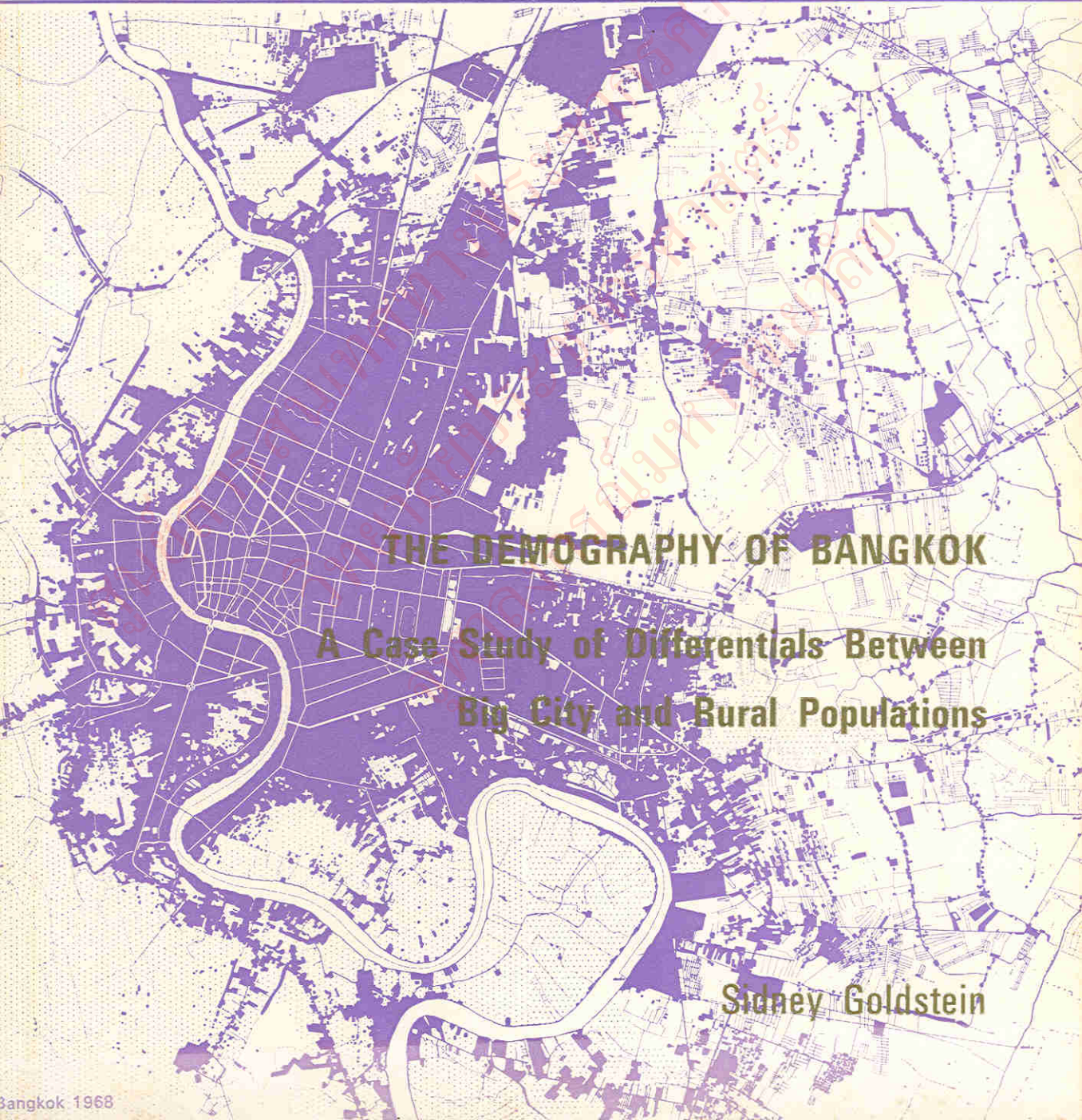




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# **THE DEMOGRAPHY OF BANGKOK**

**A Case Study of Differentials Between  
Big City and Rural Populations**

**Sidney Goldstein**

**THE DEMOGRAPHY OF BANGKOK:  
A CASE STUDY OF  
DIFFERENTIALS BETWEEN BIG CITY  
AND RURAL POPULATIONS**

by

**SIDNEY GOLDSTEIN**

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*This volume is a part of the monograph series of the Institute of Population Studies of Chulalongkorn University in Bangkok, Thailand. Beginning in 1970, this series of reports presents the results of research by the permanent staff of the Institute as well as the foreign advisors and research workers temporarily attached to the Institute.*

*Several types of publications fall within the scope of this series, and the editors intend that each will offer its own kind of benefits to interested readers. First, descriptive studies of Thai and other populations should provide useful background information to scholars, public officials, and others. Second, analyses of the sociological, economic, and political forces that help to shape population change are necessary to the understanding of demographic trends in this nation and elsewhere. Third, technical and methodological studies help to advance man's knowledge of the conceptual tools and statistical procedures that enable us to examine changes in population trends. Fourth, reprints of papers which originally appeared in other publications may help to bring demographic knowledge to the attention of various persons who apply population data to their own research or to national policies. Most of these reports deal explicitly with Thailand, and all of them have to do with one or another aspect of population (defined in the broadest possible terms) : facts, causes, implications, ramifications, policy, theory, and so forth.*

*The publications by staff members and abstracts of M.A. theses are available upon request. Anyone finding an error of fact or interpretation in this monograph is invited to convey his discovery to the author or the Director of the Institute; our appreciation is offered herewith in advance.*

## PREFACE

In two previous reports Professor Sidney Goldstein made contributions to our understanding of the processes of urbanization and migration in Thailand and their interrelations with other social, economic, and demographic aspects of the Thai population. In the current report Professor Goldstein turns his focus from the actual processes of urbanization and migration to the differences which exist between the rural and urban populations with particular attention given to the population of Bangkok, Thailand's truly primate city. The contrast found between residents of Bangkok, other urban areas and the countryside are of great interest for our understanding of Thai society today. In addition they have important implications for the future since Thailand, as most other countries in the Developing World, is undergoing urbanization at a rapid rate. Although largely a rural society at present, the trend is clearly for larger proportions to live in an urban environment each year as the population continues its shifts from the countryside to the cities. The characteristics of the small minority which live in the urban areas today may prevail among much larger proportions of the population in the not too distant future.

Professor Sidney Goldstein, is Professor of Sociology and Director of the Population Research and Training Center at Brown University Providence, Rhode Island. He served as resident adviser for the Population Council at the Institute of Population Studies in 1968-1969 and has retained a close association with the Institute since then. The research on which this report is based was initiated during Professor Goldstein's residency in Bangkok and he wishes to gratefully acknowledge the cooperation of the National Statistical Office in making unpublished data available.

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*The Institute of Population Studies is an autonomous research and training unit of Chulalongkorn University in Bangkok, Thailand. Formally established in 1966 by the Thai Government with financial assistance from The Population Council of New York City. Before 1970, it was called the Population Research and Training Center.*

*The I.P.S. has three major functions : instruction, research, and information dissemination. Students who complete two years of course-work (partly in Thai and partly in English) and write a satisfactory thesis are awarded an M.A. degree. Institute staff conduct field research on fertility, mortality, migration, and other demographic and population studies subjects. Stimulation of public awareness and understanding of population trends in Thailand flows from extensive consulting with many government agencies.*

*The Institute, housed in the Faculty of Political Science compound in the Chulalongkorn University campus, has its own statistics laboratory and a demographic library. A national rather than a regional organization, the Institute devotes nearly all of its research and instructional efforts to Thailand; however, contact is maintained with demographic agencies in other nations.*

*Lists of books, articles, and reports by the Institute staff are available upon request, as are reprints of papers and copies of descriptive and analytical reports. Applications for graduate study and fellowships should be addressed to the Director of the Institute.*

## Introduction

The rapid growth of urban agglomerations in developing countries constitutes a problem second only to the high rate of population growth. Indeed, the former may well be a function of the latter : Urban increase may be due largely to the heavy exodus from rural areas burdened with excess population. At mid-twentieth century, just over one-fourth of the world's 2.5 billion people were living in urban places; but latest United Nations estimates indicate that by the end of the century over half of the world's 6.5 billion population will inhabit urban places.<sup>1</sup> In fact, the 3.3 billion persons estimated to be living in urban places in the year 2000 will far exceed the world's entire population fifty years earlier and almost equal the 3.6 billion estimated as populating the globe in 1970. As dramatic as these figures are, the fact that so much of the world's urban growth has been concentrated in big cities (500,000 people and over) adds to the significance of this marked shift in rural-urban population distribution.<sup>2</sup> In 1920, cities of 500,000 and over contained 37.9 percent of the total urban population. By 1960, the big city share had increased to 46.7 percent and United Nations estimates for 1980 indicate a further increase to 53.3 percent. Many of these big cities, particularly the increasing number in the developing world, very largely dominate the urban structure in their respective countries, and are overwhelmingly preeminent in their country's economic, social, and political life.<sup>3</sup> Many have grown as a result of population pressure in rural areas rather than industrial expansion. Most are characterized by inadequacies in housing, public utilities, job opportunities, educational facilities, and transport facilities.

Despite the many generalizations about urbanization which appear in the literature, much of our evaluation of levels and rates of urbanization in the developing world, of the components of urban growth, and of the composition of urban and especially big-city populations is based on scanty data. The United Nations, and such research organizations as the Institute of International Studies at the University of California, have provided us with an increasingly comprehensive and high quality body of core data for regions and countries of the world and, to a lesser extent, for big cities.<sup>4</sup> These permit valuable comparative analyses and provide important insights into future trends. But their very comprehensiveness limits their value because it precludes intensive examination of the process of urbanization. For such purposes, in-depth studies are needed in a number of countries at different stages of development, in different regions of the world, and with different combinations of unique situations ranging from the city-state character of Hong Kong and Singapore to the highly rural character of countries like Nepal and Afghanistan.

Thailand represents one of the countries of the developing world in which urbanization is assuming increasing importance. Moreover, in virtually all discussions of the role of big cities in urban and economic development, Bangkok is cited as a leading example of a primate city; in most rankings of primate cities it appears first, whether measured by the size of its population in relation to the next largest city in the country or judged by the proportion which its population constitutes of the total population of the four leading cities.<sup>5</sup> Moreover, Bangkok illustrates well the fact that big-city growth is disproportionate to urbanization and may be significantly out-of-line with economic development.

This paper examines, as far as the still limited available data permit, the patterns of urbanization in Thailand, with particular attention to the growth of Bangkok and to the characteristics of its population. The emphasis here, by intent, is on the demographic features of the city. This is viewed as the first step in a later, fuller evaluation of the city's role in the

economic and social development of Thailand. Focussing on Thailand and Bangkok should not be interpreted to mean that their experiences typify all developing countries and big cities. Both the country and the city are typical as well as unique. Because this is the case for Thailand and for other countries, we need both the global comparative approach exemplified by the United Nations data and the more intensive investigations of the type undertaken here. Before turning to Thailand and Bangkok, a brief overview of urbanization in Asia is needed to provide the backdrop.

### Urbanization in Asia

Although Asia is still one of the least urbanized regions in the world, it has begun to experience rapid urban growth. At the same time, however, the rural population of Asia also continues to increase. But because past and future patterns of change are not uniform throughout Asia, a distinction is made here between East Asia and South Asia, and within the latter brief attention is given to Southeast Asia, of which Thailand forms a part.

At mid-twentieth century, the populations of East Asia and South Asia were virtually equal, with East Asia containing 48 percent of the 1.35 billion persons of the continent and South Asia 52 percent (Table 1).<sup>1</sup> Moreover, in 1950, the levels of urbanization in both regions were identical : 15.9 percent of the populations in each lived in urban places. But by 1970, the close similarity had ceased as a result of South Asia's overall higher growth rate compared to East Asia and the tendency for its rate of urban growth to increase whereas that of East Asia declined. By 1970, only 45 percent of the continent's 2.1 billion persons lived in East Asia and 55 percent in South Asia. Although both regions had experienced increased

**Table 1**  
Urban, Rural and Total Population, by World and Major Asian Areas  
and Regions as Projected for Each Ten Years, 1950-2000  
(in millions)

Region	Urban Population	Rural Population	Total Population	Percent Urban
<b>WORLD TOTAL</b>				
1950	704	1782	2486	28.32
1960	985	1997	2982	33.04
1970	1352	2283	3635	37.19
1980	1854	2614	4467	41.50
1990	2517	2939	5456	46.14
2000	3329	3186	6515	51.10
<b>More Developed Regions</b>				
1950	439	418	858	51.22
1960	582	394	976	59.63
1970	717	374	1091	65.74
1980	864	347	1210	71.36
1990	1021	316	1337	76.39
2000	1174	280	1454	80.74

**Table 1 (Cont'd)**

Region	Urban Population	Rural Population	Total Population	Percent Urban
<b>Less Developed Regions</b>				
1950	265	1363	1628	16.26
1960	403	1603	2005	20.09
1970	635	1910	2545	24.96
1980	990	2267	3257	30.40
1990	1496	2623	4120	36.33
2000	2155	2906	5061	42.59
<b>EAST ASIA</b>				
1950	105	552	657	15.93
1960	179	601	780	22.90
1970	266	664	930	28.63
1980	387	708	1095	35.35
1990	541	725	1265	42.73
2000	722	703	1424	50.67
<b>SOUTH ASIA*</b>				
1950	111	587	698	15.91
1960	154	711	865	17.82
1970	238	888	1126	21.15
1980	370	1116	1486	24.91
1990	556	1355	1912	29.11
2000	793	1561	2354	33.69
<b>South East Asia</b>				
1950	26	147	173	15.01
1960	39	180	219	17.76
1970	60	227	287	21.04
1980	94	286	380	24.73
1990	142	350	492	28.86
2000	203	405	608	33.39

\* In order to simplify this table for the reader, separate tabulations for Middle South Asia and South West Asia have been omitted.

Source : United Nations Population Division, *Urban and Rural Population : Individual Countries, 1950-1985, and Regions and Major Areas, 1950-2000*, ESA/P/WP.33/Rev. 1 (New York : United Nations, 1970).

urbanization during the period. South Asia's level had reached only 21.2 percent whereas that of East Asia was 28.6. Projections indicate that these differential trends will continue to the end of the century, when, according to the U.N. estimates, East Asia's urban population will number just half of its total whereas that of South Asia will amount to only one-third.

In the meantime, the growth rate of the rural population in East Asia, which in 1950-60 was already below the world average and considerably below the average of less developed regions, will continue to decrease; in fact, the projections suggest that by the last decade of the century East Asia's rural population will actually decline (Table 2). By contrast, South Asia's



**Table 2**  
Annual Rates of Growth in Urban and Rural Populations  
for World, and Asian Areas, 1950-2000

Area	1950-60	1960-70	1970-80	1980-90	1990-2000
	Urban Population				
WORLD TOTAL	3.4	3.2	3.2	3.1	2.8
More developed regions	2.8	2.1	1.9	1.7	1.4
Less developed regions	4.3	4.6	4.5	4.2	3.7
EAST ASIA	5.5	4.1	3.8	3.4	2.9
SOUTH ASIA*	3.3	4.4	4.5	4.2	3.6
South East Asia	4.1	4.5	4.5	4.2	3.6
	Rural Population				
WORLD TOTAL	1.1	1.4	1.4	1.2	0.8
More developed regions	-0.6	-0.5	-0.8	-0.9	-1.2
Less developed regions	1.6	1.8	1.7	1.5	1.0
EAST ASIA	0.9	1.0	0.7	0.2	-0.3
SOUTH ASIA*	1.9	2.2	2.3	2.0	1.4
South East Asia	2.0	2.3	2.4	2.0	1.5

\* In order to simplify this table for the reader, separate tabulations for Middle South Asia and South West Asia have been omitted.

