with other sub-ethnic groups.

4.3 Income mobility

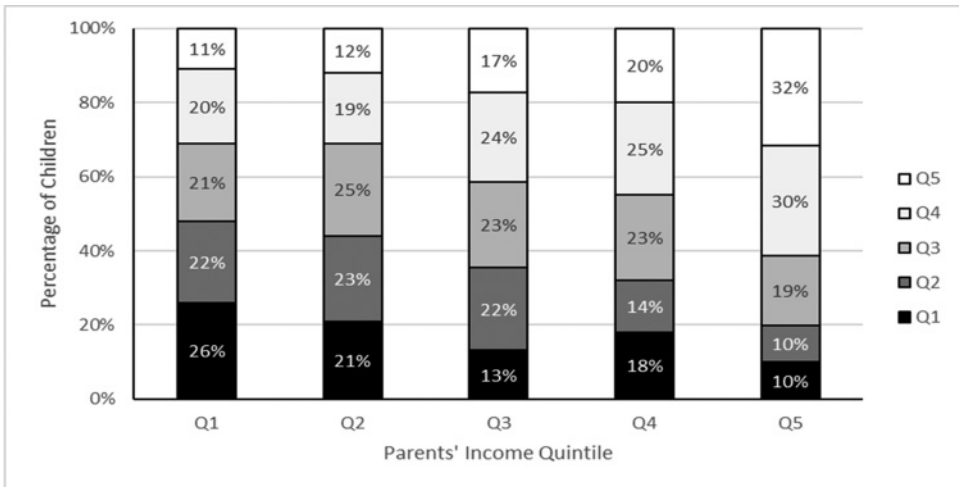
Does obtaining better educational and occupational mobility of the child translate to higher incomes compared with their parents? Figure 6 shows that children in each income class

Figure 6. Absolute income mobility, by parents' income quintile**Figure 7. Parents' and children's median income, by income quintile (RM)**

had higher real income than their parents, with the exception for children born to parents in the top quintile. The trend is almost consistent across ethnicity. In absolute terms, one in two children had higher incomes than their parents, but for children born to the parents in the bottom quintile (i.e., parents in the lowest income group), the figure was much higher, at eight in ten. For children born to parents in the top quintile, however, only one in ten had higher income than their parents.

Adjusted for inflation, children's median income was 12 percent higher compared with their parents. Children from the lowest quintiles had 40 percent more income than their parents, compared with about 13 percent for the second and third quintiles (Figure 7). Among those in the fourth quintile, although they had higher income than their parents,

