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POLITICAL INDEPENDENCE AND EDUCATIONAL OPPORTUNITY IN PENINSULAR MALAYSIA*

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Prior to the Independence of Peninsular Malaysia (Malaya) in 1957, there had been a general rise in educational achievement across cohorts, but only slight moderation in educational inequalities between sexes, ethnic communities, and regions. But for cohorts who experienced part or all of their schooling after Independence, there has been a very rapid growth in both educational achievement and equality. Most of the reduction in inequality appears to be due to greater accessibility of primary schooling and increased mobility from primary to secondary schools. While the findings remain tentative because most of the post-Independence cohorts were still in the midst of their educational careers at the time of data collection in 1970, I conclude that the policies of the independent government led to a substantial reduction in educational disparities. The analysis is based upon data from the 1970 Census of Population of Peninsular Malaysia.

Opportunities for education have greatly expanded throughout the Third World in the past few decades. In Asia and Africa this has coincided with the end of the colonial era. While colonial governments tended to see education as a social welfare expenditure that had to be squeezed out of balanced budgets, newly independent states consider educational costs to be an investment in human resources and nation building. With the expansion of educational institutions, the possibility exists for the reduction of inequality based upon the ascriptive criteria of sex and origin. Primarily through the construction of new schools and the enactment of policies that permit freer access to schooling, groups that were formerly deprived of educational opportunities may now receive a more equitable share of the nation's educational resources.

In this study, I examine trends and differentials in educational achievement in Peninsular Malaysia in a cohort analysis based upon data from the 1970 Census of Population. Looking at successive birth

cohorts, it is possible to chart the trend in educational progress for several decades prior to Independence (in 1957) and for the youngest generations that have experienced part or all of their schooling since Independence. Since only 13 years have passed from 1957 to 1970, it is impossible to measure the full impact of the changes during the post-Independence era upon educational opportunity (most of those who entered school after 1957 are still in the school-going ages). But a tentative examination and interpretation are possible.

The three social-origin variables that are used to identify groups which have experienced unequal access to schooling are sex, ethnic community, and region of birth. For a variety of reasons including parental encouragement, girls have been much less likely to attend and complete schooling than boys. Among the ethnic communities of Malaysia, Malays, who are predominately rural, have traditionally had less formal education than either Chinese or Indians, the other major ethnic groups. In terms of region, those born in the west coast states, the most urban and developed part of the peninsula, have experienced more educational opportunity than those born and reared in the eastern and northern states. As the subsequent analysis will show, the social changes that accompanied political independence have

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contributed to a substantial reduction in educational inequality along all of these dimensions.

PENINSULAR MALAYSIA

Prior to the formation of Malaysia in 1963, Peninsular Malaysia was known as Malaya, which had become an independent country in 1957 after a long period of British colonial rule. Initially, Malaysia consisted of Peninsular Malaysia, and the other former British colonies in Southeast Asia: Singapore, Sabah, and Sarawak. Singapore left Malaysia in 1965 after a political dispute and became an independent nation. Sabah and Sarawak, sparsely settled states on the island of Borneo, are separated from Peninsular Malaysia by over 400 miles of the South China Sea. Peninsular Malaysia had a population of 8.8 million in 1970—about 84 percent of the total population of Malaysia (Department of Statistics, Malaysia, 1973:55). Because of quite different historical circumstances, in addition to a lack of comparable data, the present analysis will be confined to Peninsular Malaysia.

The most salient characteristic of Peninsular Malaysian society is its plural ethnic composition. As a result of the heavy immigration from other areas of Asia during the past few centuries, especially during the expansive phase of British imperialism of late 19th and early 20th centuries, there emerged the multi-ethnic Malaysian society of today (Saw, 1963; Jackson, 1961; Sandhu, 1969). While immigrants from the Dutch East Indies (now Indonesia) were more or less absorbed into the indigenous Malay community, most immigrants from China and India remained as separate ethnic communities even after several generations of Malaysian residence. Although there was inter-ethnic contact in the marketplace and among the small, urban, English-speaking middle class, social and spatial segregation was the prevailing pattern.

Most Chinese and Indians originally immigrated to Malaysia to work as laborers in the export enclaves of tin mines and rubber plantations, but over the decades, a substantial number entered the small scale commercial sector, with a few be-

coming haute bourgeoisie. With the exception of a small number of Malay aristocrats who joined the colonial civil service, the majority of Malays remained as rural peasants in the traditional social order (for more discussion of the origins and development of the plural society, see Tregonning, 1964; Ratnam, 1965; Hirschman, 1975).

At the time of Independence in 1957, the new government was faced with the reality of creating a single nation out of three essentially separate societies. About half of the population was composed of Malays, over one-third were Chinese, and more than one-tenth were Indian (Department of Statistics, Federation of Malaya, 1960:3). Substantial cultural and socioeconomic divisions persist to the present day. In this analysis, I examine the trends in educational opportunity and achievement between ethnic groups, sexes and regions to measure the progress in increasing educational opportunities since Independence (an earlier study considered the colonial era, Hirschman, 1972).

The Educational Structure

The educational system of Peninsular Malaysia has evolved considerably over the years. During the colonial era, the government and religious groups (primarily missionary bodies) sponsored English-medium schools in urban areas, which enrolled students from all ethnic backgrounds. There were also vernacular schools in Malay, Chinese, and Tamil (the most prevalent Indian language in Malaysia).

The Malay language schools were located in rural villages and sponsored by the government as part of its paternalistic policy of not disturbing rural Malay society and culture.¹ Except for a few teacher

¹ An early British colonialist expressed this educational policy as, "Vernacular education is in my opinion useful in so far as it makes the Malay regular and clearly in his habits, but where it exalts boys, as it often does, above the calling of their fathers, who for the most part will remain small agriculturists or fishermen, it does more harm than good". (from the Annual Report of the British Resident in Selangor, 1893, cited in Chang, 1973:9).

training colleges and technical schools, education in Malay was limited to the primary level. It was possible to transfer from a Malay-medium primary school to an English-medium secondary school by going through a "Remove Class", where facility in English was acquired, but there appears to have been little movement in this direction.