Source : United Nations Population Division, *Urban and Rural Population : Individual Countries, 1950-1985, and Regions and Major Areas, 1950-2000*, ESA/P/WP.33/Rev. 1 (New York : United Nations, 1970).

rural population growth rate, already relatively high during the 1950-60 decade, is estimated to increase through the 1970-80 decade, following which it will begin to decline. Yet, by the year 2000, the average growth of 1.4 per year will still be almost twice that of the world as a whole and 40 percent above that of the less developed regions of the world. This continuing and relatively high growth rate of the rural population through the balance of the twentieth century must not be overlooked in any analysis of urbanization.

In 1950, East Asia and South Asia each had approximately the same number of persons living in urban places, just over 100 million persons. By the end of the century, East Asia will have 722 million persons in urban places and South Asia 793 million. Faster initial urban growth in East Asia will be mitigated by slower growth toward the end of the century, whereas in South Asia slower initial growth will be compensated by higher rates in succeeding decades. Yet in both segments, estimates point to an urban population in the year 2000 over seven times as great as at mid-century. The tremendous urban increase represented by this growth is perhaps best suggested by the fact that in the very short span of fifty years, the urban population of Asia will have increased to a level exceeding what the total population of Asia was at mid-century.

Because East Asia is experiencing slower rural growth, its rural population by 2000 will be only 24 percent greater than it was in 1950 and only 6 percent greater than in 1970. By contrast, higher growth rates in South Asia will almost treble the 1950 rural population by the year 2000 and double the estimated 1970 population. Yet, even more significant, the estimates indicate that between 1970 and 2000, 673 million persons will be added to the rural population of South Asia compared to an absolute increase of 555 million in the urban population. These changes will have significant implications for the quality of life in the rural places and possibly for the tempo of urbanization due to pressures created by the crowded rural areas.

But these gross statistics on the numbers of persons living in urban places do not delineate the situation fairly. The seriousness of the problem is intensified by the way in which the urban population is distributed among places of different size.<sup>2</sup> Before 1950, cities of over 500,000 population were rare in Asia (Table 3); it had only 15 cities of this magnitude. But by 1960 Asia already had 79 cities of this size; and, in fact, 9 had over 2.5 million inhabitants. Asia's big cities in 1960 contained 40 percent of the total urban population, compared to just over one-fourth in 1920. But again, the patterns for East and South Asia contrasted sharply. In 1960, the 50 big cities of East Asia accounted for 51 percent of the region's urban population, whereas South Asia's 29 big cities contained only 27 percent. If Asia's urban growth patterns follow those projected by the United Nations for less developed regions, big cities will in the next several decades account for even greater proportions of the total urban population.

Approximately one-fourth of South Asia's 1950 population was located in Southeast Asia. The overall growth patterns in Southeast Asia closely parallel those of South Asia as a whole (Tables 1 and 2). In 1950, 15 percent of Southeast Asia's population lived in urban

**Table 3**  
Percentage of Urban Population in Agglomerations of Selected  
Size Groups, 1920, 1940, 1960, East and South Asia

	East Asia			South Asia		
	1920	1940	1960	1920	1940	1960
Small Towns*	21	13	11	32	32	24
20,000 - 99,999	37	32	22	35	31	28
100,000 - 499,999	15	22	16	21	19	21
500,000 - 2,499,999	19	14	24	12	13	19
2,500,000 and Over	8	19	27	-	5	8
Total Percent	100	100	100	100	100	100
Total Population (in millions)	39.8	73.7	160.6	26.9	50.6	117.5
Percent Urban	9	13	23	9	12	18
Number of Big Cities						
500,000 and Over	11	16	50	4	14	29
2,500,000 and Over	1	3	6	-	1	3

\* Urban localities with fewer than 20,000 inhabitants.

Source : United Nations, *Growth of the World's Urban and Rural Population, 1920-2000*. Population Studies No. 44 (New York : United Nations, 1969), Tables 12, 13, and 14.

places. This increased to 21.1 percent by 1970 and is estimated to rise to 33.4 percent by 2000. The very marked increases in urban population which have already taken place will continue into the future. Estimates indicate that between 1950 and 1970, Southeast Asia's urban population will more than double from 26 million to 60 million, and by 2000 it will reach 203 million. Although growing at a slower rate, the rural population will undergo an even greater absolute increase. Rising from 147 million in 1950 to 227 million in 1970, it will go to an estimated 405 million by 2000. This again lends weight to the need for concern with rural population growth even while emphasizing the rapid rates of urbanization.

If one recognizes all of the problems associated with supporting Asia's population at a reasonable level of living in the decades immediately following World War II, it may be easier to envisage the kinds of problems which Asia will face toward the end of the century in trying to cope with a population which, in urban places alone, will exceed the total 1950 population. Add to the 1.5 billion in urban places, disproportionately concentrated in big cities, the 2.3 billion persons living in rural parts of Asia and one can well appreciate the reasons for increased concern about the levels and rate of urbanization as part of the larger concern with rapid population growth.

### **Thailand : Historical Perspectives**

Thailand's population, which numbered only about 6 million persons in 1900, was enumerated at 26.3 million in 1960 and is estimated at about 35 million in 1970. This sixfold increase in 70 years reflects an average annual growth rate of about 2 percent for the thirty years following World War I, and, most significant, an increase to 3.2 percent per annum in the years between 1947 and 1960 and continuation at this or a slightly higher level.

Thailand's growth rate is among the highest in the world. It stems from a sharp drop in mortality but a continuation of high fertility.<sup>1</sup> During most of the first half of the twentieth century, Thailand's death rate remained fairly constant at about 30 per 1,000. The end of World War II witnessed a dramatic change as the death rate declined to below 20 per 1,000 by the mid-1950's and to a low of 11 by the mid-1960's. Following rapid adoption of modern medical technology and the expansion of health facilities throughout the country, a dramatic reduction occurred in mortality with a consequent increase in life expectancy from about thirty-five years in 1937 to between fifty-five years for men and sixty-two years for women in 1964-1966.

Fertility has not experienced a similar decline. The number of births in Thailand has been estimated by the United Nations' experts to average 45 per 1,000 as late as 1960-65. This high level has persisted for the six decades of the twentieth century, with the exception of the period of World War II. Although considerable interest is being evinced in family planning and the use of birth control is increasing, these attitudes and practices are not yet sufficiently wide spread or of long enough duration to have significantly affected the birth rate.<sup>2</sup> Thai women continue to average about 6.5 births by the time they complete their reproductive cycle.

Judged by both the residence and the economic activity of the population, Thailand remains largely a rural, agricultural country. According to the 1960 census only 12.5 percent of the population lived in places classified as municipal areas; and four out of every five persons resided in agricultural households. Over 80 percent of the economically active population were employed in farming. But reflecting the very rapid population increase

characterizing Thailand, in the twentieth century population density has increased significantly, resulting in a reduction from 2.7 acres of arable land per person in 1930 to only 0.9 in 1970. A further reduction to only 0.5 by 1990 is projected, thereby markedly increasing the pressure on rural resources.<sup>3</sup>

In Thailand, the level of urbanization is not only considerably less than that of the developed world, but also far below that of Southeast Asia. In 1960, 12.5 percent of the population were enumerated as living in urban places compared with 22.9 percent for the developing world as a whole, and 17.8 percent for Southeast Asia. Because the rural growth rate in Thailand is considerably higher than that of the rest of the world, the speed of urbanization is not as marked in Thailand as elsewhere. Yet, although the projected level of urbanization continues to remain low, Thailand's urban growth rate is high, averaging about 5 percent a year.

The very rapid population increase of Greater Bangkok warrants particular attention. The capital city area, consisting of the twin cities of Bangkok and Thon Buri in 1960 numbered 1.8 million persons; by 1967 the population had reached 2.6 billion, and is estimated in 1970 at about 3 million. Containing over half of all of Thailand's urban population, Greater Bangkok accounted for almost two-thirds of all urban population growth in the country; its 1967 population was thirty-two times that of Thailand's next largest city, making its urban primacy the most striking in the world. Although urban development has begun to permeate all regions of Thailand and has become an important factor in the complex process of national, social, and economic development, the continuing primacy of Greater Bangkok requires that any study of urbanization in Thailand give particular attention to the dynamics underlying its growth and the ways in which its population resembles or differs from the rest of the kingdom.

Built on an alluvial silt delta of the Chao Phraya River, Bangkok, with its 3 million population stands today as the political, cultural, commercial, and social center of Thailand.<sup>4</sup> It is the most recent in a succession of Thai capitals and a relatively young city. Not until 1767 did the area assume any importance in the history of Thailand. In that year, after 417 years as the capital of Thailand, Ayutthaya fell to the Burmese. Sacked and burned, its population decimated by years of war, Ayutthaya was abandoned; and the Thais, under the leadership of General Taksin, established their new capital to the south, at Thon Buri, on the west bank of the Chao Phraya River. Taksin ruled for only fifteen years and was succeeded by General Chakri (Rama I), the founder of the present royal dynasty. In 1782 Rama I moved the capital across the river from Thon Buri to its present location because he feared that the capital on the west bank of the river would be easy prey to the Burmese. The new location was strategically sound since the bend of the river gave Bangkok a natural moat on three sides and the eastern side was well protected by extensive mud flats. A small town already existed at the new location, and the area chosen for the royal palace was the Chinatown of Old Bangkok. After suitable compensation, the Chinese community moved to Sampeng which is still the main Chinatown of modern Bangkok; and Rama I built his palace near the banks of the Chao Phraya River, surrounded by a double line of fortifications. Between the two sets of fortifications which the King had built, a city quickly developed.

Thailand occupies a unique status among the countries of Southeast Asia because it has remained independent throughout the last two-hundred years. As a result, Bangkok's history does not include any period during which it was under colonial control. The city began to

grow rapidly as a commercial center in the mid-nineteenth century especially after the conclusion of a treaty with Britain which opened the way to trade with Britain and other western countries. During this period the dual character of Bangkok as a pre-industrial city and a commercial center emerged. The establishment of shipping houses and wharves at the end of the nineteenth century transformed it from a floating village into a modern metropolis with a population of almost one-third of a million persons by the end of the nineteenth century.

Accessible to ocean-going ships, it was at the same time intimately tied to the hinterland through a large and effective network of rivers and canals criss-crossing the central plain, which serves as "the rice bowl" of Southeast Asia. Until the present time, Bangkok has maintained this position, as trains, highways, and air routes converge on it from all parts of Thailand. Even though a number of the smaller cities in the North and the Northeast are much nearer to each other than to Bangkok, communication between them must be channelled through Bangkok itself because they are not connected by transportation routes. As it entered the twentieth century, Bangkok was a city very much in transition, for its indigenous character and the newer elements of the commercial city coexisted side by side.

By 1960 Greater Bangkok, with its population approaching two million, was surpassed in size in Southeast Asia only by Djakarta, and served both as a connecting link between Thailand and other nations of the world and as an integrating center for the political, economic, social, and intellectual life of Thailand. Concentrated within it were the major universities, a disproportional number of the health services, the major industrial and commercial organizations, the important newspapers and other communication media, the key transportation junctions, and the social and political elite. In all respects, Bangkok illustrates most aptly Mark Jefferson's belief that regardless of the reason why one city might originally exceed its neighbors in size, once it did, "this mere fact gives it an impetus to grow that cannot affect any other city and it draws away from all of them in character as well as size".<sup>5</sup>

In order to appreciate more fully Bangkok's role and position in the urban hierarchy of Thailand a brief overview of the patterns of urbanization is in order.

### **Urbanization Patterns**

Given the absence of official statistical definitions of urban, it is impossible to ascertain long-run trends in the development of Thailand's urban population.<sup>1</sup> Shorter-run patterns of urbanization have been analyzed, however, using the municipal area as the equivalent of urban population and relying upon a combination of census and registration materials (Table 4)<sup>2</sup>. The level of urbanization in Thailand increased from 9.9 percent in 1947 to 13.1 percent in 1960<sup>3</sup> and had risen further to 14.4 percent by the end of 1967. Between 1947 and 1960, the urban population grew at an average annual rate of 5.0 percent, compared to the rural population which grew by 3.0 percent annually. Between 1960 and 1967, this significant differential remained, although narrowing slightly. Using the total municipal area population may give misleading results because of the problems of definition. If, for comparative purposes, the analysis is restricted to those municipalities having 20,000 and more persons, the percentage of the Thai population classified as urban increased from 5.2 in 1947 to 11.7 in 1967. During these twenty years, the average annual rate of urban population growth was 7.0 compared to 3.0 for the other parts of Thailand. Using this definition of urban, therefore, produces an even higher rate of urbanization.

**Table 4**

Percentage Distribution of Urban Places and Urban Population, by Size of Place, 1947, 1960, and 1967, and Changes in Urban Size Category, 1947-1960 and 1960-1967

Size of Place	Changes in Size Category of Urban Places									Distribution of Urban Population		
	Distribution of Urban Places			1947-1960			1960-1967			1947	1960	1967
	1947	1960	1967	Same	Up One Class	Up Two or More	Same	Up One Class	Up Two or More			
1,000,000 and Over	-	0.8	0.8	-	-	-	1	0	0	-	53.2	55.9
750,000 - 999,999	0.9	-	-	0	1	0	-	-	-	45.1	-	-
75,000 - 99,999	-	-	0.8	-	-	-	-	-	-	-	-	1.8
50,000 - 74,999	-	0.8	0.8	-	-	-	0	1	0	-	2.0	1.6
40,000 - 49,999	-	0.8	5.1	-	-	-	0	1	0	-	1.3	5.7
30,000 - 39,999	0.9	6.7	10.1	0	0	1	2	6	0	2.2	7.9	8.9
20,000 - 29,999	3.5	9.3	12.6	2	1	1	3	8	0	5.1	7.9	7.4
15,000 - 19,999	6.0	11.8	11.8	0	2	5	2	10	2	7.1	7.1	5.0
10,000 - 14,999	17.2	22.7	22.7	2*	9	7	15	11	1	13.7	9.6	7.3
5,000 - 9,999	40.5	37.0	29.4	20	20	7	30	12	2	19.7	9.6	5.8
Under 5,000	31.0	10.1	5.9	11	20	5	7	5	0	7.7	1.4	0.6
Total Percent	100.0	100.0	100.0	-	-	-	-	-	-	100.0	100.0	100.0
Total Number	116	119	119	35	53	26	60	54	5	1,733,736	3,378,262	4,672,704
Percent of Total Population Living in All Urban Places										9.9	13.1	14.4
Percent of Total Population Living in Urban Places of 20,000 and Over										5.2	9.5	11.7

\* Two additional places declined one class.

Source : Sidney Goldstein, "Urbanization in Thailand, 1947-1967", *Demography*, 8 (May, 1971), p. 208.

Changing levels of urbanization can also be assessed by comparing the number of places of given size and the distribution of population among them. (See Table 4). Of the 116 places designated as municipal areas in 1947, counting Bangkok and Thon Buri as a single unit, almost three-fourths had fewer than 10,000 persons and 95 percent were under 20,000. Judged by size of place, therefore, urbanization, with the notable exception of Bangkok, was at a very low level. By 1967, the profile had changed significantly. Of the 119 places, the number with under 10,000 persons was reduced to just over one-third, the number with 10 - 20,000 inhabitants remained at one-third but the number with 20-50,000 population increased from 4.4 to 27.8 percent. Thus a considerable shift had taken place from small-sized to moderate-sized places.

