

BIBLIOGRAPHIC INFORMATION

Title	Unemployment among Urban Youth in Peninsular Malaysia, 1970: A Multivariate Analysis of Individual and Structural Effects
Source	Economic Development & Cultural Change; Jan1982, Vol. 30 Issue 2, p391, 22p
Author 1	Hirschman, Charles
Author 2	NA
Author 3	NA
Publication/Conference	NA
Edition	NA
Document Type	Article
CPI Primary Subject	Economics
CPI Secondary Subject	Unemployment; ;
Geographic Terms	Malaysia;
Abstract	Addresses the question of youth unemployment in Peninsular Malaysia. Analysis of both individual and structural determinants; Conventional economic theory of labor force development; Basic determinants of labor underutilization; Structural aspects of the economy that inhibit the employment of potential workers.

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Unemployment among Urban Youth in Peninsular Malaysia, 1970: A Multivariate Analysis of Individual and Structural Effects*

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Introduction

There has been a dramatic shift in the prevailing theory and practice of economic development in recent years. During the 1950s and 1960s, the prescriptions of neoclassical economic theory—primarily the maximization of capital investment—were dominant and widely accepted throughout the developing world. Even if economic growth was not the solution to all social problems, policymakers and international advisers believed that economic progress was the single most important national objective. This logic has been questioned over the last decade with the growing evidence that poverty, inequality, and other social problems may increase as economic growth proceeds. Spurred by the critique of economic theory by Myrdal¹ and other social scientists and the ambitious research activities of the International Labour Office's *World Employment Programme*,² development planners and academic scholars have been rethinking the appropriate strategies for economic and social development. Central to this new direction is the focus on "basic needs" of the population as fundamental objectives of devel-

* An earlier version of this paper was presented to a faculty seminar at the Faculty of Economics and Administration, University of Malaya, Kuala Lumpur, on August 14, 1979. I am grateful to the Department of Statistics of Malaysia for granting me permission to use the .02 sample tape from the 1970 census of Peninsular Malaysia, and to the Ford Foundation for financial support for this research. I also thank Sharon Poss and Lars Erickson for computer programming assistance. Yeoh Suan-Pow and Akbar Aghajanian for research assistance, and Teresa Dark for typing the manuscript.

¹ Gunnar Myrdal, *Asian Drama*, 3 vols. (New York: Pantheon Books, 1968).

² The International Labour Office (ILO) has published a number of country reports, other books, articles, and numerous working papers as part of its *World Employment Programme*. The most comprehensive list of publications is in *Bibliography of Published Research of the World Employment Programme* (Geneva: ILO, 1979).

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0013-0079/82/3002-0005\$01.00

opment.³ One such basic need is employment, the opportunity to participate in a socially and economically rewarding job. In this paper, I address the question of youth unemployment in Peninsular Malaysia with an analysis of both individual and structural determinants. This allows for an evaluation of some important hypotheses from both conventional and revisionist perspectives.

The conventional economic theory of labor force development was based upon a two-sector model of traditional agriculture and modern industry. Lewis⁴ and other economists posited that surplus labor from the agricultural sector would be gradually absorbed into the dynamic urban economy as industry expanded. The motor of change is, of course, capital investment and growth in the modern sectors of manufacturing, construction, and associated business services. At the initial stages, it is assumed that the demand for unskilled labor in the modern economy is equivalent to the number who can be released from agriculture with no reduction in agricultural product. This theory draws upon developmental experience of western countries, though the supporting empirical evidence is far from complete.

Even if this theory were an accurate representation of the development process in the West of 50 or 100 years ago, it ignores most of the structural conditions in contemporary developing countries. First the rural sector, no matter how closely knit by kinship and custom, is clearly unable to absorb all of the large numbers of youth which entered the work force during the 1960s and 1970s.⁵ While work and food can be shared to accommodate population increase, there are limits to the absorptive capacity of an agricultural economy, even with external supports. With the rapid population growth of the last few decades, there is a large and growing labor surplus in most rural areas; and in many developing countries, there is a substantial exodus to urban areas. The second exception to the conventional theory is that labor demand by the modern urban sector has been more sluggish than was once

³ See ILO, *Employment, Growth and Basic Needs: A One World Problem*, Report of the Director-General of the International Labour Office (Geneva: ILO, 1978).

⁴ W. A. Lewis, "Economic Development with Unlimited Supplies of Labour," *Manchester School of Economics and Social Studies* 22 (May 1954): 139-91. Also see J. C. H. Fei and G. Ranis, *Development of the Labor Surplus Economy: Theory and Policy* (Homewood, Ill.: Richard D. Irwin, Inc., 1964).

⁵ The rapid population growth after World War II has meant that the cohorts entering the working ages during the 1960s and 1970s have been substantially larger than those before. The implications of this shift in the age structure are discussed in: Economic Commission for Asia and the Far East, *Interrelation between Population and Manpower Problems*, Asian Population Studies Series no. 7 (Bangkok: United Nations, 1972); Harry Oshima, "Labor Force 'Explosion' and the Labor-intensive Sector in Asian Growth," *Economic Development and Cultural Change* 19 (January 1971): 161-83; and Nathan Keyfitz, "The Youth Cohort Revisited," in *Population, Politics, and the Future of Southern Asia*, ed. W. H. Wriggins and J. F. Guyot (New York: Columbia University Press, 1973).

assumed. Industrialization in most developing countries is not of the labor-intensive type that typified the experience of the West in the nineteenth century, nor is it of an integrated type that spurs backward and forward linkages as in contemporary Western economies. In fact, the labor needs of the growing manufacturing sector—and the manufacturing sector in most developing countries is indeed growing—are relatively modest. Most manufacturing establishments, especially those tied to multinational corporations, are capital intensive, use imported raw materials, rely on foreign technology, and face the upper limits of domestic consumption that inhibits sustained growth. The outcome is not only a challenge to the conventional theory but a growing problem of labor surplus with rising unemployment and underemployment in the urban areas of the Third World.⁶

In spite of the great imbalance between surplus labor and employment opportunities, it is rare that a crisis seems imminent. It is not that political leaders and development planners are unconcerned about the employment situation, but rather that they see it as a tolerable problem, at least in the short run, and interpret the problem as one primarily due to individual factors, especially among youth who are excessively choosy in their job search.⁷ This interpretation sees unemployment and underemployment as a social problem (not as an economic one) to be remedied along with other social welfare objectives (health, education). There appears to be little recognition that underutilized labor is a loss of a most valuable economic resource, potentially more significant than capital or technology in the long run.