Chinese-language schools were largely a product of the Chinese community in various towns and cities of the country. After 1920, there were modest subsidies and supervision by the colonial government, but the Chinese schools were largely supported by private donations from the Chinese community. There were Chinese schools at both the primary and secondary levels during the colonial era. Tamil-medium schools were a product of private support, modest government support, and the management of the large rubber plantations that employed a primarily Indian work force. Tamil schools were only available at the primary level, and the only possibility of a secondary education was through the "Remove Classes" to English-medium schools. (For more background on the early educational system, see Chang, 1973; Wong and Ee, 1971; Ministry of Education, Malaysia, 1975.)

English-medium schools were the primary avenue of social mobility during the colonial era. Not only was secondary education available only in English-medium schools (except for a few private Chinese schools), but English was the basic language of colonial administration during British rule.

During the middle 1950s, as political independence approached, the objective of national identity among the different ethnic communities became imperative and the colonial educational system was restructured into a more unified and coherent whole. The full history of the various committees and commissions that studied the educational system and their recommendations cannot be reviewed here,² but

the most salient changes were: (1) primary schooling in all four language media (English, Malay, Chinese, and Tamil) would continue indefinitely with full governmental support and supervision, (2) a common syllabus of instruction with Malaysian content was mandated for all schools, (3) secondary schooling, under government sponsorship, would include both the already existing English language stream and a new Malay language stream with the few Chinese-medium secondary schools being converted to English-medium in order to receive governmental support and recognition (for a thorough discussion of the background, content, and meaning of the educational reforms, see Rudner, 1977a, 1977b).

The most recent policy change was in the early 1970s following the outbreak of inter-ethnic violence in Kuala Lumpur after the elections of May, 1969. Gradually, all English-medium schools are being converted to Malay-medium instruction on a one class per year schedule. Thus the first year of primary schooling was shifted to Malay-medium in the first year, the first two years of primary schooling the second year and so on. Both Chinese and Indian media primary schools were allowed to continue, but it is obvious that these provide only minimal opportunities for social mobility with secondary schooling only in Malay. The objective was to gradually bring about ethnic integration in the schools and foster a common language of communication for all Malaysians. Since the dominant political group are Malays, the choice of Malay-medium instruction in higher education is explicable as both a political and integrative mechanism.

Another relevant aspect of the Malaysian educational system is the use of national examinations at regular intervals, as in the British school system, to regulate the flow of students into higher education. Under the current system, a student will attend six years of primary schooling

² The most important government reports on educational reform during this period were: *Report of the Committee on Malay Education* (Kuala Lumpur: Government Press, 1951); *Report of the Committee*

on Chinese Education (Kuala Lumpur: Government Press, 1951); *Report of the Education Committee, 1956* (Kuala Lumpur: Government Press, 1956); and *Report of the Education Review Committee, 1960* (Kuala Lumpur: Government Press, 1960).

(Standard 1 to 6) and three years of lower secondary (Form 1, 2 and 3), and then take the Lower Certificate of Education (LCE) exam. For many, this is the end of formal schooling, but others may continue into trade or technical schools, and those who do well in the LCE are permitted to enter middle secondary school (Form 4 and Form 5). After two more years, students take the Senior Cambridge/School Certificate (SC) exam (now The Malaysian Certificate of Education, MCE). This is essentially the end of secondary schooling, but those who do very well in this exam are permitted to go to upper secondary (Form 6), which is essentially two years of pre-university instruction. After two years of upper secondary, the next exam is the Higher School Certificate (HSC) which is the screening exam for university entrance. These three exams also provide basic credentials that are necessary for employment in certain careers or for entry into specialized tertiary educational institutions such as teacher training colleges.

The basic structure of the Malaysian education system is diagrammed in Figure

1. Although many aspects have changed over the past several decades, the basic number of years at the various levels and the exam system (or equivalents) have been consistent enough to allow a meaningful historical analysis of educational progress.

DATA AND METHODS

The source of data for this study is a two percent sample from the 1970 Census of Population of Peninsular Malaysia. The 1970 Census was conducted on August 25, 1970 throughout Malaysia, enumerating the entire population (for more detail, see Department of Statistics, Malaysia, 1977. A post-enumeration survey reported a census undercount of only four percent, see Department of Statistics, 1974a). A data file containing a systematic random sample of two percent of all private households in Peninsular Malaysia was released by the Malaysian Department of Statistics. With the data file in machine (computer) readable form, it is possible to do more complex multivariate analyses than is usually the case with printed

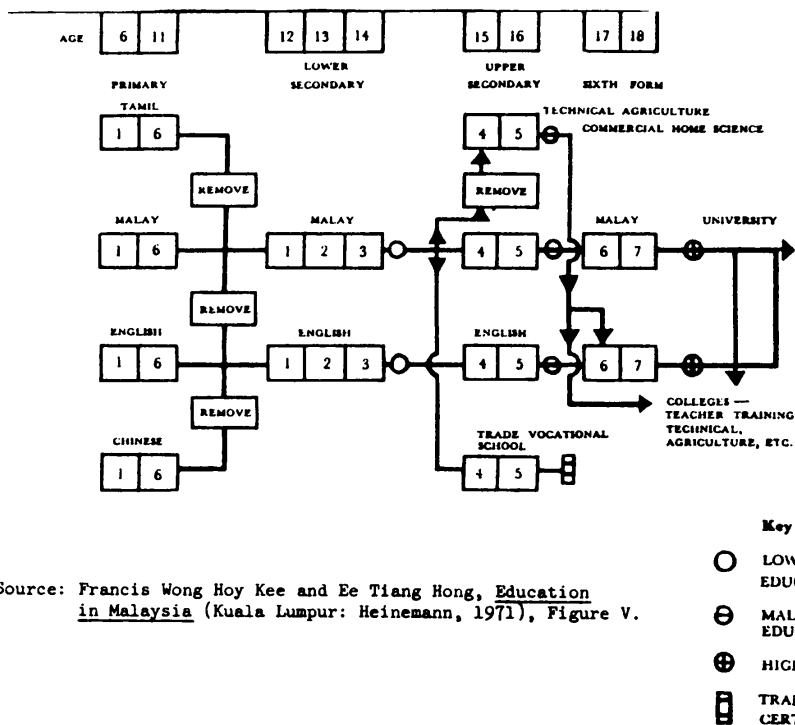


FIGURE 1. Basic Educational Structure of Peninsular Malaysia

crosstabulations of census data. (The two percent census sample contains 121,157 persons above the age of ten.)