In 1967, as in 1947, the position of Bangkok-Thon Buri as Thailand's primate city remained unchallenged; if anything it had been accentuated. Greater Bangkok's 1947 population of 781,700 was twenty-one times greater than that of Chiang Mai, the next largest place in Thailand located 543 miles to the north. By 1960 the capital's population had increased threefold to 1.8 million persons, equal to twenty-seven times the population of Chiang Mai. In 1967, the 2,614,400 persons living in Greater Bangkok outnumbered the residents of Chiang Mai thirty-two to one.

The statistics on changing distribution of urban places by population size represent only the net changes. Ascertaining the actual shifts in size-categories for particular places permits a more accurate evaluation of the pattern of urban development (Table 4). Of the total of 116 municipal areas in 1947, 81 had changed size-category by 1960, and all but two moved up. Furthermore, although at least half of all places in every size-category in 1947 had changed category by 1960, the greatest stability characterized the smaller size groups. Between 1960 and 1967 just under half of the municipal areas changed size category, all upward. Again, the smaller size groups showed the greatest stability. Thus, the close similarity between 1960 and 1967 in the percent of places in the 10-20,000 range is misleading; the superficial stability masks a considerable shift out of this size range compensated by an equally large shift into it from among the many places classified seven years earlier in the categories below 10,000.

Changing urbanization level can also be judged by population distribution among size-categories. At each successive enumeration, proportionally more persons were living in larger urban places. Almost one-half of the urban population lived in places under 20,000 in 1947, one-fourth did so in 1960 and just under one-fifth in 1967. The proportion living in places of 20,000-50,000 population increased from 7.3 percent in 1947 to 22.0 percent in 1967. Whereas there were no cities of 50-100,000 population in 1947, this category accounted for 3.4 percent in 1967. Yet, completely dominating the scene is the primacy of Greater Bangkok with 45.1 percent of the 1947 urban population, 53.2 percent in 1960, and 55.9 percent in 1967.

Larger places clearly occupy a more important role in the overall growth of Thailand's urban population. Of the total urban increase between 1947 and 1960 of 1,648,526 persons, 68 percent is attributable to the largest 10 of the total of 116 urban places, with Greater Bangkok alone accounting for 61 percent of the increase. The remaining 106 places, all of which were below 17,000 in 1947, accounted for only 32 percent of the total urban growth. Between 1960 and 1967, virtually the same pattern persisted. Of the total urban increase, 71 percent was due to the 10 largest places, with Greater Bangkok alone accounting for 63 percent. The remaining 109 places, none of which exceeded 31,000 population in 1960, accounted for only 29 percent of the total urban increase. Clearly, changing level of urbanization is a "bigger" city phenomenon and very largely attributable to changes in Greater Bangkok itself.

In each of Thailand's four regions, the proportion of persons living in urban places, was higher in 1967 than in 1947, although the Central region containing Bangkok was far in the lead, being one-third urban in 1967 in contrast to between 4 and 11 percent in the other three. Moreover, between 1947 and 1967 all regions were characterized by significant increases in the number of moderate-sized places and the dominance of the Central region, as measured by number of urban places among the ten largest, was considerably diminished. By 1967, Thailand's second, third, and fourth ranking urban places (treating Bangkok-Thon Buri as one) were each located in different regions outside the Central area. In potential, at least, each provides the basis for further urban growth in its region and greater decentralization of the urban population of Thailand as a whole. Thus, even while the dominance of Bangkok-Thon Buri in the Central region persisted and itself grew stronger, the overall impression is that in the period 1947-1967 urban development had begun to permeate all regions of the country and had become an important factor in the complex process of national social and economic development.

On the other hand, the existence of primate cities such as Bangkok-Thon Buri, tends to encourage further industrial, commercial, and service activities to locate within them. For example, of 2,177 new industries established in Thailand during 1968, 1,127, more than half, were in the metropolitan Bangkok area. This pattern increases the attractiveness of the primate city to potential migrants from other parts of the country, and in turn detracts from the growth potential of other cities and from the positive effects which even greater decentralized urban growth might have on economic and social development in other regions of the country.

### **Components of Urban Growth**

Urban population growth results from the net impact of several processes : 1) natural increase or decrease, reflecting the balance between births and deaths; 2) net migration, resulting from the balance between the total movement into and out of the urban areas; 3) increases due to changes in urban boundaries, usually through annexation of adjoining areas; 4) designation of new areas as urban places as they meet the official criteria. In Thailand, urban growth in recent decades has been only minimally affected by the designation of new urban areas. Increases in the urban population in Thailand are, therefore, to a very great extent a result of the interaction of the three other processes by which growth can occur. Yet, because of deficiencies in the available statistics, it is difficult, if not impossible, to identify the separate components of urban growth.

*Natural increase* Data from the Survey of Population Change, which was conducted in Thailand in the mid-1960's and encompassed the entire country, except Bangkok-Thon Buri,<sup>1</sup> suggest that considerable differentials in the levels of fertility and mortality characterize urban and rural places (Table 5). Regardless of which fertility measure was used, the level of births in municipal areas was far below that in the non-municipal areas suggesting that urbanization contributes significantly to a reduction of fertility levels.

The data on mortality indicate that the standardized death rate for municipal areas is almost half that of the non-municipal areas and that the infant mortality rate is three-quarters as high. Thus, despite the poor conditions that are often associated with urban life in developing countries, the overall net effect on health, as measured by mortality levels, is favorable. The exclusion of Bangkok-Thon Buri from the survey precludes direct evaluation of the extent to which its vital rates differ from smaller urban and rural places.



Table 5

Selected Fertility and Mortality Rates, Urban (Excluding Bangkok-Thon Buri) and Rural Places, 1964-1966

	Crude Birth Rate	General Fertility Rate	Total Fertility Rate	Gross Reproduction Rate	Net Reproduction Rate	Age Specific Fertility Rates						
						15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49
Total Kingdom	41.8	188.8	6.3	3.07	2.63	66.4	258.9	302.6	237.1	222.4	112.3	24.1
Urban*	29.9	125.2	4.2	2.06	1.86	47.8	164.4	223.3	171.8	142.5	89.3	7.7
Rural	43.2	194.7	6.5	3.16	2.78	68.2	267.7	309.5	282.9	229.4	114.5	25.6
	Crude Death Rate	Age Standardized Death Rate	Infant Mortality Rate	Under 1 Year	Age Specific Death Rates							
					1-9	10-19	20-29	30-39	40-49	50-59	60 & over	
Total Kingdom	10.9	10.9	84.3	89.3	6.9	2.4	3.8	4.7	8.0	11.6	49.4	
Urban*	5.6	5.4	67.6	65.3	-	-	-	-	5.4	7.8	38.6	
Rural	11.3	9.6	88.5	90.8	1.3	2.5	4.1	5.0	8.2	11.9	50.4	

\* Excludes Bangkok-Thon Buri.

Source : *Report of The Survey of Population Change, 1964-1966* (Bangkok : National Statistical Office, 1969), Tables A and E.

The most recent data for Bangkok, from its own registry, show a crude birth rate of 46 and a death rate of 7. The latter is fairly consistent with that noted for all the municipal areas by the Survey of Population Change. The birth rate is considerably above that of other municipal areas and even above the crude birth rate of the non-municipal areas, as reported in the Survey. However, since Bangkok's death and birth rates are uncorrected for underenumeration and are unstandardized, they must be used with caution.

The 1960 Thai census ascertained the number of children ever born to all ever married women in Thailand; and these data have been used to evaluate urban-rural differentials in fertility level (Table 6).<sup>2</sup> Quite clearly, urban-rural residence is related to fertility: There is

**Table 6**  
Selected Measures of Fertility, by Urban-Rural Residence

Bangkok	Other Urban, Non-Agric.	Urban, Agric.	Rural, Non-Agric.	Rural, Agric.	Total Kingdom
Average number of children ever born per 1,000 ever married women (standardized for age)					
3,375	3,778	3,997	3,982	4,461	4,261
Average number of children ever born per 1,000 ever married women age 35-49					
4,465	4,915	5,243	5,202	5,918	5,703
Percent distribution of ever married women age 35-49 having borne 0-3 children					
40.3	35.8	35.1	31.4	22.3	25.1
Percent distribution of ever married women age 35-49 having borne 8 or more children					
14.4	21.5	27.3	24.1	31.4	29.2

a clear decline in the level of fertility from the most rural to the most urban category.<sup>3</sup> Bangkok's level, 25 percent below that of the most rural parts of Thailand, corroborates the significant impact of the urban metropolis on fertility. The urban-rural pattern also holds for completed fertility. In the absence of separate data for the cohort of women aged 45-49, i.e., those just at the end of the reproductive span, the closest approximation to the group having completed fertility are women aged 35-49. Among this age cohort the average number of children ever born per woman living in Bangkok was 4.5; this average increased to 5.9 for rural, agricultural women.<sup>4</sup> The same differential is also evidenced in the distribution of ever married women aged 35-49 by parity level. The percentage having under four children declines from 40 percent in Bangkok to only 22 percent for rural, agricultural women, whereas the percent having 8 or more children increases from 14 percent in Bangkok to almost one-third of those living in rural, agricultural households.

Very clearly then, urban residence is associated with lower fertility, and residence in the major metropolis is associated with particularly low fertility compared to the rural areas. The data in themselves do not indicate whether this is the result of selective migration to the metropolitan area, or the selective effect of other factors such as age at marriage, percent married, or participation in the labor force, all of which display rural-urban differentials.

Research not reported here suggests that these and other factors contribute to the differentials. Regardless of specific reason, the association of higher urbanization levels with lower fertility suggests that increased urbanization may become an important factor in reducing the overall levels of fertility in Thailand.

*Migration* The magnitude of the pace of urbanization and the significance which this may have for social and economic conditions in the developing world emphasizes the need for consideration of the role of migration in the urbanization process and the relation between it and social, economic, and demographic development.<sup>5</sup> Particularly needed is research on the potential inherent in migration for social change. Migration may well have a strong impact not only on the large metropolis and on smaller urban places to which migrants move, but also on the small, isolated villages which the migrants leave and to which a number of them return. Movement in both directions may serve as the catalyst needed to speed up modernization and economic development in the extensive rural segments of the developing world, at the very same time that heavy migration may also exacerbate the problems in urban places.

Data from the 1960 Thai census give some insights into the relation between migration and urban growth.<sup>6</sup> These data permit identification of two sets of internal migrants : 1) persons who were living in a different province than that in which they had been born—lifetime migrants, and 2) persons living in a province different from that in which they resided five years prior to the census – five year migrants. Both sets of data have all the defects inherent in these types of migration statistics, compounded by the problems associated with census taking in a developing country.<sup>7</sup> Although they give no definitive answers to the role of migration in urban growth, they clearly point to the importance of migration to urbanization.

The data on lifetime migrants indicate that over one-third of all persons living in Bangkok were born in a different province (Table 7); this percentage declined consistently to less than 10 percent of those living in rural, agricultural places. The place of birth statistics further show that for all age groups, the percentage of lifetime migrants is higher for Bangkok than for any of the other urban-rural categories, and the differentials between Bangkok and the most rural category are very sharp. The magnitude of Bangkok's levels, reaching 60 percent or higher in the age groups 35-39 and over, is consistent with Bangkok's excessively high rate of growth. Clearly such growth could only have resulted from very heavy movement into the metropolitan area. However, the significantly higher proportions of older persons who are lifetime in-migrants suggests that an increasing proportion of the city's growth in recent decades may be attributable to natural increase, representing births occurring to both native residents of the city and to the migrants. At the other extreme of the urban-rural continuum, data suggest that a high degree of stability characterizes the population still living in rural places in 1960. Any upsurge in movement on the part of this large rural population reservoir, especially to urban places and to Bangkok, could have significant implications.

Using the five-year residence criterion (Table 8), the overall level of migration is considerably lower, but again Bangkok was characterized by the highest in-migration, taking males and females together. The five-year data demonstrate the selective nature of migration : rising levels characterize the young, peaking at ages 20-24 for males and 20-29 for females, followed thereafter by fairly continuous decline with increasing age. These age differentials clearly characterize each of the urban-rural categories, but tend to be particularly accentuated in Bangkok where one out of every five males between ages 20 and 24 in 1960 had moved into

**Table 7**

Percent of Persons Classified as Lifetime Migrants,\*  
by Age, Sex, and 1960 Urban-Rural Residence

Age	1960 Residence					Total Kingdom
	Bangkok	Other Urban, Non-Agricultural	Urban, Agricultural	Rural, Non-Agricultural	Rural Agricultural	
Males						
0 - 12	9.6	12.3	5.2	9.0	3.4	4.9
13 - 19	27.8	19.5	16.9	14.0	6.1	8.9
20 - 24	45.3	32.9	22.9	34.8	7.7	16.9
25 - 29	50.0	34.8	28.2	25.8	10.1	16.3
30 - 34	62.4	40.3	22.6	28.9	12.7	19.3
35 - 39	68.7	43.6	27.5	30.8	14.0	20.7
40 - 44	73.0	55.2	40.8	32.1	14.9	22.4
45 - 49	74.3	53.4	30.3	34.1	14.3	22.3
50 and Over	82.0	60.0	37.1	34.2	16.7	24.2
Total Population	37.7	28.4	19.2	21.2	7.9	12.5
Total Standardized for Age	37.4	28.5	18.1	20.2	8.1	12.4
Females						
0 - 12	9.3	11.8	5.9	9.7	3.3	4.8
13 - 19	30.7	22.6	25.7	14.7	6.1	9.1
20 - 24	45.0	24.4	21.2	19.2	7.5	11.8
25 - 29	49.5	31.2	19.7	23.8	7.8	13.7
30 - 34	50.0	35.4	20.9	16.6	9.2	13.5
35 - 39	59.4	32.1	22.6	23.3	10.2	15.5
40 - 44	70.0	40.3	20.7	24.1	9.9	16.1
45 - 49	72.3	40.3	21.7	24.2	10.7	16.8
50 and Over	69.2	38.1	25.0	22.8	12.0	17.5
Total Population	35.9	23.6	15.5	16.1	6.7	10.2
Total Standardized for Age	35.3	23.7	16.2	16.1	6.7	10.2

\* Province of residence in 1960 different from province of birth.

Source : Based on special tabulations of the 1 percent sample tape from the 1960 Thai census.

the city during the previous five years. Except for the two youngest age groups where there is close correspondence, the rates for females are consistently below those of the males. Urban places outside of Bangkok also experienced heavy in-movement, indicating that in recent years moderate-sized urban places in Thailand have begun to undergo rapid growth.

**Table 8**  
Percent of Persons Classified as 5-Year Migrants,\*  
by Age, Sex, and 1960 Urban-Rural Residence

Age	1960 Residence					Total Kingdom
	Bangkok	Other Urban, Non-Agricultural	Urban, Agricultural	Rural, Non-Agricultural	Rural Agricultural	
Males						
5 - 12	4.7	7.4	3.4	5.3	1.9	2.7
13 - 19	6.8	8.6	3.5	6.0	1.8	2.9
20 - 24	19.6	12.5	6.9	25.1 <sup>a</sup>	2.3	8.8
25 - 29	9.8	12.2	8.7	9.4	2.7	4.6
30 - 34	10.1	10.9	7.5	9.1	2.6	4.4
35 - 39	8.2	7.5	4.4	7.5	2.0	3.5
40 - 44	3.2	10.8	4.0	6.5	2.4	3.4
45 - 49	2.4	6.4	3.0	6.4	1.9	2.9
50 and Over	4.5	4.8	0.5	3.8	1.5	2.1
Total Population	8.8	8.6	4.0	9.4	2.0	3.7
Total Standardized for Age	7.1	8.5	4.2	7.8	2.0	3.7
Females						
5 - 12	6.2	7.9	2.6	5.5	1.8	2.8
13 - 19	9.9	7.6	6.7	5.7	2.0	3.1
20 - 24	15.4	8.7	9.7	7.1	2.1	3.8
25 - 29	14.0	9.1	6.8	8.1	1.9	3.9
30 - 34	7.6	8.2	2.3	6.1	1.6	2.9
35 - 39	6.7	5.7	3.6	5.4	2.0	3.0
40 - 44	4.2	6.9	-	5.0	1.3	2.2
45 - 49	6.5	5.5	1.2	5.0	1.9	2.6
50 and Over	4.0	3.9	1.0	3.2	1.1	1.6
Total Population	8.4	7.3	4.1	5.7	1.7	2.9
Total Standardized for Age	8.0	7.4	3.8	5.6	1.8	2.9

\* Province of residence in 1960 different from province of residence in 1955.