Empirical research on the unemployment-underemployment issue has lagged behind the clash of theoretical ideas and the discussion of policy alternatives. One of the most significant obstacles to innovative research is the lack of alternative measurements of labor underutilization, other than the unemployment rate based upon the labor force concept. Most official data from censuses and surveys rely upon the labor force concept, which measures unemployment as the fraction of the labor force without work and who make active efforts to seek employment during a standard reference period, usually the 7 days prior to the interview. Since open unemployment in most developing countries, including Malaysia, is below 10% of the labor force, it does not appear to be a problem of serious magnitude. However, much of

⁶ For general reviews of the employment problem in developing countries, see David Turham, *The Employment Problem in Less Developed Countries* (Paris: OECD, 1971); Edgar O. Edwards, ed., *Employment in Developing Countries* (New York: Columbia University Press, 1974); Guy Standing, *Labor Force Participation and Development* (Geneva: ILO, 1978).

⁷ For example, see R. A. Berry, "Open Unemployment as a Social Problem in Urban Colombia: Myth and Reality," *Economic Development and Cultural Change* 23 (January 1975): 276–91.

the underutilization of potential workers includes the idleness of those outside the labor force and is also represented in the minimal pay and productivity of many who are employed. The concepts that underlie broader definitions of unemployment and underemployment are not simple ones to measure, and there is no universal agreement on how to do so.⁸ Another vexing problem for research on this topic is how to develop empirical tests of the basic determinants of labor underutilization. For instance, can we empirically distinguish between explanations that focus upon individual attributes (such as motivation and willingness to accept work) relative to those that point to structural aspects of the economy that inhibit the employment of potential workers?

In this preliminary study, I address some of these issues in a study of youth employment in Peninsular Malaysia in 1970. While limitations of data and analysis preclude definitive resolution of the major controversies, the results suggest some alternatives for future work in the field.

Brief Overview of Peninsular Malaysia

Peninsular Malaysia, also known as West Malaysia and formerly as Malaya, consists of the 11 states of Malaysia located on the mainland of Southeast Asia. Malaysia was formed in 1963 as the federation of the then independent (since 1957) Malaya and the three British colonies of Singapore, Sabah, and Sarawak. The latter two are sparsely settled states on the island of Borneo. Singapore left Malaysia and became an independent state in 1965. Because of a lack of comparable data and quite different patterns of economic development, the present analysis is limited to Peninsular Malaysia.

In 1970, Peninsular Malaysia had a population of 8.8 million, of whom 53% were identified as Malays, 36% as Chinese, 11% as Indians, and less than 1% as members of other ethnic groups.⁹ Considered the indigenous population, the Malays are descendants of migrants who came from central Asia about 2,000 years ago. The Malay community has absorbed a considerable number of immigrants from nearby Sumatra and Java (part of Indonesia) up through the twentieth century.

⁸ Among the best-known alternative approaches to measuring labor underutilization is the one developed by Philip Hauser; see P. M. Hauser, "The Measurement of Labour Underutilization," *Malayan Economic Review* 19 (April 1974): 1-15, and "The Measurement of Labour Utilization: More Empirical Results," *Malayan Economic Review* 22 (April 1977): 10-25. The Hauser framework has been applied to the United States in Teresa A. Sullivan, *Marginal Workers, Marginal Jobs* (Austin: University of Texas Press, 1978). There has been a significant effort to develop alternative indicators of underemployment in the United States; see *National Commission on Employment and Unemployment Statistics, Counting the Labor Force* (Washington, D.C.: Government Printing Office, 1979). For an excellent conceptual review of labor force participation and underutilization, see Standing, chap. 2.

⁹ R. Chander, *1970 Population and Housing Census of Malaysia: Community Groups* (Kuala Lumpur: Department of Statistics, 1972), p. 27.

The majority of Malaysian Chinese and Indians are second- and third-generation Malaysian residents whose parents and grandparents migrated from China and India during the latter half of the nineteenth century and the first 3 decades of the twentieth century. Initially drawn as cheap labor for the tin mines and rubber plantations of the colonial economy, many Chinese and Indian immigrants and their children subsequently entered the urban economy as petty merchants. As a conscious part of colonial policy, ethnic divisions in residence and economic activities were reinforced. Malays were encouraged to remain in their traditional village environment, apart from the modernizing urban society.¹⁰

Since independence in 1957, there has been significant economic progress as measured by rising GNP and sectoral shifts in the structure of production and labor. However, progress toward other goals, including the reduction of ethnic disparities, income inequality, and labor underutilization, has been mixed.¹¹ The strategy of development of the late 1950s and the 1960s was basically laissez-faire with an active governmental role in the development of human resources (health and education) and in the construction of physical infrastructure (roads, bridges, irrigation projects, etc.) throughout the country, including the long-neglected rural areas.

After the eruption of ethnic strife in the capital city of Kuala Lumpur after the elections of 1969, government policy shifted sharply. In 1970 the Malaysian government announced a "New Economic Policy" that sought to reduce, if not eliminate, ethnic inequality and poverty in 20 years. The government has become an active participant in the private sector through the ownership and direction of many large enterprises.¹² As 1970 marks a shift in policy, it is an appropriate date

¹⁰ For an introduction to Malaysian society and history, see Wang Gungwu, ed., *Malaysia: A Survey* (New York: Praeger Publishers, 1964); John Lent, ed., *Malaysia Studies: Present Knowledge and Research Trends* (DeKalb: Northern Illinois University, Center for Southeast Asian Studies, 1979); and James Jackson and Martin Rudner, eds., *Issues in Malaysian Development*, Southeast Asia Monograph no. 3, Asian Studies Association of Australia (Singapore: Heinemann Educational Books [Asia], 1979). For analyses of socioeconomic differences among the major ethnic communities, see J. P. Arles, "Ethnic and Socioeconomic Patterns in Malaysia," *International Labour Review* 104 (December 1971): 527-54; and Charles Hirschman, *Ethnic and Social Stratification in Peninsular Malaysia* (Washington, D.C.: American Sociological Association, 1975).

¹¹ For reviews of economic growth and development in Malaysia, see David Lim, *Economic Growth and Development in West Malaysia, 1947-1970* (Kuala Lumpur: Oxford University Press [Asia], 1973); and Donald Snodgrass, *Economic Inequality and Development in Malaysia* (Kuala Lumpur: Oxford University Press [Asia], 1980).

¹² The New Economic Policy has been the focus of several of the annual conventions of the Malaysian Economics Association. The proceedings of one MEA convention has been published, see Stephen Chee and Khoo Siew-Mun, *Malaysian Economic Development and Policies* (Kuala Lumpur: Malaysian Economic Association, 1975). The most comprehensive critique of the Second Malaysia Plan (which enunciated the New Economic Policy) is Shamsul Amri Baharuddin, *RMK, Tujuan dan Pelaksanaanya* (Kuala Lumpur: Dewan Bahasa dan Pustaka, 1977).

to evaluate the progress of the 1960s. Very little evidence is available to assess post-1970 change.