A major assumption of this study is that the 1970 population, arranged by age categories from oldest to youngest, provides a reliable estimate of the trend in educational levels for successive generations of Malaysians over the preceding half century. Two sources of non-representativeness of the sample need to be considered: (1) some of the 1970 population may have had their formal education outside of Peninsular Malaysia; (2) not all persons in earlier generations of Malaysian youth are still alive and present in Malaysia in 1970 (due to mortality or emigration). The first bias can be partially controlled for by limiting the sample to those born in one of the eleven states of Peninsular Malaysia—the domestic born population. This reduced sample of 107,296 persons excludes the foreign-born population which is largely concentrated among the oldest age categories.

The second bias cannot be so easily dealt with. If mortality and emigration were random across all variables in the study, the 1970 population would still be a representative sample of earlier generations. But this is probably not the case. According to 1970 mortality rates, over 70 percent of the population will survive from age 5 (approximate school entering age) to age 60 (Department of Statistics, Malaysia, 1974b: Tables 2 and 3), and survival rates were certainly lower in prior decades. If mortality levels were higher for persons with the least education—and this seems like a reasonable assumption—educational levels for the oldest cohorts are overestimated. This means that the trend towards higher education in younger cohorts may have been steeper than reported here. The effects of selective mortality (or emigration) on educational differentials by sex, ethnicity, and region of birth are far more complex and cannot really be estimated. Suffice to say that our estimates of educational opportunity and equality are affected to some unknown degree, but probably not enough to change the basic findings.

Educational attainment was measured

in the 1970 Census with the two following questions:

(1) What was the highest level (of school) you completed?
Primary [Some, Completed All Years]

Secondary [1 or 2, 3, 4, 5, Lower 6, Upper 6]

(2) Did you pass any of these exams?
[LCE, SC, HSC, or None]

Census enumerators were instructed to record older forms of educational attainment in terms of their contemporary equivalent. During the census coding operations, the responses to these two census questions were combined into one educational classification of the highest level of schooling completed. Table 1 provides a slightly condensed version of this basic educational classification for the entire domestic-born population of Peninsular Malaysia in 1970. As might be expected, most of the population is con-

Table 1. Educational Attainment of the Domestic-Born Population, Age 10 and Above: Peninsular Malaysia, 1970

1970 Census Educational Attainment Categories (years of formal education)	Percentage Distribution
No Schooling (0 years)	26.4
Some Years of Primary Schooling (1–5 years)	31.6
Completed Primary Schooling (6 years)	21.2
Lower Secondary, but without LCE (7–9 years)	12.4
LCE or equivalent (9 years)	2.3
Middle Secondary, but without SC (10–11 years)	3.8
SC or equivalent (11 years)	3.2
Upper Secondary, but without HSC (12–13 years)	0.6
HSC (13 years)	0.5
Total	100.0% (N = 107,296)

Notes: LCE is the Lower Certificate of Education, a national examination typically taken at the completion of three years of lower secondary schooling.

SC is the (Malaysian) School Certificate (now the Malaysian Certificate of Education), a national examination typically taken at the completion of two years of middle secondary schooling.

HSC is the Higher School Certificate, a national examination typically taken at the completion of two years of upper secondary schooling.

Source: .02 sample of the 1970 Census of Population of Peninsular Malaysia.

centrated in the lowest rungs of the educational attainment hierarchy. This variable only measures formal primary and secondary schooling; tertiary education as well as religious and informal schooling are excluded from the definition.

In the subsequent analysis, trends and differentials in education are indexed by mean years of educational attainment and educational continuation ratios. Mean years of education are estimated by assigning the exact years of schooling completed or the mid-point of the range to each of the above education categories (e.g. some years of primary = 3 years).³ Educational continuation ratios are the probability of advancing from one level of schooling to the next (for more discussion of educational continuation ratios, see Duncan, 1968, and Hirschman, 1972).

The other variables in the analysis are birth cohort, sex, ethnicity, and region of birth. Birth cohort is simply current age subtracted from 1970; categories begin with 1910 and before, then 1911–15, and continue by successive five year intervals up to 1956–60. The youngest birth cohorts are still in the middle of the process of schooling in 1970, and findings about their educational attainment must remain tentative. Since these same young cohorts are also the ones who were educated after Independence, the interpretation of the educational consequences of the post-Independence era is a preliminary one.

The three major ethnic communities comprised the following shares of the domestic-born population in 1970: Malays 57.2 percent, Chinese 33.4 percent, and Indians 8.8 percent. A small group of Others (minor ethnic/nationality groups such as Eurasians and Thais) is included under Total Population, but not listed as a separate ethnic category.

Region of birth is used to index the relative accessibility of schooling by differentiating between the more and less

urbanized/modern states in the country. The more modern area is labelled *West* and includes the west coast states of Johore, Malacca, Negri Sembilan, Selangor, Perak and Penang, while the *East/North* region includes the east coast states of Kelantan, Trengganu and Pahang, plus the northwest states of Kedah and Perlis. This division roughly corresponds with the "New" and "Old" Malaya distinction made by Caldwell (1964). In general most of the export enclave economy under colonial rule was concentrated in the west coast states. Consequently this region attracted most non-Malay immigrants and contained most of the major towns and cities. It was also here that the colonial government concentrated most of its infrastructure development, such as roads, schools, hospitals, and other public facilities.

COHORT TRENDS IN EDUCATIONAL ATTAINMENT

Table 2 presents summary statistics on the mean, standard deviation, and coefficient of variation of years of completed education (including only primary and secondary schooling) and education continuation ratios of the total domestic-born population by birth cohort. The oldest cohort consists of persons age 60 or over in 1970, born in 1910 or before. The array of cohorts continues in five-year intervals up to 1956–60, ages 10–14 in 1970. The second column shows the years in which the birth cohorts were turning age 6 and beginning their educational careers. Since schooling continues over a number of years, it is difficult to attribute cohort differences to any particular social event or policy change—particularly if there is a lag between the occurrence of a particular event and its effects upon the educational system. Thus, the question of the educational consequences of political independence in 1957 cannot strictly be interpreted as the differences between the two most recent birth cohorts (1951–55 and 1956–60), who started school after Independence, and prior cohorts. Earlier cohorts have experienced some of their schooling in the post-Independence era,

³ The assumption is that persons are evenly distributed within multi-year categories of educational attainment. I have no independent evidence to test this assumption. Unevenness within categories will bias estimates of the mean, but not necessarily inter-group differentials. This could only happen if there is differential unevenness.