Figure 8. Relative quintile movements, transition matrices

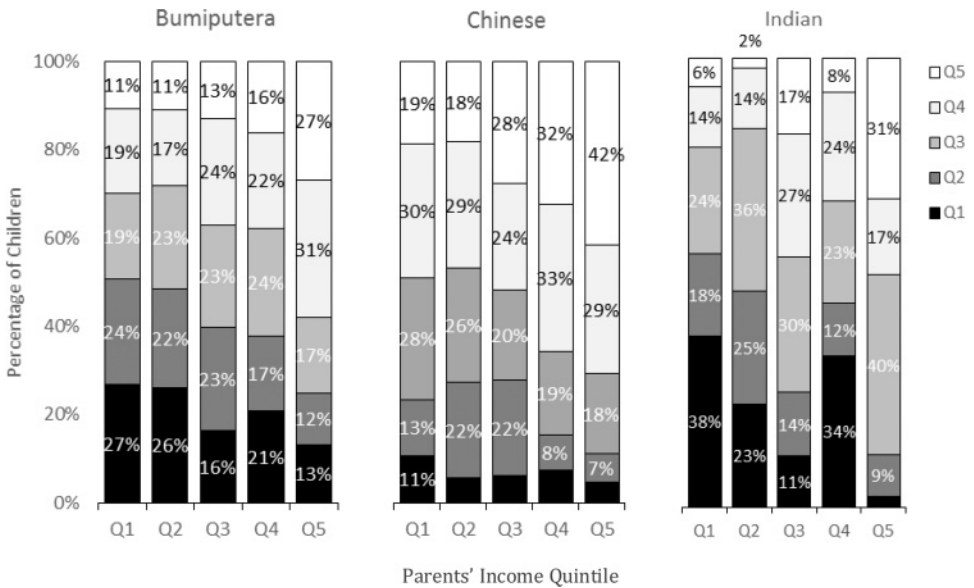


the increase was small, slightly less than 3 percent. Only children born to parents in the top quintile fared worse than their parents; their income was 18 percent lower.

Although most children have higher income than their parents in absolute terms, we do not know if they also perform better than their parents in relative terms, however. That is, despite having higher income than their parents, did they manage to climb the income ladder?

Figure 8 answers this question; it shows that 74 percent of adult children who were born to parents in the lowest quintiles moved up the ladder, at least by one quintile. Although the upward relative income mobility was the highest among the lower income groups, the chances of children making it to the top diminishes steadily as parents' position in the income distribution gets higher. Whereas 74 percent of the children born to parents in the bottom quintile moved up by at least one quintile, the figures were 41 percent for the children born of parents in the third quintile, and only 32 percent for children born to parents in the highest quintile. In other words, 68 percent of children born to parents in the top quintile moved down by at least one quintile, only about one in three stayed in the same quintile as their parents, and about 1 in 10 moved to the lowest income quintiles. This shows that children born to rich parents could become "poor" within one generation. At the same time, children born in the top quintile had the most prospects of staying at the top (32 percent stayed put), and those born in the lowest quintile encountered the highest likelihood of being in the bottom themselves, as 26 percent stayed poor.

Figure 9. Relative quintile movements, by ethnicity



For children born to parents in the middle of the income distribution, their chances to move up are much less. This indicates three things: (1) Children from the lower income quintiles face a higher probability of leaving their initial economic conditions; (2) A wealthy child also faces a higher probability of staying in their initial economic condition; and (3) Children from middle-class parents had higher chances to fall down, rather than to climb up, the income ladder. Among the ethnic groups, Chinese children had higher relative mobility, where 89 percent born to parents in the lowest quintile moved up, compared with the Bumiputera (73 percent) and Indian (62 percent) groups (Figure 9).

If, however, we measure income mobility by having higher income than parents *and* a higher quintile (i.e., higher in both absolute and relative terms), only 35 percent of the children experienced upward mobility (Table 1). Income mobility was highest among those born in the lowest income quintile. In other words, the answer to the question—do poor children grow up to become poor adults?—the answer is no, as three in four children moved up by at least one quintile. The opposite also holds: Children born to wealthy parents did not remain wealthy as adults. Only 13 percent stayed in the same quintile despite having higher income, and another 12 percent stayed in the same quintile, despite having a lower income—but 68 percent of them moved down by at least one quintile. There is a “middle-class squeeze” for children born to middle-income parents, however. Most them