1970 Population Census

This study is based upon a 2% random sample of all private households from the 1970 population census of Peninsular Malaysia.¹³ While the limited number of questions in any census will constrain the scope of the analysis, the large sample size makes possible certain analytical strategies that would be impossible from a sample survey, especially if it were confined to a limited geographical area. In this study I include both individual-level variables and aggregate structural variables as predictors of unemployment. The individual variables include the conventional ones of sex, ethnic community, education, and migration status that are widely used in empirical studies of labor force activities. The structural variables are based upon the characteristics of the town in which a person lives, including such attributes as size, recent growth, and industrial structure. These variables can be used to test, at least in a preliminary fashion, some of the important ideas in recent controversies. I first outline the nature of the sample and the measurement of the dependent and independent variables, and then turn to the empirical analysis.

The basic 2% sample tape of the 1970 population census was drawn as a systematic random sample of all private households on the date of the census, August 24–25, 1970. I have restricted the sample to persons between 15 and 24 years of age, living in towns of 5,000 or more. Unemployment, the dependent variable in this analysis, is most concentrated among urban youth, and I decided to narrow the focus to this population. (Among older workers and in rural areas, underemployment rather than unemployment is the modal form of labor underutilization.) Even with this restricted universe, the 1970 census sample yields 6,454 observations of urban youth, age 15–24, in the labor force. For towns of 5,000 or more, the census sample had a sufficient number of cases necessary to estimate town characteristics (there were 82 towns above 5,000 in 1970).

Dependent Variable

Unemployment is indexed by two measures in this study. The first is the conventional unemployment rate, the proportion of the labor force which is unemployed—those without a job who were actively seeking

¹³ The published reports of the 1970 Population and Housing Census of Malaysia number more than 20 volumes. However, detailed multivariate analysis is not possible with the published data. The Malaysian Department of Statistics created a 2% sample tape of the master file of all private households in Peninsular Malaysia for detailed analyses by government and academic researchers. For more information, write to the Chief Statistician, Department of Statistics, Kuala Lumpur, Malaysia.

employment during the preceding 7 days. The labor force consists of the sum of the employed and unemployed. The employed population is defined as those working for pay, profit, or family gain during the past week. Any amount of work led to being classified as employed (except for unpaid family workers, who had to have worked at least 3 hours per day). The conventional unemployment rate is a very conservative measure of labor underutilization as it considers those working for a few hours for minimal pay to be as fully employed as those with full-time jobs.¹⁴

The second measure of unemployment attempts to provide a somewhat broader definition by the inclusion of a group that might be labeled as discouraged workers. It is operationally defined by the ratio:

$$\text{Total unemployment index} = \frac{(\text{unemployed}) + (\text{other, out of the labor force})}{(\text{total population}) - (\text{enrolled in school})} \quad (1)$$

It relies upon a recalculation of the categories in the labor force status variable in the census (employed, unemployed, looking after house, in school, and other). Accounting to the conventional criteria, the last three categories (homemakers, students, and others) are defined as "out of the labor force" since they neither worked for pay, profit, or family gain during the preceding week nor made active attempts to find work. This seems reasonable for homemakers and students, since these activities are usually full-time responsibilities, but the "other" category does not fit. It suggests idleness, which may be an understood condition for the few who are disabled or are wealthy and have no need for economic remuneration. But I doubt if such individuals are more than 1% of this age category (15–24), probably much less. However, a substantial number of youth reported no major activity during the preceding week—not working, not seeking employment, not enrolled in school, and not looking after a house. Surely they are too young to have retired. It seems to be a reasonable assumption that most idle youth would probably accept employment if it were available. A long and unsuccessful job search may have led many to give up on ever finding productive employment. This category (passively unemployed) is added to the active unemployed in an expanded measure, which I label the "total unemployment index." The denominator of this index

¹⁴ The unemployment rate was developed as a formal measure during the Great Depression of the 1930s. Because the unemployment rate defined the seriousness of the problem and the need for social welfare programs, governments were motivated to measure unemployment at a minimal level. For more background on the origins of the labor force concept and the unemployment measure, see Gertrude Bancroft, *The American Labor Force: Its Growth and Changing Composition* (New York: John Wiley & Sons, 1958).

is broadened to include: (1) labor force, (2) the passive unemployed, and (3) those looking after a house. This measure assumes that home-makers are as fully utilized as those who are formally employed. Students are excluded because by definition they cannot be either utilized or unutilized in the work force. Both measures—(1) active unemployed as a percentage of the labor force and (2) the total unemployed as a percentage of the total population (excluding those in school)—are analyzed in the empirical section of this paper.

Independent Variables

Sex (male, female) and ethnic community (Malay, Chinese, Indian) are used as control variables in the analysis and require little theoretical justification. The residual ethnic community of "others" (Eurasians, Thais, etc.) is included in the total population, but separate figures are not reported here because they comprise such a small fraction of the population (less than 1%).

Educational attainment, defined as years of formal schooling completed, is divided into four categories of: (1) none, (2) primary (1–6 years of schooling), (3) lower secondary (7–9 years of schooling, but without the Lower Certificate of Education [LCE]),¹⁵ and (4) the LCE credential and above. Those with educational qualifications different from the 1970 system were translated into contemporary equivalents during the collection and coding of the census. The individual is also classified by geographical region. The 11 states of Peninsular Malaysia are collapsed into four contiguous regions that share common economic features. The South (Johor, Melaka, and Negri Sembilan) is a relatively developed region with rubber being the major industry. The central region (Selangor and Perak) is the most commercially and industrially advanced. It also includes the largest tin-mining industries. The Northwest (Pulau Pinang, Kedah, and Perlis) is an uneven group, with the urbanized state of Pulau Pinang and the relatively less developed states of Kedah and Perlis, which contains the major rice-growing areas of the country. The East (Pahang, Trengganu, and Kelantan) is considered the most underdeveloped region of the peninsula.

Migration status is defined by length of residence in current town (the sample is limited to urban areas). Nonmigrants consist of those

¹⁵ The LCE (Lower Certificate of Education) is an educational credential received after passing a nationally standardized exam, administered after the completion of 9 years of schooling. The exam determines the continuation of further schooling. For more background on the Malaysian education system, see Francis Wong Hoy-Kee and Ee Tiang Hong, *Education in Malaysia* (Kuala Lumpur: Heinemann Educational Books [Asia], 1971). Also see Martin Rudner, "Education, Development, and Change in Malaysia," *Southeast Asian Studies* (Kyoto) 15 (June 1977): 23–62; and Charles Hirschman, "Political Independence and Educational Opportunity in Peninsular Malaysia," *Sociology of Education* 52 (April 1979): 67–83.

who have lived in their current locality since birth. Migrants are divided into three categories, depending on length of local residence: less than 1 year, 1–5 years, or more than 5 years.