Table 2. Mean Years of Education and Educational Continuation Ratios of the Domestic Born Population by Birth Cohort: Peninsular Malaysia: 1970

Birth Cohort	Year Cohort Age Six	Years of Education			Continuation Ratios						
		Mean	SD	Coefficient of Variation	None to Some Primary	Some Primary To Complete Primary	Complete Primary to Lower Sec.	Lower Sec. to L.C.E.	L.C.E. to Middle Sec.	Middle Sec. to S.C.	S.C. to Upper Sec. to H.S.C.
1910 or before (1916 or before)		1.09	2.29	2.10	.24	.37	.39	.56	.90	.54	.19
1911-15 (1917-21)		1.64	2.64	1.61	.36	.38	.34	.69	.85	.62	.16
1916-20 (1922-26)		1.97	2.89	1.47	.41	.38	.38	.65	.91	.66	.13
1921-25 (1927-31)		2.17	2.84	1.31	.47	.39	.33	.66	.88	.55	.16
1926-30 (1932-36)		2.45	2.84	1.16	.54	.37	.33	.60	.85	.65	.17
1931-35 (1937-41)		2.79	3.05	1.09	.59	.39	.39	.66	.88	.63	.18
1936-40 (1942-46)		3.64	3.34	0.92	.69	.49	.42	.68	.84	.64	.22
1941-45 (1947-51)		4.61	3.50	0.76	.79	.59	.45	.72	.80	.69	.23
1946-50 (1952-56)		5.67	3.50	0.62	.88	.71	.49	.68	.80	.69	.29
1951-55 (1957-61)		6.39	3.23	0.51	.92	.78	.66	a	a	a	a
1956-60 (1962-66)		4.54	2.17	0.48	.94	a	a	a	a	a	a
Total	—	4.28	3.38	0.79	.76	.58	.52	.46	.78	.53	.26

^a Less than 20 cases or the cohort has not yet reached this educational level.

Source: .02 sample of 1970 Census of Population of Peninsular Malaysia.

and there may be many other secular trends, in addition to the post-Independence school policies that may have affected education. It is with some awareness of these problems of interpretation that we consider the findings in Table 2.

The oldest cohort, whose members received their education in the second decade of the century (or before), averaged a little over one year of schooling per person. The first educational continuation ratio, from none to some schooling, shows that only 24 percent of this cohort entered primary schools, meaning that over three-fourths had no formal education whatsoever. There was a gradual secular rise in educational levels across generations in this century, averaging about one-third of a year of additional schooling for each successive cohort up to the 1931-35 cohort which began its schooling in the years immediately before World War II. By this time, over half of all youths born in Peninsular Malaysia had at least some formal schooling. The educational process seems not to have been disrupted by the Japanese occupation during World War II; those who began school during the years 1942-46 averaged almost a full year of schooling more than the immediately preceding cohort. Educational expansion continued at this rapid pace for the entire postwar era, with those who entered school during the years 1957-61 having a mean educational attainment of over six years per person. The youngest cohort (1956-60) had fewer years of mean education attainment because their schooling was still incomplete at the time of the 1970 Census. Over 90 percent of these two youngest cohorts, those who started school after Independence, had entered primary school—a rather remarkable achievement in a developing country.

Educational Continuation

The other columns in Table 2 show continuation ratios across the various stages of the Malaysian educational hierarchy for successive cohorts. As noted above, the trend for entry into primary school has been steadily upward from less than one-quarter of the oldest cohort to more

than 9 out of 10 of the youngest cohorts beginning school.

Continuation through to completion of primary school (of those who began primary) hovered around 40 percent for those who began their schooling prior to World War II. But then it began to rise about 10 percentage points for each successive cohort, and was over 70 percent for those who were in primary schools in the late 1950s and throughout the 1960s. The shift from primary to secondary schooling was not only a change in school, but may have also required a change in the language of instruction as well. The initial low continuation ratios of 30–40 percent from the completion of primary schooling to entry into lower secondary may have reflected these difficulties as well as educational policies that restricted entry into secondary schooling (Rudner, 1977a:65). There were moderate rises in this ratio during the 1940s and 1950s, but the single largest jump was of 17 percentage points for the birth cohort that was age 12 in the mid-1960s, a very likely sign of post-Independence changes in educational policy.

Because of the limited 13-year period from Independence to 1970, there is really no evidence of post-Independence effects on continuation through secondary schools. Reflecting the small number of students who had progressed this far, the continuation rates through secondary school are quite high for all pre-Independence cohorts. About two-thirds of all students who entered secondary school went on to successfully receive their LCE, and more than 80 percent of those with an LCE entered middle secondary school. Then about two-thirds of middle secondary school entrants obtained their SC. For most, this was the end of secondary schooling, only one-fifth or one-quarter in recent years went on to upper secondary (pre-university schooling). More than half of upper secondary school students received their HSC.

The Malaysian educational structure has traditionally been an elite system with only a small fraction reaching the higher echelons of the educational ladder. But with the growing hunger for education in a

modernizing society, there are pressures for a more open and permeable structure. I now turn to an analysis of how various sub-groups of the population have fared in the educational process in both the pre-Independence and post-Independence eras.

EDUCATIONAL INEQUALITY

As educational opportunities have increased, there has been an accompanying decrease in the average variation in educational levels. This was evident in the downward trend of the coefficient of variation as mean education increased (Table 2). This process of increased educational equality is more directly addressed in Table 3 which shows mean educational levels for birth cohorts of the total population and for categories of three major dimensions of the population—sex, ethnicity, and region of birth. I will first consider the gross disparities by sex, ethnicity, and region of origin (bivariate relationships), and then discuss the net differences by sex and ethnicity within regions.

Early in the century women averaged less than one year of schooling, while the mean educational attainment of men was two or three years. As educational levels rose for both men and women in successive cohorts, the differential remained at about two years; this narrowed to less than one and one-half years for the cohorts born in the late 1940s and early 1950s. For the most recent cohort, whose schooling was entirely in the post-Independence era, the gap was further reduced to .3 of a year of schooling. Since most of this cohort was still in primary or lower secondary school in 1970, the difference may eventually widen as their schooling progresses. But there does appear to be lessening of sexual inequality in educational attainment.

