PARADOXES OF HIGHER EDUCATION REFORMS: IMPLICATIONS ON THE MALAYSIAN MIDDLE CLASS#

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ABSTRACT

What is the middle class? This conceptual conundrum remains unsolved, yet higher education in Malaysia is deemed as one of the constituents. With special reference to higher education reforms in the 1990s, this paper agrees with the literature arguing that the Malaysian middle class is heterogeneous. Empirical evidence from Population and Housing Census Malaysia 2000 indicates the diversities and complexities within higher education that flow over to the terrain of the Malaysian middle class. Meanwhile, this paper leaves open an old but fundamental question: what is the notion of a class underlying the Malaysian middle class studies that accept its heterogeneity but use the term, "the middle class" or "the middle classes"?

Keywords: Middle Class; Higher Education Reforms; Malaysia

1. INTRODUCTION

What is the middle class? In spite of a number of potential impacts on the political-economy, this conceptual conundrum remains unsolved. The reason for this riddle lies in the complex array of its constituents, the

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existence of internal divisions in itself and its non-homogenous nature (Robison & Goodman 1996). However defined, it can be said that the middle class can coerce social, political and economic impacts in the country.

In the literature on Malaysia, an all-encompassing conceptual definition of the middle class is yet to be presented, but the impacts are frequently quoted (Embong 1999, 2002; Jomo 1999; Kahn 1996a, 1996b; Saravanamuttu 2001). For example, the consumption pattern can influence the economy, and so can the political concerns of domestic politics (Kahn 1996b). Meanwhile, there may be an agreement when discussing the constituents of the middle class that "access to tertiary education is increasingly seen as a condition for entry" to the middle class (Jomo 1999: 139).

For analytical reasons, this paper starts with the assumption that the middle class in Malaysia is homogenous (thus a class) and higher education is a common characteristic (a constituent, hereafter) of it. However, the purpose of this paper is not to define what the middle class is. Rather, it aims to critically appraise the notion of the middle class with reference to higher education reforms in the 1990s. It is shown that higher education departs as the constituent of the homogeneous middle class but later undermines the very point from which it originally departs. Since higher education reforms in Malaysia prompted diversities and complexities within higher education, it can no longer serve as the constituent. In this process, they are brought into the terrain of the middle class, which in turn highlight the diversities rather than the uniqueness of the Malaysian middle class. Our analytical journey departs from one constituent of the homogeneous middle class, but ironically paths through to the point raised by Robison and Goodman (1996) that the middle class is far from homogenous. This clearly contradicts the original assumption of this paper. Thus, logically speaking, it becomes more important to accept the realities and depart from it rather than to reduce them through using the term, "the middle class" or "the middle classes".

The composition of this paper is as follows. Section 2 appraises the notion of a class to set up the context of analysis for this paper. Section 3 looks at higher education reforms in the 1990s, with reference to both the role of government and the environment in which they were formulated and implemented. The 1990s saw a series of higher education reforms as well as expansion of higher education, which have crucial implications on higher education itself and the middle class. Section 4 follows the line established in the preceding section, and looks at research methods employed. The hypotheses to test and the sources of data, namely Population and Housing
Census Malaysia 2000, are explained in this section. Section 5 looks into the results of the data analysis so that it exposes new evidence pertaining to higher education reforms and makes reference back to the sections that precede it. Not only the realities of higher education by 2000 but their effects on the middle class are laid bare. Given the arguments and findings, Section 6 draws some implications on the Malaysian middle class. They can be constrained by my research focus on the 1990s, but it is argued that the trend of the 1990s has not fundamentally changed after 2000. Section 7 concludes.

2. WHAT IS THE MIDDLE CLASS?

In the literature on Malaysia, difficulties and ambiguities have been associated with conceptualizing what the middle class is. A leading scholar in this field, Abdul Rahman Embong, argues that "a recurrent theme in the current discourse is the general agreement that the notion of the "middle class" is problematic and difficult to define" (Embong 1999: 115). He then continues that a number of scholars "opt for the usage in the plural—"middle classes"—rather than the singular to reflect not only the shifting definition of the term, but also the heterogeneity of the middle classes as well as their lack of coherence, boundedness and self-consciousness" (ibid: 115–6).

Given this as a starting-point, a number of studies have been conducted in the literature. First, some studies addressed the process of the middle class formation. One approach places it in relation to capitalist economy (Saravanamuttu 1989 cited in Embong 1999), and another approach highlights the role of government (Kahn 1996a, 1996b; Torii 2003). Embong (1999, 2002) combines the two approaches and then brings in the role of culture. He cites "possession of educational qualification, cultural attributes and lifestyles" as the examples of culture (Embong 1999: 117). Different insights and analyses have been presented in the literature.

Second, there are issues on the impacts of what they call "middle classes", ranging from economy (Kahn 1996b), politics (Crouch 1996; Kessler 2001; Saravanamuttu 2001), and culture (Embong 2002). To observe the difficulties associated with the middle class studies, it is worthwhile to look at the difference between Crouch (1996) and Saravanamuttu (2001) in depicting the political tendencies of the middle class people. The former stresses the ethnic boundaries into which the class interests enter subsequently. On the other hand, the latter does not do so, but
highlights the beyond-ethnicity unification towards a universal value of democracy.

Keeping methodological divergences aside, why are there such varying arguments although they are ostensibly looking at the same "class"? This paper does not intend to add new evidence on the formation and the impacts of the middle class, nor does it desire to present a concrete definition of the middle class. Rather the purpose is to take a step back and then critically appraise the notion of the middle class to understand the nature of the Malaysian middle class issues. For this purpose, it is meaningful to start by readdressing one fundamental question: why isn't there a consensus on the definition, the formation and the impacts of the middle class? As is apparent, the answer to this question lies in the non-homogeneous nature of the middle class in Malaysia.

Nonetheless, when discussing the middle class (and thus middle classes), it seems necessary to question what a class is. In relation to this, Jomo (1999) offers an analytical point of departure by considering the four following approaches towards the definition of the middle class:

(i) "those who locate the "middle class" as an intermediate class, usually between capital, or top management, and labour, e.g. the self-employed;

(ii) those who see the "middle class" as an intermediate residual category after defining other class, especially capital (including variants thereof) and labour, such as definition is comparable to the definition of the "informal sector", which is also usually defined residually;

(iii) those who define the "middle class" historically in terms of class location, e.g. the eighteenth century European bourgeoisie was the "middle class" between the aristocracy (the ruling or upper class, or elite then) and the masses (serfs, proletariat, et al.);

(iv) those who define the "middle class" in occupational terms, e.g. the intelligentsia, professionals, educated or white collar occupational categories" (Jomo 1999: 126).

