

Internal Migration Patterns to Greater Cairo

–Linking three kinds of data: census, household survey, and GIS –

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I. Frame of the paper

(1) Background

Like many other developing countries in this era of political, economic, and cultural globalization, Egypt faces important challenges of economic liberalization and political democratization. The difficulties of this process are demonstrated by the rise of serious social problems, among which are a high rate of unemployment, increasing impoverishment (especially in urban areas), and degradation of natural and social environments. The major social problems occur in the urban areas, to which rural people come with the expectation of finding jobs. These social problems therefore reflect the rural transformation. To study the social problems in urban Egypt, then, we first need to understand the rural societies. Earlier studies of the migration, however, have not taken into consideration these two, urban and rural, together. The major reason for this failure is the difficulty of conducting a survey. For military and security reasons, empirical studies based on micro-data were difficult.

This research constraint is lessened by the open economy policy in place since the 1980s. Access to documents, statistical materials, and surveys in the urban and rural areas are becoming easier. We now have better circumstances for studying the impact of migration on rural and urban societies, using different materials and methods. In this report, we will examine the patterns of rural-urban migration to Greater Cairo in the last three decades, since the beginning of the open economy policy in the 1970s. We will study Greater Cairo, because it is the largest Egyptian city absorbing migrants. In this study, Greater Cairo includes the suburban Kalyoubia and Giza administrative urban districts.

(2) Survey of the previous studies

The major social problems in Egypt after World War II were underemployment and poverty in the rural areas. Rural migration to the large cities, especially Cairo, was therefore a popular topic for researchers and was acknowledged as a key factor in transforming Egyptian society. Many studies on migration appeared in the 1970s. Huge amounts of oil money, flowing into Egypt due to remittances sent from Egyptian labor migrants in the oil countries, made the high rate of economic growth in Egypt possible. Since the 1980s, however, interest in the migration study diminished as the rate of Egyptian economic growth slowed down¹. In contrast to the rapid economic growth of the 1970s, the 1980s are characterized by negative economic movement.

For a while, many studies related to the international and internal migration were

* We express our gratitude to the Heiwa Nagajima Foundation (平和中島財団) for financial aid in the collecting of data.

¹ See for example, Richard, Alan et al., *Political Economy of the Middle East*, second ed., Westview Press, 1998, chapter 3.

published. These studies were concerned, however, with the phenomenon of the migration. They are either studies based upon macro data from the government (population census, etc.), or anthropological studies that are detailed but narrow in scope². The range of analysis did not extend to the impact of migration on the rural and urban societies because empirical micro-data was lacking, as noted above. In fact, few surveys were done except those related to population, family planning, and health care issues. Most notably, household surveys on income and expenditure were missing. One of the few such surveys is the one by CAPMAS (Household Income & Expenditure Survey), which was done every ten years until the 1980s and every five years from the 1990s on. Their data set, however, is not available to researchers³.

Research circumstances changed in the 1990s, the turning point being the agreement of the “Economic Reform and Structural Adjustment Program” (ERSAP) between the Egyptian government and IMF, World Bank. The introduction of structural adjustment is believed to have affected the poor, by means of price, income and social services. So it appears that both the international organizations and the Egyptian government recognized the need to understand poverty in Egypt. At that time, information was lacking as to how much poverty existed in Egypt, or who the poor were. To identify the poor, then, the household level surveys were carried out. Reports and papers were published, based on the data and information collected by different aid and research institutions, among these being the Institute of National Planning (INP), the Social Research Center of the American University in Cairo, the International Food Policy Research Institute (IFPRI), and the Economic Research Forum for the Arab Countries, Iran and Turkey⁴. These reports and studies,

² See for example, Tanada, Hirohumi, *Urban Society in Egypt* (in Japanese), Waseda University Press, Tokyo, 1999, pp. 87-114, McCormick, Barry & Wahba, Jackline, “Big cities and migration: Evidence from Egypt”, *Working Paper* n.9906, Cairo: Economic Research Forum for the Arab Countries, Iran & Turkey, n.d., Aldakhil, Khalid I. “Patterns & determinants of internal migration in the Arab countries: the case of Egypt”, *Working Paper* no. 9933, Cairo: Economic Research Forum for the Arab Countries, Iran & Turkey, n.d.

³ CAPMAS, *Household income and expenditure survey*, 1964/65, 1974/75, 1981/82, 1990/91, 1995/96, 1999/2000, Cairo: CAPMAS, in Arabic.

⁴ Datt, Gaurav et al., “A profile of poverty in Egypt: 1997”, *FCND Discussion Paper*, no. 49, Washington D.C.: IFPRI, August 1998, Datt, Gaurav & Joliffe, Dean, “Determinants of poverty in Egypt: 1997”, *FCND Discussion Paper*, no. 75, Washington D.C.: IFPRI, October 1999, Adams, Richard H. Jr., “Nonfarm income, inequality, and land in rural Egypt”, *Working Paper*, no. 2178, Washington D.C.: World Bank, June 9 1999, Adams, Richard H. Jr., “Nonfarm income, inequality, and poverty in rural Egypt and Jordan”, *World Bank Seminar*, Washington D.C.: World Bank, October 17, 2000, Datt, Gaurav, *Poverty in Egypt: modeling and policy simulations*, Washington DC: World Bank, August 15 2001, Lofgren, Hans, “Less Poverty in Egypt? Explorations of Alternative Paths with Lessons for the Future”, *Discussion Paper*, no. 72, February 2001, Haddad, Lawrence & Ahmed, Akhter, “Chronic and transitory poverty: Evidence from Egypt, 1997-99”, *World Development*, vol. 31, no. 1, pp. 71-85, 2003, Nagi, Saad Z., *Poverty in Egypt: Human needs and institutional capacities*, Maryland: Lexington Books, 2001, El-Laithy, Heba et al., “Poverty and economic growth in Egypt, 1995-2000”, *World Bank Policy Research Working Paper*, no. 3068, June 2003, El-Ehwany, Naglaa &

however, analyze only the structure of Egypt's poverty, not the transfer of the poverty problem from rural to urban areas. Unlike these studies, we will attempt to analyze the dynamic of the poverty, focusing on the migration.

(3) Scope of the paper

This report has two purposes. The first is to introduce the empirical data on migration from rural areas to Greater Cairo, and information on the recent change of migration patterns in two low-income districts in Greater Cairo. As was said before, such data, especially for the most recent three decades, are rarely available. The second purpose is to link three kinds of data: macro data provided by the population census, micro household survey data, and GIS information. By doing this, we will develop an analytical perspective to view jointly the rural areas and Greater Cairo, which will then become a preliminary work for analyzing the impact of migration on the rural and urban societies. As was also said before, the rural and urban societies have until now been separately analyzed in the studies of migration. The analysis, based on three kinds of data, is adopted to achieve this purpose.

The combination of statistical and spatial approaches, besides collecting micro household survey data, gives originality to our study. CAPMAS (Central Agency for Public Mobilization and Statistics) has a department of GIS, and is working to digitize maps of different information in Egypt. The administrative border digital map at the village level is available from this center (see Map 1 & 2). This map makes possible the integration of statistical data from the household survey with the GIS data at village level. This approach makes possible the mapping of household survey data about migrants by their villages of origin. We can then, in turn, apply the data collected from the household survey to analyze the society of each village. Thus, we can approach the rural areas and Greater Cairo at the same time, as they are connected with each other through migration.

II. Data and survey methodology

(1) Selection of the survey areas

Data used in this report were collected from the household survey done by the Graduate School of Economics, Hitotsubashi University, in collaboration with CAPMAS⁵. The household survey was carried out during the years 2002 to 2003. The Hitotsubashi team

El-Laithy, Heba, "Poverty, employment and policy-making in Egypt: a country profile", *Towards Decent Work in North Africa*, no. 1, Cairo: ILO Area Office in Cairo, n.d.

⁵ The title of our joint project with CAPMAS is "Spatial Mobility and Income Distribution in Egypt and China" (Responsible: Prof. Hiroshi Kato). Other surveys have been conducted since the summer of 2003, one the household survey of four villages in Lower and Upper Egypt (600 samples for each) and another the household survey of their Gamaiya (fellow villagers' association) members in Cairo (200 samples for each). Also, the same kind of household survey presented in this paper was conducted in the autumn of 2003 in two districts of Alexandria and two districts in Cairo (600 for each).

prepared the questionnaire, and under its supervision CAPMAS organized the fieldwork.

The survey collected information from two household categories, those whose heads moved directly from the rural areas to Greater Cairo and those with heads born in Greater Cairo. The rural migrants were chosen with the purpose of analyzing their job-seeking behavior and, through it, studying the social transformation after the economic opening (Infitah).

Inherent when surveying migrants is the sampling problem. No information is available as to how many migrants live in Greater Cairo, or where they live. It is therefore impossible to establish a sample group that represents all rural migrants living in Greater Cairo. For this reason, the survey was conducted as a case study in selected geographical areas.

The survey areas are chosen following two criteria. First, the survey area should be a low-income residential area. Second, the survey area should be an area where rural migrants settled. Migrants are known to settle at the edge of Greater Cairo, and that also tends to be the lower-income area. Thus, the selected survey areas were at the edge of Greater Cairo, one from the shiyakhat (district) adjacent to rural Lower Egypt, and the other from the shiyakhat adjacent to rural Upper Egypt.

Map 2 shows the areas chosen for our survey. The two areas belong to shiyakhat Bigam in qism (city) Shobra El-Kheima and shiyakhat Zinin in qism Bulaq El-Dakrur. The former area is on the northern edge and the latter is on the southwestern edge of Greater Cairo.

The shiyakhat, although the smallest administrative unit, covers quite a large area. Bigam covers an area of 7,154,459 m² and has a population of 336,957 (1996). Zinin covers an area of 1,140,279m² and has a population of 106,957 (1996). Since it is impossible to cover all areas inside a shiyakhat, the survey areas were chosen at block level, on the edge of the administrative border. Maps 3 and 4 show the location of survey areas in detail.

The surveyed blocks in Bigam are on the border with qarya (village) Mint (markaz Kalyoub), and located near the industrial zone of Shobra El-Kheima (Map 5). The surveyed blocks in Zinin are located on the border with shiyakhat Bulaq El-Dakrur, and close to the commercial/residential districts of El-Doqqi and El-Giza (Map 6). They are also close to some large public facilities: the residential complex of Cairo University, the agricultural laboratory, and the water treatment plant.