Ethnic differences have, historically, not been as wide as those between men and women. The typical pattern has been that Malays had about one year of schooling less than Chinese and Indians. The ethnic differential first began to narrow for the postwar birth cohort of 1946–50, who had their schooling in the middle 1950s and early 1960s. For the two most recent

Table 3. Mean Years of Education of the Domestic Born Population By Birth Cohort, Ethnic Community, Sex, and Region of Birth: Peninsular Malaysia, 1970

Birth Cohort	Peninsular Malaysia				West				East and North				
	Total	Males			Total	Females			Total	Males			
		Malay	Chinese	Indian		Malay	Chinese	Indian		Malay	Chinese	Indian	
<i>Males</i>													
1910 or before	2.0	1.6	4.2	3.4	3.1	2.6	4.4	3.3	0.8	0.7	2.8	a	a
1911-15	2.7	2.2	4.2	3.5	3.7	3.3	4.4	3.6	1.4	1.3	2.3	a	a
1916-20	3.2	2.7	4.6	4.2	4.1	3.8	4.7	4.4	1.8	1.7	3.8	a	a
1921-25	3.3	2.8	4.7	4.0	4.2	3.9	4.8	4.1	1.9	1.7	4.0	a	a
1926-30	3.5	3.1	4.1	4.6	4.0	3.8	4.1	4.6	2.5	2.3	4.1	4.1	4.1
1931-35	4.0	3.5	4.6	4.6	4.4	4.1	4.6	4.7	3.1	2.8	4.4	4.1	4.1
1936-40	4.7	4.2	5.3	5.4	5.1	4.8	5.3	5.4	3.9	3.5	5.6	6.0	6.0
1941-45	5.6	5.2	6.0	6.2	6.0	5.8	6.0	6.3	4.8	4.6	6.0	5.5	5.5
1946-50	6.4	6.1	6.8	6.7	6.1	6.6	6.8	6.8	5.8	5.6	6.8	6.0	6.0
1951-55	7.0	6.9	7.1	6.6	7.1	7.1	7.1	6.6	6.7	6.6	7.1	6.6	6.6
1956-60	4.7	4.7	4.8	4.4	4.8	4.9	4.8	4.4	4.6	4.5	4.8	4.6	4.6
Total	5.0	4.6	5.7	5.4	5.4	5.2	5.7	5.5	4.2	3.9	5.6	5.3	5.3
<i>Females</i>													
1910 or before	0.3	0.2	0.8	1.0	0.6	0.3	0.9	1.1	0.0	0.0	0.0	a	a
1911-15	0.6	0.3	1.2	1.8	0.9	0.5	1.3	1.8	0.1	0.1	0.1	a	a
1916-20	0.8	0.4	1.6	1.4	1.1	0.7	1.6	1.4	0.2	0.1	1.1	a	a
1921-25	1.1	0.7	2.0	1.8	1.5	1.1	2.0	1.9	0.4	0.3	2.0	1.8	1.8
1926-30	1.4	1.0	2.0	2.5	1.8	1.4	2.0	2.6	0.7	0.5	2.0	1.5	1.5
1931-35	1.7	1.3	2.3	2.1	2.1	1.7	2.3	2.2	0.9	0.8	1.9	1.3	1.3
1936-40	2.6	2.1	3.2	2.9	3.0	2.7	3.3	3.0	1.6	1.4	2.9	2.1	2.1
1941-45	3.6	3.2	4.3	3.8	4.0	3.7	4.3	3.8	2.9	2.6	4.4	3.7	3.7
1946-50	5.0	4.8	5.3	4.5	5.2	5.3	5.3	4.5	4.4	4.2	5.4	4.4	4.4
1951-55	5.8	5.8	6.2	5.1	6.0	6.0	6.2	5.2	5.5	5.4	6.4	4.5	4.5
1956-60	4.4	4.4	4.5	3.7	4.4	4.4	4.5	3.8	4.2	4.3	4.5	3.2	3.2
Total	3.6	3.1	4.2	3.8	3.9	3.6	4.2	3.8	2.8	2.6	4.4	3.3	3.3

^a Less than 20 cases per cell.

Source: .02 sample of the 1970 Census of Population of Peninsular Malaysia.

birth cohorts, the average Malay-Chinese gap is only .2 to .4 of a year. Somewhat surprisingly, recent Indian cohorts are averaging about a half of a year of schooling less than Malay youth.

Those born in the west coast states have held a considerable, though declining, educational advantage over Malaysians born in the eastern or northern states. This regional difference was consistently more than one year of schooling until the postwar cohort of 1946-50. The gap was reduced to .8 of a year for this cohort and less than half a year for the two most recent cohorts.

Sex and Ethnic Differences Between and Within Regions

The ethnic differences are much smaller (especially the Malay-Chinese gap which is the most important) among those born in the West. The gap began to close long before World War II, and has been .2 of a year of schooling or less for men born since 1941. The ethnic gap among women born in the West has similarly been less than for those born in east coast or northern states of Peninsular Malaysia.

To describe the above findings in another way, the educational disadvantages of the eastern and northern states only seem to affect the Malay community. Except for the very earliest cohorts, Chinese and Indians born in the East or North did as well as the Chinese and Indian communities born in the West. The lack of educational opportunities in the East and North was only a problem among the Malay population. This was true for both men and women.

Since a much higher fraction of Malays were born and reared in the eastern and northern states than the other ethnic communities, this regional inequality was the major source of their overall education lag. But the wide gap in schooling between Malays and Chinese in the eastern and northern regions has narrowed dramatically. In fact, the ethnic differentials are roughly comparable throughout the country for the youngest birth cohort, 1956-60.

The regional inequality, as noted above, was ethnic specific. There appears to have been only small regional differences be-

tween Chinese earlier in the century, but this was eliminated by the time those born in the 1920s were educated. There are so few Indians in the eastern and northern regions that our sample really does not yield reliable estimates of regional differences, but there appears to be essentially no inter-regional inequality within the Indian population for the 1936-40 and subsequent birth cohorts. It is only for the Malay community, which is predominantly rural, that regional differences persisted so long. It was not until the birth cohort of 1951-55, whose schooling was in the post-Independence era, that Malay students in the eastern and northern states had a mean educational attainment that was roughly on a par with Malays in west coast states (about half of a year difference).