<sup>a</sup> Military personnel and monks are concentrated in the 20-24 age group and disproportionately resident in rural, non-agricultural places.

Source : Based on special tabulations of the 1 percent sample tape from the 1960 Thai census.

In Thailand, as in many countries of the world, migration is not a one way process.<sup>8</sup> Almost 10 percent of the capital's native-born population had moved to other parts of Thailand by 1960. Furthermore, while 127,500 migrants moved into the provinces containing the Bangkok metropolitan area from other parts of Thailand between 1955 and 1960, this move-

ment was cancelled out by as much as 50 percent by movement from the capital provinces to the rest of the country. Thus, even in a developing country with a city as primate as Bangkok, out-migration from highly urban areas is an inherent part of the urbanization process.<sup>9</sup> Whether constituted of return migrants or of a significant number of persons born in the urban center itself, these relatively large streams of out-migration indicate that movement to the large metropolitan center is considerably diminished by a movement out.

The importance for the developing country of this substantial out-migration from the primate city must not be overlooked. The Thai data indicate that a considerable portion of the out-migrants from Bangkok go to smaller urban places. These may be individuals who are unsuccessful in finding work in Bangkok or they may be persons seeking to take advantage of new opportunities in the growing, moderate-sized urban places in the other regions of Thailand. As an ILO survey of migrants in Bangkok found, the primary reason for coming to the city was economic.<sup>10</sup> Most of the migrants had no definite plans to return home; rather, they indicated they would stay in Bangkok provided they could find employment, but were willing to return to their villages should the economic outlook prove unfavorable. These data suggest that Sovani may be correct in his conclusion that rural-urban migration is not such a blind phenomenon as results in over-migration to urban areas because of the rural push. It seems to be much more cautious and discerning and reversible. But the fact that the out-migration from Bangkok includes a substantial number of persons who were born in the capital area also suggests that out-movement is not restricted to return migration.

These census statistics are generally superficial and give no insight into the dynamics underlying the process or the effects such movements have on the migrants or on the places of destination and origin. The magnitude of the movement does suggest that internal migration may be both a major instrument of change in the part it plays in the industrialization and economic development of the country by attracting persons to urban places, and in the potential it has for spreading urban values and patterns of behavior through the movement of significant numbers of individuals from the large metropolis back to rural places or smaller urban locations. But to the extent that a considerable portion of the movement to Bangkok may not yet be justified by the manpower needs and economic conditions in the metropolis, migration may also exacerbate the problems faced by Greater Bangkok and contribute to maladjustment on the part of migrants themselves.

One aspect of the importance of migration for social change is illustrated by the fertility differentials which characterize the migrant and non-migrant segments of the population (Table 9).<sup>11</sup> Compared to non-migrants in the place of destination, the fertility levels of the five-year migrants are lower in all urban-rural categories, but especially in Bangkok. They are also well below the levels of the non-migrants in the rural, agricultural category from which most of the migrants probably came. The data do not permit full determination of whether migration operated as cause or effect of lower fertility. Yet this clear association of migration with lower fertility level, coupled with the fact that the fertility level, regardless of migration status, is considerably lower for residents of urban places than rural places, testifies to the important role of both migration and urbanization in affecting fertility levels. In Bangkok, the age standardized fertility of migrant women is 2,982 children ever born per 1,000 ever married women, compared to 3,427 for the non-migrant women. But even more significant, in the rural, agricultural category, fertility averaged 4,468 children ever born per 1,000 ever married women. These differentials by both migration status and urbanization level suggest that movement to urban places, while compounding some of the problems associated with

**Table 9**  
 Number of Children Ever Born Per 1,000  
 Ever Married Women by Migration Status and  
 1960 Urban-Rural Residence, Standardized for Age

Urban-Rural Residence	Non-Migrant	Migrant*	Ratio Migrant to Non-Migrant
Bangkok	3,427	2,982	87.0
Other-Urban, Non-Agricultural	3,794	3,485	91.8
Urban, Agricultural	4,032	-	-
Rural, Non-Agricultural	4,032	3,740	92.8
Rural, Agricultural	4,468	4,242	94.9
Total Kingdom	4,326	3,878	89.6

\* Province of residence in 1960 different from province of residence in 1955.

Source : Based on special tabulations of the 1 percent sample tape from the 1960 Thai census.

rapid urbanization, may have the positive by-product of reducing fertility levels for migrant women. At the same time, if there is a considerable movement out of the large cities to other parts of Thailand, migrants may affect fertility levels in the smaller places through the ideas and patterns of behavior which they bring with them after exposure to life in the metropolis.

The relative importance of migration and natural increase in Greater Bangkok's growth cannot be categorically determined from the data available for Thailand.<sup>12</sup> But some insights can be obtained. The place of birth data indicated that a large majority of persons 25 years old and over were born outside Bangkok, suggesting that in earlier decades migration provided the major source of population growth. Two sets of data indicate, however, that in recent years natural increase accounts for more of the growth than migration : 1) A significant majority of the inhabitants of Bangkok under age 25 were born within the city and its province. 2) More directly, estimates based on registration data show that between January 1, 1961 and December 31, 1967, natural increase accounted for between 60 and 67 percent (depending on the extent of vital statistics completeness) of the total population increase of the metropolitan area.<sup>13</sup>

Both sets of data therefore support Davis' claim that, contrary to popular opinion, the main factor in the rapid inflation of city populations is not rural-urban migration, but sheer biological increase at a rate that is unprecedented.<sup>14</sup> In supporting the validity of such a conclusion for Bangkok, it is important to recognize: 1) that a considerable portion of the natural increase in recent years is attributable to the fertility of migrants who had moved into Bangkok earlier; and 2) that in the overall growth of Bangkok, the reduced level of migration in recent years still constitutes a very significant contribution to total growth, particularly since it reflects the effect of net migration only. In pointing to the importance of natural increase in Bangkok's growth, these data stress that even if migration were to slow down, the city would continue to grow at a considerable rate because of the large excess of births over deaths. This

underscores the pressing need for greater success in efforts to reduce fertility levels in the metropolitan area as well as in Thailand as a whole.

*Family Planning Activities* In general, studies of the knowledge, attitudes, and practices (KAP) of the population regarding family planning have shown a high level of interest and motivation among Thai women, but with knowledge and practice varying according to levels of education, urbanization, and modernization.<sup>15</sup> Where family information services have been made available, acceptance has been higher than in most Asian countries, although not attaining levels equal to the interests shown in survey results. Until 1970, Thailand did not have an official policy favoring birth control, although a number of programs had been undertaken to facilitate the availability of birth control information to those women seeking it. Most family planning activity has taken place in Greater Bangkok where the major hospitals and clinics have been concentrated and where the population is more amenable to adopting family planning practices.

According to the official statistics prepared by the Ministry of Public Health,<sup>16</sup> as of April, 1971, almost 700,000 women in Thailand have accepted some form of contraceptives through clinics operated by the Department of Health, the Department of Medical Services, and other programs. Of this number, 28 percent lived in Bangkok, far above what one would expect on the basis of Bangkok's 7 percent share of Thailand's total population. With the development of a national program and the diffusion of facilities and trained personnel throughout the country, the earlier concentration of family planning activities in Greater Bangkok will change drastically over the next decade.

In fact, data from the national reporting system initiated in 1969 of acceptors of contraception already show evidence of such a trend. Whereas Bangkok initially accounted for one-fourth of the monthly number of acceptors in Thailand, by 1971 the number of acceptors accounted for by the metropolitan area had diminished sharply to 10 percent. This change suggests that family planning may become much more common in rural areas of Thailand. This could begin to have a significant impact on the rate of population growth and, in turn, reduce the pressures which might otherwise have developed for rural exodus to Bangkok and other urban places. At the same time, the continuing development of the program within Bangkok, and the greater availability there of contraceptives that are sold commercially or through private prescription provide some hope that the city's rate of natural increase and population growth may decline.

Until the results of comparative surveys in urban and rural parts of the country become available, comprehensive evaluation of rural-urban differentials in knowledge and practice of family planning must remain speculative, although available evidence, including a lower birth rate, points to Bangkok as the major center for family planning activity. On this basis, its role as an initiator of social change in this important demographic sphere may be indicative of the role which the metropolis occupies as a diffusion center in the urban hierarchy as well as in relation to the large rural hinterland.<sup>17</sup>

### **Intra-Urban Distribution and Mobility**

Using registration data, Sternstein made an analysis of the Greater Bangkok Metropolitan Area population growth patterns between 1956 and 1960, with particular attention to intra-urban population distribution.<sup>1</sup> He found that the residential densities declined regularly from 100,000 persons per square kilometer in the center of the city to a lobed periphery of



little more than 5,000 people per square kilometer. Four-fifths of the twin cities' populations lived in density areas of less than 50,000 people per square kilometer and half of them in areas with less than 20,000 to the square kilometer.

Comparison of the distribution patterns in 1960 with those in 1950 indicate that "the less densely settled outer portion of the built-up area and adjacent wards, as well as those where roads traverse the surrounding cultivated lands, gain population through movement while the more densely settled inner portion of the built-up area and the greater part of the agricultural environs lost population through movement. The net effect was that in wards which were already thickly settled, densities lessened but gently for the most part whereas in wards less closely settled, densities generally increased, but usually not markedly." Consistent with our findings, Sternstein concludes that "the major part of the great growth of population in Greater Bangkok Metropolitan Area during the period 1956-1960 is attributable to a notable rate of natural increase, though a substantial in-migration contributed handsomely".<sup>2</sup>

By contrast, changes in the distribution of the population within the city reflect largely the effects of internal movement. Although nine wards were characterized by an excess of moves out, no ward experienced an absolute loss of population because natural increase was sufficiently high to compensate for net losses due to out-migration. Above all, Sternstein emphasizes that the data suggests a general "transientness". Evidently, many provincials find employment in the city for short periods of time and then leave. Moreover, neighborhood relocations are considerable. He concludes that much of the vigorous extension of the built-up area between 1956 and 1960 appears attributable to a domestic movement from the center to the periphery, with migrants from elsewhere replacing losses from the inner area and augmenting gains to the outer area. Such a pattern may represent the beginning of suburbanization.

In all, between 1956 and 1960, 1,022,000 "movers-in" and 903,000 "movers-out" were recorded by the Bangkok-Thon Buri registries. These include both intra-urban changes in residence and moves into and out of the twin cities.<sup>3</sup> Although of questionable accuracy, these statistics do point to the very significant amount of movement characterizing the metropolitan area and the strong likelihood that there is a very extensive degree of intra-urban mobility compounding the instability that may already characterize the metropolitan area as a result of relatively high degrees of in- and out-movement.

### **Population Composition**

Concern with the sheer numbers involved in city growth in the developing world must not be at the expense of an interest in whether and how the urban population differs from the rural in social and economic composition.<sup>1</sup> The kinds of problems which cities face, the role of the urban metropolis in the overall modernization process and the adjustment of the population to urban life may all be influenced by the differential composition of the urban population. Special tabulations from the 1960 Thai census provide one of the first opportunities to undertake a comprehensive comparison of the characteristics of the Bangkok population and those living in other smaller urban places in Thailand and in the rural segments of the country. Although data are presented for all five residence categories on the rural-urban continuum, the discussion itself will focus largely on Bangkok. In all comparisons, age is controlled by direct standardization.<sup>2</sup>

*Age-Sex Composition* As is typical of most developing countries, and reflecting its very high birth rate, Thailand as a whole and Bangkok are both characterized by a very young

population. Despite the selective migration which has characterized movement to Bangkok and the differential patterns of fertility and mortality, the age composition of its population is very similar to that of the total kingdom and to each of the other urban-rural categories (Table 10). Over half of the Thai population are under 20 years of age, and only 3 percent

**Table 10**  
Age-Sex Distribution and Sex Ratio, by Urban-Rural Residence, 1960

Age	Males	Females	Total Percent	Sex Ratio
Bangkok				
0 - 12	19.7	18.6	38.3	106.2
13 - 19	6.4	6.5	12.9	99.1
20 - 24	5.1	4.6	9.7	113.1
25 - 34	8.0	7.7	15.7	104.8
35 - 44	5.0	4.6	9.6	108.2
45 - 54	3.4	3.5	6.9	99.8
55 - 64	2.0	2.0	4.0	96.0
65 and Over	1.0	1.8	2.8	55.1
Total Percent	50.8	49.2	100.0	103.2
Total Number	6,147	5,959	12,106	
Other Urban, Non-Agricultural				
0 - 12	20.3	20.1	40.4	101.0
13 - 19	6.2	6.3	12.5	98.1
20 - 24	3.8	4.4	8.2	87.6
25 - 34	7.4	7.5	14.9	97.8
35 - 44	4.8	5.2	10.0	94.1
45 - 54	3.9	3.3	7.2	118.4
55 - 64	1.8	1.9	3.7	94.2
65 and Over	1.3	1.8	3.1	70.3
Total Percent	49.5	50.5	100.0	98.1
Total Number	5,459	5,566	11,025	
Urban, Agricultural				
0 - 12	17.6	17.4	35.0	100.9
13 - 19	8.2	7.5	15.7	108.3
20 - 24	4.1	5.2	9.3	79.4
25 - 34	6.1	6.4	12.5	96.6
35 - 44	4.6	5.3	9.9	84.8
45 - 54	4.2	4.4	8.6	94.3
55 - 64	2.9	2.9	5.8	96.8
65 and Over	1.8	1.5	3.3	114.3
Total Percent	49.3	50.7	100.0	97.2
Total Number	1,572	1,618	3,190	

**Table 10 (Cont'd)**

Age	Males	Females	Total Percent	Sex Ratio
Rural, Non-Agricultural				
0 - 12	19.3	19.2	38.5	100.4
13 - 19	6.7	5.3	12.0	125.3
20 - 24	7.2	4.3	11.5	165.7 <sup>a</sup>
25 - 34	7.6	7.6	15.2	102.0
35 - 44	4.9	4.6	9.5	106.8
45 - 54	3.2	2.9	6.1	111.9
55 - 64	1.9	2.0	3.9	95.0
65 and Over	1.5	1.8	3.3	83.0
Total Percent	52.3	47.7	100.0	109.8
Total Number	18,651	16,982	35,633	
Rural, Agricultural				
0 - 12	19.9	19.6	39.5	101.5
13 - 19	6.9	7.1	14.0	96.6
20 - 24	4.1	4.6	8.7	87.9
25 - 34	6.8	7.2	14.0	95.3
35 - 44	4.8	4.8	9.6	98.7
45 - 54	3.4	3.6	7.0	97.3
55 - 64	2.2	2.3	4.5	95.2
65 and Over	1.2	1.5	2.7	81.6
Total Percent	49.3	50.7	100.0	97.2
Total Number	92,874	95,504	188,378	
Total Kingdom				
0 - 12	19.8	19.5	39.3	101.5
13 - 19	6.8	6.8	13.6	100.1
20 - 24	4.5	4.6	9.1	99.4
25 - 34	7.0	7.3	14.3	96.9
35 - 44	4.8	4.8	9.6	99.8
45 - 54	3.4	3.4	6.8	100.0
55 - 64	2.1	2.3	4.4	95.2
65 and Over	1.2	1.6	2.8	80.2
Total Percent	49.8	50.2	100.0	99.3
Total Number	124,703	125,629	250,332	

<sup>a</sup> Military personnel and monks are concentrated in the 20-24 age group and disproportionately resident in rural, non-agricultural places.