(2) Survey method

The fieldwork with rural migrants was divided into two rounds. The first-round fieldwork was done in September 2002. Since no information was available as to how many migrants live where, the sampling ratio could not be determined. Due to this technical constraint, as well as financial constraints, sample size was set at 200 households each for Bigam and Zinin.

To obtain the samples required, a preparatory sampling survey was done in June 2002, to collect information on (1) household heads who came directly from the rural areas to Greater

Cairo, (2) year of migration to the survey area, (3) other information such as villages of origin, age of migration, reason of migration, and so forth. The information was collected from the apartment building owners.

The sampling survey started from the edge points of the two survey areas, from block to block. It continued until samples meeting the above criteria reached the required number. An additional sampling survey was done in July 2003, to meet the number of samples required for the second-round fieldwork of the migrants. In total, 43 blocks were surveyed: 25 in Bigam and 18 in Zinin. The sampling survey list numbered 4638 households: 1956 in Bigam and 2682 in Zinin. As seen in Table 2, of the sampled households 32.5% in Bigam and 23.4% in Zinin are reported to be of rural origin, according to the apartment owners.

Based on this sampling list, the first-round fieldwork began. The second round of fieldwork was done in March 2003, after adding more blocks to gather enough samples by doing an additional sampling survey.

The total samples collected from these two surveys were 400 for each survey area (Table 1). According to the sampling survey, the rural migrants living in the surveyed blocks totaled 635 in Bigam and 627 in Zinin. The survey can thus be considered as almost exhaustive.

According to the sampling survey, household heads not of rural origin numbered 1321 in Bigam and 2055 in Zinin. Most of these are believed to have been born in Greater Cairo. Thus, the samples of those born in Greater Cairo, 200 in each area, can be considered as representing the household heads not of rural origin. In this paper, the data of those born in Greater Cairo will be used in part to clarify the characteristics of the migrants in the surveyed blocks.

Table 1: Sample households

samplehouseholds		Bigam	Zinin	total
rural	first round	200	200	400
migrants	second round	200	200	400
born in Greater Cairo		200	200	400
total		600	600	1,200

Table 2: Rural migrants (household head) in the surveyed areas (sampling survey)

	Bigam		Zinin		total	
	%	number	%	number	%	number
rural migrants	32.5	635	23.4	627	27.2	1,262
other	67.5	1,321	76.6	2,055	72.8	3,376
total	100.0	1,956	100.0	2,682	100.0	4,638

Note: "Rural migrants" contain some who are from town.

(3) Questionnaire Structure

The questionnaire was based on the one used in the household survey in China, which was conducted by the Institute of Economics (Chinese Academy of the Social Sciences) in collaboration with Hitotsubashi University and Oxford University. It is a nation-wide survey on poverty in China. Its aim is to collect household data about the urban poor and from that data to analyze the income distribution and social transformation that results after transition from a planned economy to a market economy. We used this Chinese questionnaire as a reference because we shared the same interests. It systematically covers the necessary topics. Our using the same format will also help if we make a comparative study between China and Egypt in the future⁽⁶⁾.

Although following the Chinese format, we made modifications that adapted to the Egyptian situation. First, we simplified the questions on household consumption behavior. (The Chinese questionnaire was technically capable of using detailed questions on this topic because the household budget book was available.) Second, we added items to cover two topics that were neglected in the Chinese questionnaire, due to the differences between the two societies. One is the secondary wage employment (II-2) and self-employment (V) that can be important sources of income in Egypt. Another addition is the question on items related to the family network, which would have more importance in Egypt. We added questions to discern qualitative aspects. Although the importance of the family network is pointed out in many anthropological studies, as a factor for generating income in the Egyptian context, little is known of its qualitative aspects.

The following is a list of the items covered by our questionnaire. The survey questionnaire consists of nine sections on a series of topics that integrate monetary and non-monetary measures of household welfare and variety of household behavioral characteristics.

- I Basic Information
- II Wage employment
 - II-1 Most recent primary wage employment
 - II-2 Secondary wage employment and most recent primary wage job
 - II-3 First wage employment
 - II-4 Wage income
- III Unemployment
- IV Migration
- V Self-employment
- VI-1 Household income & expenditure
- VI-2 Transfer to the other households
- VII-1 Financial assets
- VII-2 Credit

VIII Housing conditions

IX Attitude questions

The first section consists of basic information about all household members; for example, age, sex, relation to head of household, education, and employment status. The second section collects information on unemployment. The third section focuses on wage employment, covering information on the first and most recent (or actual) wage employment, including secondary wage employment. This is to identify the occupational mobility of household members.

The information on migration is reported in the third section, covering questions to discern the situation in the place of origin before migration, and the migration procedure. The fifth section is about self-employment. As in the section on wage employment, it covers the information on the first and most recent (or actual) self-employment.

Income by sources and information on consumption by topics, including transfer to other households, are obtained from section six. Section seven is concerned with financial assets and credit expenditure. Possession of durable goods is reported in section eight on housing conditions. The last section consists of various attitudinal questions about the social network.

After the first stage of fieldwork, some additions were made to the questionnaire. Questions were added to collect more detailed information on topics that we found to be important after the first round fieldwork, such as *gamaiya* (credit rotation system). We also modified the questionnaire, and developed an independent one for those born in Greater Cairo. Instead of putting questions on migration to the respondent himself, we put them to the respondent's family.

III. Basic indicators by region, governorate, or shiyakhat in Greater Cairo

Egypt is administratively composed of two regions, Lower Egypt and Upper Egypt. The Nile river is divided into two branches, which form the delta at Cairo. Lower Egypt is the northern part from Cairo to the Mediterranean. Upper Egypt is the southern part from Cairo to the border between Egypt and Sudan.

Each region is divided into three hierarchal divisions: governorate – *qism* – *shiyakhat* for urban, and governorate – *markaz* – *qarya* (village) for rural (see Maps 1 & 2). Sometimes large cities are counted as individual governorate. These are four in total, which are Cairo, Alexandria, Port-Said and Suez. The smallest unit of these urban governorates (as well as urban centers of other governorates) is *shiyakhat*. On the other hand, the village is the smallest unit for rural parts (see also Maps 1 & 2).

This chapter describes characteristics of regions, governorates, and the *shiyakhats* in Greater Cairo, using six indicators: (1) population density, (2) income level, (3) age, (4)

educational level, (5) unemployment, and (6) employment situation.

By comparing these indicators, in Section (1) below we will present the characteristics of Greater Cairo, and the regions and governorates that send out its migrants. In Section (2), we will present the characteristics of Bigam and Zinin, where the surveyed blocks are located.

Population census data of 1996 for the shiyakhat or village level is the main source of data for all indicators except income level. That data is instead provided by GDP per capita on the qism/markaz/hai level, as estimated in the Egypt Human Development Report 2003⁶.

(1) Basic indicators by region or governorate

<Population density> (Map 7)

Many governorates in Egypt have desert areas. If these areas are included in the computation, Cairo's population density, for example, is 2136.1 per km². If, on the other hand, the desert areas are not included, Cairo's population density rises to 12,700 per km². This figure is by far the highest, even compared to the second highest governorate, Alexandria, with its 2153 per km². Excluding the desert areas, not much difference is observed between Lower Egypt (1137 per km²) and Upper Egypt (1887 per km²)⁷.

<Income level> (Map 8)

The per capita GDP for all of Egypt is estimated in the Egyptian Human Development Report as 5537.6 LE per year (2001). Urban Governorates (Cairo, Alexandria, Port-Said, Suez) have high income averages (10084.6 LE per year for the average of four governorates). The governorates of Red Sea and South Sinai, classified as Frontier Governorates, also have relatively high income. They are known for tourism.

Governorates with the lowest income are in Upper Egypt. Asyout and Suhag rank the lowest in Egypt, with 3008.8 LE and 3278.1 LE per year respectively. Excluding the Governorate of Aswan, known for tourism, and the Governorate of Giza attached to Greater Cairo Region, all the governorates of Upper Egypt have GDPs per capita of less than 4000 LE per year. The poverty rates of these Upper Egypt governorates are also the highest in Egypt.

⁶ UNDP/Institute of National Planning(INP), *Egypt Human Development Report 2003 (EHDP2003)*, Cairo: UNDP Cairo Office/Institute of National Planning, 2003, p.38, 40, 42. As for data on income level, no information is available to estimate income distribution in Egypt. We used the estimation of GDP per capita calculated and reported in Egypt Human Development Report 2003, and estimated the geographical location of low income areas. The GDP per capita here refers to the estimation of average per capita income calculated from Household Income and Expenditure Survey 1999/2000. Using this survey data, the value of income per capita at markaz/hai level is estimated, by calculating the share of workers in each economic sector in 2001(UNDP/INP, *EHDP2003*, p.108).

"Hai" is the local administrative unit in the urban areas that contains several qism. In the urban areas, local administration is mainly organized on this "hai" level.

⁷ UNDP/INP, *EHDP 2003*, p. 151.

Compared to Upper Egypt, all the governorates of Lower Egypt have higher income. Even the lowest ranking governorates of Lower Egypt (Sharkia, Menoufia, and Dakahlia) have average incomes of more than 4000 LE per year (Sharkia 4181.9LE/year).

<Age> (Map 9)

Urban governorates such as Cairo, Alexandria, and Port-Said, and other governorates such as Menoufia in Lower Egypt, as well as Qena and Luxor in Upper Egypt, have the highest percentage of population more than 65 years old. The lowest percentages are found in governorates such as Damietta, Behera, Ismailia, and Giza. Other governorates of Lower and Upper Egypt have in-between, almost identical, proportions.

<Educational level>

Illiteracy for age 10 and older differs between Urban Governorates and other governorates, and between Lower and Upper Egypt. All the governorates in Upper Egypt record high illiteracy (Map 10). The percentage of population aged 15 and older with secondary or higher education is also low in Upper Egypt. The percentage is relatively equal among the governorates of Upper Egypt, but it differs within Lower Egypt. There, Menoufia and Gharbia have relatively high percentages, although still much lower than the Urban Governorates.

<Unemployment> (Map 11)

Unemployment (percentage among labor force aged 15 & older) differs between Urban Governorates and other governorates, and between Lower and Upper Egypt. Governorates of Lower Egypt, notably Gharbia, have a slightly higher rate than Upper Egypt.