Despite the differing definitions that can emerge, the four approaches set their own boundaries between which the middle class is located. In other words, the boundaries of classes, including the middle class, can be determined by the constituents that the members possess in common. It follows that if individuals possess the elements that do not fall into the class
concerned, they can not be its members. The membership of a class is, therefore, determined by the type of elements that the individual has.

As is apparent from the above quotation of Abdul Rahman Embong, however, it has been argued that the Malaysian middle class does not "qualify as a class in terms of the three criteria of reasonable coherence, clear boundaries or self-consciousness" (Jomo 1999: 128). The existing findings on the diversities and complexities within the terrain of the Malaysian middle class do not match the notion of a class described above. These findings are significant on their own, but at the same time they must be reproduced to the underlying notion of a class so that the definition of the middle class can be assessed more adequately.

It is crucial to highlight the realities of the Malaysian middle class with reference to its heterogeneity. Yet, it is equally important that the usage of the term, "the middle class" or "middle classes", without a clear notion of a class must be done with some reservation and caution. As frequently indicated in the literature, there is an internal inconsistency between the notion of a class (homogeneity) and the reality of the Malaysian middle class (heterogeneity). So why do we need to use the term "the middle class" or "the middle classes" once accepting the inconsistency? Or do the middle class studies have a different notion of a class? If so, it must be explained since failure to do so can conceal rather than reveal the real world diversities and complexities.

Given the arguments so far, I set up the context of analysis for this paper. With reference to Embong (1999, 2002) and Jomo (1999), this paper looks into higher educational enrolment or attainment that is a constituent of the Malaysian middle class. Higher education in Malaysia has expanded in terms of quantity and quality, especially over the 1990s, so that it is now recognised as "a condition for entry to" the middle class (Jomo 1999: 139). Similarly, it is a crucial instrument of forming and reproducing it as well. Therefore, for analytical purposes, this paper starts with the assumption following the notion of a class depicted above: the middle class in Malaysia is homogeneous (therefore a class) and higher education is one of its constituents. It means that the constituent is also a homogeneous lot. Logically speaking, this assumption means that if higher educational enrolment or attainment turns out to be heterogeneous then it can not serve as the constituent. Accordingly, the middle class is no longer a class since the heterogeneity of higher education flows over to its terrain, thereby contradicting the assumption. This helps us to assess the Malaysian middle class against the notion of a class and then to critically reconsider the usage of the term, namely "the middle class" or "the middle classes".
3. HIGHER EDUCATION REFORMS IN THE 1990S

In Malaysian history, higher education has always occupied an important position in socio-economic terms. The New Economy Policy (NEP) introduced in 1971 posited that education would influence future socio-economic positions (Faaland, Parkinson & Saniman 1990; Malaysia 1976). For achieving the goal of restructuring society, the government introduced the ethnic quota system at public higher education institutions and considerably controlled the provision of educational services. For the former, the ruling coalition, Barisan Nasional (BN, or National Front), reached an agreement on the proportion of the quota in 1979: 55 percent for Bumiputera, 35 percent for Chinese, and 10 percent for Indians and others (Boo 1998: 52). And for the latter, private involvement in higher education, types of curriculum, and student activities were under the strict government control (Mukherjee & Singh 1985; Thomas 1986), whereas the medium of instruction was converted to Malay by 1983 (Chai 1977; Malaysia 1984: 348). All these were made possible by the government intervention justified for the ostensible purpose of social stability and, in particular, the Constitution (Amendment) Act in 1971 and the University and Universities Colleges Act (UUCA) of 1971 (Lee 1996; Malaysia 2002).

As a result, the proportion of Bumiputera students at public higher education institutions increased throughout the NEP. In 1970, Bumiputera accounted for 53.7 percent of the total enrolments at local public higher institutions, and it increased to 65.3 percent in 1988 (see Table 1). This means that they accounted for more than the 55 percent quota. On the other hand, non-Bumiputera households, particularly affluent households, tended to send their children to higher institutions overseas (Selvaratnam 1988). For, many non-Bumiputera "candidates who are qualified on academic criteria to enter the country's local universities were rejected on ethnic grounds and are therefore forced to seek an overseas higher education." (ibid: 189) This can also be seen as a reflection of the government's switch from exam-based admission to quota-based admission (Selvaratnam 1989). Throughout the 1980s, Chinese and Indian students tended to choose overseas institutions, and as of 1988 they represented 69.2 percent of Malaysian students studying overseas (see Table 1).
**Significantly, these facts must be understood in the political-economic context. As Joel Kahn argues, "many of the structural changes in the Malaysian economy... developed in response to the concerns of and political pressure exerted by middle-class Malays" (Kahn 1996b: 68). For the same token, the liberalisation moves that started in the 1980s and ultimately led to a set of higher education reforms must be understood. The emergence of Mahathir Mohamad as the premier in 1981 played a significant part in transforming the political-economic environment. Given the centralisation of the decision-making around the prime minister's office and its shift from bureaucracy to politics (Hai 2006; Puthucheary 1978), Mahathir introduced a series of liberalisation such as privatisation and deregulating investment regulations towards the end of the decade.**

Accordingly, higher education policy under Mahathir put an emphasis on human resource development for growth more than inter-ethnic concerns. These matched with heightened aspirations of middle class non-Bumiputeras for higher education and their frustrations over the NEP, thereby leading to the reforms.

Thus, it can be argued that higher education reforms were formulated in response to the middle class (Lee 2004; Tan 2002). It was expected that the reforms would weaken government intervention in higher education and the ethnic divide in the enrolment pattern. As seen below, however, the scale and scope of government intervention was paradoxically strengthened, and the ethnic divide started to manifest in another form.

**Higher Education Reforms in the 1990s: Government Intervention and Ethnic Divide**

In the mid-1990s, the Parliament passed and the government enacted five education-related acts, all of which affect both public and private higher education in some way or another. The Education Act 1995 deals with the...
overall education system, while the amendments to University and Universities Colleges Act (UUCA) of 1971 tackle the corporatisation of public universities (Malaysia 1996: 334). In particular, the corporatisation exercise is expected to improve the management and autonomy of public universities (ibid), but did not necessarily bring the expected results due to the difficulty in securing fiscal sources (Soda 2006). The opposition against raising tuition fees for this purpose, which was also raised in Parliament, was believed to be the important cause for it (Ibid).