Source : Based on special tabulations of the 1 percent sample tape from the 1960 Thai census.

are aged 65 and over. In fact, almost 40 percent are under 13 years of age, suggesting the enormous challenge which the country as a whole and the urban metropolis face in the task of education and eventually in providing adequate employment opportunities.

The effects of migration show up more with respect to sex composition. Because migration to Bangkok has been more heavily male, Bangkok has a higher sex ratio, 103 males per 100 females, than does the total kingdom. But these differentials do not operate uniformly throughout the age structure. Reflecting the combined effects of differentials in sex ratio at birth which favor males, the higher sex ratio of migrants, the higher mortality rates of males, and undoubtedly, errors in census reporting, the sex ratio tends to be quite irregular among different age groups.<sup>3</sup> However, the dominant male migration to Bangkok is clearly evidenced in the excess of males over females between the ages of 20 through 44. But then, the sex ratio favors females, quite heavily so in the case of the aged population where women outnumber men by almost two to one. In a society which has not yet developed a comprehensive system of social security and medical care, such a distorted sex ratio among the aged may contribute significantly to urban problems, particularly as the aged group grows.

*Marital Status* Both fertility levels and the overall stability of life in the urban metropolis may be affected by the marital status of the population.<sup>4</sup> A number of studies have suggested that movement to the city occurs disproportionately among unmarried individuals. Limited information on the marital status of migrants supports such a conclusion. The marital composition of Bangkok's population also shows significant differences from that of rural areas and the kingdom as a whole (Table 11).

In the total kingdom, 38 percent of all adult males (age 13 and over) were single and 57 percent were married; the remaining small proportion were widowed or divorced. By contrast, in Bangkok 45 percent of all males were single and 48 percent married; 5.3 percent were widowed or divorced. A combination of a higher proportion of both single persons and of those widowed and divorced suggests that the city has particular attraction to individuals without immediate family ties, or at least that it is easier for such individuals to leave the rural areas for movement to the city. Moreover, within the married group, Bangkok contains a disproportional number of persons living without their spouse, almost one-fourth of all the married males, in contrast to virtually no such individuals in the rural, agricultural households.

The basic pattern is similar for females (Table 11), including a very high proportion with spouse absent. It may be that in a number of cases the absent spouse was actually resident in Bangkok, but that the nature of the employment required separate residence. For example, a number of women working as domestic servants may live in, and thus be counted as married with spouse absent. On the other hand, a number of married persons may come to the city and leave their spouse and often their children in the village until such time as they become economically established in the urban metropolis. Or possibly, they do not plan to remain in Bangkok permanently and therefore leave the family behind. The high volume of return migration would support such an interpretation. Regardless of reason, with only about 40 percent of Bangkok's total adult population married and reported living with spouse, there are a very considerable number of unattached individuals in the city, many of whom are probably recent migrants and a considerable proportion of whom may either be unemployed or underemployed. How the social, psychological, and economic needs of these individuals are met presents a major challenge.

This differential in marital composition reflects, in part, a differential in age at marriage, which in Bangkok is later than in the rural parts of Thailand. For males, the age at which 50 percent are married is 26.7, over two years higher than the 24.3 average characterizing rural, agricultural areas. The differential is not as great for females, but it is also higher for Bangkok,

**Table 11**  
Marital Status, by Urban-Rural Residence and Sex  
(Standardized for Age)

	Bang- kok	Other Urban, Non- Agric.	Urban, Agric.	Rural, Non- Agric.	Rural, Agric.	Total Kingdom
Males						
Single	44.8	42.7	43.6	43.2	36.3	38.3
Married						
Spouse Present	38.8	49.0	48.1	51.0	58.8	55.9
Spouse Absent	9.4	3.0	4.7	1.1	0.6	1.2
Widowed	2.5	2.8	2.6	2.8	2.9	2.9
Divorced or Separated	2.8	2.1	0.9	1.6	1.2	1.4
Unknown	1.7	0.4	0.1	0.3	0.2	0.3
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	3,760	3,219	1,011	11,768	55,410	75,169
Females						
Single	34.6	32.3	36.7	26.7	28.8	29.1
Married						
Spouse Present	38.8	48.4	46.5	54.4	56.5	54.9
Spouse Absent	9.6	4.2	4.4	2.3	1.1	1.9
Widowed	11.9	10.4	8.9	11.3	9.8	10.1
Divorced or Separated	4.4	4.4	3.3	4.9	3.5	3.8
Unknown	0.7	0.3	0.2	0.4	0.3	0.2
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	3,712	3,348	1,062	10,126	58,580	76,828

Source : Based on special tabulations of the 1 percent sample tape from the 1960 Thai census.

22.7 compared to 21.3. Such later age at marriage may contribute somewhat to the lower fertility of the Bangkok population but the differential is not sufficiently great to account for the entire difference. But the later age at marriage does contribute to a much higher proportion of single, unattached persons in age groups under 30.

In his study of Southeast Asian cities, McGee questions the contention that the traditional ties of family life are breaking down under the impact of urban life.<sup>5</sup> Census data in themselves are inadequate to test whether the network of social relations continues even though residentially the members of the nuclear family are separated. More information is needed on both the extent to which such individuals rely on kinship ties, associate with and often live with kin in the city, as well as the extent to which they maintain ties with kin in the village.<sup>6</sup>

*Labor Force and Occupation* Both the volume and direction of migration have been influenced by a complex series of factors which have frequently been subsumed under the

concepts of “push” and “pull”.<sup>7</sup> Among those factors classified as “push”, most prominent is the high rate of rural population growth and the stagnant rural economy, with the consequent increase in population density and the pressure on limited land resources. This situation is aggravated in many places by the low level of agricultural industrialization resulting in low efficiency and productivity. In a number of villages, the lack of non-agricultural occupations to absorb the surplus labor and the stagnation of handicraft industries contribute further incentives for exodus to towns and cities. At the other extreme, classified as the “pull factors” are many aspects of the urban way of life, including better employment opportunities, educational opportunities, better housing and social facilities, the general opportunity to be socially mobile, and the excitement of urban life itself. But increasingly, studies have emphasized that it is an extreme oversimplification to attempt to isolate “push” and “pull” factors.<sup>8</sup> Not only are the factors affecting movement complex, but often the decision to move may be a function of the individual’s perception of the comparative situations rather than of real differentials. The high levels of turnover and return migration support such a conclusion.

Yet, overriding all the factors cited in the literature as cause of “push” or “pull” is the economic and particularly the differential in employment and income earning potentials, at least as this differential is perceived by migrants.<sup>9</sup> But to the extent that the opportunities available in the still underdeveloped industrial sector of the urban metropolis do not match either the numbers of migrants moving in or the educational and occupational skills of the migrants, the urban population and particularly the big city population may be characterized by considerable unemployment, underemployment, or concentration in occupations, especially in the service sector, requiring minimum skill and minimum economic resources.

Reflecting the close similarity in age structure between Bangkok and the rest of Thailand, minimal differences exist in the proportion of persons of working age in the metropolis compared to rural areas and the kingdom as a whole. Yet there are significant differentials in the proportion of individuals who are economically active, particularly among females (Table 12). For males aged 11 and over, just under 70 percent in Bangkok were in the labor force, in contrast to 88 percent of males in rural, agricultural households. In large measure, this differential stems from the earlier entrance of the rural males into the labor force and their tendency to remain economically active for a longer time. In Bangkok, a large proportion of the males under age 20 were still students; and after age 50 there is a greater tendency on the part of men in the metropolitan area to withdraw from the labor force.

The females labor force shows even sharper differences between Bangkok and rural Thailand than does the male labor force. Overall, only 34 percent of Bangkok’s women age 11 and over were in the labor force, in contrast to 87 percent of the women in rural, agricultural households. This high labor force participation rate for women—one of the highest in the world—is, in part, a statistical artifact, since all women engaged in farming are counted as members of the labor force even though they are unpaid family workers. This practice has resulted in virtually all older women in rural, agricultural households being counted as members of the labor force. The differential between Bangkok and rural, agricultural Thailand is even more marked for particular age groups. Whereas in rural Thailand, labor force participation reaches 97 percent among women 20-24 and remains at this very high level through the 45-49 age group, dropping only to 70 percent for those 50 and over, in Bangkok, labor force participation reaches a peak of only 48 percent in the 35-39 year group and is considerably lower for both younger and older women.

**Table 12**  
**Labor Force Status by Urban-Rural Residence and Sex**  
**(Standardized for Age)**

	Bang- kok	Other Urban, Non- Agric.	Urban, Agric.	Rural, Non- Agric.	Rural, Agric.	Total Kingdom
Males						
In the Labor Force	69.8	69.2	74.3	69.8	88.2	83.5
Student	22.7	21.7	20.7	11.6	9.0	10.7
Retired, Unable to Work	4.5	3.6	2.8	3.6	2.2	2.6
Inmate, Priest, Other, Unknown	3.0	5.5	2.1	15.0	0.5	3.2
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	4,089	3,484	1,083	12,567	60,207	81,430
Females						
In the Labor Force	34.0	42.6	60.3	56.8	86.8	77.9
Housewife	39.1	33.4	17.8	26.2	2.3	8.9
Student	17.7	16.4	15.5	9.0	6.0	7.5
Retired, Unable to Work	8.0	6.5	5.4	6.7	4.7	5.2
Inmate, Other, Unknown	1.2	1.0	1.0	1.3	0.2	0.5
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	3,983	3,628	1,142	10,870	63,224	82,847

Source : Based on special tabulations of the 1 percent sample tape from the 1960 Thai census.

The data strongly suggest that the close interrelation between economic life and domestic life, which characterizes rural women, has been broken for a considerable portion of Bangkok women. Other research has suggested that this has great significance for fertility levels;<sup>10</sup> the data for Thailand support such a conclusion insofar as labor force participation in rural Thailand does not seem to affect the number of children born, whereas participation in the labor force in the city contributes to lowered fertility.

If a considerable portion of urban population growth due to migration does not reflect an actual economic need for large urban population concentration, then Bangkok should have a considerably higher level of unemployment than the rural, agricultural category. The percentage reported as unemployed is greater in Bangkok, 3.4 percent, in contrast to well below 1 percent of those in the rural, agricultural group; yet Bangkok's level is not especially high.

The disproportional concentration of unemployment in Bangkok is also evidenced by data from the 1967 Labor Force Survey.<sup>11</sup> Whereas Bangkok's labor force of one million persons constituted almost 7 percent of Thailand's total labor force, the city accounted for almost one-third of all of Thailand's 64,000 individuals reported as unemployed. Furthermore over two-thirds of the unemployed were under 25 years of age and the great majority of these

had never worked, indicating the growing problem which the urban metropolis faces in providing employment opportunities both to those moving in from rural areas and to the increasing numbers of young persons born in the city who are reaching working age. Recent estimates indicate that Bangkok needs to create 150,000 jobs annually during the 1970-80 decade to meet these combined needs.<sup>12</sup>

Even though the levels of unemployment are relatively low, underemployment may constitute a more serious problem. Some insight into the extent of such underemployment is provided by information on the occupational composition of the labor force (Table 13). Because of Thailand's highly rural character, the contrasts in occupational patterns between Bangkok on the one hand and both the total kingdom and the rural, agricultural areas are very sharp. Craftsmen is the single largest group in the male labor force of Bangkok, accounting for over one-third of the total, followed by sales workers with just over 20 percent. Vying for third place are service workers and clerical workers with about 10 percent each. The occupational distribution of females in Bangkok differs from that of males. The single largest employment category is sales work, followed by craftsmen, and service workers in third place. Clerical work accounts for only 5 percent of female employment in Bangkok. The proportion of the labor force engaged in tertiary industry is not as high in Bangkok as in several other cities in developing countries, suggesting possibly that the movement to Bangkok to date has been more "efficient". This, in turn, may be related to the generally lower level of urbanization which still characterizes Thailand and may afford the urban metropolis an opportunity to anticipate future movement and to incorporate appropriate programs in its development plans, for avoiding increased unemployment and underemployment by diverting some of the future movement to smaller urban places, encouraging individuals to remain in rural places, and developing industrial employment opportunities in Bangkok itself.

*Literacy and Education* Any effort to modernize a developing country must include provision for reducing the rate of illiteracy and raising the level of education. Compared to other developing countries, Thailand's population is highly literate. Defining as literate anyone ten years of age or over who is able to read and write in any language, the 1960 Thai census showed that four out of every five men and three out of every five women qualified as literate (Table 14). But for both men and women, these levels were higher in urban places and lower in rural. Bangkok's level of literacy was substantially higher than that of the rural, agricultural places for both males and females, yet it was not characterized by the highest levels, being exceeded by the other urban, non-agricultural and urban, agricultural places. The somewhat lower level of literacy in Bangkok may reflect the impact of migration. Migrants are generally characterized by higher levels of education than the rural population which they leave behind but by lower levels of education than the urban population into whose midst they move.<sup>13</sup> The overall level of literacy of Bangkok may be pulled down by the number of migrants moving into it. The migrants' lower education may also create disadvantages in competition for jobs in the urban job market.

Reflecting the significant changes which have taken place in the extent of education, the level of literacy varies inversely with age for Thailand as a whole, as well as for Bangkok and the rural sectors. It is encouraging that even in the rural areas, as high as 90 percent of the males between ages 13 and 24 are literate, and that this is true of the groups between ages 10 and 30 in Bangkok. The picture is good, but not as bright for younger females. In Bangkok, peak literacy characterizes ages 13-19, reaching 88 percent, and all age groups under 35 among women have at least three-fourths of their members classified as literate.



**Table 13**  
Occupational Distribution by Urban-Rural Residence and Sex  
(Standardized for Age)

	Bang- kok	Other Urban, Non- Agric.	Urban, Agric.	Rural, Non- Agric.	Rural Agric.	Total Kingdom
Males						
Professional and Administrative	5.7	5.5	6.2	3.6	1.1	1.8
Clerical Workers	10.0	7.3	5.2	3.6	0.2	1.6
Sales Workers	21.9	23.2	5.9	14.5	0.9	4.3
Farmers and Miners	2.3	10.4	50.7	36.3	95.1	79.6
Transport Workers	7.4	12.9	6.8	4.2	0.4	1.8
Craftsmen	35.1	24.7	16.4	23.5	1.6	6.8
Service Workers	10.5	12.8	7.3	5.3	0.4	2.0
Unclassified and New Workers	7.0	3.2	1.5	8.9	0.3	2.1
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	2,900	2,452	795	8,925	52,945	68,017
Females						
Professional and Administrative	6.7	7.1	5.4	2.0	0.2	0.9
Clerical Workers	5.3	1.2	1.6	0.2	*	0.2
Sales Workers	34.8	53.3	14.6	29.6	1.2	6.0
Farmers and Miners	2.4	7.0	65.1	42.5	97.2	87.4
Transport and Service Workers	18.2	12.9	5.0	5.4	0.2	1.5
Craftsmen	27.8	15.7	6.8	17.9	1.0	3.6
Unclassified and New Workers	4.8	2.7	1.3	2.3	0.1	0.4
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	1,363	1,550	685	6,180	54,843	64,621

\* Less than 0.1 percent.