Table 1. Overall income mobility, absolute and relative

| N = 4,999 | | Parents' income quintile | | | | | All families |
|---------------------------------|---|--------------------------|-----|-----|-----|-----|--------------|
| | | Q1 | Q2 | Q3 | Q4 | Q5 | |
| Percentage of children | Upwardly mobile | 74% | 56% | 42% | 20% | 0% | 35% |
| | Higher income & up 4 quintiles | 11% | 0% | 0% | 0% | 0% | 2% |
| | Higher income & up 3 quintiles | 20% | 12% | 0% | 0% | 0% | 5% |
| | Higher income & up 2 quintiles | 21% | 19% | 17% | 0% | 0% | 11% |
| | Higher income & up 1 quintile | 22% | 25% | 24% | 20% | 0% | 18% |
| | Riding the rising tide | 8% | 18% | 17% | 15% | 9% | 13% |
| | Higher income but same quintile | 8% | 18% | 17% | 15% | 9% | 14% |
| | Falling despite the rising tide | 0% | 1% | 2% | 0% | 0% | 1% |
| | Higher income but lower quintile (vulnerable) | 0% | 1% | 2% | 0% | 0% | 1% |
| | Status quo | 5% | 0% | 0% | 0% | 0% | 1% |
| | Same income & same quintile | 5% | 0% | 0% | 0% | 0% | 1% |
| | Vulnerable | 13% | 4% | 6% | 10% | 23% | 12% |
| | Lower income but same quintile | 13% | 4% | 6% | 10% | 23% | 12% |
| | Downwardly mobile | 0 | 21 | 33 | 55 | 68 | 38 |
| | Lower income & down 1 quintile | 0% | 20% | 19% | 23% | 30% | 20% |
| | Lower income & down 2 quintiles | 0% | 0% | 13% | 14% | 19% | 10% |
| Lower income & down 3 quintiles | 0% | 0% | 0% | 18% | 10% | 6% | |
| Lower income & down 4 quintiles | 0% | 0% | 0% | 0% | 10% | 2% | |

not only have moved down the income ladder but they also have a lower income level compared with their parents.

Among children born to the parents in the bottom quintile, Chinese children moved upward the most (89 percent) compared with Bumiputera (73 percent) and Indian (62 percent) children (Table 2). At the other end, 58 percent of Chinese born to the highest quintiles experienced the lowest downward mobility, compared with Indian children (69 percent) and Bumiputera children (73 percent). Put differently, nine in ten Chinese children born to the poorest parents did not remain poor as adults, and about six in ten Chinese born to wealthy parents did not remain wealthy as adults. Among the Indian group, about six in ten children born to poorest parents experienced upward mobility, and seven in ten born to the wealthiest parents moved down. The downward mobility among children born to the wealthiest parents was highest among the Bumiputera, where slightly more than seven in ten moved downwards, and an equal number moved up among those born to the poorest parents.

5. Determinants of mobility

This section will explore the determinants of socioeconomic mobility in Malaysia, using a logistic regression model to estimate upward mobility. Relative income mobility is selected as the dependent variable, and the independent variables are the education level, strata, gender and ethnicity of the adult child, government assistance in terms of scholarships, family structure (i.e., if raised by both parents), and if the parents have any type of savings. The regression is run twice. The first regression focuses on the factors that promote upward

Table 2. Income mobility, absolute and relative by ethnicity

| | Chinese | | | | | Bumiputera | | | | | Indian | | | | |
|---|--------------------------|-----|-----|-----|-----|--------------|-----|-----|-----|-----|--------------|-----|-----|-----|-----|
| | Parents' income quintile | | | | | All families | | | | | All families | | | | |
| | Q1 | Q2 | Q3 | Q4 | Q5 | Q1 | Q2 | Q3 | Q4 | Q5 | Q1 | Q2 | Q3 | Q4 | Q5 |
| Upwardly mobile <i>Higher income and up by at least one quintile</i> | 89% | 73% | 52% | 32% | 0% | 38% | 73% | 52% | 37% | 16% | 0% | 34% | 44% | 8% | 0% |
| Riding the rising tide <i>Higher income but same quintile</i> | 2% | 19% | 18% | 17% | 13% | 15% | 8% | 19% | 16% | 15% | 8% | 13% | 18% | 11% | 7% |
| Falling despite the rising tide <i>Higher income but lower quintile</i> | 0% | 0% | 1% | 0% | 0% | 0% | 0% | 1% | 3% | 0% | 0% | 1% | 5% | 0% | 0% |
| Status quo <i>Same income & same quintile</i> | 6% | 0% | 0% | 0% | 0% | 0% | 5% | 0% | 0% | 0% | 1% | 1% | 0% | 0% | 0% |
| Vulnerable <i>Lower income but same quintile</i> | 3% | 3% | 2% | 17% | 29% | 14% | 13% | 3% | 7% | 19% | 10% | 12% | 12% | 13% | 24% |
| Downward mobility <i>Lower income & down by at least one quintile</i> | 0% | 6% | 27% | 34% | 58% | 32% | 0% | 25% | 37% | 73% | 42% | 20% | 68% | 69% | 30% |

relative income mobility among adult children born to parents in the bottom 40 percent, and the second regression examines factors that lead to downward mobility for children who were born to parents in the top 20 percent of the income distribution.