The inequality between the sexes has been a pervasive one that affected all ethnic communities in both regions. Until the postwar cohorts, a mean difference of two years or more in schooling divided men and women. This inequality has been reduced by small increments for the more recent generations, so that only about one year separated the sexes for the 1951-55 cohort, who were 15-19 in 1970. The sexes in youngest cohorts were only divided by a half a year of schooling or less in the various regions and ethnic groups. But since the schooling of this cohort was still incomplete in 1970, the gap in education may widen if there is differential attendance by sex in secondary schooling.

ALTERNATIVE EXPLANATIONS OF INEQUALITY

So far, I have noted substantial educational inequalities in various groups of the population of Peninsular Malaysia. In particular, Malays born in the eastern and northern states and women everywhere had fewer years of schooling. These differentials have narrowed considerably for the postwar cohorts, especially the most recent ones whose schooling took place in the post-Independence era after 1957.

The most obvious explanation for the lower educational achievement of Malays born in the east and north is simply one of

access. Relatively more Chinese and Indians were likely to live in towns and in close proximity to schools. Only as educational opportunities were made equal through the construction of schools in rural areas and all-weather roads from villages to towns was it possible for Malay youth to have the same access to schooling. This process of educational expansion was considerably increased after Independence. For instance, the federal budget for education jumped from \$M86.3 million in the last year of colonial government (1955) to \$M186.3 million in 1956, the first year that the newly elected independent government had budgetary authority (Ness, 1964:313). Educational expenditures have continued to increase both absolutely and relatively. In 1957 governmental expenditures on education were 3.3 percent of national income; by the mid-1960s this figure had risen above six percent (Ministry of Education, Malaysia, 1968:109).

An alternative explanation is possible, namely that Malays were less interested in educational advancement and did not encourage their children to pursue it. This was, and still remains in some circles, a popular stereotype of the contented village Malay society, uninterested in modern urban life. Fostered by the paternalism of colonial days, this belief was even common among scholars: "Most Malays were peasants and fishermen. Their environment was not conducive to education and their culture did not induce them to want it." (Silcock, 1963:26.) These alternative hypotheses will be examined in the next section of this paper (for a review of other literature on Malaysia on this hypothesis, see Hirschman, forthcoming).

The lower educational attainment for women is so common throughout the world that its explanation is less problematic. Parents are likely to feel that formal schooling for their daughters is a poor investment. The reasoning is based upon the social norm that all women will eventually be full time homemakers and mothers, and therefore will not need as much education as men. It is unnecessary here to argue the fallacies of this belief, but simply to note its ubiquity as the presumed cause for the

lower educational attainment of women in Peninsular Malaysia as elsewhere.

EXPLAINING INEQUALITY

It is possible to shed some light on these explanations of educational inequality by examining the process of continuation up the educational ladder by the various ethnic, regional, and sex groups. The obstacles to educational advancement are not the same at each stage of the hierarchy, and the pattern of differentials at each stage of the educational ladder gives insight into the sources of the inequality. The process of educational advancement is examined with continuation ratio analysis in Table 4.

Within each of the ethnic-sex-region of birth categories for which mean education was presented by birth cohort in Table 3, four continuation ratios are presented in Table 4. The four ratios represent the basic steps from no schooling up to the LCE, the educational certificate received after nine years of schooling and passage of a national examination. The four ratios are separately identified as (1) None to Some Primary, (2) Some Primary to Completion of Primary, (3) Primary to Lower Secondary, and (4) Lower Secondary to LCE. These different transitions can be interpreted in terms of the explanations discussed earlier. Entry into primary school and the transition from primary to secondary school seem to be the situations that are heavily dependent upon "access" or the availability of schools. While the presence of schools does not always assure high levels of school attendance, the lack of proximate schools certainly precludes entry into them. The facts of differential ethnic distribution in rural and urban areas may be a factor that inhibited entry into primary or secondary school.

The transition from the completion of primary school to entry into secondary school is also associated with the historical link between language and secondary education. Throughout the colonial era, secondary schooling was only available in English-medium schools with the exception of a few private Chinese secondary schools. This particular educational dis-

Table 4. Educational Continuation Ratios of the Domestic Born Population By Birth Cohort By Sex, Ethnic Community and Region of Birth: Peninsular Malaysia, 1970

Birth Cohort	WEST						EAST and NORTH					
	None to Some Primary			Some Primary to Complete Primary			None to Some Primary			Some Primary to Complete Primary		
	Malay	Chinese	Indian	Malay	Chinese	Indian	Malay	Chinese	Indian	Malay	Chinese	Indian
<i>Males</i>												
1910 or before	.62	.73	.60	.35	.51	.54	.18	.57	.60	.30	.44	a
1911-15	.74	.79	.62	.38	.48	.58	.33	.58	.50	.31	.21	a
1916-20	.79	.80	.78	.46	.47	.43	.40	.76	.75	.34	.45	a
1921-25	.84	.86	.83	.45	.51	.41	.42	.82	.80	.30	.38	a
1926-30	.87	.83	.84	.38	.40	.49	.54	.82	.79	.35	.44	.39
1931-35	.86	.86	.83	.44	.47	.50	.63	.86	.96	.37	.45	.20
1936-40	.89	.90	.88	.58	.55	.57	.72	.94	.93	.48	.60	.63
1941-45	.94	.94	.94	.70	.63	.66	.81	.95	.96	.62	.68	.55
1946-50	.96	.96	.94	.79	.75	.77	.88	.96	.96	.74	.81	.71
1951-55	.96	.97	.92	.83	.83	.78	.92	.97	.94	.81	.83	.73
1956-60	.97	.97	.93	a	a	a	.93	.99	.93	a	a	a
Total	.90	.93	.90	.61	.63	.61	.71	.94	.92	.58	.64	.57
<i>Females</i>												
1910 or before	.09	.20	.19	.17	.34	.33	.01	.00	.00	.14	a	a
1911-15	.13	.28	.40	.27	.33	.44	.03	.44	.50	.17	a	a
1916-20	.19	.32	.26	.27	.32	.53	.04	.29	.43	.10	.25	a
1921-25	.31	.39	.38	.17	.45	.33	.07	.42	.47	.21	.32	a
1926-30	.36	.43	.52	.27	.37	.42	.12	.47	.37	.27	.32	a
1931-35	.46	.48	.49	.21	.38	.37	.19	.40	.27	.23	.39	.25
1936-40	.60	.62	.58	.39	.43	.42	.36	.63	.47	.29	.36	.27
1941-45	.75	.73	.68	.49	.53	.51	.55	.80	.68	.45	.54	.48
1946-50	.87	.83	.76	.68	.64	.55	.75	.87	.80	.63	.66	.49
1951-55	.91	.91	.82	.74	.74	.65	.84	.93	.79	.73	.75	.57
1956-60	.92	.95	.86	a	a	a	.90	.96	.96	a	a	a
Total	.68	.74	.72	.54	.56	.50	.49	.78	.67	.54	.57	.41