Source : Based on special tabulations of the 1 percent sample tape from the 1960 Thai census.

Literacy is only a crude measure of population quality; better measures are enrollment in school and education completed. Thailand has recognized the importance of education in achieving its development objectives; the country entered the decade of the 1960's with an educational system that in terms of coverage of the eligible population was among the best in Asia. Nonetheless, rapid population growth has imposed a heavy burden on both physical facilities and trained personnel and has significantly hampered the achievement of educational

**Table 14**  
Literacy Status, by Urban-Rural Residence and Sex  
(Standardized for Age)

	Bang- kok	Other Urban, Non- Agric.	Urban, Agric.	Rural, Non- Agric.	Rural, Agric.	Total Kingdom
Males						
Literate	86.2	87.6	89.9	82.1	79.2	80.6
Illiterate	13.5	12.4	10.0	17.7	20.7	19.3
Total Percent*	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	4,247	3,628	1,122	13,011	62,952	84,960
Females						
Literate	69.6	73.0	74.1	59.7	59.3	60.6
Illiterate	30.2	26.8	25.8	40.1	40.6	39.3
Total Percent*	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	4,135	3,777	1,187	11,327	65,809	86,235
Males and Females						
Literate	78.0	80.2	82.0	70.9	69.2	70.6
Illiterate	22.0	19.8	18.0	29.1	30.8	29.3
Total Percent*	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	8,382	7,405	2,309	24,338	128,761	171,195

\* Total percent includes small number of cases for whom literacy status is unknown.

Source : Based on special tabulations of the 1 percent sample tape from the 1960 Thai census.

goals. The quality of education is recognized as not yet being of sufficiently satisfactory level. Although there are more and better schools with higher enrollment and more teachers than in earlier periods, these advances have been counterbalanced by the rapid population increase. As a result, a somewhat smaller proportion of Thai children have been enrolled in school in recent years than was true in 1960.

In Thailand, four years of primary education are compulsory, and the educational system at this level has largely achieved its goal. However, the educational pyramid narrows sharply thereafter. Only eight to nine students out of every 100 who enter first grade reach the seventh grade. Whereas just over two-thirds of all males between ages 11 and 12 and just under 60 percent of all females were enrolled as students, this proportion dropped very sharply to under one-fourth of the males and only 14 percent of the females in the 13-19 year age group. Enrollment in Bangkok for both males and females was considerably above that in the rural, agricultural places, particularly for the 13-19 year age group.

Educational differentials can be evaluated better through examination of number of years of school completed by persons 20 years of age and over (Table 15). These point to a similar pattern. Among males, the percentage of individuals without any schooling varies somewhat by rural-urban status, but interestingly is quite similar for Bangkok and the rural, agricultural

**Table 15**  
Years of School Completed, by Urban-Rural Residence and Sex  
(Standardized for Age)

	Bang- kok	Other Urban, Non- Agric.	Urban, Agric.	Rural, Non- Agric.	Rural, Agric.	Total Kingdom
Males						
None	30.1	25.6	21.6	30.6	32.6	31.7
Primary : 1-4 Years	34.3	41.5	46.5	53.8	62.3	58.4
Secondary :						
1-3 Years	6.9	8.4	8.2	4.4	2.2	3.1
4-6 Years	11.2	14.8	11.0	5.7	1.4	3.3
Pre-University :						
1-2 Years	5.0	3.0	5.0	1.5	0.4	1.0
University :						
1 or More Years	6.1	3.0	5.3	0.8	0.2	0.8
Other	3.3	2.6	1.0	2.2	0.5	1.0
Unknown	3.1	1.1	1.4	1.0	0.4	0.6
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	2,983	2,533	751	9,388	42,494	58,149
Females						
None	46.3	42.0	39.3	53.0	53.6	52.5
Primary : 1-4 Years	33.9	43.3	44.9	42.7	45.4	44.4
Secondary :						
1-3 Years	5.0	5.2	4.9	1.5	0.4	1.1
4-6 Years	6.6	5.5	5.2	1.5	0.3	1.0
Pre-University :						
1-2 Years	2.4	1.8	2.2	0.4	0.1	0.3
University :						
1 or More Years	3.6	1.5	3.2	0.4	0.1	0.4
Other	0.7	0.2	0.3	0.1	*	0.1
Unknown	1.5	0.5	-	0.4	0.1	0.2
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	2,928	2,649	822	8,211	45,209	59,819

\* Less than 0.1 percent.

**Table 15 (Con'td)**

	Bang- kok	Other Urban, Non- Agric.	Urban, Agric.	Rural, Non- Agric.	Rural, Agric.	Total Kingdom
	Males and Females					
None	38.4	33.9	30.5	42.0	43.3	42.2
Primary : 1-4 Years	34.1	42.5	45.7	48.1	53.7	51.3
Secondary						
1-3 Years	5.9	6.8	6.6	2.9	1.3	2.1
4-6 Years	8.9	10.0	8.1	3.6	0.8	2.1
Pre-University :						
1-2 Years	3.7	2.4	3.6	0.9	0.2	0.6
University :						
1 or More Years	4.8	2.2	4.2	0.6	0.2	0.6
Other	1.9	1.4	0.6	1.2	0.3	0.6
Unknown	2.3	0.8	0.7	0.7	0.2	0.5
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	5,911	5,182	1,573	17,599	87,703	117,968

Source : Based on special tabulations of the 1 percent sample tape from the 1960 Thai census.

extreme. The significant differential appears in the numbers who have attended school for only the compulsory four years and those who have gone on to more schooling. Whereas in the rural, agricultural category 62 percent of all males had only a primary school education, only one-third of those in Bangkok restricted their education to one to four years. Thus, taking account of those without any schooling, one-third of the Bangkok population had an education beyond four years, but only 5 percent of the rural, agricultural males did so. Moreover, whereas virtually all of the rural males who went beyond four years restricted their additional education to secondary school, in Bangkok almost half of this group continued on to pre-university education.

Whereas similar proportions of the male populations in Bangkok and other parts of the country had no education, this was not as true of the females. In rural, agricultural areas, somewhat more women had not had any schooling compared to Bangkok. Yet from the primary level on, the educational profiles of women in Bangkok and rural, agricultural areas are much more similar than was true of males, reflecting a cultural pattern that puts much less stress on formal education for women. For the rural, agricultural areas, 99 percent of all women age 20 and over had four years or less of schooling, and for Bangkok this percentage amounted to 80 percent — well above the two-thirds level characterizing males.

While confirming that Thailand as a whole and Bangkok in particular rate well with respect to literacy levels and percentage of students obtaining some education, these data indicate that the overall quality of education, as measured by numbers of years of school completed is still comparatively low. Considerable effort needs to be exerted in this direction if education is to play a crucial role in the development and modernization process; particular-

ly, it must provide the kinds of skills needed in both the urban metropolis and for agricultural development in rural areas. Given the continuing rapid population growth and the added strain that it will place on educational facilities, vocational education becomes even more crucial, particularly in rural areas where education can either better train the youth for work in agriculture and thereby encourage them to remain in the villages, or give youth the skills which better qualify them for work in the urban labor force.

*Ethnicity and Religion* Reflecting the metropolitan and primate character of Bangkok, its population is quite cosmopolitan; not only have more Thais migrated there from other parts of the country, it also has greater ethnic and religious diversity than the rest of Thailand. As noted earlier, the Chinese community of Bangkok predates the founding of the capital; it still forms a substantial part of the population. During the first decades of the twentieth century, as many as 40,000 Chinese per year entered Thailand, accounting for as much as one-third of all population growth in the country. Most settled in Bangkok. In fact, estimates indicate that in 1828 three-fourths of Bangkok's population was Chinese and half of the balance was at least partially of Chinese descent.<sup>14</sup> Beginning in 1927-28, a series of immigration acts led to increased restriction on Chinese immigration, and since 1950, the number of Chinese entering the country has not exceeded several hundred per year. Yet as late as the 1950's ethnic Chinese made up nearly half the population of the city.<sup>15</sup>

Any effort to estimate the number of Chinese in Thailand or in Bangkok today is frustrated by the quality of the statistics available and the definitions used. The only official data on ethnicity refers to citizenship. The 1960 census showed 13 percent of Bangkok's population were Chinese citizens. In 1966, a total of 368,000 aliens were registered in Thailand, of whom 345,000 were Chinese, and of this total just over half were living in the two provinces containing Bangkok and Thon Buri.<sup>16</sup> Yet, by the definitions used in everyday life, both Thais and Chinese regard the latter as being much more numerous than indicated by the official statistics. Estimates of Chinese ethnics generally run as high as three to three-and-one-half million persons for the country as a whole, with a high proportion concentrated in Bangkok.<sup>17</sup> In Bangkok of the mid-twentieth century, one of the main population concentrations of the Chinese community is the same one to which the Chinese were moved when Bangkok was established, Sampeng. In this and two other districts, Bang Rak and Pom Prap, over two-thirds of the population is constituted of Chinese. The areas display the somewhat typical patterns of Chinese urban residence : row houses are two or three stories high, with the ground floor used as the place of work and the family living above. The result is high population density, in sharp contrast with the lower densities characterizing the Thai sections of Bangkok.<sup>18</sup> The role of Chinese ethnics in the commercial life of Greater Bangkok is best evidenced by the fact that in 1966, 36 percent of all business establishments in the twin cities were owned by Chinese, compared to one-fourth of those in smaller towns and only 10 percent of those in rural places.<sup>19</sup>

Further evidence of the concentration of Chinese in the capital city area is provided by the census statistics on religion, which distinguishes between Buddhists, Moslems, Confucians, and others (Table 16). Virtually all of the Confucian group consists of Chinese ethnics, but this does not encompass the entire Chinese population since many Chinese are Buddhists. For Thailand as a whole, only 2 percent of the population were reported as Confucian. However, almost one out of every five persons in Bangkok was so classified. The impact of the earlier waves of immigration on the concentration of Chinese in Bangkok is indicated by the fact that one-fourth of the population aged 50 and over were Confucian.

This decreases to only 15 percent of those between ages 13 and 24, suggesting that as the older persons die, and as greater assimilation takes place through education, intermarriage, and residential integration, the Chinese community within the metropolitan area will become increasingly smaller and less cohesive as a social force.

**Table 16**  
Religious Identification by Urban-Rural Residence and Sex  
(Standardized for Age)

	Bang- kok	Other Urban, Non- Agric.	Urban, Agric.	Rural, Non- Agric.	Rural, Agric.	Total Kingdom
Males						
Buddhist	75.5	92.2	91.9	93.4	95.0	93.6
Moslem	3.5	2.8	3.8	4.0	4.1	4.0
Confucian	18.9	3.0	3.6	1.6	0.4	1.7
Other and Unknown	2.1	2.0	0.7	1.0	0.5	0.7
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	6,147	5,459	1,572	18,567	92,869	124,614
Females						
Buddhist	77.0	93.0	92.8	93.1	95.1	93.9
Moslem	3.1	2.6	3.9	4.6	4.1	4.0
Confucian	17.9	2.6	2.6	1.3	0.3	1.4
Other and Unknown	2.0	1.7	0.7	1.0	0.5	0.7
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	5,959	5,566	1,618	16,916	95,499	125,558
Males and Females						
Buddhist	76.2	92.6	92.4	93.3	95.0	93.8
Moslem	3.3	2.7	3.8	4.3	4.1	4.0
Confucian	18.4	2.8	3.1	1.4	0.3	1.5
Other and Unknown	2.1	1.9	0.7	1.0	0.6	0.7
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	12,106	11,025	3,190	35,483	188,368	250,172

Source : Based on special tabulations of the 1 percent sample tape from the 1960 Thai census.

*Income and Expenditure Patterns* Some insight into the comparative economic status of the Bangkok population is provided by information collected in the 1962-63 Household Expenditure Survey.<sup>20</sup> The results of that survey were tabulated separately for the Bangkok-

**Table 17**  
 Percentage Distribution of Families by Average Annual Case Income,  
 and Average Monthly Income, by Place of Residence, 1962-63  
 (20 Baht = U.S. \$ 1.00)

	Average Annual Cash Income						Total Percent	Average Monthly Income*
	Under 3,000 Baht	3,000 - 5,999	6,000 - 11,999	12,000 - 17,999	18,000 - 23,999	24,000 and Over		
Greater Bangkok	4.8	15.0	31.7	17.4	10.3	20.8	100.0	1,519
Towns	17.7	18.7	34.2	14.7	5.8	8.9	100.0	1,048
Villages	56.7	21.6	16.2	3.4	1.2	0.9	100.0	480
Total Kingdom	48.4	20.8	19.5	5.7	2.4	2.2	100.0	621

\* Includes Value of Home Produced Goods.

Source : *Statistical Yearbook of Thailand*, Vol. 27 (Bangkok : National Statistical Office, 1966), p. 422.

Thon Buri municipal area, all other municipal areas in Thailand, and all villages. It shows a marked dissimilarity in the income distribution of families within these three types of places, ranging on the average from a monthly income of only 480 baht (\$24) in villages to 1,519 baht (\$76) for Bangkok (Table 17). The sharp differential between Bangkok and the villages lends strong weight to the assumption that economic considerations and particularly the differential in employment and income earning potentials represent significant factors in accounting for population movement from rural to urban places.

The marked differential in income becomes even more meaningful when viewed within the context of the differentials between Bangkok and rural Thailand in the proportion of families with more than one employed member (Table 18). In Bangkok, half of the families have only one employed member or even none working, whereas among the villages surveyed, this was true of only one in five family units. At the other extreme, in the capital city area, only one in five families had three or more members employed, but this was characteristic of 43 percent of family units in the villages.

**Table 18**  
Percent Distribution of Families and Average Monthly Income  
by Number of Earners, by Place of Residence, 1962-63

Number of Earners	Greater Bangkok	Town	Villages	Total Kingdom
Distribution of Families				
No Family Member Employed	4.0	3.3	1.7	2.1
One Family Member Employed	46.8	41.9	17.4	22.4
Two Family Members Employed	27.1	33.0	37.7	36.4
Three Family Members Employed	12.6	11.9	18.3	17.1
Four or More Family Members Employed	9.5	9.9	24.9	22.0
Total Percent	100.0	100.0	100.0	100.0
Average Monthly Income (20 Baht = U.S. \$ 1.00)				
No Family Member Employed	1,016	450	165	259
One Family Member Employed	1,048	806	415	506
Two Family Members Employed	1,863	1,129	393	584
Three Family Members Employed	1,978	1,253	426	634
Four or More Family Members Employed	2,495	1,744	484	776
Total	1,519	1,048	480	621

Source : *Statistical Yearbook of Thailand*, Vol. 27 (Bangkok : National Statistical Office, 1966), pp. 420-421.

In part, this variation may reflect urban-rural differences in size of family and in residence patterns; but even so, it emphasizes the significant change which urbanization produces in the relation between domestic life and economic activity at several stages of the life cycle. The



greater emphasis on education in the urban setting means that a higher proportion of children are enrolled in school and remain in school longer. Women in Bangkok have a lower level of labor force participation, probably reflecting the greater incompatibility between the role of mother and worker in an urban setting compared to a rural one. Moreover, an increasing proportion of older persons in Bangkok retire from the labor force. But it is noteworthy that the average income per family in relation to number of earners shows quite a different pattern for Bangkok than for the villages. In the metropolis, the average increases from just over 1,000 baht per month for families with one or no earners to almost 25,000 baht for those with four or more. In the villages, the average also shows a positive relation to number of earners, but the differential is minimal between families with one earner and those with four or more. These data therefore suggest that, in contrast to the villages, Bangkok provides an opportunity for family income to increase considerably if more persons in a family become earners; this opportunity may provide an important stimulus for movement to the city.