It should be emphasised that the private sector involvement was the leading part of the higher education reforms. Given the other three acts enacted, the government started to have clear policies on private higher education (Lee 1999). They include (i) Private Higher Educational Institutions Act (PHEIA), (ii) National Council of Higher Education Act, and (iii) National Accreditation Board Act (NABA). With the introduction of these acts, doors were now opened for private sector to participate in higher education. It was expected to expand places at higher education institutions and to produce a qualified labour force to match industrial demands (Malaysia 1996: 339), while cutting "the country's overseas education bill of RM2.5 billion (USD1 billion) a year" (International Herald Tribune 13 February 1996).

However, the higher education reforms brought about two apparent paradoxes. The first paradox is related to government intervention in higher education. Its scale and scope did not decline with the reforms, but rather expanded with private sector involvement. The interventionist role in public education remains unchanged, and its role is now expanded to cover the newly created private higher education. The UUCA and PHEIA stipulate the final decision still resides with the Minister of Education with regard to curriculum or programmes offered (Lee 1999; Tan 2002). In addition, NABA aims to set up an accreditation board to oversee the quality of private education (Lee 1999). Through analysis of ministerial speeches and documents as well as a number of interviews with educationalists, Tan (2002) argues that these legislations were "designed to open up access to higher education on the one hand, and to place Malaysian private higher education under regulatory control with respect to quality and in compliance with the national education philosophy on the other" (Ibid: 81).

The manner in which the government regulates and manages higher education caused a dualistic structure in domestic higher education over the 1990s: public education with ethnic concerns and private education without ethnic concerns. In general, two facts on the 1990s are indicative of this. First, the ethnic quota system remained applied at public higher education institutions, but the private sector is free of it. It can be surmised that this
has tremendous impacts on the enrolment pattern due to the accumulated frustration of non-Bumiputeras over the quota system. The ethnic demarcation between local and overseas education, which was seen from Table 1, was replaced by that between public and private higher education. Next, the medium of instruction and types of subjects taught can differ between public and private education. With the exception in technical subjects and medicine, public institutions conformed to using Malay as the medium of instruction (Alias 1997). Meanwhile, PHEIA states that private higher education institutions can be exempted from using Malay as the medium of language and use other languages such as English if approved by the Minister of Education (Samuel & Lew 1997). This was primarily due to political awareness of the leaders, especially the then prime minister Mahathir, who intended to maintain their political positions by co-opting non-Bumiputeras (Lee 2004). Furthermore, a number of private institutions tended to offer courses in "areas such as accountancy, law, business administration and computer studies, which do not require large capital outlay" (Lee 1999: 79).

The dualistic structure in higher education, which was the obvious result of the first paradox, brought about the second paradox: an inter-ethnic divide in the enrolment pattern between public and private sectors. As will be confirmed later, Malays tend to enrol public education, whereas Chinese and Indians that used to choose overseas education private education. This can be easily expected from the higher educational structure outlined above. And equally importantly, the enrolment pattern is intertwined with the differences in the provision of educational services. It compounds the ethnic divide, and causes diversities and intricacies within higher education, which enter the terrain of the middle class. As argued later, this suggests that higher educational enrolment or attainment can no longer serve as the constituent of the middle class since it is not homogeneous, and also that the Malaysian middle class is no longer a class since the diversities and intricacies enter its terrain. Even at this stage, it can be surmised that the Malaysian middle class is not homogeneous.

4. RESEARCH METHODS

Along the line established so far, this section explores research methods to understand the realities of higher education in the 1990s to draw implications on the Malaysian middle class. In the literature, a number of studies pointed to inter-ethnic differences in enrolment pattern between public and private sectors, but without concrete evidence (Alias 1997; Lee
1996, 1999, 2004; Samuel & Lew 1997; Tan 2002). And to my knowledge, there are no studies that examined the implications of the reforms on the Malaysian middle class.

Given these, I use the representative data sets and look into higher education reforms with reference to inter- and intra-ethnic differences in enrolment pattern between public and private sectors. This does not mean that this paper denies the importance of such issues as gender, type of institutions (i.e., university or college, etc) and type of certificate (i.e., diploma or degree, etc.). Instead, it posits that these other factors can complement our empirical findings in the same direction against the notion of a class described earlier. In due course, this makes it possible to add evidence to the literature on higher education reforms. But importantly, this yields vital implications on higher education as the constituent of the middle class and the Malaysian middle class in general.

**Hypotheses**

The following statements are made in the literature on higher education reforms:

(i) While Bumiputeras tend to enrol public higher education institutions, non-Bumiputeras are more likely to choose private institutions; and

(ii) Private higher education institutions benefit those from the developed areas more than those from the less developed areas.

The first statement relates itself with the inter-ethnic divide in enrolment pattern between public and private sectors, while the second statement the intra-ethnic divide. As mentioned, these are frequently indicated but not yet to be confirmed with evidence.

Both are related to access to higher education rather than provision of higher educational services. However, they are extremely important issues to address. Provided that both public and private education provide different higher educational services (Wilkinson & Yussof 2005), divergent ethnic experiences in accessing higher education can cause heterogeneity of the middle class. In other words, access is an extremely important aspect of middle class diversities since it later interplays with differing educational services at schools and future employment. Thus, an investigation of access to higher education, or search for differentials in the access, has vital implications on both higher education as the constituent of the middle class and the middle class in general. In the light of this, I pick up those two
statements as the two principal hypotheses to test, around which related arguments are developed.

Data and Empirical Assumptions

The source of data for the present study is two percent random sample of the Population and Housing Census of Malaysia 2000, which is released from the Department of Statistics Malaysia. The sample includes 411,901 Malaysian citizens. In Malaysia, a census is done every ten years. Since the first census in 1957, there are five censuses and the next one is supposed to be in 2010. Therefore, it must be reserved that findings in this paper are constrained by the data sets used. Since Census 2000 is the latest census available, this problem of data availability confines the analytical focus of this paper to the 1990s. Nonetheless, this data is most appropriate to shed a light on socio-economic features of the Malaysian population since its sampling method forms the basis of key government statistics.

In this paper, I follow the classification of the census and focus on the four major ethnic groups: Malays, other Bumiputeras, Chinese and Indians. At times, the first two groups are called "Bumiputeras", and the rest "non-Bumiputeras". With reference to Hirschman (1972, 1979), we focus on the Malaysian citizens born in Malaysia since those born overseas are likely to be attending overseas institutions. Since the primary objective here is to look at how the domestic population reacted to the higher education reforms, it is necessary to control for this from the beginning.