Table 4 (continued)

Birth Cohort	WEST						EAST and NORTH					
	Primary to Low Sec.			Low Sec. to L.C.E.			Primary to Low Sec.			Low Sec. to L.C.E.		
	Malay	Chinese	Indian	Malay	Chinese	Indian	Malay	Chinese	Indian	Malay	Chinese	Indian
<i>Males</i>												
1910 or before	.21	.70	.50	.41	.74	a	.25	a	a	.36	a	a
1911-15	.22	.58	.43	.63	.77	a	.20	a	a	.64	a	a
1916-20	.27	.72	.69	.55	.69	.85	.14	.43	a	.69	a	a
1921-25	.18	.56	.43	.62	.66	.75	.15	.60	a	.81	.50	a
1926-30	.19	.51	.54	.50	.63	.67	.16	.38	a	.54	.73	a
1931-35	.27	.48	.56	.67	.62	.77	.27	.42	.43	.80	.76	a
1936-40	.34	.54	.60	.69	.68	.73	.23	.49	.65	.71	.62	.76
1941-45	.41	.58	.67	.76	.70	.69	.29	.50	.70	.79	.64	.63
1946-50	.49	.62	.69	.72	.66	.59	.40	.54	.55	.74	.60	.46
1951-55	.69	.73	.79	a	a	a	.65	.75	.81	a	a	a
1956-60	a	a	a	a	a	a	a	a	a	a	a	a
Total	.48	.61	.66	.48	.47	.46	.44	.58	.66	.50	.42	.41
<i>Females</i>												
1910 or before	.25	.48	a	a	.27	a	a	a	a	a	a	a
1911-15	.06	.48	a	a	.50	a	a	a	a	a	a	a
1916-20	.06	.46	a	a	.58	a	a	a	a	a	a	a
1921-25	.10	.49	.65	a	.60	.73	.31	a	a	a	a	a
1926-30	.16	.42	.56	.50	.59	.60	.14	.32	a	a	a	a
1931-35	.20	.57	.35	.40	.63	.58	.34	.33	a	a	a	a
1936-40	.25	.59	.62	.69	.69	.66	.20	.39	a	.60	a	a
1941-45	.30	.61	.57	.69	.72	.66	.21	.44	.58	.54	.55	a
1946-50	.38	.54	.59	.73	.72	.65	.29	.48	.50	.70	.57	a
1951-55	.58	.65	.70	a	a	a	.53	.64	.61	.67	.61	.71
1956-60	a	a	a	a	a	a	a	a	a	a	a	a
Total	.44	.57	.58	.43	.46	.43	.40	.52	.53	.38	.44	.40

^a Less than 20 cases or the cohort has not yet reached this educational level.

Source: .02 sample of the 1970 Census of Population of Peninsular Malaysia.

advantage of rural youth was exacerbated because most had not been to English-medium primary schools, which were almost exclusively an urban phenomenon, and were unable to enter secondary schools.

On the other hand, the continuation ratios which index the proportion who complete primary school relative to the number who begin, and the proportion who receive their LCE relative to secondary school entrants, measure another facet of the educational process. Here access is not the problem. If students begin primary or lower secondary school, in all likelihood the same school will be there to allow them to complete it and to take the exam. But if parents have lower educational ambitions for their children or consider other responsibilities such as farmwork or child care to be more pressing, they may be more willing to see their children discontinue schooling before the completion of primary education. The same logic applies to progress within lower secondary schools, but with the added obstacle of the LCE exam. Success here depends upon student motivation and ability as well as parental encouragement.

Entry Into Primary School

The proportion of youth entering primary school has been extremely high among males born in the west coast states for a long time. It has been close to 8 out of 10 since the birth cohort 1916–20, and over 9 out of 10 since the birth cohorts of the 1940s. And, except for a slight Chinese advantage among the oldest cohorts, there has been rough parity in this measure across the three major ethnic communities. I interpret this as a sign that the primary schools have been almost universally accessible to all children in the relatively advanced western region since the 1920s. There is no evidence to suggest any differences in ethnic "taste" or interest in primary education for their children.

The proportion of Malaysian women born in the West who have entered primary school is quite a different matter. Although the rate of entering school rose consistently over the years, it was not above 50 percent until the birth cohort of

1936–40. For the youngest birth cohorts, those born in the 1950s, the proportions of men and women who began formal schooling are essentially the same. But the earlier differences most probably imply that many parents consider the schooling of their sons more important than that of their daughters. Since some schools were segregated by sex, there may have been some problem of accessibility. Ethnic differentials among girls in the western states were relatively slight and were virtually eradicated by the time the birth cohorts of the 1930s entered primary school.

In the eastern and northern states, a quite different pattern emerges. In these states Chinese and Indians had proportions equivalent to the western states entering primary school, but Malays had consistently lower rates (for both sexes). Although the ethnic gap (Malay–nonMalay) narrowed from 30–40 percentage points earlier in the century to about 10–15 points for the 1940 birth cohorts, rough equivalence was not reached (still a 6–7 percentage point difference) until the youngest birth cohorts, whose education was largely begun in the post-Independence era. The historical pattern of ethnic inequality in entry into primary schooling in the eastern and northern regions is evident in both the male and female populations. And as in the West, women in all ethnic communities lagged behind men in gaining entrance into primary schools.

It seems difficult to posit that Malay culture created high aspirations for primary education in part of the country, but not in another. Other recent studies have cast doubt upon the hypothesis that Malays have lower educational aspirations (Takei, Bock, Saunders, 1973; Wilson, 1977). The more obvious interpretation for the ethnic gap in the eastern–northern region is one of accessibility. The eastern and northern states were the least developed regions of the country, where all public investments, including schools, were rather late in coming, especially in the rural areas.

Continuation Through Primary School

As noted earlier, non-completion of primary school after entering is not a prob-

lem of accessibility. Except in cases where the student (or his family) migrates or the school closes, the availability of primary schooling is evident by the initial entrance. But family, economic, or social pressures may compel some students to withdraw before completing their primary schooling.