Household status is measured as a dichotomy and indexes familial responsibilities. The categories are: (1) those who are unmarried and live as dependents with relatives, and (2) those who are married or do not live as dependents with other relatives. This latter category is labeled “independents”; it consists of family heads, spouses of heads, or individuals living with others who are not relatives.

All of the preceding variables have been identified in earlier theoretical or empirical literature as factors associated with unemployment or underemployment.¹⁶ Although I label the above variables “individual characteristics,” it does not necessarily imply that they can be reduced to individual choice (motivations). Most studies of unemployment focus on individual characteristics, and many policymakers do infer that the problem is an individual one. Region of residence is probably a structural variable rather than an individual attribute, but in deference to prior work, I leave it under the broad heading of individual characteristics.

Another set of independent variables are identified as structural characteristics (measured as attributes of the town in which the person lives). These factors may influence the opportunity to find employment, regardless of individual characteristics. From the available data, four variables have been constructed for each of the 82 towns in the data file and then assigned as contextual variables to each person living in the town.

Town size is the 1970 population of the city of residence. This variable was not estimated from the same tape, but drawn from the published reports of the 1970 census¹⁷ and rounded off to the nearest thousand.

Growth of the city of residence was based upon the average annual growth rate from 1957 to 1970, according to the formula:

$$r = \ln (P_2/P_1)/13 , \quad (2)$$

¹⁶ The literature on unemployment in Malaysia is relatively sparse. The most comprehensive official report was N. S. Choudhry, *Socioeconomic Sample Survey of Households—Malaysia 1967–68: Employment and Unemployment* (Kuala Lumpur: Department of Statistics, 1970). Analyses of unemployment include Lim, chap. 9; Donald Blake, “Unemployment: The West Malaysian Example,” *United Malayan Banking Corporation Economic Review* (Kuala Lumpur) 9 (January 1973): 36–45, reprinted in *Readings on Malaysian Economic Development*, ed. David Lim (Kuala Lumpur: Oxford University Press [Asia], 1975); and Amos Hawley, Dorothy Fernandez, and Harbans Singh, “Migration and Employment in Peninsular Malaysia, 1970,” *Economic Development and Cultural Change* 27 (April 1979): 491–504.

¹⁷ Chander, pp. 207–83.

where P_2 is the 1970 population and P_1 is the 1957 population.¹⁸ Town size (1970) and growth (1957–70) have a small negative correlation ($-.08$). Although some cities grow faster than others because of natural increase or expansion of boundaries, migration is the primary cause of differential town growth rates. Of course, equal absolute population growth means a larger growth rate in smaller towns than in larger towns.

Two additional structural variables are constructed from the industrial composition of the working population in each town. One of the census questions asked each respondent for his or her "usual activity" with a reference period of the last year. Respondents who gave a response that indicated an attachment to the work force were then asked for their "usual industry." From the usual industry classification, I estimated the industrial structure of the 82 largest census towns in the sample tape. For towns of at least 5,000 people, a minimum of 40–60 persons were in the usual work force with a reported industry in the sample tape from the 1970 census. The two industrial composition variables used in the present analysis are: (1) percentage of the usual work force in the manufacturing industry, and (2) percentage of the work force in the rubber industry. Manufacturing, representing a dynamic sector during the usual course of socioeconomic change, should be a source of employment generation. One might expect that towns with higher proportions in the manufacturing sector would have lower unemployment (net of urbanward migration). The natural rubber industry has been the pillar of Malaysian economy since early in the twentieth century.¹⁹ In spite of fluctuations in price over the years, the rubber economy has remained strong because of extensive replanting with higher yielding varieties. Because rubber provides a much more substantial return than rice farming, I expect that towns with a higher proportion in rubber would be relatively prosperous and have lower unemployment. (The rubber sector includes the processing of latex away from estimates or smallholdings.)

Effects of Individual Variables on Unemployment

Table 1 presents the bivariate relationships between each of the independent individual variables and the two indicators of unemployment.

¹⁸ The 1970 population data are from the same source as in n. 17, and the 1957 data are published in Department of Statistics, Federation of Malaya, *1957 Population Census of the Federation of Malaya: Reports 2–12* (Kuala Lumpur: Department of Statistics, 1959).

¹⁹ The most comprehensive study of the origins of the rubber industry in Malaya is John Drabble, *Rubber in Malaya, 1876–1922: The Genesis of the Industry* (Kuala Lumpur: Oxford University Press [Asia], 1973). Also see Colin Barlow, *The Natural Rubber Industry: Its Development, Technology, and Economy in Malaysia* (Kuala Lumpur: Oxford University Press [Asia], 1978).

TABLE 1
PERCENT UNEMPLOYED OF URBAN YOUTH (Age 15-24 in Towns of 5,000 or More), BY
SELECTED BACKGROUND VARIABLES: PENINSULAR MALAYSIA 1970

	MALES				FEMALES				SAMPLE SIZE			
	Un-employment		Un-employment		Un-employment		Un-employment		Males		Females	
	Rate ^a	Active	Passive	Index ^b	Rate ^a	Active	Passive	Index ^b	Labor Force	Population Not in School	Labor Force	Population Not in School
All youth	12.4	10.8	10.2	21.0	20.9	10.0	8.2	18.2	4,013	4,599	2,441	5,092
Ethnic community:												
Malay	15.2	13.0	11.6	24.6	29.8	10.8	8.5	19.3	1,192	1,390	513	1,419
Chinese	9.0	8.0	8.9	16.9	16.9	9.7	7.6	17.3	2,359	2,659	1,766	3,078
Indian	22.1	18.5	13.2	31.7	35.3	9.6	10.0	19.6	435	520	153	561
Education:												
None	9.4	6.8	23.0	29.8	9.1	3.3	9.1	12.4	139	191	209	580
Primary (1-6 years)	9.4	8.2	10.4	18.6	13.2	5.4	8.3	13.7	1,813	2,069	1,113	2,745
Lower secondary	15.6	13.5	9.9	23.4	32.1	14.4	10.2	24.6	922	1,067	308	686
LCE or above	14.8	13.3	8.4	21.7	30.6	22.4	6.0	28.4	1,139	1,272	791	1,081
Region of residence:												
South	10.3	8.7	12.5	21.2	21.9	10.0	8.0	18.0	809	958	508	1,111
Central	11.5	10.2	8.1	18.3	17.6	9.1	7.7	16.8	1,989	2,227	1,264	2,458
Northwest	16.6	14.3	11.9	26.2	29.0	13.0	10.5	23.5	811	942	442	985
East	12.4	10.6	12.7	23.3	20.7	8.7	6.4	15.1	404	472	227	538
Migration status: ^c												
Nonmigrant (since birth)	14.4	12.3	12.0	24.3	23.2	11.3	9.1	20.4	2,299	2,703	1,486	3,050
Migrant, <1 year	8.1	7.3	8.7	16.0	14.0	7.0	6.8	13.8	518	575	243	487
Migrant, 1-5 years	8.1	7.5	4.7	12.2	14.9	6.5	4.1	10.6	559	600	303	688
Migrant, >5 years	12.1	10.7	9.4	20.1	20.8	9.8	9.1	18.9	637	721	409	867
Household status: ^d												
Single, live with relative	17.7	14.8	12.9	27.7	28.0	15.3	11.6	26.9	2,508	3,000	1,663	3,054
Married or independent	3.5	3.3	5.3	8.6	5.5	2.1	3.1	5.2	1,505	1,599	778	2,038

SOURCE.—1970 population census of Peninsular Malaysia, 2% sample tape.