The Ministry of Education (2000) defines the age cohort of higher education as between 19 years old and 24 years old. However, I drop the age group 19 years old since at the time of census collection this group is believed to just have enrolled or may not have done so. Although this exercise hardly affects the results, I control for this to clean the potential response noises for a case. Thus, the analysis is basically restricted to those who are between 20–64 years old since they are at least currently schooling or have completed higher levels of education. As a result, it makes it possible to cover the era from Independence period until the millennium, but when necessary I control the sample coverage for analytical clarity and coherence. Furthermore, it is also instructive to understand the strategies of Hirschman (1972, 1979) since he also used the two percent samples of censuses. His analysis is also restricted to those between 20–64 years old, and he divides the sample by using five-year intervals starting from 20–24 years old cohort and continuing until 60–64 years old, which I follow from time to time.
Some assumptions for the present study must be clearly made. First, it is assumed that enrolment and attainment are synonymous since the dropout rate at higher education institutions can be deemed low. It means that if enrolled then you will have attained higher education. The second assumption is that you enrol higher education institutions at the age of 19 following the definition of Ministry of Education (2000). Accordingly it is assumed that if you have already attained higher education then you must have enrolled at the age of 19. Thus, adding 19 to the year of birth would be the year of enrolment (i.e., those aged 29 years old at the time of the census were born in 1971 and enrolled in 1990). Throughout this paper, I employ the year of enrolment for analytical purposes. Above all, these two assumptions enable us to depict the historical pattern of higher educational enrolment.

Table 2
Description of Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>POHEDU</td>
<td>Place of attaining higher education</td>
<td>Domestic public institutions Domestic private institutions Overseas institutions</td>
</tr>
<tr>
<td>ETH</td>
<td>The ethnic origins</td>
<td>Malay Other Bumiputeras Chinese Indians</td>
</tr>
<tr>
<td>KL &amp; SLG</td>
<td>Born in Kuala Lumpur or Selangor</td>
<td></td>
</tr>
<tr>
<td>WEST</td>
<td>Born in the western states (Penang and Perak)</td>
<td></td>
</tr>
<tr>
<td>SOUTH</td>
<td>Born in the southern states (Johore, Malacca, and Negeri Sembilan)</td>
<td></td>
</tr>
<tr>
<td>NORTH</td>
<td>Born in the northern states (Kedah, Perlis, and Kelantan)</td>
<td></td>
</tr>
<tr>
<td>EAST</td>
<td>Born in the eastern states (Terengganu and Pahang)</td>
<td></td>
</tr>
<tr>
<td>BOR</td>
<td>Born in the Borneo (Sabah, Sawarak, and Labuan)</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows the set of variables to be used for our analysis. As seen, all of them are categorical variables. There are six dichotomous variables on the states of birth, which I constructed following Malaysia (2001: Table 5.2). According to it, KL and SLG, WEST and SOUTH are classified as the more developed states, while NORTH, EAST and BOR the less developed states. No variables on household and family variables including parental education and household income are given in the same sample tapes. Some
variables on housing characteristics are given in totally different samples, but it is technically impossible to integrate all these samples. In addition, these variables only contain the information at the time of census collection, not at the time of enrolment. Thus, they can not be used to explain the causes of higher educational enrolment so that the present study ignores them.

5. EMPIRICAL FINDINGS

With reference to Pong (1993: Figure 1), Figure 1 looks at the time-series trend of higher educational enrolment ratios by ethnicity. It exhibits two interesting findings. First, higher educational enrolment has continued to increase over time, but its pace started to speed up after 1990. This clearly indicates that higher education has become far less elitist in the 1990s. And in particular, the dramatic increase can be seen between 1995 and 1999, during which the higher education reforms were implemented. Again, this fact reconfirms the importance of looking into the 1990s. Second, attention must be paid to inter-ethnic differences as well. The impacts of the NEP on enrolment trends of Chinese and Indians can be seen. In general, the speeds at which they increased the proportion of those enrolling higher education were almost equal or lower than Malays by 1990. In fact, Malay outstripped Chinese in the latter half of the 1970s. However, the post-NEP period saw the considerable increases in the enrolment ratios of non-Bumiputeras, especially Chinese.

The two findings are already suggestive of two crucial points regarding the Malaysian middle class: (i) the expansion of higher education (the increased scale of its constituent) and (ii) the ethnic divide in the enrolment pattern (diversities and complexities within it). Being consistent with the higher education reforms in the 1990s, which witnessed the increased establishment of private institutions, it can be stated that the two points are caused by the reforms. In effect, the number of private universities increased from 0 in 1995 to 16 in 2001, and that of private colleges from 156 in 1992 to 690 in 2001 (Kementerian Pendidikan Tinggi 2000, quoted in Lee 2004: 444). Since the number of public higher education institutions increased more modestly, the proportion of private institutions out of the total higher educational enrolment began to increase after 1995. According to Figure 2 that uses the sample of those aged between 20 and 29 years old, it reached at around 40 percent of the total enrolment by 1999. Furthermore, the proportion of non-Bumiputeras at domestic higher education institutions increased over the 1990s. Table 3
Figure 1. Higher educational enrolment ratios by ETH and year of enrolment.

Figure 2. Higher educational enrolment in the 1990s by POHEDU.
Table 3

<table>
<thead>
<tr>
<th>Year</th>
<th>Malay</th>
<th>Other Bumiputeras</th>
<th>Chinese</th>
<th>Indians</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>61.2</td>
<td>1.9</td>
<td>31.1</td>
<td>5.8</td>
<td>100.0</td>
</tr>
<tr>
<td>1995</td>
<td>57.3</td>
<td>3.7</td>
<td>32.4</td>
<td>6.6</td>
<td>100.0</td>
</tr>
<tr>
<td>1999</td>
<td>48.5</td>
<td>3.2</td>
<td>38.9</td>
<td>9.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>

uses the sample of the three age groups of 20, 24 and 29 years old, and confirms it. The proportion of Malays dropped dramatically from 57.3 percent in 1995 to 48.5 in 1999, while those of Chinese and Indians increased from 32.4 percent to 38.9 percent and from 6.6 percent to 9.4 percent respectively. Thus, it can be surmised that the private institutions absorb Chinese and Indian students who tended to enrol overseas higher education institutions so that the proportions of Chinese and Indians at domestic institutions increased by 1999. Significantly, the Asian financial crisis that hit Malaysia from 1997 onwards may have accelerated this trend.

It can be argued that expansion of higher education in the 1990s was primarily due to the increased establishment of private higher education institutions and that Chinese and Indians seemed to benefit more from it. Chinese and Indians appear to constitute the majority of students at those institutions. Nonetheless, this does not mean that fewer Malays enrol in higher education institutions. As was clear from Figure 1, all ethnic groups increased their higher educational enrolments but with differing variations. However, this raises further questions about the ethnic divide in terms of enrolment pattern between public streams (with ethnic concerns) and private streams (without ethnic concerns), which we look at next.