<Employment (age 15 & older)>

As to sector, the highest rate of employment for workers in the government sector is recorded in Port Said and Luxor. Governorates with the lowest rate are Fayoum and Menia (Map 12). Other governorates of Upper Egypt also have a low rate compared to Lower Egypt. The percentage of workers in the public sector is remarkably high in four governorates: Alexandria, Port-Said, Suez, and Damietta (Map 13). Governorates of Upper Egypt have very low percentages of workers in the public sector and a relatively high rate in the private sector (Map 14).

The rate of waged workers differs by region for self-employment. The percentage of self-employed workers without employees is high in Upper Egypt. Notably, the Governorate of Suhag has the highest rate in Egypt. Among governorates of Lower Egypt, Menoufia has the highest rate.

The sector that distinguishes the composition of economic activity by region and governorate is agriculture. Its percentage is considerable in Upper Egypt. Among the

governorates of Upper Egypt, Menia ranks the highest in Egypt. On the other hand, the percentage of manufacturing is high in the Urban Governorates and some governorates in Lower Egypt, namely, Damietta, Kalyoubia, Kafr El-Sheikh, and Gharbia. Upper Egypt has a low rate of manufacturing employment. Meanwhile, the percentage for construction is also high in the Urban Governorates and Damietta, and some governorates of Upper Egypt, namely, Luxur, Aswan, Qena, and Suhag. The percentage of commerce is high in Urban Governorates. The other governorates differ little from each other in rate.

The composition of job rank depends largely on the proportion of farmers, including self-employed and workers (Map 15), which is higher in Upper Egypt than in Lower Egypt. As might be expected, however, the highest proportion of “craftsmen” is found in Urban Governorates (Map 16). In Lower and Upper Egypt, the proportion differs by governorate. The governorates with the highest rates of craftsmen in Upper Egypt are Giza, Suhag and Qena, and in Lower Egypt, Damietta. The highest percentage of “Machine operating workers” is found in the governorates of Alexandria and Suez. Governorates of Lower Egypt have relatively high percentages for this classification, as compared to Upper Egypt.

(2) Basic indicators by shiyakhat in Greater Cairo

<Population density> (Map 17)

Areas with high population density are the old residential areas such as Rod El-Farag, Shobra, Sharabeya, and some shiyakhats in Misr El-Qadima⁸. High population density is also observed in areas to the north-east such as Hadaiq El-Qubba, El-Matareiya, Menshiyat Nasr near El-Moqattam, westward to such as Bulaq El-Dakrur including Zinin, northward to such as Imbaba, and southward to some shiyakhats of El-Basateen. Shobra El-Kheima, including Bigam, has a modest density compared to those areas.

<Income level> (Map 18)

Income level differs between central areas and suburb areas. Qism and hai of the Cairo governorate have an average income of more than 8,000 LE, except for Hai Helwan and hai Menshiyat Nasr. In contrast, the qism and hai of Kalyoubia and Giza governorates have lower average incomes, ranging from 6,000 to 7,000 LE. Qism and hai of the Giza governorate, including Bulaq El-Dakrur to which Zinin belongs, are especially low. In comparison, qism and hai in Giza, and those of Kalyoubia, including Shobra El-Kheima to which Bigam belongs, are estimated to have relatively higher GDPs per capita.

<Age > (Map 19)

Most of the shiyakhats in the suburbs have a higher proportion of residents aged 65 and

⁸ Old residential areas in Cairo developed before the war, and, as late as the 1960s, some of them recorded residential densities that were the highest in the world (Harris & Wahba, pp.61-62).

older. Bigam and Zinin are among them. This fact might reflect the high population mobility in the suburb areas, on the assumption that aged persons are less mobile. As will be described in chapter 5, Cairo's suburban areas developed as residential opportunities for those who needed cheaper apartments. Since young couples need apartments more, these suburb areas attract the young, including young married persons⁹.

<Educational level> (age 10 & older) (Map 20)

Some of the old residential areas have high levels of illiteracy. These areas include Bulaq, Bab El-Shaariya, El-Darb El-Ahmar and Misr El-Qadima. A number of shiyakhats in the suburbs, especially on the fringe, also have high illiteracy. These include some shiyakhats in Giza, Helwan, and Shobra El-Kheima. Bigam and Zinin have illiteracy similar to other shiyakhats on the fringe. The rate, however, is lower than the previously mentioned shiyakhats of the old residential areas.

<Unemployment> (age 15 & older) (Map 21)

Unemployment rate are higher in some shiyakhats in old residential areas such as Rod El-Farag, Bab El-Shaariya, and El-Waily. Shiyakhats in the suburb, including Bigam and Zinin, have relatively low rates. The low rate of unemployment in the suburb may be related to the proportion of the aged above 65, an indicator of mobility. People would not take the risk of moving and changing their residences without a secure job.

<Employment> (age 15 & older)

Suburb areas have fewer workers in the government sector (Map 22) and therefore relatively more workers in the private sector, although a lower proportion than areas in the center such as Bulaq, El-Gamaliya, and Misr El-Qadima (Map 24). Public sector workers are concentrated in Shobra El-Kheima, including Bigam and Helwan (Map 23).

The composition of economic activity reveals that workers living in the suburbs are engaged in manufacturing, notably in northern areas, or in construction and transportation. They work less in financial activities, real estate/leasing/business services, public administration/defense, education, and community/social activities than do the workers in central areas. Not much difference is found as to the proportion of workers in commerce and service, or in hotels and restaurants.

The workers in the suburbs are less likely to have jobs in the managerial or professional categories. They are more engaged in job categories such as "craftsmen" or "machine operating workers" (Map 25).

Bigam and Zinin share these common features of suburb shiyakhats, with some regional

⁹ Meyer, Gunter, "Employment in Small-Scale Manufacturing in Cairo: A Socio-Economic Survey", in *Bulletin (British Society for Middle Eastern Studies)*, vol. 14, no. 2, 1987, p. 144.

differences. Like other shiyakhats in Shobra El-Kheima, Bigam has a relatively high proportion of workers in the public sector, manufacturing, and “machine operating workers”¹⁰. In contrast, workers in Zinin work more as “craftsmen” and in construction than those in Bigam¹¹. Another difference is the slightly higher proportion of Zinin’s workers in public administration and defense¹².

IV. Migration patterns to Greater Cairo of the surveyed households

This chapter focuses on migration patterns of the surveyed migrants to Greater Cairo. In Section 1, the profiles of migrants living in the survey areas will be introduced, using five indicators, namely: (1) income level, (2) age, (3) educational level, (4) unemployment and (5) employment situation. The profiles are described in comparison with the population census data presented in Chapter 3 and the household data of the household heads born in Greater Cairo. As will be mentioned, household heads born in Greater Cairo are considered as a group composing the majority of the residents in the surveyed blocks.

In Section 2, year of migration, regions of origin and their proportional changes over time will be presented. In Section 3, the characteristics of migrants by period of migration and region of origin will be described using the five indicators mentioned above.

(1) Migrants in the surveyed blocks

Residents of the surveyed blocks

The people who live in the surveyed blocks consists of those originally of Bigam and Zinin, those who moved from other areas of Greater Cairo, and the rural and urban migrants who moved from outside Greater Cairo. Although we do not know the exact composition of these residents in the surveyed blocks, we estimate that those who moved from other areas inside Greater Cairo constitute the major group in the surveyed blocks, followed by those born in Bigam and Zinin. As shown in Appendix Table 1, the population census attests that Kalyoubia (urban) and Giza (rural) have more people who moved from outside. Most of these people were born in the Cairo governorate. Their proportions are not so high on a governorate level, but we expect that recently developed areas have higher proportions.

In fact, among those born in Greater Cairo, 68.3% of the household heads in Bigam and 48.0% of the household heads in Zinin are born outside shiyakhats in Greater Cairo (Table 3). They moved to their current residence for reasons such as cheaper rent, advantage of location,

¹⁰ According to same data of the population census of 1996, these workers in Bigam work mostly in textile industry.

¹¹ Workers as “craftsmen” work mostly as building caretakers or cleaners.

¹² This may be related to their proximity to areas in Giza that have many administrative buildings.

and desire to live near family or relative (Table 4)¹³.

At the governorate level, the proportion in Appendix Table 1 of people born outside Greater Cairo is not high. But, for the same reason, a higher proportion is expected in the suburb areas than at the governorate level. As Table 2 in the previous section shows, our sampling survey suggests that 27.2% of the household heads are of rural origin. Supposing the average household size is four persons, and that rural migrants married women born in Greater Cairo, and their children were also born in Greater Cairo, the percentage of the residents of rural origin is estimated at 6.8%. This proportion is a low estimation, since marriages with women from the home village, which would be frequent, are excluded.

Table 3: Birthplace of the household heads born in Greater Cairo

	Bigam	Zinin	Total
Bigam	31.7	.	15.8
other shiyakhats in Kalyoubia	6.5	0.0	3.3
Zinin	.	52.0	26.1
other shiyakhats in Giza	2.0	20.0	11.0
Cairo	59.8	28.0	43.9
total	100.0	100.0	100.0
(number)	(199)	(200)	(399)

Table 4: Reason of choosing the survey areas (born in Greater Cairo excluding born in Bigam & Zinin) (%)

		Kalyoubia	Giza	Cairo
Bigam	lowering of rent	23.1	25.0	39.5
	advantage of location	7.7	25.0	16.7
	desire of living near family/relative	46.2	0.0	23.7
	marriage	15.4	0.0	9.7
	don't know	0.0	0.0	4.4
	other	7.7	50.0	6.1
	total	100.0	100.0	100.0
(number)		(13)	(4)	(114)
Zinin	lowering of rent		73.7	46.0
	advantage of location		5.3	18.0
	desire of living near family/relative		7.9	12.0
	marriage		2.6	18.0
	don't know		0.0	0.0
	other		10.5	6.0
	total		100.0	100.0
(number)			(38)	(50)

¹³ According to the open interview, the largest group consists of young couples who moved from the center or other over-populated areas inside Greater Cairo, attracted by the cheaper housing cost.