First, the analysis looks at the factors that promotes upward mobility for those raised in the bottom 40 percent. It finds that the key upward relative income mobility factors are the education level of the adult children, and parents with financial assets. If all other characteristics are the same, a person with tertiary education had 4.6 times more odds to move up, than those without tertiary education. Asset ownership is also important; parents with savings increased the odds of the child moving up by 1.6 times, compared with those with parents who had no savings. The gender of the child is also a significant factor that promotes upward mobility. A male child had 3.6 times better odds of moving up the ladder compared with a female child. Location also matters, as a child raised in an urban area had 1.5 times better odds of moving up compared with a child born in a rural area.

The logistic regression is also used to test for factors that contribute to downward mobility for the top 20 percent. In other words, it will tell us why those born in the highest quintile did not remain there as adults. It finds that parental status mattered for the child to remain at the same quintile as their parents. Tertiary-educated parents increased the odds for the child to remain in the highest quintile by 1.5 times. The child's education level played a bigger role in ensuring that they remained at the top than to the parents' education level. A child without a tertiary education had 6 times more odds of moving down the ladder, compared with those with tertiary education. Family stability is important; a child raised by a single parent had 2.5 times more odds of dropping down the ladder, compared with a child raised by both parents. Interestingly, gender and ethnicity played a role in downward mobility for children born to parents in the highest quintiles. Holding other characteristics constant, a daughter had three times more odds of moving down, compared with a son, and a Bumiputera child had almost twice the odds of moving down compared with a Chinese child. This is consistent with a study in the United States, where Hertz (2005) shows that knowing the race of someone enhanced the ability to predict their income, even after we control for the income of the parents. The effect of ethnicity only matters for downward relative income mobility, however, and not for upward relative income mobility, although there is significant statistical evidence of the ethnicity factor in educational and occupational upward mobility. The analysis also finds that a Chinese child had twice the odds of being high-skilled compared with a Bumiputera child, and an Indian child had less chance to attain tertiary education compared with a Bumiputera child, all things constant. Additional interactions were tested—whether male and tertiary education can predict upward mobility separately, as well as male with tertiary education versus female with tertiary education, and urban male versus urban female or urban graduate versus rural graduate. The findings were all statistically insignificant.

6. Way forward and policy implications

The purpose of this paper is two-fold: It aims to identify the status of intergenerational mobility between two recent generations, and subsequently to analyze its determinants. The paper finds that Malaysia is a mobile society. One's initial economic condition is not important, and a rags-to-riches story is possible.

Education mobility is high—62 percent of the children are better educated than their parents. Upward educational mobility is remarkable among children born to non-tertiary educated parents. Among those born to parents without formal education, 33 percent of them had a tertiary education, although this is much less among Indian children. In terms of occupational skills, upward mobility is slightly less than educational mobility, although many still have better skills than their parents. Upward occupational skill mobility is more pronounced among children with low-skilled parents: 76 percent of them are better skilled. This study has shown that obtaining a higher education does not necessarily translate to upward occupational or income mobility.

Children's income is independent of parents' income. Almost three in four of the children born to parents in the bottom quintile have moved up, and two in three born in the top quintile have moved down. In other words, children born to parents in the bottom income quintile do not generally stay poor as adults whereas those born to parents in the top income quintile do not necessarily remain wealthy as adults. There are still some differences in the extent of upward relative mobility by gender, geography, and occupational skills, but not ethnicity, save in the Indian ethnic group. About three in four Malaysian children raised at the bottom of income ladder moved up. There is, however, a "middle-class squeeze" for children born to middle-income parents. The majority of these children not only have moved down the income ladder but they also had a lower income level compared with their parents.