**Table 19**  
Distribution of Average Monthly Expenditures\* of Families,  
by Place of Residence, 1962

	Greater Bangkok	Towns	Villages	Total Kingdom
Food and Beverages	46.2	42.9	44.8	44.6
Clothing	9.2	14.9	17.1	15.6
Housing, Furnishings and Household Operations	17.5	16.6	15.3	15.9
Medical and Personal Care	6.9	7.5	6.7	6.9
Transportation	6.7	4.6	3.6	4.2
Recreation, Reading and Education	5.6	6.4	3.0	3.9
Tobacco and Alcohol	4.7	4.8	4.2	4.4
Miscellaneous	3.2	2.3	5.3	4.5
Total Percent	100.0	100.0	100.0	100.0
Total Average Baht (20 Baht = U.S. \$ 1.00)	1,425	1,003	580	690

\* Includes Home Produced Goods.

Source : *Statistical Yearbook of Thailand*, Vol. 27 (Bangkok : National Statistical Office, 1966), p. 417.

Finally, the material from the Household Survey provides some insights on the extent of differential patterns of consumption behavior in Bangkok compared to rural Thailand, as evidenced by the allocation of expenditures among the standard categories of consumer goods and services.<sup>21</sup> The data surprisingly suggest very similar patterns of consumption in Bangkok and the villages (Table 19). Virtually identical proportional allocations for food, housing (including furnishings and household operations), medical and personal care account for about two-thirds of the total budgets of both Bangkok and village families. The only noteworthy differentials occur with respect to clothing, a category which consumes over twice as much of the limited total expenditures of villagers than of the larger total expenditures of Bangkok families. By contrast, both recreation and transportation account for almost twice as much

proportionally of the total expenditures of Bangkok households than of village households. Such a pattern reflects both the greater separation of work and home and the greater opportunities for recreation and education in the urban metropolis. But the overriding similarities in the distributions suggest that the life style of the Bangkok population, as judged by expenditure patterns, may not be too different from that of the population living in rural areas.

### **Housing and Urban Conditions**

Among the most serious environmental problems faced by Asia's cities is the housing shortage and the poor condition of so many of the existing units.<sup>1</sup> Such deterioration is particularly characteristic of the rapidly growing, large urban areas where rapid population growth has generally led to a considerable increase in the cost of land. Resulting from the combined influence of the high cost of land, the rapid movement of rural population into the cities and the difficulty the migrants have in obtaining adequate jobs and income, and the housing shortage itself, an increasing proportion of urban settlement occurs spontaneously without planning and central control, largely manifesting itself in shanty towns occupied by squatters. Although not all squatters are migrants, a disproportional number are.<sup>2</sup> For many, shanty towns serve as a bridge from the rural village into the more settled and integrated life of the urban community.

The severity of Bangkok's housing shortage can be seen from the fact that since 1940, a total of only 7,000 low income housing units have been constructed, while the city's population grew from about half a million to approximately three million. It has been estimated that approximately 100,000 Bangkok families are without proper housing, and this number is increasing at the rate of 20,000 annually. The situation will become increasingly serious as migrants continue to pour into the city and the cost of land and rent steadily rises. In this respect, Bangkok's experience resembles that of several other Asian cities.<sup>3</sup>

As of 1970, 25,000 families consisting of about 162,000 persons were reported as living in 39 distinct slum areas. A general lack of funds represents the single most important barrier to remedying this situation. A recent estimate put the need for additional construction of all types of dwelling units at 42,000 per year over the next ten years. The cost for constructing the low income units alone would amount to 35 times the present yearly government expenditure of approximately 20 million baht (\$1,000,000). Recognition that such a goal is unrealistic has led to increased consideration of accepting the squatter settlements as a natural response to the dilemma confronting low income earners and of helping the slum residents to organize themselves into more viable communities.<sup>4</sup>

The human element in the housing situation in Bangkok, indicative of that characterizing a number of large cities in developing countries, is perhaps best illustrated by the following news item :<sup>5</sup> About 650 families in one of Bangkok's squatter communities were facing eviction to make room for new apartments in which they could eventually rent. The 650 families were actually occupying only 395 housing units, because many of them had allowed their sons' and daughters' families to live with them. One unit contained four families with a total of 34 persons. Its head reported, "I came from the province and lived in this housing project. When my children got married I had to let them live with me because they had no other place to go. The trouble with us is that we are poor and cannot afford to get a piece of land for ourselves. We can't afford to rent a house either. All my grandchildren have to work after school. And they bring in small income. The house I have now can be extended if

necessary, but once we move into a flat our living space will be the same no matter how much larger the family becomes. How can 34 of us squeeze into a small flat unit?"

The magnitude of this situation is further illustrated by the situation in Klong Toey, the largest squatter community in Bangkok.<sup>6</sup> Occupying about 325 acres of land owned by the Port Authority of Thailand, it numbers 4,500 households and comprises over 25,000 persons.

Viewed from the air, Klong Toey appears as a sprawling mass of tin roofs in a swamp, its houses built on stilts over waist-deep water, with narrow, precarious plank walkways linking the shacks to the dirt roads. Klong Toey has become a symbol of the larger problem of squatter slums which are developing throughout the city. Regarding it as a social disaster from which people must be rescued, city officials have given increasing attention to the need to eradicate the situation by removing the population to better housing. Yet, a survey of the residents of Klong Toey found that many of the inhabitants of the settlement saw living there as a solution to a number of the problems encountered in a metropolitan area. Despite overcrowding and lack of public utilities and services they felt considerable pride in their homes and the community and had a strong attachment to it. Although Klong Toey is beset by serious social, economic, and physical problems, it seems to serve as a transition zone for migrants.

A large proportion of the residents living in Klong Toey are migrants to Bangkok; in fact, 79 percent of the family heads living there were born up-country. Four out of five came to Bangkok to find work or to sell things easily and some reported that they wanted to be near relatives of former neighbors from up-country, testifying to the importance of chain-migration in accounting for movement to big cities. In fact, 53 percent of the families living in Klong Toey had relatives there. Of the 4,000 housing units in the community, 87 percent are single detached houses, and 83 percent have only one or two rooms. As a result, the average number of persons per household is 5.6 and the average number per room is 3.5. Only 13 percent of the units have a bathing area inside the house; only 3 percent get their water piped into the houses from the city main; only one-third have a toilet in the dwelling unit. In all, 72 percent of the residents own their houses and pay no rent because they are occupying Port Authority land.

Perhaps most significant is the finding that 75 percent of the residents have lived in Klong Toey for five or more years, and half have been there for ten years or more, suggesting a considerable degree of stability. Only 6 percent had moved in within a year. Data are not, of course, available on the proportion who have moved out, but the overriding impression given by the statistics is one of a high degree of stability. Of all the household heads living in Klong Toey, 71 percent had worked as farmers or farm laborers before coming to Bangkok and all but 5 percent had lived in small towns or on farms. In a very real sense, Klong Toey thus represented the bridge between the rural village and the metropolis.

The results of the survey undertaken in Klong Toey indicate that over half of the residents consider that the conditions in the community with respect to security, health, and living conditions for children were acceptable or good. The majority were concerned about the behavior of young people and the adequacy of school facilities. Only 7 percent said that they would prefer to rent an apartment in a public housing project. Four out of every five indicated a preference for owning and/or renting both their house and land, with the great majority preferring to own both. Judging by the tenacity with which these migrants have remained in Klong Toey, particularly during the last three years when efforts were made to move them in

order to use the land for extension of the port facilities, either the motivation for moving is not very strong or the opportunity to do so is very limited.

The attitude of these Thai squatters points to one of the positive functions of such a community. In the absence of any general improvement of the economic situation of these persons, it may be inconsistent to change the housing environment in which they live. Unless housing is made a part of the larger development program in which migrants and others living in squatter communities are fully integrated into the total community, greater maladjustment may result from relocating them into better housing.<sup>7</sup>

The growth pattern of the Bangkok metropolitan area has been described as natural, unplanned, and uncontrolled.<sup>8</sup> Although serious attempts in city planning began during the 1960's, they continue to be characterized by extreme difficulties on the technical, organizational, and legal levels.<sup>9</sup> A number of city plans have been commissioned, but as of 1970, legal power to enforce such plans was lacking. Most control acts have dealt only with safety and structural strength but not with the location, type or use of buildings, or zoning in general. Expansion in Bangkok and in smaller urban centers generally takes the form of strip development extending into the rural environments along highways and canals. Within Bangkok itself, the lack of zoning regulations and construction control has permitted creation of a varied mass of buildings and development of many squatters communities and slums. Along the "soi" (lanes) branching off from the main arterial roads, modern highrise buildings, both business and residential, crowd next to run-down shacks.

Complicating Bangkok's general land use and planning problems are other difficulties arising from the rapid population growth and increasing economic prosperity at least of some segments of the population. As one Thai put it, "Bangkok is choking on its own prosperity". In 1962, the city had 80,000 registered vehicles. The number reached 280,000 in 1970. But road mileage increased by only 10 percent in the interval. Designed originally for canal and river traffic, the city has had to fill in a considerable portion of its waterways for use as roads. But the network, while working for canal boats, is not adapted to automobile traffic; and the resulting congestion, complicated further by large numbers of bicycles, motorcycles, and three-wheeled taxis (samlor), makes for one of the worst traffic situations in the world. It also results in considerable frustration for the traveler, who, according to a 1969 survey, spends at least 90 minutes a day in a traffic jam.

The huge numbers of vehicles on an inadequate road network have caused a serious rise in the level of air pollution. In addition, because of the elimination of so many canals and the destruction of so many trees to make way for the asphalt roads and concrete buildings, Bangkok's weather has changed, making the city hotter than ever. In fact, the environment has deteriorated so badly that a report by the Acting Chief of the Sanitary Engineering Division in the Department of Health finds that the air and water pollution are beginning to affect people's health and working efficiency.<sup>10</sup> Among other serious problems plaguing the city might be included the following items : poor drainage facilities result in considerable flooding during the rainy season; water shortages characterize a number of sections of the city, especially in the dry season; garbage removal and sewage disposal systems are inadequate; the number of bars, night clubs, massage parlors, and brothels has mushroomed and contributes to criminal behavior and venereal disease; even telephone lines are in short supply.

## Future Growth

Estimates of the future population of Bangkok and of other urban places in Thailand are almost as numerous and varied as the speakers and experts concerned with the topic. The most recent reliable projections come from the National Economic Development Board.<sup>1</sup> Defining municipal areas with populations above 20,000 as urban, three different methods of projection are used, based on different assumptions about the pace of urbanization and the relation of Bangkok's population to the total urban population of Thailand. These varied estimates demonstrate that, regardless of method and despite conservative assumptions, during the remaining decades of the twentieth century the increase in Thailand's urban population and that of Bangkok will be spectacular. For example, even under the low projection, the 1970 urban population will double by 1985 to 8.6 million persons.

This rapid urban growth will occur at the same time that Thailand experiences a continuous and substantial growth in its rural population. During the same 15 year interval, the number of persons in rural Thailand are estimated to increase by at least 12 million persons. Although this represents a growth of only 39 percent in the rural population, the absolute numbers far exceed the 4.3 million persons estimated increase in the urban population. In the remaining years of the twentieth century, the same basic trend is likely to continue: The low projection estimates that Thailand's urban population will reach 15 million by the year 2000, 3.5 times greater than the 1970 population. During the same 30 years, the rural population, according to this estimate, will have grown by three-fourths to 55.6 million. These differential urban-rural growth rates mean that by the turn of the century one out of every five Thais would be living in urban places of 20,000 and over in contrast to 12 percent estimated for 1970.

Difficult though it may be to estimate the urban population of a country, it is even more difficult and daring to project that of a city such as Bangkok. As the NEDB report points out,<sup>2</sup> development of an improved transportation network bypassing Bangkok or of an international airport in the north of Thailand, deliberate efforts to develop industries in smaller towns, or a host of other possible developments could all affect the rate of Bangkok's growth and its share of Thailand's total urban population. The conclusion reached by the NEDB that Bangkok's share of the population is not likely to rise much higher seems fully justified in view of the extreme primacy already characterizing Bangkok in Thailand's urban hierarchy. If Bangkok maintains its current share of the total urban population, the estimates indicate that the metropolitan population would probably reach between 10.5 and 11.5 million by the year 2000, assuming that, in the meantime, a substantial decline in the birth rate occurs. Otherwise, a metropolitan population as high as 12 million is possible. In any event, between 1970 and 1985 Bangkok's population will about double, and by 2000, it will be more than three times greater than its 1970 population. In view of the problems that the metropolitan area already faces with a population of 3 million persons, the challenges posed by a threefold increase in this number within the relatively short span of 30 years is horrendous.

Recognizing this threat, increasing attention is being given to the possibility of slowing the growth rate of the city's population and holding it at a level of 4 to 5 million by 1990. It is hoped that such a policy would at least maintain the present health and living levels and keep the costs of social services within reason. The programs suggested for achieving this goal are largely geared to encouraging urban growth elsewhere in Thailand on the assumption that this will create both a stronger national economy and enhance the attractiveness of other cities to rural persons who might otherwise migrate to Bangkok. More specifically, some of the follow-

ing programs are mentioned : inducements to industry to locate in smaller towns; the creation of industrial estates; improved transportation systems; establishment of new towns; creation of "service centers" providing a group of villages with processing industries and various social, cultural, economic, recreational, and administrative services, thereby giving the population access to a number of the amenities that are associated with urban life; decentralization of government to the greatest extent possible; decentralization of educational, medical, and other services; electrification of rural areas, even before extension of such programs in Bangkok itself; and development of port facilities south of Bangkok and restricted use of the Bangkok facilities.<sup>3</sup> A number of policies focus directly on agriculture. These include land reform, irrigation, improved soil fertility, payment for agricultural work, increased public investment in rural education and rural social development in general, greater reliance on new cereal varieties, and differential systems of taxation. At the same time, emphasis is also given to the need for alleviating the serious problems within the metropolitan area, including better land utilization, amelioration of transportation problems, more emphasis on economic growth, relocation of industry on the outskirts of the city near ring roads and superhighways, and creation of new business centers. The possibility of expanding the metropolitan area to encompass at least two of the nearby provinces, Nonthaburi and Samut Prakan, is already generally accepted and envisages a total area of 730 square kilometers which may be able to accommodate as many as 6.5 million people and locate industrial sites far from present day Bangkok's center.

Despite the multiplicity of problems associated with urbanization and with the growth of big cities such as Bangkok, there is general agreement that the overall urbanization process should not be stopped or reversed, but rather so directed that it contributes to economic and social development. In part, this rests on the assumption that social change and modernization are desirable and that they are highly correlated with urbanization. But any development program must recognize the close interrelationship between city and village, both because the urban way of life is increasingly impinging on rural areas and because many rural to urban migrants are bringing the rural way of life to urban places and maintaining it there for a considerable time. In Thailand and Bangkok, as in most developing countries, a considerable portion of urban population growth, especially in the primate city, probably does not entirely reflect an actual need for large urban population concentration.<sup>4</sup> Rather, it results from the movement of large numbers of rural out-migrants who believe that cities are places where most new job opportunities exist. For some they do; for many their hopes are not realized.

Even if a number of the programs for decentralizing urban and industrial development were implemented, it seems unreasonable to assume that such developments could prevent the growth of the metropolis. At best, they would reduce its growth rate and relieve some of the congestion. Rather, decentralization would probably make its greatest contribution through the stimulus it would provide for the development of local natural resources, for the modernization of agriculture,<sup>5</sup> and for the development of modern skills among the local resident population.