Profiles of Migrants

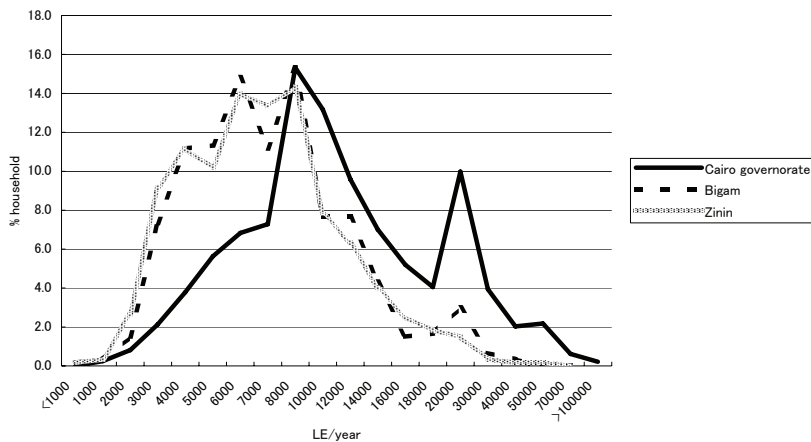
<Income level>

When compared with household consumption distribution of the Cairo governorate, which is the only source of data available to compare with our samples, the income levels of migrants, as well as household heads born in Greater Cairo, are concentrated at the lower end (Graph 1). This is notably apparent for migrants in both Bigam and Zinin (Graph 2).

When compared with the poverty rate of urban governorates, which includes the Cairo governorate, the difference between migrants and those born in Greater Cairo become more apparent. In Table 3, poverty indices are estimated using the poverty line of year 1999/2000 calculated by El-Laithy (World Bank, 2002) and converted to LE/2002 by (UNDP Cairo, 2003), and World Bank poverty line of 1 dollar and 2 dollar converted to PPP/LE¹⁴. Using these poverty lines, both migrants and those born in Greater Cairo in Bigam and Zinin are estimated to have higher indices of poverty than the average of the urban governorates (Appendix Table 5). The migrants have more than twice as high a rate as those born in Greater Cairo.

Although rural migrants have lower incomes than the averages of both Greater Cairo and those born in Greater Cairo, differences of income level within the migrant category should be noted. Gini coefficient in Appendix Table 6 indicates the greater inequality of income distribution among migrants, as compared to those born in Greater Cairo. Some migrant households have incomes of 20,000 LE/year, an amount equivalent to the GDP per capita (EHDP2003) of qism El-Maadi, known as a high class residential area.

Graph 1: Household consumption distribution of Cairo Governorate & survey areas (%)



¹⁴ Conversion to PPP/LE was done using the PPP/LE rate in the World Bank, *World Development Report 2003*, Washington, D.C.: The World Bank, 2003.

Graph 2: Household consumption distribution of migrants & born in Greater Cairo (LE/year) (%)

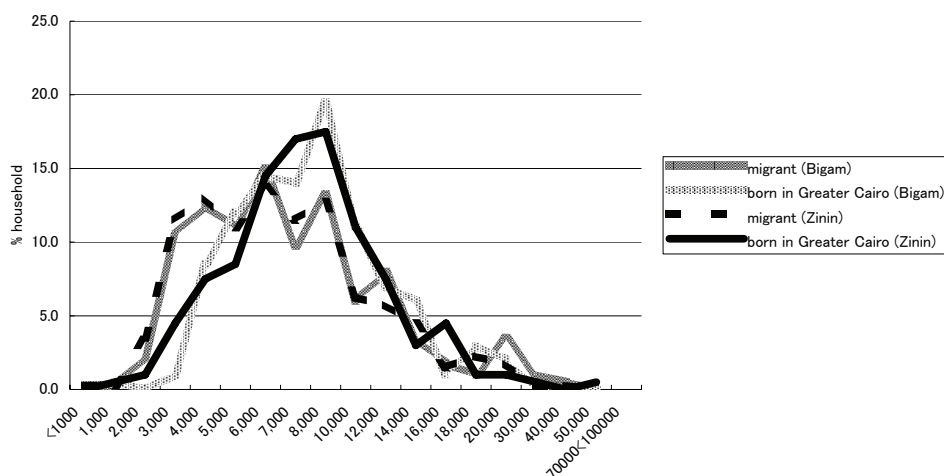


Table 5: Per capita poverty estimation

poverty line	LE/year	Foster-Greer-Thorbecke indices			Bigam		Zinin	
		FGT(0)	headcount ratio(%)	(income base)	migrant	born in Greater Cairo	migrant	born in Greater Cairo
lower	1223	FGT(0)	headcount ratio(%)	(income base)	21.3	9.5	22.5	7.5
		FGT(1)	poverty gap	(consumption base)	0.076	0.019	0.083	0.022
		FGT(2)	squared poverty gap	(consumption base)	0.026	0.006	0.030	0.006
upper	1799	FGT(0)	headcount ratio(%)	(income base)	45.0	27.5	43.3	26.0
		FGT(1)	poverty gap	(consumption base)	0.204	0.101	0.206	0.110
		FGT(2)	squared poverty gap	(consumption base)	0.089	0.035	0.094	0.037
\$1PPP/day	680.9	FGT(0)	headcount ratio(%)	(income base)	1.5	0.5	0.5	0.0
		FGT(1)	poverty gap	(consumption base)	0.006	0.001	0.007	0.000
		FGT(2)	squared poverty gap	(consumption base)	0.003	0.000	0.002	0.000
\$2PPP/day	1361.8	FGT(0)	headcount ratio(%)	(income base)	28.3	11.5	28.5	12.0
		FGT(1)	poverty gap	(consumption base)	0.105	0.035	0.113	0.038
		FGT(2)	squared poverty gap	(consumption base)	0.039	0.010	0.043	0.011

Source: Lower and upper poverty line from UNDP Cairo, *Subjective Poverty & Social Capital: Towards a Comprehensive Strategy to Reduce Poverty*, April 2003, p.10.

Note: \$1PPP and \$2PPP/day adjusted using September 2002 \$/LE rate, adjusted to PPP

<Age and other related indicators>

In both Bigam and Zinin, migrants are older than the average of the shiyakhats, and of those born in Greater Cairo.

As to marital status, household size, and number of children (comparable only with born in Greater Cairo), most of the migrants are married, as are those born in Greater Cairo, but also have a larger household size and more children than those born in Greater Cairo. This may be due to the difference in age structure between the household heads of rural origin and

those born in Greater Cairo.

As for household size, it should be noted that migrants in the surveyed blocks are residents settled down in the actual apartments with their families (spouses and children). The questions about children or a spouse living in the home village reveal that 98.5% and 97.2% of migrants respectively do not have children or a spouse in their home village. Also, the question as to preference of a place to live after retirement shows that the majority of migrants (73.3%) do not intend to go back to their home villages after their retirement. These facts attest that the migrants in the surveyed blocks are settled, not temporary migrants.

<Educational level>

In both Bigam and Zinin, rural migrants have lower educational levels than the average for the shiyakhats and those born in Greater Cairo. It should be noted, however, that the percentage of migrants having an educational level of university or above is similar to those born in Greater Cairo. Like them, their percentage is much higher than the average of the shiyakhats. The difference in educational level occurs at the intermediate and the bottom levels: those who are illiterate or can read and write.

The educational gap between migrants and those born in Greater Cairo is partly due to the difference in their age structure. When age is controlled, the difference is not found among the age group below 35. However, among age groups 35-49 and above 49, migrants have a higher illiteracy rate than those born in Greater Cairo. Thus, it can be suggested that migrants can be divided into two groups: young and educated, and older with a lower educational level.

<Unemployment situation>

There are no unemployed among the migrants in either Bigam or Zinin. Since those born in Greater Cairo are also all employed, this is not a situation specific to rural migrants. This finding may be related to the fact that the surveyed blocks are recently developed areas, a topic treated in Chapter 5.

Table 6: Age & related indicators of migrants and born in Greater Cairo (%)

		Bigam		Zinin		total
		migrant	born in Greater Cairo	migrant	born in Greater Cairo	
sex	female	0.5	3.0	1.0	9.0	2.5
	male	99.5	97.0	99.0	91.0	97.5
	total	100.0	100.0	100.0	100.0	100
	(number)	(400)	(200)	(400)	(200)	(1200)
		Pr=0.000				
age (household heads)	15 to 24	1.0	2.0	2.8	2.0	1.9
	25 to 34	13.0	31.0	12.5	16.0	16.3
	35 to 44	22.8	38.0	25.8	32.0	27.8
	45 to 54	33.0	24.5	29.5	28.5	29.7
	55 to 64	21.5	3.0	20.0	14.5	16.8
	65 & older	8.8	1.5	9.5	7.0	7.5
	total	100.0	100.0	100.0	100.0	100.0
(number)	(400)	(200)	(400)	(200)	(1200)	
		Pr=0.000				
age (all members)	less than 15	26.1	39.2	30.2	29.5	30.1
	15 to 24	29.6	18.9	26.2	25.3	26.1
	25 to 34	11.3	17.5	10.8	14.1	12.5
	35 to 44	11.3	15.0	12.7	13.2	12.7
	45 to 54	12.9	8.2	11.4	11.0	11.4
	55 to 64	6.3	0.9	6.0	4.8	5.1
	65 & older	2.6	0.4	2.7	2.1	2.2
	total	100.0	100.0	100.0	100.0	100.0
(number)	(1935)	(858)	(1866)	(897)	(5556)	
		Pr=0.000				
marital status	never married	2.0	1.5	4.0	2.5	2.7
	married (aqd qiran)	0.0	0.5	0.8	0.0	0.3
	married	95.5	94.0	93.0	86.5	92.9
	divorced/separated	0.0	2.0	0.0	1.0	0.5
	widowed	2.5	2.0	2.3	10.0	3.6
	total	100.0	100.0	100.0	100.0	100.0
(number)	(400)	(200)	(400)	(200)	(1200)	
		Pr=0.000				
household size	1-3	19.5	27.0	25.0	27.5	23.9
	4	21.3	25.0	20.0	26.0	22.3
	5	27.5	34.5	22.0	24.0	26.3
	6	19.0	7.0	17.5	12.5	15.4
	7 or more	12.8	6.5	15.5	10.0	12.2
	total	100.0	100.0	100.0	100.0	100.0
	(number)	(400)	(200)	(400)	(200)	(1200)
		Pr=0.000				
number of children alive	0	5.3	12.0	13.3	17.5	11.1
	1	7.3	16.0	6.5	12.5	9.3
	2	17.5	23.5	16.0	21.0	18.6
	3	22.0	31.5	17.3	23.0	22.2
	4	20.8	7.5	18.3	11.0	16.1
	5	12.8	6.0	13.0	6.0	10.6
	6	6.8	2.5	8.8	5.0	6.4
	7 or more	7.8	1.0	7.0	4.0	5.8
	total	100.0	100.0	100.0	100.0	100.0
	(number)	(400)	(200)	(400)	(200)	(1200)
		Pr=0.000				
education	illiterate	21.8	12.5	29.0	16.5	21.8
	read & write	27.8	22.0	29.3	26.0	27.0
	primary	4.8	3.5	6.0	4.0	4.8
	preparatory	8.5	7.5	5.8	6.0	7.0
	secondary	22.5	36.0	16.5	27.5	23.6
	above secondary	3.3	5.5	3.3	7.0	4.3
	university & above	11.5	13.0	10.3	13.0	11.6
	total	100.0	100.0	100.0	100.0	100.0
(number)	(400)	(200)	(400)	(200)	(1200)	
		Pr=0.000				

<Employment situation>¹⁵

As to work situation (self-employed or waged), migrants do not differ much from the average of shiyakhats. Like the average workers in their shiyakhat, the migrants of Zinin work more often as self-employed, in comparison to the other shiyakhats, whereas the migrants of Bigam work for wages like the average workers of Bigam and other shiyakhats.