What is the difference between those who managed to climb the ladder and those who did not? A host of factors play a role in upward relative income mobility. For children from low-income parents, a child's education matters the most. Gender and geography also matter. Children raised in rural areas have a lower chance to experience upward mobility compared with those raised in urban areas, and female children have less opportunities to move up compared with male children. Savings are also important. Children born to parents with some form of savings have a better chance to climb the income ladder.

Among children born to wealthier parents, however, parental influence is the strongest. For these children, having tertiary education is a key factor to remaining in the top quintile. Family stability among parents in the highest quintile also matters in ensuring that their children maintain the same social class. Whereas the effect of geography is absent in

determining downward income mobility, gender and ethnicity are significant factors for downward mobility among children with parents in the top quintile. Female and Bumiputera children had higher odds of moving down the ladder, compared with male and Chinese children, respectively.

These findings confirm that the extent to which the economic circumstances of children are tied or influenced by their parents becomes smaller for more socially mobile societies, such as Malaysia. The evidence provides insights on social inclusion from the perspective of the generation of the child. The study finds that children born to the poorest parents do not generally remain poor as adult, and those born to wealthy parents do not necessarily remain wealthy as adults. In other words, their situation is more based on their own capabilities.

As a multiracial country, Malaysia provides a unique case study in social mobility. With increasing prosperity thanks to sustained economic growth, it is expected that with the spread of income and job opportunities through education and employment, social mobility would unfold upwards (as with boats in a rising tide). In fact, there is evidence of some leapfrogging significantly above random patterns that have a positive impact on poverty reduction and improving income distribution.

Would the relatively upward mobility of current adults be replicated? It is highly unlikely, especially for those born to parents in the lowest rung. Structural changes since mid and late 1990s and early 2000s makes it harder for children from a low-income family to climb the income ladder. Whereas the previous generations had the advantages of an education policy that aided low-income students (via enrollment in elite schools and funding for tertiary education), the current policy focuses on meritocracy almost entirely, which benefits children from high-income families. Data obtained on the enrollment in elite boarding schools and federal scholarships for tertiary educations show that the share of low-income students in these two important sources of mobility is gradually declining, and the shares of children from middle-income and upper-income families are increasing. The current meritocratic system penalizes students from low-income households, and favors wealthy children. Fiscal policy also plays a role as the tax system becomes more regressive, thus impeding a low-income family from accumulating assets, which is important for upward mobility. The taxation policy in Malaysia is regressive, as it favors capital owners over wage earners. Whereas wages and consumption (introduced in 2015) are taxed, capital gains are not, and the tax on inheritance has been rescinded since 1993. Given that capital usually appreciates faster than wages, the tax policy in Malaysia plays a major role in impeding the mobility of those at the bottom of the ladder.

What can we do, in terms of policies, to promote upward mobility? First, the general evidence, shown here as well as elsewhere, points to the important role of education.

Thus, facilitating wider access to educational opportunities can enhance upward mobility. The study notes that only 5 percent of Indians born to parents without formal education have attained tertiary education. Thus, policies in promoting early childhood education, tertiary education, as well as ensuring that children stay in schools are important. This will also require a rethinking of the current reward system (meritocracy) and financing model for higher education, as the higher cost of tertiary education acts as a barrier for upward income mobility among children from low-income parents. It also calls for special programs targeting low-income Indian children as this group encounters the most obstacles in upward educational mobility. Second, policies focusing on removing gender barriers and encouraging higher female participation in the labor market should be continued as the analysis shows that women are less upwardly mobile than men. This is not surprising, as many studies have shown that there is a gender barrier for women in the labor market, especially in terms of compensation and hiring.