Inter-ethnic Divide in Enrolment Pattern: The First Hypothesis

As mentioned, all ethnic groups increased higher educational enrolment ratios, yet at different speeds. This is related to the ethnic divide in enrolment pattern between public and private streams.

Figure 3 looks at the historical trend of public higher educational enrolment by using the whole manufactured sample. Significantly, it points to the dominance of Malays and Other Bumiputeras in the total enrolment at public higher education institutions. They accounted for more than 70 percent of the total from 1970 until 1999, which is consistent with the 55 percent ethnic quota at work. Although their shares gradually declined since early 1990s onwards, they still fluctuated around 70 percent of the total enrolment in 1999.
A remarkable, but hardly surprising, finding can be found in Figure 4 which uses the sample of the five age groups (between 20 and 24 years old) in the light of the private sector involvement from the mid-1990s onwards. Contrary to the Bumiputera dominance at public higher education institutions, non-Bumiputeras make up the majority of students at private ones. Figure 4 reveals that between 1995 and 1999 Chinese and Indians represented 70 percent of the total enrolment at private higher education institutions. For non-Bumiputeras that tended to choose overseas education during the NEP period, private higher education seems to serve as its substitute. And the Asian financial crisis that had tremendous economic impacts on households can be deemed to accelerate the trend. Above all, these findings support the first hypothesis: "while Bumiputeras (including Malays) tend to enrol public higher education institutions, non-Bumiputeras are more likely to choose private institutions."

Figure 3. Distribution of public educational enrolment by ETH, 1955–1999.
Figure 4. Distribution of private educational enrolment by ETH, 1995–1999.

It is further confirmed by Table 4, which uses the two age groups (20 and 24 years old) and then decomposes each ethnic group by type of higher education (public or private sectors). It is clearly shown that seven out of ten Bumiputeras enrolled in public higher education institutions but seven out of ten Chinese students chose private institutions. Although some variations towards private sectors can be found with Bumiputeras, the enrolment pattern is, in general, ethnically segmented between public and private sectors. This ethnic divide in the enrolment pattern clearly supports the first hypothesis, and can draw significant implications on the middle class. For, higher education reforms caused not only expansion of higher education (the increased scale of the constituent) but also the ethnic divide (diversities and complexities within it). Both can have significant social, political and economic implications on the Malaysian middle class.
Intra-ethnic Divide in Enrolment Pattern: The Second Hypothesis

There is another vital issue that further amplifies the diversities and complexities within higher education: intra-ethnic divide in higher educational enrolment. To seek this, the geographical decomposition of higher education enrollees between 1995 and 1999 (through the sample of the cohort 20-24) is quite useful since the state of birth, namely in which state you were born, can parallel with the socio-economic backgrounds. From the discussion on the ethnic divide in enrolment pattern, it can be easily surmised that those enrolling private higher education institutions were born in the more developed states since the majority are non-Bumiputeras. Table 5 supports this. On the one hand, 60 percent of the enrollees at public higher education institutions were born in the more developed states (namely, KL and Selangor, western and southern states). The rest were born in the less developed states, the majority of whose residents are Bumiputeras. On the other hand, around 80 percent of the enrollees at private higher education institutions were born in the more developed states, in which non-Bumiputeras tend to over-represent. Table 5 is not sufficient to investigate the intra-ethnic divide since ethnicity in Malaysia tends to be associated with the geographical backgrounds. Hence, it is necessary to break it down by geographical background and ethnicity, as is shown in Table 6. It shows that even in the case of Malays, those from the more developed states make up the majority of private higher education enrollees. Their proportion of the total enrolments accounted for 56.3 percent in the public sectors and for 68.7 percent in the private sectors. The corresponding figures for Chinese were 76.1 percent and 81.8 percent respectively, and those for Indians 90 percent and 91.4 percent respectively. Except for Other Bumiputeras, those born in

Table 4
Breakdown of Higher Educational Enrolment of ETH by POHEDU (%).

<table>
<thead>
<tr>
<th>Ethnicities</th>
<th>Year</th>
<th>Public</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malay</td>
<td>1995</td>
<td>86.4</td>
<td>13.6</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>73.6</td>
<td>26.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Other Bumiputeras</td>
<td>1995</td>
<td>85.7</td>
<td>14.3</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>73.3</td>
<td>26.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Chinese</td>
<td>1995</td>
<td>45.9</td>
<td>54.1</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>32.4</td>
<td>67.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Indians</td>
<td>1995</td>
<td>64.9</td>
<td>35.1</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>40.9</td>
<td>59.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>
the more developed states are more likely to enjoy higher education, especially private education. This can mean that, irrespective of ethnic backgrounds, they have more options in higher educational enrolment than those from the less developed states. In particular, those born in Kuala Lumpur or Selangor are most likely to attend higher education, especially at private institutions. By complete contrast, those born in the less developed states tend to go to public higher education institutions more than private ones. This tendency is evident with Malays and Other Bumiputeras.

Table 5

<table>
<thead>
<tr>
<th>More developed states</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>KL &amp; SLG</td>
<td>22.0</td>
<td>36.0</td>
</tr>
<tr>
<td>WEST</td>
<td>18.0</td>
<td>22.0</td>
</tr>
<tr>
<td>SOUTH</td>
<td>20.0</td>
<td>20.0</td>
</tr>
</tbody>
</table>

Sub-total: 60.0 78.0

<table>
<thead>
<tr>
<th>Less developed states</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTH</td>
<td>17.0</td>
<td>7.0</td>
</tr>
<tr>
<td>EAST</td>
<td>11.0</td>
<td>6.0</td>
</tr>
<tr>
<td>BOR</td>
<td>12.0</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Sub-total: 40.0 22.0

TOTAL: 100.0 100.0

Table 6

<table>
<thead>
<tr>
<th>Ethnics</th>
<th>Sectors</th>
<th>KL &amp; SLg</th>
<th>West</th>
<th>South</th>
<th>North</th>
<th>East</th>
<th>Bor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malay</td>
<td>Public</td>
<td>19.4</td>
<td>14.1</td>
<td>22.8</td>
<td>21.7</td>
<td>15.4</td>
<td>6.6</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>31.6</td>
<td>16.6</td>
<td>21.5</td>
<td>12.4</td>
<td>13.7</td>
<td>4.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>21.9</td>
<td>14.6</td>
<td>22.5</td>
<td>19.8</td>
<td>15.1</td>
<td>6.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Other Bumiputeras