Migrants in Bigam work more in the public sector than the average of the shiyakhat, which is already high compared to other shiyakhats. Migrants of Zinin do not differ from the average of their shiyakhat, which is typical of Greater Cairo as a whole.

In economic activity, migrants of Bigam work relatively more in manufacturing, like the average of their shiyakhat, and migrants of Zinin work more than the average of their shiyakhat in commerce.

In job rank, migrants of Bigam and Zinin may work as a commerce or service workers, craftsmen, or “machine operating workers”. The percentage of commerce or service workers among migrants in Zinin is relatively high compared to the average of their shiyakhat. The percentage would be higher if the self-employed were classified together. The percentage of craftsmen and “machine operating workers” is high (like the average of their shiyakhat but not other shiyakhats). Despite these differences, migrants of Bigam and Zinin are similar in that they work less as craftsmen, in job categories of higher position (lawmaker/manager, professional, technician, clerical), compared to the average of their shiyakhat, which is already relatively lower than the average of Greater Cairo.

(2) Migration year and region of origin

Migration year

The flow of rural migrants to Greater Cairo is known to have decreased after the golden era of rural-urban migration in the 1940s and 1950s. Observations made using the change in residents by birthplace, available from the population census, attest that the number of

¹⁵ Sector, economic activity, and job rank as shown in the Table7 summarizes the employment situation of the current worker. Here, only the primary job is treated, because, contrary to our expectation, the workers holding secondary jobs are few. Among migrants and those born in Greater Cairo, those who held waged secondary job along with the most recent waged job totaled 48, out of 1088 household heads. The total holding secondary self-employment along with the primary self-employment was only one household head. Among currently working household heads, those who reported to be waged workers for work status, plus having self-employment, totaled 18, and only one household head reported being self-employed plus having a waged job.

In Table 7, waged workers and self-employed workers are put together. The section on self-employment in the questionnaire was placed at the household level, based on the assumption that self-employment would be managed by household rather than by individual. Surprisingly, however, self-employment was found to be organized by individual level. So, on the data-set, we arranged self-employment on the individual level according to the ID of the person responsible. Then, the data on most recent self-employment was put together with the most recent waged job. When workers had done both jobs in the past, the most recently ended job was selected, and when workers were currently doing both, the job reported in the question on the work situation was chosen.

Table 7: Employment situation (household heads) (%)

		Bigam		Zinin		total	
		migrant	born in Greater Cairo	migrant	born in Greater Cairo		
employment situation	labor force	82.8	93.5	87.3	85.0	86.4	
	out of labor force	17.3	6.5	12.8	15.0	13.6	
	total	100.0	100.0	100.0	100.0	100.0	
	(number)	(400)	(200)	(400)	(200)	(1200)	
Pr=0.003							
work situation	employee	7.0	8.6	9.7	11.2	8.9	
	self-employed	9.7	8.6	16.6	4.1	10.9	
	unpaid						
	waged	83.4	82.9	73.4	84.7	80.1	
	newly unemployed	0.0	0.0	0.3	0.0	0.1	
	unemployed	100.0	100.0	100.0	100.0	100.0	
Pr=0.002							
currently working	sector						
	government	28.1	20.0	36.2	36.8	30.6	
	public administration/defense	19.1	19.4	13.4	9.7	15.8	
	private	51.1	58.7	48.8	52.8	52.1	
	other	1.8	1.9	1.6	0.7	1.6	
	total	100.0	100.0	100.0	100.0	100.0	
Pr=0.013							
economic activity	agriculture & forestry	0.0	0.7	0.4	0.0	0.2	
	mining	0.7	1.3	0.0	0.0	0.5	
	manufacturing	29.1	32.9	14.6	15.3	23.0	
	electricity, gas & water	1.8	2.6	0.4	2.8	1.7	
	construction	15.8	14.8	16.5	6.9	14.3	
	commerce	9.7	9.0	12.2	13.2	11.0	
	hotels & restaurants	4.0	4.5	7.5	4.2	5.2	
	transport & storage	10.1	16.1	7.1	9.7	10.2	
	finance	1.8	1.3	3.5	3.5	2.5	
	real estates & business services	1.8	1.3	2.0	2.1	1.8	
	public administration & defense	13.0	4.5	15.0	20.8	13.4	
	education	5.8	7.1	8.7	9.0	7.5	
	health & social works	2.9	1.3	6.3	6.3	4.2	
	community, social & personal services	2.5	2.6	3.5	5.8	3.4	
	household services	0.7	0.0	2.4	0.7	1.1	
	international organizations & other	0.4	0.0	0.0	0.0	0.1	
	total	100.0	100.0	100.0	100.0	100.0	
Pr=0.000							
job rank	lawmakers & managers	4.0	3.2	3.9	4.2	3.9	
	professionals	10.8	14.2	9.8	11.8	11.3	
	technicians	14.0	15.5	10.2	21.5	14.4	
	clerical workers	5.8	4.5	5.9	8.3	6.0	
	sales & services workers	18.4	14.8	33.5	20.8	22.7	
	farmers	0.4	0.0	0.4	2.8	0.7	
	craftsmen	29.1	35.5	18.9	11.8	24.2	
	machine operating workers	15.5	12.3	12.6	16.7	14.2	
	ordinary workers	2.2	0.0	4.7	2.1	2.5	
	total	100.0	100.0	100.0	100.0	100.0	
	Pr=0.000						
	(number)		(278)	(155)	(254)	(144)	(831)

(2) Migration year and region of origin

Migration year

The flow of rural migrants to Greater Cairo is known to have decreased after the golden era of rural-urban migration in the 1940s and 1950s. Observations made using the change in residents by birthplace, available from the population census, attest that the number of residents of rural origin decreased during the census years 1976 and 1986¹⁶. Their number continued to decrease during the census year 1996. According to the population census, the number of people who moved into the three governorates of Cairo, Kalyoubia, and Giza from outside rural areas decreased from 306,537 in 1986 to 176,225 in 1996¹⁷.

In contrast to this general trend, the majority of rural migrants living in the surveyed blocks came to Greater Cairo after the 1970s. They either migrated directly to Bigam and

¹⁶ See for example, Tanada, *ibid*.

¹⁷ Calculated from *Population Census 1986, 1996* (in Arabic). The number refers to the number of people who lived previously in rural areas.

Zinin, or to other areas in Greater Cairo, from their home villages. The latter was found often in the open interview. The typical migrants' trajectory seems to be: a young and single man moves from his home village after finishing school or military service, and stays at his relative's residence in Shobra or Imbaba in the near center of the old migrants, then moves to the suburb to start his own family life.

Many rural migrants came to Greater Cairo in the year 1982 (Graph 3): 61 migrants in Bigam and 62 in Zinin moved to Greater Cairo in that year. They constitute 15.2% of the migrants in Bigam and 15.5% of those in Zinin. Excluding that exceptional year, migrants are evenly distributed after the 1970s (Appendix Table 7).

The many recent migrants in the surveyed blocks may be related to two factors. One is residential development (to be discussed in Chapter 5¹⁸). Another possibility is the continued inflow of rural migrants to Greater Cairo in recent decades. The population census suggests that the overall decrease observed in Greater Cairo as a whole is different in rural areas. In the rural areas of Kalyoubia and Giza, the number of people who previously lived in rural areas outside Greater Cairo increased from 6,952 to 14,521, and 9,450 to 12,209¹⁹, in 1996. This suggests that there are rural migrants moving to the outer zones of Greater Cairo.

Migrants' regions of origin and their migration trend

As shown in Table 8, Bigam attracts rural migrants from Lower Egypt, most notably the Governorate of Menoufia. Zinin attracts migrants from all the governorates of Upper Egypt (except Luxur, now known for attracting its own migrants), although migrants from the Governorate of Suhag are the largest group in Zinin. Since Bigam and Zinin border these two governorates, it appears that migrants prefer to settle in an area near their home village.

As to their share by period of migration, a slight decrease of 4% of Lower Egypt's share is observed in both Bigam and Zinin after the 1980s. Meanwhile, the share of migrants from Upper Egypt increased from 28.7% to 32.6% after 1980 in Bigam, and from 65.6% to 69.6% after 1980 in Zinin. This change is primarily due to two factors: one, the decrease of migrants to Bigam from Menoufia Governorate, the largest migrant-sending governorate (Table 8), and two, the constant flow of migrants from three major migrant-sending Governorates of Upper Egypt—Suhag, Asyout, and Menia. Unlike the migrants from Menoufia, the migrants of these governorates continue coming to the survey areas, and in the same volume (Appendix Table 8).

(3) Migrant's profile by region of origin, and period of migration

Findings from the previous section are: one, the majority of migrants living in the surveyed blocks came to Greater Cairo in recent decades, and two, migrants seem to have

¹⁸ Earlier migrants would have already settled in old areas such as Shobra, Imbaba, El-Matareiya.