^a Active unemployment as a percentage of the labor force (sum of employed and unemployed).

^b Sum of active and passive unemployment (measured by census category "other not in labor force"), expressed as a percentage of total population, excluding those currently enrolled in school and those with a "not reported" labor force status.

^c Defined by length of current residence.

^d Defined by marital and family status (the latter is all those who are married or do not currently live as a dependent with a relative's family).

separately for males and females. According to the conventional unemployment rate, more than 12% of young urban men were unemployed, while more than 20% of young women were. According to the broader measure of the unemployment index, the comparable figures were 21% and 18% for young men and young women, respectively. The higher rate for men reflects the fact that there are almost as many youth in the passive unemployed category (others not in the labor force) as there are actively unemployed. This is less true for young women. Young women without a job are more likely to report that they are looking after a house. At a minimum, these figures suggest that unemployment is a serious problem, with one out of five urban youth (who are not in school) idle. These figures are probably a conservative estimate of labor underutilization, given that underemployment is probably an equally serious problem.

Among ethnic groups, unemployment is highest among Indian urban youth and lowest among Chinese. According to the unemployment index, almost a third of young Indian men not in school are idle, as are almost a quarter of young Malay men. I suspect that many Chinese youth can find marginal employment in the "small shop sector" of retail businesses and industries through kin ties.²⁰ However, many of these jobs may have been created to accommodate unemployed family members. The question of potential underemployment among urban Chinese youth requires more attention than is possible here.

The conventional unemployment rate shows the expected positive association with education which peaks among lower secondary school leavers who do not have the LCE certificate. This pattern is even more dramatic among young women than young men. The interpretation of this finding has usually been that youth with little education were willing to accept any sort of employment, while those with higher education preferred only office or white-collar jobs. However, this interpretation appears to be questionable when the figures on passive unemployment are considered, at least for males. While active unemployment has a moderately positive correlation with education, there is a strong negative association between education and passive unemployment. Urban youth with few educational skills may have had such a negative experience in their job search that they give up and make no further attempts to find employment. Among women there is a positive relationship between education and active employment, but there is essentially no relationship between education and passive unemployment.

²⁰ A much higher proportion of Chinese are small-scale proprietors in the retail trade, manufacturing, and service sectors. See Charles Hirschman, "Industrial and Occupational Change in Peninsular Malaysia, 1947-70," *Journal of Southeast Asian Studies* (Singapore) (1982), in press.

There are only modest regional differences in unemployment, with the advanced central region (Selangor and Perak) having the lowest youth employment, and the northeast region (especially Penang) having the highest level. These regional differences are more pronounced among young women.

The effect of migration has an ambiguous status in the literature. A considerable body of literature attributes much of urban unemployment to the drift of job seekers from rural to urban areas.²¹ Yet most empirical studies, including those for Malaysia, find that recent migrants are less likely to be unemployed than urban natives.²² This anomalous—yet persistent—finding is sometimes explained by suggesting that migrants take jobs that natives would have gotten. Thus, the negative effect of migration on employment is an aggregate one, not measurable at the individual level. I will explore this possibility in the next section of the paper. Table 1 shows that urban natives and long-term urban residents (migrants with more than 5 years of residence) have the highest unemployment; this finding is evident for both unemployment indicators and for men and women. Recent migrants have the lowest unemployment rates, and the total unemployment index shows that recent migrants with 1–5 years of local residence have the most favorable employment situation of all. One possible explanation is that migrants are more willing to accept any type of employment regardless of pay or working conditions. It should be noted that the migration status variable does not distinguish between urban-to-urban migrants and rural-to-urban migrants.

Closely related to migration is household status. By definition, all migrants shift from one residence to another. For most youth this probably means leaving the parental household to join another family or form a new one. From detailed analysis of marital status and family relationship variables, two basic categories of household status emerge as most significant: (1) those who are married, and (2) those who are unmarried but not living as dependents with relatives (labeled “independents”). Both of these categories have unemployment rates similar to those of older adults, much lower than those of their age peers. The usual interpretation of this relationship is that unmarried youth, living with their families, can afford to wait for the right job and do not have the economic necessity of finding remunerative work. But the opposite causal interpretation seems just as reasonable, that is, young adults who find employment can leave home and set up independent living

²¹ For a clear statement of this argument, see Paul Bairoch, *Urban Unemployment in Developing Countries* (Geneva: ILO, 1973). Also see Michael P. Todaro, *Internal Migration in Developing Countries* (Geneva: ILO, 1976).

²² See Hawley et al. and Berry; for a convincing interpretation of this finding, see Standing, pp. 213–14.

arrangements. The unsuccessful job seeker, whether actively or passively unemployed, may have little alternative but to remain as a dependent with his parents or other relatives.

Structural Effects on Unemployment

As noted earlier, unemployment may vary among individuals because of differential opportunities, independently of individual characteristics. One way to incorporate aspects of the opportunity structure is to include characteristics of the local labor market as predictor variables. As discussed earlier, four structural variables are examined here: town size, growth rate, percent in manufacturing, and percent in rubber. Before looking at the variation in unemployment explained by these variables, it would be useful to consider how much of the individual variance in unemployment lies between towns relative to that within towns. This can be done by simply regressing unemployment on a set of 81 independent dummy variables, one for each of the 82 towns (leaving out one variable in order to solve the equation). The variance explained (R^2) by such a test is shown in table 2 in the rows labeled " R^2 between all 82 towns." These figures are presented for males and females for both indicators of unemployment, and separately for each ethnic community by sex. Depending on the dependent variable and the population, 5%–20% of the total variance in urban unemployment lies between towns (all cases are statistically significant). Such differences between labor markets have an important effect on the prospects that youth will find a job. The four structural variables used in the present analysis only capture a small fraction of the between-town variance (about 1%–2% of all variation). There is considerable room for further development of other structural variables that will index relevant dimensions of urban labor markets.