There has been a major secular shift upward in the rate of completion of primary schooling with rates hovering around 30–40 percent (for males and non-Malay females) for those in schools before World War II. Since then the completion ratios have risen and are above 80 percent for males and 70 percent for females in the 1951–55 birth cohort.

Table 4 shows that ethnic and regional differentials are of minimal importance in the rate of primary school continuation. Malays did lag behind Chinese and Indians in primary school completion in the oldest cohorts, but the gap was quite small by the time of the 1921–25 cohort for men and the 1936–40 cohort among women. If there was a lower level of cultural aspiration for education in the Malay community, it has been minimal for several decades. Among recent cohorts, the Malay completion rate is on par with the Chinese level. But there is some evidence that Indian children in the youngest cohort shown here (1951–55) are less likely to complete primary schooling than either Malays or Chinese. This is true for males and females and in both regions. Perhaps this can be attributed to a worsening of social and economic conditions on the large agricultural plantations, where a sizeable proportion of the Malaysian Indian community lives.

Primary completion ratios of females were considerably behind males until very recently. The frequent need for young girls to assist in child care at home probably led many young girls to drop out of primary schools. But the gap between the sexes in the completion of primary school has dropped to less than ten percentage points for those primary schools in the late 1950s and 1960s. There is no regional differential between sexes for the youngest cohorts, although Malay girls in the eastern and northern states did lag behind among the older generations.

Transition to Secondary School

Prior to the educational reforms of the post-Independence era, secondary schooling was only available in English-medium schools (except for a few private Chinese schools) and almost exclusively concentrated in urban areas. To students in all ethnic communities who attended vernacular primary schools or lived in rural areas, the transition to secondary school was extremely difficult, if not impossible.

Historically, this transition was the major source of disadvantage for Malay students and those born in the eastern and northern states. Even in the western states where Malay males have historically been on a par with non-Malays in entering and completing primary schools, the transition rates to secondary school were considerably lower. A gap of 20–30 percentage points between the Malay and non-Malay proportions going on to secondary school was pervasive in both regions and among males and females. The most single dramatic shift in the entire table is from the 1946–50 to the 1951–55 birth cohort. The latter cohort was age 12 (average age at the completion of primary school) in the early to middle 1960s and was able to take advantage of the expansion of secondary education, especially in Malay medium. All ethnic communities registered sizeable increases but the Malay proportions rose by about 20 percentage points, almost bringing equality in this key transition level of schooling. In the west coast states, Indian levels were the highest of any community. This reveals the internal differentiation within the Indian community. Within the same cohort, Indians had the lowest proportion completing primary school, but the highest fraction for the transition from completed primary to lower secondary. A topic for future inquiry is whether this is related to the differing socioeconomic environments of the plantation and non-plantation Indian communities.

As in other stages of the educational hierarchy, female transition rates to secondary school were lower than for males, though not exceptionally. This differential still persists among the youngest cohort

though the magnitude is only about ten percentage points.

Continuation in Secondary School to the LCE

Once in secondary school, progress is measured by both continuation from year to year and the successful completion of various national exams. The first of these exams is the Lower Certificate of Education, which is taken after three years of lower secondary schooling. Because of the very small fraction of the population who have achieved higher education, our analysis of continuation in secondary school will be limited to the proportion of secondary school entrants who go on to receive the LCE. In most cases, this ratio does not reflect accessibility, but rather the commitment of the student and his parents to higher education (and the ability to pass exams).

The most striking contrast of these figures with the earlier continuation ratios is their relatively high level, over 50 percent, and the virtual absence of any trend. There has always been a fairly small minority of Malaysian students who entered secondary school, the majority of whom went on to pass the LCE exam after reaching that level. The lack of any marked upward trend (there is a moderate one) may be partially due to the absence of data for the two youngest cohorts (born in 1951 or later). Because most of these students are still in the age range of secondary schooling in 1970, their transition figures are still incomplete.

Because of the small number of sample cases who reached secondary schools in some population subgroups for the oldest cohorts, our historical comparisons are limited. But there appear to be only small and rather inconsistent differentials by ethnic community, region of birth, and sex. Perhaps upon reaching this educational level, accessibility of schooling and parental support are taken for granted, and the key determinant of further continuation is the students' own commitment and ability. And these factors do not seem to be associated with sex, ethnicity, or region of birth.

CONCLUSIONS

To many observers of the Third World, political independence and subsequent policies have had relatively little impact on the basic workings of the socioeconomic system. Whether this judgment is an accurate one is a subject for further empirical inquiry. This study suggests that the post-Independence era in Peninsular Malaysia was one of major reductions in educational inequality between regions, ethnic communities, and the sexes. Although a definitive assessment must await the completion of schooling by post-Independence generations, the basic findings reported here show that major inequalities were dramatically reduced in the early years of formal education for those schooled in the late 1950s and 1960s, relative to earlier generations. Whether all educational changes can be solely attributed to changes in government policies from the colonial to the post-1955 (1957) regime, independent of other secular forces, is uncertain. But I would strongly argue that it was the major factor.

There were two types of educational inequalities during the colonial era: (1) ones of access that limited opportunities for Malay youth in the eastern and northern states from entering primary school and for Malay youth throughout the country from making the transition from primary to secondary school, and (2) the cultural bias that made females less likely to progress through the educational system, especially at the initial stages, in all ethnic communities and regions.

The postwar era and especially the late 1950s and the early 1960s witnessed a substantial convergence of educational attainment levels among ethnic, region and sex populations. The elimination of the Malay disadvantage in entering secondary schools throughout the country and in entering primary school in the eastern and northern states seems explicable in terms of the expansion of educational opportunities through additional schools and the creation of a Malay secondary stream. The independent government was able to virtually eliminate in a single generation the educational inequalities that had haunted colonial society and fostered the

stereotype that Malay culture did not value education.

Although there had been steady gains throughout the century by women, equality was not achieved until the time of the most recent cohorts whose schooling was in the 1950s and 1960s. The general secular forces of social change, including exposure to the mass media and recognition of the uses of literacy, have probably convinced most parents that education was as valuable for their daughters as it was for their sons.

But as one set of educational problems is solved (equal educational opportunity), there appear others on the horizon. At the present time, the issues of adapting an academically oriented educational system to developmental manpower needs and of managing ethnic antagonisms as Malay participation grows (as Chinese and Indians feel increasingly disadvantaged) are the most critical.

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