¹⁹ *Population Census 1986, 1996*

Graph 3: Migration year to Greater Cairo

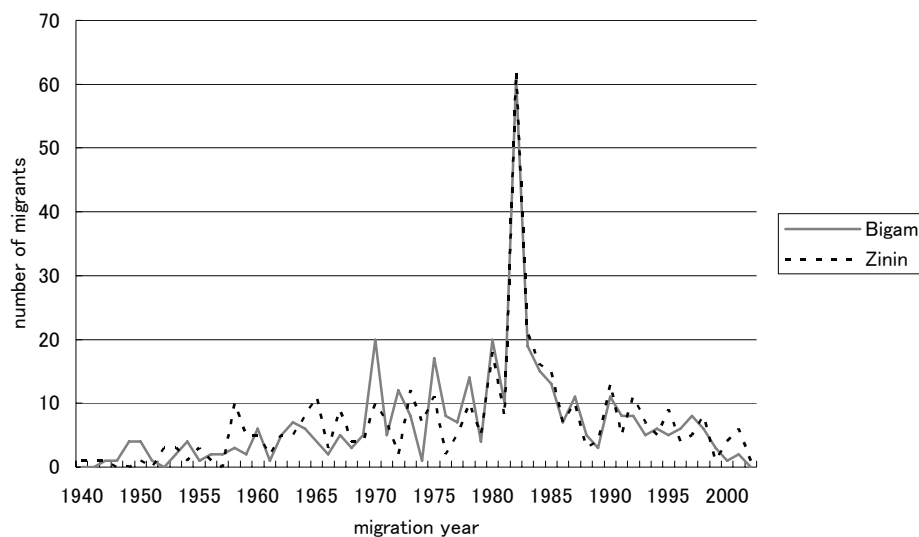


Table 8: Migrants in the survey areas by region of origin (%)

	Bigam			Zinin		
	before 1980	after 1980	total	before 1980	after 1980	total
Lower Egypt						
Damietta	0.0	0.4	0.3	1.3	0.0	0.5
Dakahlia	7.8	9.4	8.8	3.8	4.5	4.3
Sharqia	6.0	8.2	7.3	8.3	7.0	7.5
Kalyoubia	13.2	10.3	11.5	2.6	1.2	1.8
Kafr El-Sheikh	0.0	2.2	1.3	0.0	1.2	0.8
Gharbia	4.8	3.0	3.8	4.5	3.3	3.8
Menoufia	38.9	33.1	35.5	12.1	8.2	9.8
Behera	0.0	0.9	0.5	1.9	4.5	3.5
Ismailia	0.6	0.0	0.3	0.0	0.4	0.3
total	71.3	67.4	69.0	34.4	30.5	32.0
Upper Egypt						
Giza				0.0	2.1	1.3
Beni Suef	0.6	0.9	0.8	10.8	9.1	9.8
Fayoum	2.4	2.2	2.3	6.4	7.0	6.8
Menia	0.6	2.2	1.5	5.1	11.1	8.8
Asyout	8.4	12.9	11.0	12.7	5.8	8.5
Suhag	13.2	10.7	11.8	15.3	20.6	18.5
Qena	2.4	3.0	2.8	8.3	6.6	7.3
Aswan	1.2	0.9	1.0	6.4	6.6	6.5
Luxur				0.6	0.8	0.8
total	28.7	32.6	31.0	65.6	69.6	68.0
total	100.0	100.0	100.0	100.0	100.0	100.0
(number)	(167)	(233)	(400)	(157)	(243)	(400)

preference as to settlement area according to their regions of origin. Are the recent migrants different from earlier migrants? Does the different preference for settlement area by region of origin implies different migration patterns?

In this section, profiles of the migrants (income, age and education, job) will be presented, by regions of origin and by period of year migrated. Table 9 & 10 summarizes their profiles by period of migration and by region of origin.

Migrants of Bigam and Zinin are grouped together in these tables. Large differences are not found between them, except some differences in job related to their location, as described above. Jobs in Table 10 refer to the first job done in Greater Cairo²⁰, to focus on the migrant's entry into the labor market instead of the labor mobility inside that market.

Migrants' characteristics by period of migration

<Income Level>

A considerable income gap is evident between recent and earlier migrants. Recent migrants are more likely to be concentrated in the lower income categories and, also, have a higher incidence of poverty. Using the lower poverty line estimated by the World Bank, the poverty rate of 17.3% for migrants before 1980 rises to 45.0% for migrants after 1980.

<Age>

Recent migrants come to Greater Cairo at an older age than the earlier migrants. This can imply work experience before leaving their home village, or a longer education. However, the questions on occupation before leaving the village reveal that these implications are not valid. The migrants who came at an older age have low educational levels and were doing "other" works (such as unpaid agricultural works on family's land).

Although they are newcomers to Greater Cairo at an older age, the recent migrants are nonetheless younger than migrants who have been in Cairo a while. Their age structure is therefore not much different from those born in Greater Cairo.

<Educational level>

Recent migrants have more education than the earlier migrants. This is partly due to their difference in age structure. Among the age group of above 49, no difference is found. However, in a younger age group (35 to 49, as no earlier migrant is in an age group under 35), recent migrants do have more education than the earlier migrants. Their educational level is not much different from those born in Greater Cairo.

²⁰ The first job in Greater Cairo is calculated by selecting the migrants who started their first waged jobs and self-employed jobs in Greater Cairo, and combining them together.

<First Job in Greater Cairo>

Almost all surveyed migrants have a job, or had a job in the past. Table 10 summarizes the first jobs of migrants in Greater Cairo. Earlier and recent migrants differ considerably as to the first Greater Cairo job. Earlier migrants, coming to Greater Cairo before 1980, more often started their job careers in government and the public sector. In contrast, migrants after 1980 more often started in the private waged sector. The percentage of migrants who worked in the public sector declined after 1985. No difference is found, however, in the percentage of self-employed.

In regard to economic activity, many earlier migrants worked in manufacturing before 1985 and in public administration and defense before 1975. After that period, more migrants started their job careers in construction and commerce.

Their job ranks also changed. After 1985, fewer were “craftsmen” and “machine operating workers”, and more became experts and technicians.

It should be noted that these observed changes in entry to the labor market are not specific to migrants. Household heads born in Greater Cairo who have the same age and educational structure as recent (post-1980) migrants exhibit the same structure in sector, economic activity, and job rank as those migrants.

The difference in sectorial and occupational structure between earlier and recent migrants might be reflecting a change in Greater Cairo’s labor market. Significant employment rate changes have occurred in Greater Cairo since the 1960s²¹. The rate of growth of manufacturing employment stagnated because of the high capital intensity in general, as well as the restructuring effects in the 1990s. The rate of growth of service sector employment has shown a significant increase since the 1970s, whereas the rate of growth of construction employment registered a decrease in the 1990s after a boom from 1974 to the end of the 1980s.

This shift of employment from manufacturing to the service sector is accompanied by a change in the labor composition by sector, that is, a decrease in the share of the public sector and an increase in the share of the private sector. The government sector, however, continued to maintain its same 1970s share²².

²¹ Nassar, Heba & El-Laithy, Heba, “Labor Market, Urban Poverty and Pro-poor Employment Policies”, *Working Paper* 2036, Cairo: Economic Research Forum for the Arab Countries, Iran & Turkey, n.d., p. 15.

²² The continued share of government employment is attributed to greater persistence in government employment of older female civil servants, and to government’s inability to slow the rate of hiring sufficiently to counteract the dramatic growth of those eligible for the public employment guarantee. Assaad, Ragui, “The Transformation of the Egyptian Labor Market: 1988-98”, in Assaad, Ragui (ed.), *The Egyptian Labor Market in an Era of Reform*, Cairo: An Economic Research Forum Edition, 2002, p. 45.

Table 9: Profile of migrants by period of migration/region of origin

		period of migration		region of origin		total
		before 80	after 80	Lower Egypt	Upper Egypt	
age	15 to 24	0.0	3.2	1.5	2.3	1.9
	25 to 34	0.0	21.4	10.9	14.7	12.8
	35 to 44	6.5	36.3	22.5	26.0	24.3
	45 to 54	31.5	31.1	36.4	26.0	31.3
	55 to 64	41.7	6.5	21.5	20.0	20.8
	65 & older	20.4	1.5	7.2	11.1	9.1
	total	100.0	100.0	100.0	100.0	100.0
	(number)	(324)	(476)	(404)	(396)	(800)
		Pr=0.000		Pr=0.013		
education	illiterate	37.0	17.4	19.3	31.6	25.4
	read & write	34.9	24.2	27.5	29.6	28.5
	primary	5.3	5.5	6.2	4.6	5.4
	preparatory	5.9	8.0	8.2	6.1	7.1
	secondary	9.0	26.7	23.0	15.9	19.5
	above secondary	1.2	4.6	3.7	2.8	3.3
	university & above	6.8	13.7	12.1	9.6	10.9
	total	100.0	100.0	100.0	100.0	100.0
(number)	(324)	(476)	(404)	(396)	(800)	
		Pr=0.000		Pr=0.002		
age of migration	less than 15	11.1	3.2	5.5	7.3	6.4
	15 to 19	18.5	13.7	16.1	15.2	15.6
	20 to 24	34.3	29.2	31.4	31.1	31.3
	25 to 29	19.8	28.4	25.0	24.8	24.9
	30 to 34	10.5	13.0	12.9	11.1	12.0
	35 & older	5.9	12.6	9.2	10.6	9.9
	total	100.0	100.0	100.0	100.0	100.0
	(number)	(324)	(476)	(404)	(396)	(800)
		Pr=0.000		Pr=0.825		
average household size		4.9	4.7	4.8	4.7	4.7
number of children (alive)		4.5	3.3	3.7	3.9	3.8
household income level	less than 3500	1.5	6.5	4.7	4.3	4.5
	3500-	3.7	13.5	9.9	9.1	9.5
	4500-	6.5	15.1	10.2	13.1	11.6
	6000-	12.7	27.3	19.6	23.2	21.4
	8000-	16.4	12.6	15.6	12.6	14.1
	10,000-	11.7	6.3	7.4	9.6	8.5
	12,000-	11.4	5.9	9.4	6.8	8.1
	14,000-	21.6	6.5	13.1	12.1	12.6
	20,000-	14.5	6.3	10.2	9.1	9.6
	total	100.0	100.0	100.0	100.0	100.0
	(number)	(324)	(476)	(404)	(396)	(800)
		Pr=0.000		Pr=0.494		
Gini coefficient		0.321	0.449	0.364	0.453	0.411
poverty rate	lower line (1223 LE/year)	17.3	45.0	30.7	36.9	33.8
	upper line(1799 LE/year)	44.4	68.1	57.7	59.3	58.5
	\$1ppp/day(680.9 LE/year)	0.9	6.1	3.5	4.6	4.0
	\$2ppp/day(1361.8 LE/year)	23.5	52.5	37.9	43.7	40.8
(number)	(324)	(476)	(404)	(396)	(800)	

Migrants' characteristics by home region

<Income level>

In terms of income level, migrants of Lower and Upper Egypt do not differ. The income and poverty level of both got equally worsened after 1980 (Appendix Table 9). Even on the governorate level, no difference is found. Difference in the poverty rate is also small at the regional and governorate level.