The effects of the four structural variables on urban youth unemployment are presented in table 2 as partial (net) regression coefficients, in both unstandardized (metric) and standardized form for each population (each ethnic community for both sexes) and for both the conventional unemployment rate and the more inclusive unemployment index. The unstandardized regression coefficient (interpreted as the change in percentage points of unemployment that is associated with a unit change in the independent variable) in the first column of the first row of table 2 shows that adding 1,000 persons to the size of a town is associated with a reduction of 0.01 in the unemployment rate—or that 100,000 addition to town size would decrease the unemployment by 1 percentage point. The comparable standardized regression coefficient shows that a change of one standard deviation in town size is associated with 0.05 of a standard deviation decrease in the unemployment rate. Standardized regression coefficients are most useful in

TABLE 2—REGRESSION ANALYSIS OF THE EFFECTS OF TOWN CHARACTERISTICS ON THE PERCENT UNEMPLOYED OF URBAN YOUTH (Age 15-24 in Towns of 5,000 or More): PENINSULAR MALAYSIA, 1970

INDEPENDENT VARIABLES	MALES				FEMALES			
	Unemployment Rate		Unemployment Index		Unemployment Rate		Unemployment Index	
	Unstan- dardized	Stan- dardized	Unstan- dardized	Stan- dardized	Unstan- dardized	Stan- dardized	Unstan- dardized	Stan- dardized
All youth:								
Town size (in thousands) ^a	-.009**	-.05	-.023**	-.09	-.014**	-.06	-.002	-.01
Average annual growth rate (1957-70) ^b	-.1022**	-.07	-.1163**	-.06	-.1402**	-.10	-.974**	-.07
% in manufacturing ^c	-.168**	-.04	-.308**	-.05	-.390**	-.07	-.125*	-.02
% in rubber ^d	-.167**	-.06	-.274**	-.07	-.481**	-.15	-.309**	-.09
R ² (adjusted) by four variables	.8%		1.5%		2.8%		1.1%	
R ² between all 82 towns ^e	5.2%		6.0%		8.8%		4.6%	
Malay:								
Town size (in thousands)	-.008	-.04	-.035**	-.135	-.002	-.01	.001	.00
Average annual growth rate (1957-70)	-.1033**	-.06	-.1597**	-.08	-.1987**	-.14	-.628*	-.04
% in manufacturing	-.250	-.04	-.221	-.03	-.379	.06	.183	.03
% in rubber	-.271**	-.07	-.449**	-.095	-.050	-.01	-.090	-.02
R ² (adjusted) by four variables	.7%		2.3%		1.1%		.0%	
R ² between all 82 towns	11.8%		11.4%		19.3%		9.5%	
Chinese:								
Town size (in thousands)	-.010**	-.06	-.018**	-.08	-.019*	-.08	-.005	-.02
Average annual growth rate (1957-70)	-.872**	-.07	-.883**	-.05	-.1465*	-.11	-.1289**	-.09
% in manufacturing	-.105	-.03	-.321**	-.07	-.414*	-.08	-.252**	-.05
% in rubber	-.092*	-.04	-.140**	-.04	-.501*	-.19	-.401**	-.13
R ² (adjusted) by four variables	.6%		1.0%		3.4%		2.1%	
R ² between all 82 towns	8.4%		9.1%		11.2%		7.5%	
Indian:								
Town size (in thousands)	-.027**	-.12	-.037**	-.14	-.032	-.12	-.002	-.01
Average annual growth rate (1957-70)	-.3095**	-.15	-.2899**	-.12	-.1768	-.11	-.837	-.05
% in manufacturing	-.127	-.02	.253	.03	-.1071	-.10	.048	.01
% in rubber	-.400**	-.12	-.533**	-.14	-.652	-.16	-.092	-.02
R ² (adjusted) by four variables	2.4%		2.8%		5%		.0%	
R ² between all 82 towns	16.3%		13.4%		21.3%		8.7%	

SOURCE.—1970 population census of Peninsular Malaysia, 2 percent sample tape.

* Statistically significant at .05 level.

** Statistically significant at .01 level.

^a Population size (in thousands) of town of residence, according to the 1970 census.^b Average annual growth rate, computed exponentially, of the town of residence from the 1957-70 censuses.^c Percentage of town population usual work force who are employed in the manufacturing sector, from the 1970 census.^d Percentage of the town population usual work force who are employed in the rubber sector, from the 1970 census.^e Percentage of the total variance (individual) in unemployment which can be explained by entering each town (82) as a separate independent (dummy) variable into a regression equation.

comparing the relative strength of independent variables in the same equation, while unstandardized coefficients offer the most interpretable figures to compare across populations. (Statistical significance is noted by asterisks beside the unstandardized coefficients.)

For young men, the four structural variables have stronger effects on the unemployment index than on the conventional unemployment rate, whereas the opposite is true for women. Since I consider it to be a more inclusive measure of unemployment, I will concentrate my discussion on the unemployment index.

All four structural characteristics have significant negative effects on the unemployment index for all male youth, and three variables (size, growth, and percent in rubber) are consistently significant and negative in direction for all ethnic communities of men. Percent in manufacturing only has a significant effect among young Chinese men. There are considerable differences in the magnitude of the effects among the three ethnic communities. Town size has the largest standardized coefficient in all populations, though it is considerably stronger among young Malay and Indian men. Percent in rubber has a substantial effect in reducing unemployment among Malays and Indians, but a much milder effect among Chinese youth. The fraction of the work force in manufacturing has a very strong impact for Chinese youth. Urban growth has a consistent and strong effect in reducing unemployment.

Among women there are fewer significant findings to report. All town characteristics have significant negative effects among Chinese, but only town growth has a negative effect for Malays, while none of the independent variables are significant for young Indian women (note, however, the very large between-town explanation of variance among Indian women).

These results are at odds with a number of popular perceptions about the effects of urban labor markets on unemployment. The general expectation is that larger cities, especially those with significant growth due to in-migration, would be the areas with the highest employment. These results report exactly the opposite. Let me illustrate these findings with some hypothetical cases based upon the unstandardized coefficients on the unemployment index for young males. Choosing between a town with the high growth rate of 3% per year and a town with a growth rate of 1% per year, young Malay men could expect to find an unemployment index 3 percentage points lower in the faster-growing town. For young Indian men, the unemployment index of a town with a rubber industry that employs 30% of the work force would differ by 15 percentage points from that of another town where the rubber industry employed only 10% of the work force.

Although percent in rubber has a positive effect on Malay and Indian employment prospects, a greater manufacturing economy has a significant reduction on unemployment only for Chinese youth. Perhaps the "small shop" character of the manufacturing sector meant that few new jobs were available to urban youth without kin ties to employers.

Perhaps the most significant interpretation of table 2 is not the precise relationship between certain structural features of the local economy and unemployment, but rather the fact that these relationships do exist and probably could be strengthened by public policies. I will return to this topic in the final section of this paper, after consideration of the joint effects of individual and structural variables.