<table>
<thead>
<tr>
<th>Ethnics</th>
<th>Sectors</th>
<th>KL &amp; SLg</th>
<th>West</th>
<th>South</th>
<th>North</th>
<th>East</th>
<th>Bor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>4.5</td>
<td>nil</td>
<td>95.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>0.9</td>
<td>nil</td>
<td>99.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Chinese

<table>
<thead>
<tr>
<th>Ethnics</th>
<th>Sectors</th>
<th>KL &amp; SLg</th>
<th>West</th>
<th>South</th>
<th>North</th>
<th>East</th>
<th>Bor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>28.6</td>
<td>29.9</td>
<td>17.6</td>
<td>7.3</td>
<td>4.8</td>
<td>11.8</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>36.1</td>
<td>24.9</td>
<td>20.8</td>
<td>5.0</td>
<td>3.1</td>
<td>10.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>33.4</td>
<td>26.7</td>
<td>19.6</td>
<td>5.8</td>
<td>3.7</td>
<td>10.8</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Indians

<table>
<thead>
<tr>
<th>Ethnics</th>
<th>Sectors</th>
<th>KL &amp; SLg</th>
<th>West</th>
<th>South</th>
<th>North</th>
<th>East</th>
<th>Bor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>44.4</td>
<td>26.7</td>
<td>18.9</td>
<td>4.4</td>
<td>5.6</td>
<td>nil</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>50.8</td>
<td>24.2</td>
<td>16.4</td>
<td>4.7</td>
<td>3.1</td>
<td>0.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>48.2</td>
<td>25.2</td>
<td>17.4</td>
<td>4.6</td>
<td>4.1</td>
<td>0.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>

To sum up, it can be argued that higher education reforms are biased towards non-Bumiputeras from the more developed states although Bumiputeras still enjoy the preferential treatments in public higher
education. This seems to be closely related to both economic backgrounds of households and where private higher education institutions are established, or the point raised by Lee (1999). It is not possible to ascertain further socio-economic backgrounds of those students due to the data constraints explained earlier. But, our results clearly support the second hypothesis: "private higher education institutions benefit those from the developed areas more than those from the less developed areas." And it is also shown that higher education reforms seem to benefit the relatively well-off.

These findings carry significant implications on the Malaysian middle class. The intra-ethnic divide in enrolment pattern compounds the inter-ethnic divide found earlier, thereby amplifying the complexities and diversities within higher education. This means that higher education does not necessarily serve as the constituent and also that it undermines the notion of a class by flowing over to the terrain of the middle class.

6. IMPLICATIONS ON THE MALAYSIAN MIDDLE CLASS

The definition of the middle class is yet to be perfected, which in turn may suggest its own diversities and complexities. It was originally assumed at the beginning of this paper that higher education is the constituent of the homogeneous middle class. Given the empirical findings, what implications can be drawn?

Apart from the usage of the term, namely "middle class" or "middle classes", this paper obtains empirical findings suggesting the heterogeneity of the Malaysian middle class. As seen, higher education reforms in the 1990s paradoxically expanded the scale and scope of government intervention in higher education. Then, the public higher education with the ethnic quota system became in sharp contrast with the private sectors that did not have ethnic concerns. This dualistic structure in higher education caused by the government formed the context in which the ethnic divide in the enrolment pattern between public and private streams emerged towards the end of the decade.

The data analysis found two distinctive results on the differentials in the access to higher education, which support those arguments. First, the access was broadened primarily because of the private sector involvement. As argued in the previous section, higher education has thus become far less elitist than before. This means the expansion of the scale of the constituent of the Malaysian middle class. Second, the access to higher education, especially private education, was not evenly enjoyed by the public. It was
empirically shown that Chinese and Indians benefited more from the increased access than Malays and Other Bumiputeras. It can be surmised that this tendency seemed to accelerate with the deepening of the Asian financial crisis towards the end of the 1990s. But it was also shown that those from the more developed states, especially Kuala Lumpur and Selangor, did so most, but that this holds true of Malays as well. This suggests diversities and complexities within the constituent, due to the interconnection of inter- and intra-ethnic divide in the enrolment pattern between public and private sectors. It can be argued that the higher education reforms primarily benefited the relatively well-off.

As such, the exploration of the higher education reforms in the 1990s revealed the realities in Malaysia's higher education. The diversities and complexities within higher education became apparent through the process in which the reforms differentiated the access to it. Significantly, they further amplify when we take into account the provision of higher educational services. Wilkinson and Yussof (2005) investigated some public and private higher education institutions, and they found divergences in the manner in which the services are provided. The private institutions offer subjects such as information technology, engineering and business studies, but minimise costs by employing junior and inexperienced teaching staff (see also Lee 2004). Wilkinson and Yussof (2005) label it as profit-seeking activities, which sharply contrast with the public institutions concerned also with equity. Their findings clearly complement the findings of the present paper on the differentials in the access to higher education, thereby intensifying the diversities and complexities within higher education.

Above all, it can be argued that the constituent of the Malaysian middle class, namely higher education, is not homogeneous. The diversities and complexities within higher education do not coincide with the claim that higher education is the constituent of the middle class since it is found not to be a single and unified being. Uniquely labelling higher education as the constituent conceals its realities that are seen in the inter-ethnic and intra-ethnic differences. Furthermore, higher education assigns its members (namely those having attained higher education) to that class so that its diversities and complexities are carried over to the terrain of the middle class. This is purported by the argument: "access to tertiary education is increasingly seen as a condition for entry" to the middle class (Jomo 1999: 139). To put it further, higher education, though a constituent, is an instrument of creating the diversities and complexities that constrain the existence of the middle class as a class. Significantly, we have now found a logical contradiction to the original assumption that the Malaysian middle class is homogeneous.
In effect, since higher education, as the constituent, reveals class identity, there also emerge diversities and complexities within the class identity. The ethnic segmentation between public and private sectors can amplify them by strengthening ethnic identities, thereby ultimately affecting the self-consciousness of the middle class. The type of higher education (i.e., public or private), which is in general segmented by ethnicity, determines who to interact with and what to learn at schools. It can be argued that the higher education reforms in the 1990s diverged from rather than converged to a unification of the middle class identity. Therefore, there is an inconsistency between homogeneity (the notion of a class) and heterogeneity (reality of the Malaysian middle class) so that the Malaysian middle class can not be explained by the notion of a class discussed earlier.