Table 10: First job in Greater Cairo by period of migration/region of origin (household heads) (%)

			period of migration		region of origin		
			before 80	after 80	Lower Egypt	Upper Egypt	
labor force	labor force		70.7	94.8	84.2	85.9	
	out of labor force		29.3	5.3	15.8	14.1	
	total		100.0	100.0	100.0	100.0	
	(number)		(324)	(476)	(404)	(396)	
			Pr=0.000		Pr=0.501		
current employment situation	employee		9.6	7.8	5.3	11.5	
	self-employed		19.7	10.0	11.2	15.3	
	waged		70.7	82.0	83.5	72.9	
	unemployed		0.0	0.2	0.0	0.3	
	total		100.0	100.0	100.0	100.0	
	(number)		(229)	(451)	(340)	(340)	
			Pr=0.002		Pr=0.004		
first job in Greater Cairo	sector	government	30.1	21.9	30.6	19.4	
		public	14.9	11.1	17.6	7.1	
		private (waged)	42.4	55.2	42.5	57.9	
		private(self-employed)	10.5	10.0	6.4	14.6	
		other	2.2	1.9	2.9	1.0	
		total	100.0	100.0	100.0	100.0	
		(number)	(276)	(379)	(346)	(309)	
				Pr=0.023		Pr=0.000	
	economic activity	agriculture & forestry		2.2	1.3	0.6	2.9
		mining		0.0	0.3	0.0	0.3
manufacturing			30.1	24.3	34.1	18.5	
electricity, gas & water			0.4	0.8	0.9	0.3	
construction			11.2	13.5	9.5	15.9	
commerce			15.6	20.1	11.6	25.7	
hotels & restaurants			7.3	5.0	5.5	6.5	
transport & storage			7.3	6.1	7.2	5.8	
finance			0.0	1.9	1.2	1.0	
real estates & business services			0.7	2.7	1.5	2.3	
public administration & defense			15.6	10.1	15.9	8.4	
education			2.2	7.4	4.6	5.8	
health & social works			2.9	2.4	3.2	2.0	
community, social & personal services			4.0	3.7	4.3	3.3	
household services		0.7	0.5	0.0	1.3		
total		100.0	100.0	100.0	100.0		
	(number)	(276)	(378)	(346)	(308)		
			Pr=0.011		Pr=0.000		
job rank	lawmakers & managers		4.0	3.2	4.6	2.3	
	professionals		6.5	10.6	10.4	7.1	
	technicians		9.8	10.3	14.2	5.5	
	clerical workers		1.1	5.0	2.9	3.9	
	sales & services workers		23.2	23.0	22.8	23.3	
	farmers		2.5	1.6	0.3	3.9	
	craftsmen		26.5	22.4	21.4	27.2	
	machine operating workers		12.0	11.9	14.2	9.4	
	ordinary workers		4.0	2.1	2.9	2.9	
	self-employed		10.5	10.0	6.4	14.6	
	total		100.0	100.0	100.0	100.0	
		(number)	(276)	(379)	(346)	(309)	
				Pr=0.109		Pr=0.000	

<Age>

There is no difference as to the age of migration to Greater Cairo between migrants of Lower and Upper Egypt. However, migrants from Upper Egypt are slightly younger than migrants from Lower Egypt.

<Educational level>

Migrants from Lower and Upper Egypt clearly differ in their educational level, that of migrants from Lower Egypt being higher. Migrant educational levels got better over time for

both regions, but the gap between migrants from Lower Egypt and Upper Egypt still exists (Appendix Table 9).

<First job in Greater Cairo>

The first job in Greater Cairo differs considerably by region of origin. Migrants from Lower Egypt work relatively more in government and the public sector, in economic activities such as manufacturing, public administration & defense; they have job ranks as technicians, “machine operating worker”. In contrast, migrants from Upper Egypt work relatively more in the public sector, including self-employment, and in economic activities such as construction or commerce; they have job ranks such as service/commerce worker, craftsman²³.

One interesting fact is that migrants from Lower Egypt are relatively concentrated in jobs where a decrease of share is observed over time. As previously mentioned, the significant changes by period of migration are found in government and the public sector, manufacturing, and public administration & defense. The share of these job categories dropped, while the share of the private waged sector, commerce, and construction rose. (No difference is found as to the self-employed.) These job categories are where migrants from Upper Egypt are concentrated. This fact may be related to the slight decrease of the share of migrants from Lower Egypt after 1980.

Another finding related to jobs is that, when looking at the job compositions (sector, economic activity, job rank) of both migrant groups by period of migration, statistically significant differences are not found (Appendix Table 10). Although the job compositions significantly changed over time, migrants of Lower and Upper Egypt kept the same pattern of entry to the labor market²⁴. This suggests that the observed change, a shift toward private sector commerce and service, and construction activities, did not affect the regionally different migrant’s entry pattern into Greater Cairo’s labor market.

(4) Village level migration patterns

In this section, we will classify migrants by their villages of origin. By doing so, we will look at patterns of sending out the migrants by region or governorate. Two kinds of information will be used: number of villages sending out the migrants, and number of

²³ This difference of the entry pattern by region of origin is also observed for the most recent job, although less clearly because of the labor mobility inside the Greater Cairo labor market: from government sector to private sector (self-employed), and from private waged sector to government and self-employed.

²⁴ The only change observed is in the sector for Upper migrants, which shows more concentration than migrants from Lower Egypt in the private sector; this includes self-employment, whose proportion rose from 12% before 1975 to 17% after 1985, as compared to Lower Egypt, which stayed at 8% to 7%. This suggests that growth of the private sector share, including self-employment, was generated primarily by migrants from Upper Egypt. For migrants from Lower Egypt, the decline of the share of government and public sector was not replaced by a shift to the private sector.

migrants by village.

The sample size of our household survey is not sufficient enough to analyze the migration patterns on a village level in detail and using many indicators. Therefore this section examines migration patterns on a village level only by migration year and region of origin.

Number of Villages sending migrants to the surveyed areas

The village here refers to the administrative unit defined as a village²⁵. Lower Egypt has 2,508 villages (Table 11) and Upper Egypt has 1,673. Of these, 243 villages in Lower Egypt and 228 villages in Upper Egypt sent migrants to Bigam and Zinin. It should be noted that 52 of the 800 migrants who responded as of rural origin are, in administrative classification, from urban areas. This may reflect a gap in urban/rural distinction between the respondents' awareness and standard administrative classification. This gap is wider in Upper Egypt.

Table 11: Number of villages sending migrants to Bigam & Zinin, by region

	Bigam	Zinin	total	total number of villages
	village with migrants	village with migrants	village with migrants	
Greater Cairo	1	0	1	368
other Urban Governorates	0	0	0	173
Lower Egypt (urban)	11	5	16	173
Lower Egypt (rural)	163	96	243	2,508
Upper Egypt (urban)	7	19	25	120
Upper Egypt (rural)	76	162	226	1,673
Frontier Governorates	0	0	0	322
total	258	282	511	5,337

Note: The Greater Cairo Region here includes the Governorate of Cairo, plus Urban areas of the Governorates of Kalyoubia and Giza. Rural areas of Kalyoubia and Giza are classified in Lower Egypt (rural) and Upper Egypt (rural). Other Urban Governorates are Alexandria, Port-Said, and Suez.

Proportion of villages sending out migrants

The villages sending migrants to either Bigam or Zinin total 469, which is 11.2% of all villages in Egypt (Table 12). By region, Urban Egypt sent out relatively more migrants compared to Lower Egypt, notably to Zinin (Map 27). In Upper Egypt, all the governorates except Luxur record higher percentages of villages that sent out migrants to Bigam or Zinin. Of the governorates of Upper Egypt, Suhag has the highest percentage. One out of five villages in Suhag has sent out migrants, notably to Zinin. Of the governorates of Lower

²⁵ "Village" or shiyakhat in administrative classification is the smallest unit, legally defined by decree. Since the 1907 decree was abolished (it had defined "urban" as more than 10,000 population), the category has been defined by governor's decree, on the recommendation of the markaz/qism public council and with the approval of the local governorate public council. The definition is therefore not necessarily related to population size. *EHDP2003*, p.87. Some villages have populations of more than 200,000.

Egypt, Menoufia has a remarkably high percentage. Nearly one out of three villages in Menoufia has sent out migrants, notably to Bigam.

When comparing the number of migrants to the total population, no difference is found by region (Table 13). By governorate, however, some differences are observed. Menoufia in Lower Egypt, and Suhag, Aswan, and Asyout in Upper Egypt, have significantly high ratios as compared to other governorates.

These two indicators permit the following observation: Menoufia in Lower Egypt, and several governorates of Upper Egypt, notably Suhag, have a high propensity to send out migrants to Bigam and Zinin, directly or via another places in Greater Cairo.

Table 12: Percentage of villages having sent migrants by governorate (%)

		Bigam	Zinin	total	(number)
Lower Egypt	Damietta	0.0	1.5	1.5	(65)
	Dakahlia	4.9	3.6	8.2	(449)
	Sharkia	4.9	4.5	9.2	(487)
	Kalyoubia	15.4	3.6	18.5	(195)
	Kafr El-Sheikh	2.4	1.0	3.4	(207)
	Gharbia	4.1	3.2	7.3	(316)
	Menoufia	21.5	9.9	27.2	(312)
	Behera	0.2	1.5	1.8	(454)
	Ismailia	4.4	0.0	4.4	(23)
Upper Egypt	Giza	0.0	3.1	3.1	(159)
	Beni Suef	0.9	11.4	12.3	(220)
	Fayoum	3.8	11.3	13.8	(159)
	Menia	1.5	6.7	7.8	(346)
	Asyout	12.0	9.0	19.2	(234)
	Suhag	8.5	14.4	21.1	(270)
	Qena	5.0	8.8	13.7	(182)
	Aswan	3.4	17.1	20.5	(88)
	Luxur	0.0	0.0	0.0	(15)
total	5.4	5.8	10.5	(4467)	

Number of migrants per village

Lower and Upper Egypt do not differ in number of migrants per village. Rather, the difference is found on the governorate level. As shown in Table 14 and Map 28 & 29, Menoufia in Lower Egypt and Suhag in Upper Egypt have more villages that sent out more than two migrants. Other governorates of Upper Egypt, such as Qena and Asyout, also have relatively high percentages.