A Combined Analysis of Individual and Structural Effects on Unemployment

At this point, one might ask whether the structural effects observed above might simply be due to the differential population composition between towns. For instance, might the lower unemployment in large, fast-growing towns be due to the ethnic or household-status composition of such towns? To address such a question requires a combined analysis of both individual and structural effects on unemployment. To reduce the volume and complexity of this analysis at this stage, I narrow the scope to a single dependent variable—the unemployment index for male youth only. Table 3 contains an analysis of covariance of both the individual categorical predictors and the linear structural independent variables for the population of all young men, and separately for Malays, Chinese, and Indians. For each population, there are three columns of coefficients, each one representing a separate analysis. The first column contains the gross effects of each individual-level variable on the percentage unemployed (unemployment index). These effects are expressed as deviations from the grand mean of the dependent variable, which is 21.0% for the total male population. These figures report exactly the same information as provided in table 1—the simple effects of individual characteristics on unemployment. The square of eta (correlation ratio) is the variance explained in the dependent variable by the set of categories (one independent variable). As a measure of relative strength of different independent variables, the etas can be compared in the multivariate equations (cols. 2 and 3) for each population with the beta coefficients (which can be interpreted as partial etas).

In the second column, the coefficients (net effects) represent the effects of each individual variable on unemployment, controlling for the additive effects of the other individual-level independent variables.

TABLE 3
ANALYSIS OF COVARIANCE OF THE EFFECTS OF INDIVIDUAL AND TOWN CHARACTERISTICS ON THE PERCENTAGE OF TOTAL
UNEMPLOYMENT (Active and Passive) AMONG URBAN MALE YOUTH, NOT CURRENTLY
ENROLLED IN SCHOOL: PENINSULAR MALAYSIA, 1970

INDEPENDENT VARIABLES	TOTAL POPULATION (Grand Mean = 21.0%)			MALAY (Grand Mean = 24.6%)			CHINESE (Grand Mean = 16.9%)			INDIAN (Grand Mean = 31.7%)		
	Only			Only			Only			Only		
	Individual Variables			Individual Variables			Individual Variables			Individual Variables		
	Gross	Net	Add Town Variables	Gross	Net	Add Town Variables	Gross	Net	Add Town Variables	Gross	Net	Add Town Variables
Individual:												
Ethnic community:												
Malay	3.6	6.1	6.0									
Chinese	-4.1	-5.3	-5.3									
Indian	10.7	10.3	10.3									
(Eta/beta)	(.13)	(.16)	(.16)*									
Education:												
None	8.8	7.7	7.2	9.4	6.3	5.5	2.9	2.7	2.6	23.1	23.2	23.7
Primary	-2.5	-1.8	-1.7	1.0	.4	.6	-2.8	-2.5	-2.5	-5.4	-4.7	-3.9
Lower secondary	2.4	1.1	1.1	4.5	1.5	1.7	2.5	1.6	1.6	-1.6	-3.1	-3.6
LCE or above	1.7	.8	.8	-4.4	-1.8	-2.1	2.8	3.1	3.2	4.2	4.7	4.0
(Eta/beta)	(.07)	(.05)	(.05)*	(.09)	(.04)	(.04)	(.07)	(.07)	(.07)*	(.15)	(.15)	(.15)*
Region of residence:												
South	2	-4	-9	.5	-1.1	.7	.7	.4	-1.3	-4.2	-5.4	-5.4
Central	-2.8	-2.2	-5	-5.7	-1.9	.3	-2.0	-1.9	-1.6	-1.6	-2.3	-1
Northwest	5.2	5.9	4.1	8.0	6.2	3.1	5.2	5.0	4.4	7.7	10.0	3.3
East	2.3	.7	-3.9	4.8	.9	-3.3	-7.3	-6.0	-8.6	-2.3	2.4	2.2
(Eta/beta)	(.08)	(.08)	(.06)*	(.12)	(.06)	(.05)	(.09)	(.08)	(.08)*	(.09)	(.11)	(.05)
Migration status:												
Nonmigrant	3.3	1.3	1.0	7.8	1.1	.5	2.9	1.4	1.3	1.6	.2	-1.0
Migrant, <1 year	-5.0	.8	1.3	9.0	1.2	2.0	4.6	1.8	1.7	-1.1	5.1	7.8
Migrant, 1-5 years	-8.9	4.8	4.6	-10.6	5.1	-5.0	9.1	4.9	-4.8	-7.7	-3.2	-3.6
Migrant, >5 years	.9	-1.5	1.7	4.8	1.7	-2.2	-4.4	3.9	-3.6	-2	-3.3	1.0
(Eta/beta)	(.11)	(.05)	(.05)*	(.19)	(.06)	(.06)	(.11)	(.07)	(.06)*	(.06)	(.04)	(.06)
Household status:												
Single, live with relative	6.6	6.7	6.7	13.5	12.8	12.9	4.2	3.9	3.8	6.2	6.7	6.7
Married or independent	-12.6	-12.6	-12.5	-17.0	-16.0	-16.2	-16.2	9.0	-8.8	-13.4	14.6	-14.6
(Eta/beta)	(.22)	(.23)	(.22)*	(.35)	(.33)	(.34)*	(.17)	(.16)	(.15)*	(.20)	(.21)	(.21)*
Town:												
Town size (in thousands)			.019*			.017						.041*
Average annual growth rate			.635*			1.337*						2.358*
% in manufacturing			.315*			.368*						.233
% in rubber			.252*			.465*						.485*
R ²		8.47	9.17		13.4%	14.6%		4.6%	5.3%		7.5%	10.0%

SOURCE.—1970 population census of Peninsular Malaysia, 2% sample tape.

NOTE.—Variable is not included as an independent variable in this equation.

Effects of the categorical variables are expressed as deviations from the grand mean of the dependent variable, and the effects of town variables are unstandardized (metric) regression coefficients.

* Statistically significant at the .05 level.

Finally, in the third column, the four structural variables of town size, growth, percent in manufacturing, and percent in rubber are added to the equation. The effects of the structural variables are simply partial unstandardized regression coefficients. In this column, asterisks note variables that are statistically significant at the .01 level.

I begin with a brief review of the individual-level variables and then proceed to a discussion of the net effects of both the individual-level and structural variables. In general, the individual variables are moderate in size, with the exception of household status. Among Malay youth, the effects of education, region, and migration status are reduced to insignificance when household status is simultaneously controlled. This does not mean that the effects of the other variables are spurious, but that those with low unemployment levels (who have higher education, live in the central region, and are recent migrants) are also likely to be married or living independently. For Chinese youth, all of the individual variables remain significant in the complete equation (col. 3), and among Indian young men, education and household status are significant when all other variables are held constant statistically.