Post-2000 Era: Prevailing Diversities and Complexities within Higher Education

The focus of this paper has been on the 1990s, and, as mentioned in Section 4, the findings of this paper are based on the data sets, namely Population and Housing Census Malaysia 2000. Therefore, the implications mentioned above must be interpreted with some care. It is indeed impossible to quantitatively investigate post-2000 period due to the lack of similar data sets, but it can be argued with reference to some materials in the literature that the implications generally hold after 2000. The ethnic segmentation between public and private sectors did not change in a fundamental way, and the dominance of non-Bumiputeras at private higher education institutions has continued to prevail. Thus, the diversities and complexities within higher education persist.

In 2002, the ethnic quota system at public higher education institutions was replaced with the meritocracy system using academic achievement as the main selection criteria (Malaysia 2003: 109). Ostensibly, this marked a change in the government policy on access to higher education. However, there emerges a debate over Sijil Tinggi Pelajaran Malaysia (STPM) and matriculation exams, both of which are different to each other in terms of content but serve as the prerequisite for varsity intake. Institutionally, STPM is a two-year course conducted by the Malaysian Examinations Council, whereas matriculation exams are an in-house and one-year course being almost exclusive for Bumiputeras. Thus, it can not be necessarily argued that public higher education is totally free of ethnic concerns.

Furthermore, beside private higher education institutions, some of the public higher education institutions started to adopt English as the medium
of instruction, particularly in science and technology streams. Indeed, the importance of English fluency has been recognised more explicitly, in terms of learning and job-seeking outcomes of higher education graduates (see Pandian and Ghani 2005). Nonetheless, Ambigapathy Pandian finds the gaps in the literacy skills of public and private university students, including English fluency, which implies the differences in the provision of public and private higher education (Pandian 2008). Further, the PHEIA was amended in 2003, which enables private higher education institutions to update their status of universities, university colleges and colleges (Sirat 2006). The public-private differences in providing higher educational services can be surmised to remain.

Above all, the policy changes with regard to access to higher education and provision of higher educational services have generally taken place along the existing structure of higher education. It indicates that the increase in higher education enrolment does not fundamentally change the ethnic segmentation in the enrolment pattern found by 2000. The total number of higher education enrolment increased from 574,421 in 2000 to 731,698 by 2005 (Malaysia 2006: Table 11–6), but the ethnic segmentation in the enrolment pattern has not changed fundamentally after 2000. The percentage of non-Bumiputeras total enrolment in public streams has increased, but the ethnic distribution of enrolment in private sectors appears to be unchanged. For example, the then parliamentary secretary of higher education, Adham Baba, indicated that most of the educational opportunities for Bumiputera students were provided by public institutions and their representation in private streams was still small (Baba 2004). This points to the persistence of the ethnic divide in terms of enrolment pattern, particularly between public and private sectors. It follows that the diversities and complexities within higher education have prevailed, which can be confirmed by further diversification in the private provision of educational services (Sirat 2006).

It is certain that more non-Bumiputeras enter public streams of higher education. For example, Table 7 reveals that, out of the successful applicants with STPM or equivalent qualifications in the 2002-2003 intake, Bumiputeras accounted for 68.7 percent whereas Chinese 26.4 percent and Indians 4.7 percent. In the following year, the Bumiputera share declined to 62.6 percent, while the Chinese share jumped to 32.2 percent and the Indian share marginally to 5.2 percent (Hock 2003). This tendency is believed to have continued since then. Some United Malays National Organization (UMNO) politicians, especially the Youth wing and Johor UMNO, called for scrapping the meritocracy system, which suggests the increasing representation of non-Bumiputeras at public higher education institutions.

Table 7
Ethnic Distribution of Higher Education Applicants with Sijil Tinggi Pelajaran Malaysia (STPM) or Equivalent Qualifications at Public Higher Education Institutions in 2002.

<table>
<thead>
<tr>
<th>Ethnics</th>
<th>Total applicants</th>
<th>Successful applicants</th>
<th>Rate of success</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Share</td>
<td>No.</td>
</tr>
<tr>
<td>Bumiputeras</td>
<td>46,878</td>
<td>74.0</td>
<td>22,557</td>
</tr>
<tr>
<td>Chinese</td>
<td>13,489</td>
<td>21.3</td>
<td>8,665</td>
</tr>
<tr>
<td>Indians</td>
<td>2,961</td>
<td>4.7</td>
<td>1,530</td>
</tr>
<tr>
<td>Total</td>
<td>63,328</td>
<td>100.0</td>
<td>32,752</td>
</tr>
</tbody>
</table>

Source: Computed using the figures by Ministry of Education cited in Ghani (2002).

Note: Rate of success is computed by dividing the number of successful applicants by the total number of applicants and then multiplying it by 100.

The ethnic segmentation in terms of enrolment would disappear if more Bumiputeras enter private higher education institutions to be on par with their representation in public stream. However, it was not the case. Many non-Bumiputeras still choose private higher education, maintaining the representation in private streams. Table 7 demonstrates that Bumiputeras represented 74 percent of the total applicants for public higher education institutions, while Chinese just 21.3 percent and Indians 4.7 percent. This fact indirectly suggests that a relatively small number of non-Bumiputeras apply for public higher education, and many of them opt for private higher education, which was also indicated by the then Director of Higher Education Department at the Education Ministry (Ghani 2002).

Moreover, Adham Baba argues that "the problem [of Bumiputera's under-representation in private higher education institutions] is intensified because most of these private institutions are located within main cities and this limits the access for Bumiputera students from certain locations, particularly from rural areas" (Baba 2004: 2, parenthesis added by author). This statement suggests the intra-ethnic differences as well as inter-ethnic differences in higher education enrolment.

As mentioned earlier, the lack of an appropriate data set does not allow me to quantitatively investigate the enrolment pattern after 2000. This issue must be scrutinized with a proper data set in future, possibly the next census. However, it can be argued that the arguments on the post-2000 period seem to complement more than deny the empirical findings on the 1990s. The over-representation of non-Bumiputeras at private higher
education institutions still persists, so that the ethnic segmentation between public and private sectors has not fundamentally changed after 2000. Above all, it indicates the prevailing diversities and complexities within higher education.

The Notion of a Class Revisited

The arguments in the present paper echo the existing studies in the literature that emphasise the heterogeneity of the Malaysian middle class (Chong 2005; Embong 1999, 2001, 2002; Hsiao and Wang 2001; Shamsul 1999). What is equally important is, however, to make clear what is the notion of a class underlining the Malaysian middle class studies that accept the heterogeneity but use the term, "the middle class" or "the middle classes". Provided that the Malaysian middle class is heterogeneous, what is the notion that can incorporate a heterogeneous class? It remains unaddressed in the literature, but seems important to assess. At conceptual level, the middle class can not be defined without a clear notion of a class incorporating such reality. At a broader analytical level, to answer this question enables us to further promote an understanding of the patterns and features of the middle class behaviours. Indeed, the usage of the term, "the middle class" or "the middle classes", must be done with reservation and caution. This fundamental question must be added to the list of the future research agenda.