Third, policies that focus on assisting children from rural areas and in urban poor areas are vital. For instance, access to boarding schools, higher education, and scholarships must consider the urban–rural divide, and the socioeconomic background of the parents, particularly those from the rural areas. Fourth, we observe that having some form of assets is important for upward mobility. Policies that encourage asset ownership and purchasing power for parents, especially in the low-income group, are also equally important.

Overall, social mobility is about spreading opportunities and incentives, where every child in Malaysia—regardless of race, religion, descent, place of birth, and gender—must be given equal opportunities in life. Policies that promote upward mobility, especially among lower-income groups and the middle class, require all manner of socioeconomic barriers (ethnic and gender) to be reduced, if not removed. Upward mobility is necessary not only because it promotes economic growth and reduces inequality, but more importantly, it is crucial in ensuring stability and social cohesion for our next generation.

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Appendix A

Table A.1 Descriptive statistics

| | Obs. | Mean | Std. dev. | Min | Max |
|----------------------------------|-------|-------|-----------|-----|-----|
| Parents | | | | | |
| Age | 4,999 | 61.25 | 4.642 | 55 | 70 |
| Gender (Male = 0) | 4,999 | 0.200 | 0.401 | 0 | 1 |
| Education level ^a | 4,922 | 2.631 | 0.793 | 1 | 4 |
| Occupational skill level | 4,999 | 3.037 | 1.101 | 1 | 4 |
| Graduate (Yes = 1) | 4,999 | 0.159 | 0.365 | 0 | 1 |
| First child | | | | | |
| Age | 4,999 | 33.11 | 4.272 | 25 | 40 |
| Gender (Male = 0) | 4,999 | 0.499 | 0.499 | 0 | 1 |
| Education level ^a | 4,975 | 3.485 | 0.574 | 1 | 4 |
| Occupational skill level | 4,999 | 2.084 | 0.983 | 1 | 4 |
| Graduate (Yes = 1) | 4,999 | 0.518 | 0.499 | 0 | 1 |
| Raised by both parents (Yes = 1) | 4,996 | 0.932 | 0.253 | 0 | 1 |
| Family size | 4,995 | 5.771 | 2.226 | 2 | 17 |

^aNonresponders on education were coded as 99, biasing the summary statistics. Those observations were removed.

Education: No formal education = 1, Primary education = 2, Secondary education = 3, Tertiary education = 4.

Occupational skills: Unemployed = 4, Low skilled = 3, Mid skilled = 2, High skilled = 1.

Appendix B. Key variables for regression

The following logistic (odd-ratio) regression models were used:

For the B40: `logit inc_higher non_grad_hoh graduate_fc male_fc i.ethnic_bumi no_fin_assist no_kinder_fc savings parent1 urban35`

For the T20: logit inc_lower graduate_hoh non_grad_fc female_fc i.ethnic_chinese
fin_assist kinder_fc no_savings parent1 urban35

where;

| | |
|----------------|--|
| inc_higher | : Child's quintile is higher than parents' quintile |
| inc_lower | : Child's quintile is lower than parents' quintile |
| graduate_hoh | : Parent has tertiary education |
| graduate_fc | : Child has tertiary education |
| non_grad_hoh | : Parent has no tertiary education |
| non_grad_fc | : Child has no tertiary education |
| male_fc | : Son |
| female_fc | : Daughter |
| ethnic_bumi | : Ethnic group (0 = Bumiputera, 1 = Chinese, 2 = Indian) |
| ethnic_chinese | : Ethnic group (0 = Chinese, 1 = Bumiputera, 2 = Indian) |
| fin_assist | : Child received financial assistance for education |
| no_fin_assist | : Child did not receive financial assistance for education |
| kinder_fc | : Child attended kindergarten |
| no_kinder_fc | : Child did not attend kindergarten |
| Savings | : Parent has savings |
| no_savings | : Parent has no savings |
| parent1 | : Child not raised by both parents |
| parent2 | : Child raised by both parents |
| urban35 | : Child raised in urban area |