The greater occupational diversification and mobility that usually accompanies urbanization, the greater willingness to accept change, and the positive influences resulting from increased contacts with the outside should contribute to rising levels of living in these smaller cities and to that extent reduce somewhat the motivation for movement to the capital itself. The differentials between the inhabitants of Bangkok and those living in smaller urban places and rural areas suggest that within Thailand, as on the international scene, urbanization may

be linked to modernization and general economic advancement. However, the empirical interrelationship among the different variables are undoubtedly complex and do not operate uniformly throughout the population living in the big cities.

Indeed if population movement to Greater Bangkok and even smaller urban places is generated primarily by the externally induced declines in mortality and the consequent increase in rates of rural population growth and in pressure on limited resources, both the migration itself and the resulting urbanization may not be directly linked to modernization and economic development. The degree to which they are will be determined by the socio-demographic characteristics of the migrants, their motives for moving, and the extent to which their traditional social structures and values persist after migration. Earlier comparison of a number of the demographic characteristics of the Bangkok population with those of persons in other parts of Thailand also suggests that in many respects the demographic differentials are minimal. This in turn may indicate that there still persists within the confines of the big city a fairly strong perpetuation of rural ways of life.<sup>6</sup> Too rapid urbanization may therefore well impede the general development process, particularly through the strains it imposes on urban economic, educational, social, and health facilities. Yet the very condition of primacy, despite all its tribulations, may offer a definite advantage to Bangkok as an instrument of social, economic and political change.

To a very great extent, the data examined in this review of Bangkok's growth and composition are much too limited to permit testing the full implications of population change. Because they represent the first reasonably comprehensive set of data available for Greater Bangkok and for other urban places in Thailand, trend analysis is precluded. Their greatest value lies in providing bench marks against which future change can be evaluated. More immediately, the data highlight the challenges which Bangkok faces as a result of the rapid growth it has already experienced, the particular socio-economic profile of its population, and the continuing growth it is likely to undergo.

## FOOTNOTES

### Introduction

1. The following discussion of the world's urban-rural population distribution is based on United Nations Population Division, *Urban and Rural Population : Individual Countries, 1950-1985, and Regions and Major Areas, 1950-2000*, ESA/P/WP.33/Rev 1 (New York : United Nations, 1970).

2. United Nations, *Growth of the World's Urban and Rural Population, 1920-2000*, Population Studies No. 44 (New York : United Nations, 1969), Table 35.

3. Cf., Norton S. Ginsberg, "The Great City in Southeast Asia", *American Journal of Sociology*, 40 (March, 1955), pp. 455-462; Donald W. Fryer, "The 'Million City' in Southeast Asia", *Geographical Review*, 43 (October, 1953), pp. 474-494.

4. See, for example, Kingsley Davis, *World Urbanization 1950-1970. Vol. 1 : Basic Data for Cities, Countries, and Regions*, Population Monograph Series No. 4 (Berkeley, Calif. : Institute of International Studies, 1969).

5. Norton S. Ginsberg, *Atlas of Economic Development* (Chicago : University of Chicago Press, 1961), p. 36; Surinder K. Mehta, "Some Demographic and Economic Correlates of Primate Cities", *Demography*, 1 (1964), pp. 136-147.

### Urbanization in Asia

1. This discussion of urbanization in South and East Asia is based on United Nations Population Division, *Urban and Rural Population : Individual Countries, 1950-1985, and Regions and Major Areas, 1950-2000*, ESA/P/WP.33/Rev. 1 (New York : United Nations, 1970).

2. United Nations, *Growth of the World's Urban and Rural Population, 1920-2000*, Population Studies No. 44 (New York : United Nations, 1969), Tables 12, 13, and 14.

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1. John C. Caldwell, "The Demographic Structure", in T.H. Silcock, Ed., *Thailand, Social and Economic Studies in Development* (Canberra : Australian National University Press, 1967), pp. 33-40; United Nations Population Division, "Estimates of Crude Birth Rates, Crude Death Rates, and Expectations of Life at Birth, Regions and Countries, 1950-1965", ESA/P/WP/38 (22 February 1971), mimeographed.

2. Gordon W. Perkin, *et al.* "Thailand", *Country Profiles* (New York : The Population Council, 1969), pp. 2-3.

3. *Population Growth in Thailand* (Bangkok : National Economic Development Board, 1970), p. 23.

4. Chula Chakrabongse, *Lords of Life : A History of the Kings of Thailand* (London : Alvin Redman, 1960), pp. 70-80; T.G. McGee, *The Southeast Asian City* (New York : Praeger Publishers, 1969), pp. 72-73.

5. Mark Jefferson, "The Law of the Primate City", *Geographical Review*, 29 (1939), p. 227.



## Urbanization Patterns

1. In the absence of an official definition of “urban population” in any of the six Thai censuses between 1911 and 1960, the nearest equivalent to an urban place is the locality designated as a “municipal area”. There are three types of municipal areas :

- 1) cities (Nakhon), of which there are three — Bangkok, Thon Buri, and Chiang Mai;
- 2) towns (Muang), which consist of the provincial administrative seats, regardless of size — there are 68 muang, one for each of the remaining 71 provinces;
- 3) communes (Tambol) — communities designated as municipal areas by the Ministry of the Interior.

All municipal areas have some characteristics generally regarded as urban but some of these areas are geographically extensive with a population more rural than urban. In the 1947 census, 117 places were designated as municipal areas. By the 1960 census only 3 additional places had been so classified; and this number has remained constant at 120 through 1970. The legal character of the designation means that other places which may have reached urban levels of concentration are not necessarily included on the list. As a result, measurement of change is very largely restricted to the same units, and to this extent gives a somewhat misleading picture. Since, however, most additions would presumably be in the very smallest size categories, the overall effect of the omission, except for the analysis based on areal units rather than population, may not be great.

The two largest municipal areas in Thailand, Bangkok and Thon Buri, are twin cities divided by the Chao Phraya River; together they constitute the capital city area of Thailand. For purposes of this analysis, they are treated as a single urban place, referred to as Greater Bangkok. Following this procedure reduces the total number of urban places in 1947 to 116 and the number in 1960 and 1967 to 119.

2. For a fuller discussion, see Sidney Goldstein, “Urbanization in Thailand, 1947-1967”, *Demography*, 8 (May, 1971), pp. 205-223.

3. The 13.1 percent of the population classified as urban in 1960 is based on registration statistics and refers to December 31. The 12.5 percent cited earlier is the census figure which refers to April, 1960.

## Components of Urban Growth

1. *Report of the Survey of Population Change, 1964-1966* (Bangkok : National Statistical Office, 1969).

2. Following publication of the 1960 census, and before destruction of the IBM cards on which those tabulations were based, a 1 percent sample tape of the census was made in order to preserve a sample of the data and to permit special tabulations. Since the published census statistics did not provide information on the characteristics of the municipal and non-municipal (urban-rural) population, the availability of the 1 percent tape, which contained information on 1960 municipal and non-municipal residence, provided a unique opportunity for gaining insights into compositional differences between the urban and rural populations.

Utilizing the dichotomy between municipal and non-municipal areas as a starting point and combining this with membership in agricultural and non-agricultural households, a five-category classification of the population along an urban-rural continuum was prepared. At the most urban level are those living in the metropolis of Bangkok in non-agricultural

households. At the most rural extreme are all rural, agricultural households. Intermediate categories are:

- 1) other urban, non-agricultural;
- 2) urban, agricultural;
- 3) rural, non-agricultural.

The placement of the last two in the continuum is somewhat arbitrary; if priority were given to household type rather than residence, the order would be reversed.

In all of the analyses in this paper in which the composition of the Bangkok and the urban-rural populations is examined, the data are derived from special tabulations of the 1 percent tape.

For a fuller discussion of these data, see Sidney Goldstein, "Religious Fertility Differentials in Thailand 1960", *Population Studies*, 24 (November, 1970), pp. 327-328.

3. *Ibid.*, pp. 329-333.

4. Since these averages have not been corrected for underreporting of births, particularly by older women, they are below the 6.5 overall average usually cited as the completed size of family.

5. United Nations, "Urbanization : Development Policies and Planning", *International Development Review*, 1 (New York : United Nations, 1968).

6. For a fuller discussion of the sources of data and of migration patterns, see Sidney Goldstein, "Migration Differentials and Urbanization in Thailand". Paper presented at the annual meeting of the Population Association of America, Washington, D.C., April, 1971.

7. See Everett S. Lee, Ann R. Miller, Carol P. Brainerd, and Richard Easterlin, *Population Redistribution and Economic Growth : United States, 1870-1950. I : Methodological Considerations and Reference Tables* (Philadelphia : American Philosophical Society, 1957); United Nations, *Methods of Measuring Internal Migration, Manual VI* (New York : United Nations, 1970).

8. Ashish Bose, "Migration Streams in India", *Report of the IUSSP Sydney Conference, Internal Migration and Urbanization*, pp. 597-606; Alden Speare, Jr., "Urbanization and Migration in Taiwan", *Taiwan Population Studies*, Working Paper No. 11 (March, 1971).

9. See, for example, K.C. Zachariah, *Migrants in Greater Bombay* (London : Asia Publishing House, 1968).

10. International Labor Organization, *Report to the Government of Thailand on Internal Migration* (Geneva : International Labor Organization, 1965), p. 72.

11. Goldstein, "Migration Differentials and Urbanization in Thailand", pp. 13-26.

12. Cf., Rhoads Murphey, "Urbanization in Asia", *Ekistics*, 21 (January, 1966), pp. 8-17; Robert H. Weller, John J. Macisco, Jr., and George R. Martine, "The Relative Importance of the Components of Urban Growth in Latin America", *Demography*, 8 (May, 1971), pp. 225-232.

13. For fuller discussion of this estimate, see Sidney Goldstein, "Urban Growth in Thailand, 1947-1967", *Journal of Social Sciences*, 6 (April, 1969), pp. 104-115.

14. Kingsley Davis, "The Urbanization of the Human Population", *Scientific American*, 213 (September, 1965), pp. 40-53.
15. Amos H. Hawley, James T. Fawcett, and Visid Prachuabmoh, *The Potharam Study*, Research Report No. 1 (Bangkok : Institute of Population Studies, 1970).
16. See Evaluation Unit of Family Health Project, "Monthly Report on Family Planning Acceptors" (Bangkok : Ministry of Public Health, June, 1969 through April, 1971).
17. Cf., James T. Fawcett, Aree Somboonsuk, and Sumol Khaisang, "Thailand : An Analysis of Time and Distance Factors at an IUD Clinic in Bangkok", *Studies in Family Planning*, 19 (May, 1967), pp. 8-12.

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1. Larry Sternstein, *Greater Bangkok Metropolitan Area Population Growth and Movement, 1956-1960*, Research Report No. 3 (Bangkok : Institute of Population Studies, 1971).
2. *Ibid.*, p. 9.
3. Cf., Sidney Goldstein, "Repeated Migration as a Factor in High Mobility Rates", *American Sociological Review*, 19 (October, 1954), pp. 536-541; Sidney Goldstein, "Extent of Repeated Migration : An Analysis Based on the Danish Population Registers", *Journal of the American Statistical Association*, 59 (December, 1964), pp. 1121-1132.

### **Population Composition**

1. McGee, *The Southeast Asian City*, pp. 106-138; Gerald Breese, Ed., *The City in Newly Developing Countries* (Englewood Cliffs, N.J. : Prentice-Hall, Inc., 1969), pp. 331-406.
2. For a fuller discussion of standardization, see George W. Barclay, *Techniques of Population Analysis* (New York : John Wiley & Sons, Inc., 1958), pp. 161-166. Readers interested in detailed age data are invited to write the author for copies of specific tables.
3. Cf., McGee, *op. cit.*, p. 115.
4. International Labor Organization, *Report to the Government of Thailand on Internal Migration*, pp. 69-70; K.C. Zachariah, "Bombay Migration Study : A Pilot Analysis of Migration to an Asian City", *Demography*, 3 (1966), p. 383.
5. McGee, *op. cit.*, p. 123.
6. Janet Abu-Lughod, "Migrant Adjustment to City Life : The Egyptian Case", *American Journal of Sociology*, 67 (July, 1961), pp. 22-32.
7. See, for example, Philip M. Hauser, Ed., *Urbanization in Asia and the Far East* (Calcutta : UNESCO, 1957); Kingsley Davis and Hilda Hertz, "The World Distribution of Urbanization", *Bulletin of the International Statistical Institute*, 3 (1951), Part 4, pp. 227-242; T.G. McGee, "The Urbanization Process : Western Theory and Southeast Asian Experience", *SEADAG Papers*, No. 59 (New York : The Asia Society, 1969).
8. N.V. Sovani, "The Analysis of Over-Urbanization", *Economic Development and Cultural Change*, 12 (January, 1964), pp. 113-122.

9. United Nations, *The Determinants and Consequences of Population Trends* (New York : United Nations, 1953), pp. 124-126; International Labor Organization, *op. cit.*, pp. 79-98.
10. Robert H. Weller, "The Employment of Wives : Role Incompatibility and Fertility", *Milbank Memorial Fund Quarterly*, 46 (October, 1968), pp. 507-526.
11. *Statistical Yearbook of Thailand, Vol. 28, 1967-69* (Bangkok : National Statistical Office, 1970), p. 454.
12. *Bangkok Post*, January 19, 1971, p. 1.
13. Zachariah, *Migrants in Greater Bombay*, pp. 162-205; Speare, "Urbanization and Migration in Taiwan".
14. Caldwell, "The Demographic Structure", pp. 29-33.
15. G. William Skinner, *Chinese Society in Thailand : An Analytical History* (Ithaca, N.Y. : Cornell University Press, 1957), pp. 17-18.
16. *Statistical Yearbook of Thailand*, pp. 97-98.
17. Caldwell, *op. cit.*, p. 33.
18. McGee, *op. cit.*, p. 114.
19. *Statistical Yearbook of Thailand*, p. 266.
20. *Ibid.*, pp. 420-422.
21. *Ibid.*, p. 417.

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4. *Bangkok Magazine*, April 11, 1971, p. 6.
5. *Bangkok Post*, June 6, 1970.
6. Faculty of Social Administration, *Social Work Survey of the Squatter Slum at Klong Toey, Bangkok* (Bangkok : Thammasat University, 1971).
7. Cf., United Nations, *Report of the United Nations Interregional Seminar on Development Policies and Planning in Relation to Urbanization*, Pittsburgh, 24 October - 4 November, 1966 (New York : United Nations, 1967), pp. 41-44.
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10. As reported in *Bangkok World*, March 24, 1971.

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2. *Ibid.*

3. Cf., United Nations, *Urbanization : Development Policies and Planning* (New York : United Nations, 1968), pp. 71-106; *Urbanization in the Second United Nations Development Decade* (New York : United Nations, 1970), pp. 21-39; United Nations, *Planning of Metropolitan Areas and New Towns* (New York : United Nations, 1967).

4. See, for example, Hauser, *Urbanization in Asia and the Far East*, pp. 33-39.

5. United Nations Economic Commission for Asia and the Far East, *Report of the Expert Working Group on Problems of Internal Migration and Urbanization*. Conference held at Bangkok, May - June, 1967, pp. 127-130.

6. Abu-Lughod, "Migrant Adjustment to City Life : The Egyptian Case"; Richard L. Meier, "Relation of Technology to the Design of Very Large Cities", in Roy Turner, Ed., *India's Urban Future* (Berkeley, Calif. : University of California Press, 1962), pp. 299-323.

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