7. CONCLUSIONS

Over recent years, a number of studies on the Malaysian middle class have been conducted given that it is heterogeneous. This paper agrees with them arguing that it is heterogeneous, whilst finding realities of higher education in Malaysia. The analytical journey of this paper starts with the assumption that the Malaysian middle class is homogeneous (and thus a class) and higher education is one of its constituents. Yet, empirical evidence from the higher education reforms in the 1990s is found to contradict it. The inter- and intra-ethnic differences in the higher educational access, which is compounded by the differences in the provision of the educational services, indicate the diversities and complexities within higher education. They are carried over to the terrain of the middle class, part of which higher education makes up. Thus, we are taken to the point that the Malaysian middle class is far from homogeneous.

This study has focused on Malaysia's higher education in the 1990s such that some care is needed when generalising the arguments. Nonetheless,
the post-2000 period does not appear to alter the existing structure of higher education completely, although similar quantitative analysis is needed with the next census. In fact, the Malaysian middle class has continued to expand and diversify. Conceptually, this leaves open an old but fundamental question: what is the notion of a class underlying the Malaysian middle class studies that accept its heterogeneity but use the term, "middle class" or "middle classes"? To further promote our understanding of the patterns and features of the middle class behaviours, this question must be added to the list of the future research agenda.
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Saravanamuttu, J. 1989. Kelas menenga h dalam politik Malaysia: Tonjolan perkauman atau kepentingan kelas? (Middle class in Malaysian politics: Communalism or class interests?). Kajian Malaysia, VII(1&2).


**Newspapers and Internet Source**

*Bernama* (http://www.bernama.com)

*International Herald Tribune*

*Malaysiakini* (http://www.malaysiakini.com)

*New Straits Times*

*The Star*
NOTES

# This is a revised version of my paper presented at the 24th Annual Conference of the Association of Southeast Asian Studies in the UK (ASEASUK) held at Liverpool John Moores University on 21 June 2008. I have benefited from comments from the participants at the conference and many individuals, including Humam Aljazaeri, Anne Booth, Ben Fine, and Victor T King. The usual disclaimer applies.

1. Most of this and the subsequent paragraphs are based on Embong (1999: 114–121).

2. It was believed that the under-representation of Bumiputera students at the University of Malaya, namely the only higher institutions until 1969, was due to the exam-based admission selection (Takei, Bock & Saunders 1973). Given such reality, Malaysia (1971) made proposals to the government to introduce a quota system in university admission (ibid: 44–5).

3. See also Young & Ng (1994).

4. As is investigated widely in the literature, internal power struggles within the ruling party, United Malays National Organization (UMNO), were influenced by the changing party member composition, which is closely related to the middle class (see Shamsul 1988). It also had significant impacts on the party's management and the nation's political-economic environment. In particular, Mahathir's narrow victory in the party presidential election in 1987 against Razaleigh Hamzah (former Finance Minister) prompted Mahathir to further consolidate his political base (Gomez 1991, 1994; Jomo & Gomez 1997; Tan 2007).

5. As the Minister of Education, Mahathir headed the Cabinet Committee to Review the Implementation of the Education Policy, and submitted such a proposal in the late 1970s. Accordingly, the Fourth Malaysia Plan announced in 1981 stated that: "The recommendations contained in the Report of the Cabinet Committee to Review the Implementation of the Education Policy 1979, as agreed to by the government, will form the basis” of education and training programs during the Plan period (Malaysia 1981: 353).

6. This does not deny other reasons for the higher education reforms. In fact, the reforms were expected to reduce government expenditure and improve current accounts (Malaysia 1991: 1981).

7. As seen later, the ethnic quota system remained in place until 2002, when the government replaced it with a meritocracy system.

8. As argued later in the paper, some public higher education institutions started to use English as the medium of instruction, particularly in science and engineering streams.

9. Transitions across levels of education and access to post-secondary education are widely examined in the literature (Agadjanian & Liew 2005; Lillard & Willis 1994; Pong 1993, 1995; Sudha 1997; Wang 1977, 1978, 1980, 1983). However, they do not consider the interplay of the access with provision of educational services and its impacts on the middle class.

10. This classification is made by the census. Other Bumiputeras mean Bumiputera people other than Malays, the majority of whom reside in the Borneo Island. Following Census 2000, they include: Negrito, Senoi, Proto-Malay, Dusun, Kadazan, Kwijau, Mangkaak, Bajau, Iranun, Murut, Orang Sungei, Sulu/Suluk, Bisaya, Rungus, Sino-native, Kadayan, Tidong, Minokok, Tambanuo, Idahan, Dumpas, Maragang, Paitan,
Punan, Rumanau, Lotud, Cocus Iskander, Iban, Bidayuh, Melanau, Kenyah, Kayan, Lun Bawang, Penan, Kajang, Kelabit, and Other Indigenous groups.

11. Hirschman (1972) mainly used the 1957 Population Census of the Federation of Malaya, while Hirschman (1979) the 1970 Population Census of Peninsular Malaysia.

12. For example, Ministry of Education (2000) does not even treat this issue.

13. The technical reason for this is that it is impossible to find or even create an identifier variable to match the present sample tape and the other sample tapes. This is because ways in which the department of statistics inserted the collected data are different between Peninsular Malaysia and East Malaysia. As a result, it is impossible to establish a data set covering the whole nation, which does not allow us to investigate the Malaysian population.

14. This has significant implications on the intergenerational aspects. However, the present data does not allow us to examine this issue.

15. Not only the opposition Democratic Action Party (DAP) but also a BN component party, Parti Gerakan, put this issue to doubt (Malaysiakini 30 May 2003; Malaysiakini 9 June 2003).

16. Author would like to thank the anonymous reviewer for this point.

17. The number of public higher education institutions jumped from 22 in 2000 to 71 in 2005, but that of private ones declined from 640 in 2000 to 559 in 2005 (Malaysia 2006: Table 11–5). Despite the decline in the number of private institutions, the enrolments in public and private streams have risen at an almost same pace (ibid: Table 11–6).

18. Hock (2003) uses the same figures for the 2002–2003 intake, and thus, it can be assumed that the data source is the same.