Appendix C. Regression results

Table C.1 Factors that promotes upward mobility for those raised in the bottom 40 percent

| Logistic regression | | | | Number of obs = 1976 Wald chi2 (10) = 146.06 Prob > chi2 = 0.0000 Pseudo R2 = 0.1466 | | |
|-----------------------------------|------------|------------------|-------|---|----------------------|----------|
| Log pseudolikelihood = -1262102.2 | | | | | | |
| inc_higher | Odds ratio | Robust std. err. | Z | P > z | [95% conf. interval] | |
| non_grad_hoh | 1.24234 | .4790982 | 0.56 | 0.574 | .5834206 | 2.645449 |
| graduate_fc | 4.468969 | .8717841 | 8.19 | 0.000 | 3.219123 | 6.713912 |
| male_fc | 3.627763 | .5327087 | 8.78 | 0.000 | 2.720486 | 4.837614 |
| _lethnic_bu_1 | 1.439783 | .3750351 | 1.40 | 0.162 | .8641239 | 2.398934 |
| _lethnic_bu_2 | 1.060322 | .2553684 | 0.24 | 0.808 | .6613537 | 1.699971 |
| _lethnic_bu_3 | 1 | (omitted) | | | | |
| no_fin_assist | 1.279688 | .2221521 | 1.42 | 0.155 | .9106187 | 1.798339 |
| no_kinder_fc | 1.085031 | .1558048 | 0.57 | 0.570 | .8188682 | 1.437706 |
| savings | 1.683884 | .3593349 | 2.44 | 0.015 | 1.0108329 | 2.558324 |
| parent1 | 1.407625 | .3715686 | 1.30 | 0.195 | .8390673 | 2.361443 |
| urban35 | 1.523637 | .2329059 | 2.75 | 0.006 | 1.129185 | 2.05588 |
| _cons | .1780157 | .0904787 | -3.40 | 0.001 | .0657392 | .4820499 |

Table C.2 Factors that promotes downward mobility for the top 20 percent

| Logistic regression | | | | Number of obs = 978 Wald chi2 (10) = 59.17 Prob > chi2 = 0.0000 Pseudo R2 = 0.1201 | | |
|-----------------------------------|------------|------------------|-------|---|----------------------|----------|
| Log pseudolikelihood = -837016.14 | | | | | | |
| inc_lower | Odds ratio | Robust std. err. | Z | P > z | [95% conf. interval] | |
| graduate_hoh | 1.482134 | .3382271 | 1.72 | 0.085 | .9476347 | 2.31811 |
| non_grad_fc | 6.067893 | 1.983385 | 5.52 | 0.000 | 3.197493 | 11.51506 |
| female_fc | 3.020065 | .651796 | 5.12 | 0.000 | 1.978374 | 4.610247 |
| _lethnic_ch_1 | 1.867525 | .4592589 | 2.54 | 0.011 | 1.153295 | 3.024075 |
| _lethnic_ch_2 | 1.682445 | .7957459 | 1.10 | 0.271 | .6658067 | 4.251416 |
| _lethnic_ch_3 | 1 | (omitted) | | | | |
| fin_assist | 1.079562 | .2398407 | 0.34 | 0.730 | .6984582 | 1.668609 |
| kinder_fc | 1.502475 | .4697366 | 1.30 | 0.193 | .8141147 | 2.772863 |
| no_savings | 1.626271 | .8235683 | 0.96 | 0.337 | .602742 | 4.387875 |
| parent1 | 2.507743 | 1.252381 | 1.84 | 0.066 | .9422979 | 6.673872 |
| urban35 | 1.096773 | .2993418 | 0.37 | 0.715 | .6681483 | 1.800366 |
| _cons | .3360248 | .1381218 | -2.65 | 0.008 | .1501371 | .7520638 |