The most important predictor of unemployment is whether a young man is living as a dependent with a relative or is independent (married or not living as a dependent with relatives). This is true for all ethnic groups, but it is the strongest predictor for Malay youth. As discussed earlier, I question whether the causal direction runs from independent household arrangements to the motivation to work. It seems equally plausible that young men who find work then decide to move out of their parental households. In any case, it is doubtful that anyone would recommend earlier age at marriage in order to reduce unemployment.

Education has modest and inconsistent effects on unemployment. There is no evidence that secondary school education has raised unemployment levels by making youth more selective about their occupational choice. Among Indian youth, there is an extremely high association between "no education" and youthful unemployment. The reduction of employment in the plantation sector during the 1960s had a very negative effect on the Indian population, and my analysis shows that the unemployment situation among Indian men with no schooling was even worse than suspected.²³ Regional effects are fairly modest and are reduced as other variables are introduced. Yet the northwest region stands out as a depressed region for youth employment in 1970 (most concentrated in Penang).

Migration status has an interesting pattern of effects. As noted earlier, recent migrants, including those of 1 year and less and those

²³ For an excellent historical analysis of the Malaysian Indian community, see Michael Stenson, *Class, Race, and Colonialism in West Malaysia* (Vancouver: University of British Columbia Press, 1980).

with 1–5 years of local residence, fared better in the job search than nonmigrants or long-term residents. But controlling for other variables shows that young men who have migrated from elsewhere, but have 1–5 years of local residence, are the group least likely to be unemployed. Migrants with less than 1 year of local residence do have above average unemployment. Perhaps migration has a positive effect on employment, but sometimes it is necessary to become acquainted with the local job market.²⁴

Let us now consider the effects of the structural variables on unemployment, net of the individual variables. First, in all cases, there is a statistically significant addition to variance explained (R^2 —in the last row of table 3) with the addition of the four town characteristics in the third column under each population. The regression coefficients are almost all negative, indicating that they reduce unemployment. Town growth and percent in rubber are significant for Malay youth, town size and percent in manufacturing for Chinese young men, and town size, town growth, and percent in rubber for Indian men. Although most of the coefficients are reduced somewhat from those in table 2 as a result of statistical overlap with the individual variables, they remain important predictors.

As noted earlier, there is no evidence that large, rapidly growing cities are centers of above average unemployment. On the contrary, larger towns usually have lower unemployment. A larger share of the local economy in manufacturing is a positive effect on employment for Chinese youth, while a substantial rubber sector is helpful to young Malay and Indian men.

Discussion and Conclusions

A complete study of labor utilization and underutilization needs to consider many aspects of employment opportunities, not only active or passive unemployment, but also the marginal employment that contributes so little to national product and rewards workers so poorly. Policymakers need to expand their perspective to consider unemployment and underemployment as the loss of a national resource, not just a social and economic problem for the individuals concerned. While these issues are beyond the scope of the present analysis, they remain topics of fundamental importance.

This paper has two empirical objectives: (1) to develop a more realistic index of youth unemployment, and (2) to test hypotheses of individual and structural influences on unemployment. The unemployment index combines active job seekers (the conventional measure of

²⁴ An alternative interpretation is that unsuccessful migrants return to their place of origin or move elsewhere. Thus migrants with several years of residence are selective in terms of success in the job market.

unemployment) with those who report no major activity last week (passive unemployed) as a ratio to all persons (excluding those currently enrolled in school). While the assumption that all those classified as "others out of the labor force" would be willing to accept employment cannot be tested here, I suggest that most youth without work or household responsibilities are probably "discouraged workers." In any case, it provides an estimate of the reserve labor supply that might be mobilized for development. Instead of the 12% of urban youth who are unemployed by the conventional definition, the unemployment index shows that more than one-fifth of the youthful male labor supply were without work in 1970. For young women, this new measure does not seem to be an improvement. It seems that a high proportion of young women who are out of the labor force classify themselves as "looking after house." I suspect that many of these young women would be eager to accept employment if they thought it were available, but I have no data to test this assertion.

The theoretical literature on the causes of urban unemployment has a dual character. While there is a general acknowledgment that shifts in the structure of the international economy and technology have created fewer jobs in developing countries, most policy research has focused on individual attributes with the interpretation that lack of motivation or unrealistic expectations among certain groups are the reasons for their above average unemployment. In this study, I consider both individual characteristics and structural attributes of urban labor markets as determinants of unemployment among urban youth. Both sets of factors prove to be important, and the findings are not entirely consistent with earlier research which uses the conventional unemployment rate.

With the more inclusive unemployment index, there is little evidence to support the assertion that secondary school leavers are more likely to accept unemployment than those with less schooling. Migrants, especially those with more than 1 year of local residence, have lower unemployment rates than do urban natives. Although not directly tested here, other research on Malaysia has not supported the belief that migrants are disproportionately concentrated in the service-petty retailing sector.²⁵ Youth who are married or are independent (not living as a dependent in a family headed by a relative) have considerably lower unemployment than do single persons living with relatives. Yet the causal order is in doubt, and this finding does not necessarily support the thesis that independent household living arrangements precede rather than follow employment.

The structural analysis shows that larger towns and towns with

²⁵ Hawley et al.

above average growth rates have lower unemployment rates. This is evident for males in every ethnic group, and it remains significant after controlling for individual characteristics. These results cast doubt on the thesis that heavy migration to large cities has worsened the urban unemployment problem in developing countries. Not only are individual migrants more likely to find employment than natives, but rapidly growing cities have less overall unemployment. Some economists have argued that wage differentials between urban and rural areas encourage urbanward migration which adds to urban unemployment.²⁶ One possible policy inference has been that governments should be reluctant to expand urban employment opportunities for fear of expanding the supply of urban job seekers. At least for Malaysia, there is no evidence that such an assertion can be supported. Furthermore, certain aspects of the industrial structure seemed to reduce unemployment. For Malay and Indian youth, a large rubber sector is associated with lower unemployment, while the higher the manufacturing sector, the lower Chinese youth employment.

These associations were found in 1970 and represent the patterns of the 1960s. It does not necessarily mean that future expansion of the manufacturing sector would not reduce Malay and Indian youthful unemployment. In fact, I think the presence of any dynamic industry in an urban labor market would be likely to reduce unemployment. There seems to be considerable room for activist public policies to improve the employment opportunities of one of Malaysia's (or any country's) greatest resources—her youth.

²⁶ Michael P. Todaro, "A Model of Labor Migration and Urban Unemployment in Less Developed Countries," *American Economic Review* 59 (March 1969): 138–48, and "Rural-Urban Migration, Unemployment and Job Probabilities: Recent Theoretical and Empirical Research," in *Economic Factors in Population Growth*, ed. Ansley Coale (New York: John Wiley & Sons, 1976).