When we look at the number of migrants per village for Bigam and Zinin separately, Bigam appears to attract more migrants from the same village. This suggests a difference of residential development between Bigam and Zinin.

Table 13: Migrants/population ratio by governorate

	number of migrants			population (1996)	migrant/population(10,000)
	Bigam	Zinin	total		
Lower Egypt					
Damietta	0	1	1	662,977	0.015
Dakahlia	29	16	45	3,049,453	0.148
Sharkia	26	30	56	3,316,337	0.169
Kalyoubia	45	7	52	1,960,429	0.265
Kafr El-Sheikh	5	2	7	1,713,869	0.041
Gharbia	14	14	28	2,347,405	0.119
Menoufia	139	38	177	2,212,418	0.800
Behera	1	11	12	3,084,021	0.039
Ismailia	1	0	1	355,183	0.028
Upper Egypt					
Giza	0	5	5	2,194,292	0.023
Beni Suef	2	37	39	1,421,543	0.274
Fayoum	9	20	29	1,543,001	0.188
Menia	5	29	34	2,667,070	0.127
Asyout	41	34	75	2,038,128	0.368
Suhag	45	67	112	2,444,458	0.458
Qena	11	27	38	1,924,367	0.197
Aswan	3	22	25	558,938	0.447
Luxur	0	0	0	194,830	0.000

Note: Population is from *Population Census 1996* data-set.

It also suggests a difference of settlement pattern by region of origin. The villages of Suhag and others in Upper Egypt send out more than two migrants to Bigam, where migrants of the same governorate or of Upper Egypt are a minority. In contrast, the villages of Menoufia and others in Lower Egypt send out more than two migrants to Zinin, where migrants of the same governorate or of Lower Egypt are a minority.

Table 14: Number of migrants per village, by governorate (%)

	Bigam				Zinin				total			
	1	2 or more	total	(number)	1	2 or more	total	(number)	1	2 or more	total	(number)
Lower Egypt												
Damietta					100.0	0.0	100.0	(1)	100.0	0.0	100.0	(1)
Dakahlia	81.8	18.2	100.0	(22)	100.0	0.0	100.0	(16)	86.5	13.5	100.0	(37)
Sharkia	95.8	4.2	100.0	(24)	86.4	13.6	100.0	(22)	88.9	11.1	100.0	(45)
Kalyoubia	70.0	30.0	100.0	(30)	100.0	0.0	100.0	(7)	72.2	27.8	100.0	(36)
Kafr El-Sheikh	100.0	0.0	100.0	(5)	100.0	0.0	100.0	(2)	100.0	0.0	100.0	(7)
Gharbia	92.3	7.7	100.0	(13)	70.0	30.0	100.0	(10)	82.6	17.4	100.0	(23)
Menoufia	56.7	43.3	100.0	(67)	83.9	16.1	100.0	(31)	54.1	45.9	100.0	(85)
Behera	100.0	0.0	100.0	(1)	85.7	14.3	100.0	(7)	87.5	12.5	100.0	(8)
Ismailia	100.0	0.0	100.0	(1)					100.0	0.0	100.0	(1)
Upper Egypt												
Giza					100.0	0.0	100.0	(5)	100.0	0.0	100.0	(5)
Beni Suef	100.0	0.0	100.0	(2)	72.0	28.0	100.0	(25)	74.1	25.9	100.0	(27)
Fayoum	66.7	33.3	100.0	(6)	94.4	5.6	100.0	(18)	81.8	18.2	100.0	(22)
Menia	100.0	0.0	100.0	(5)	82.6	17.4	100.0	(23)	81.5	18.5	100.0	(27)
Asyout	64.3	35.7	100.0	(28)	85.7	14.3	100.0	(21)	71.1	28.9	100.0	(45)
Suhag	65.2	34.8	100.0	(23)	76.9	23.1	100.0	(39)	64.9	35.1	100.0	(57)
Qena	77.8	22.2	100.0	(9)	62.5	37.5	100.0	(16)	68.0	32.0	100.0	(25)
Aswan	100.0	0.0	100.0	(3)	80.0	20.0	100.0	(15)	83.3	16.7	100.0	(18)
Luxur	72.4	27.6	100.0	(239)	82.6	17.4	100.0	(258)	73.6	26.4	100.0	(469)
	Pr = 0.021				Pr = 0.307				Pr = 0.002			

V. Migration and spatial transformation

In this section, after a general survey of the residential development of Greater Cairo

suburbs and the surveyed blocks, we will describe the settlement pattern on the block and building level. Using the GIS map, we try to picture where migrants reside according to their year of migration, of settlement to the actual residence, ownership of residence, region of origin, and other basic attributes such as income level, age, and educational level.

(1) Residential development of Greater Cairo suburbs

Cairo's actual urban space includes areas administratively classified as belonging to the Kalyoubia and Giza governorates. The two surveyed shiyakhats, Bigam and Zinin, are located in Kalyoubia and Giza respectively and constitute the suburb zones of Greater Cairo. It is estimated that the residential development of Greater Cairo has been taking place in these areas, starting around 1960. This is reflected in the Cairo population growth that shifted from the governorate of Cairo to the governorates of Kalyoubia and Giza during that time²⁶.

The development was limited, however, for two reasons related to legal constraints²⁷. First, the availability of construction materials was limited by price regulation and supply quantity. Before the open-door policy, government strictly controlled imports of construction materials. Construction materials were mostly produced by public companies, and provision and price were fixed by the government.

Second, access to credit to fund a housing project for low-income categories was limited. Housing projects initiated by the government, mostly in the desert cities such as 6 October City, were directed toward middle-income categories. Also, large enterprises would not be interested in low-income housing investment because of the regulations on tenancy.

Beginning in the second half of the 1970s, the economic environment that set these constraints changed. Two facts are relevant²⁸. First, migration to oil-producing countries, such as Saudi Arabia and Iraq, increased sharply after the 1973 boom in oil prices and again after the second increase in oil prices in 1979²⁹. Unskilled workers in the rural areas, and doctors and teachers as well, contributed to the flow. The increase was such that, in 1983, the revenue from remittance exceeded the oil revenue and ranked at the top³⁰.

It is well known that a substantial part of the migrants' remittances was invested in housing, and this had an important consequence for the development of urban residential areas in the Egyptian context. In the absence of access to credit facilities, migrants provided a source of credit to individuals or small promoters.

²⁶ El-Kadi, Galila, *L'urbanisation Spontanee au Caire*, Fascicule de Recherches no.18, Tours: URBAMA/O.R.S.T.O.M., 1987, p. 21.

²⁷ El-Kadi, pp. 113-227.

²⁸ El-Kadi, pp. 227-249.

²⁹ Farrag, Mayor, "Emigration Dynamics in Egypt", in Reginald Appleyard (ed.), *Emigration Dynamics in Developing Countries, vol.IV: The Arab Region*, Aldershot et al.:Ashgate, 1999, pp. 44-88.

³⁰ Hatanaka, Yoshiki, "Labor Migration to Oil Countries—Present Condition and Prospect", Suzuki, Hiroaki (ed.), *Egyptian Economy and Labor Migration* (in Japanese), Institute of Developing Economies, Tokyo, 1986, p. 78.

Second, the regulations on exports and imports were abolished after the economic opening. Export and import of construction materials were liberalized, and private construction material companies (cement, for example) grew.

In the mid-1970s, suburban areas began to develop rapidly as residential areas. The percentages of buildings under construction shown on Map 26 indicate the expansion of new residential areas in the suburb.

It should be noted that the expansion did not go equally in all directions³¹. The urban area pushed southward to overrun the agricultural land between the City of Cairo, the affluent enclave of Maadi, and the industrial satellite of Helwan. The urban area also pushed north-eastwards into Shobra El-Kheima, in the Governorate of Kalyoubia, and westwards to Bulaq El-Dakrur and Giza towards the Pyramids. Bulaq El-Dakrur is the city (qism) where Bigam is located, and Giza is Zinin's location.

(2) Residential development of the surveyed blocks

The surveyed blocks in Bigam and Zinin have the same form: longitudinal masses bounding a series of narrow streets. The detailed physical characteristics of these blocks, however, reveal a wide range of variety—the result of building without regulations. In Bigam, the surveyed blocks are divided into two corners. The blocks from 1 to 19 occupy the first corner, a total of 290 buildings. The second corner is only 6 blocks, but 405 buildings. Zinin has a similar contrast between corners: 496 buildings in the 9 blocks of the first corner, and 18 blocks with only 384 buildings in the second corner (Map 30&31). Taking mean values for generalization would therefore be misleading.

<Bigam>

In the case of Bigam, the west-zone of the first corner was supposedly built in the earliest period, because short-size blocks (less than 50m in length) are scattered in this zone. Between the blocks, informal spaces are left over instead of streets. This counts the early phase of forming the blocks of potential leftover land for later expansion. They develop by infilling, without a defined orientation. Few but large building plots, averaging 65 m² in area, characterize these short-size blocks. The main entrances of buildings differ case by case because they have more than one façade looking to the outside, and they sometimes stand free in the space. Building heights, meanwhile, have an average of four stories, with two equal flats per floor (Maps 32-34).

Further development is found toward the east side of the first corner, because the blocks here are middle-sized, from 50 to 150m in length. In this phase, the blocks demonstrate

³¹ Expansion into the south-eastern desert has been largely prevented by the barrier of the Muqattam Hill. HARRIS, Richard & Wahba, Malak , "The Urban Geography of Low-Income Housing: Cairo (1947-96) Exemplifies a Model", *International Journal of Urban and Regional Research*, vol. 26.1, March 2002, p. 61.

interesting transformational phenomena. The early-built blocks start to merge, thus forming new continuous blocks. The orientation is supposed to be influenced by the entrances of the first buildings to queue accordingly. In the process, the front streets gain a linear articulation, as demonstrated by the middle-size blocks that develop into oblong or U-shaped blocks (see blocks no. 13,14 & 15) overlooking pedestrian alleys of an average 3m in width. In this transformation, the infilling of buildings is predetermined by the spaces between the early blocks. The increase in building density is correlated to the squeezed areas of building plots to fit in the available space, bearing in mind the increase in land value. This implies the diminishing average area of building plots that figures 30m² as well as the vertical development, as high as seven stories, in middle-size blocks. The evidence of decrease in plot size is the single flat per floor.

The long-size blocks, more than 150m in length, are concentrated in the second corner of the Bigam survey area. This corner was supposedly constructed in the most recent period. Not only do the private territories seem to force the grand lengths of long-size blocks for extra building revenues. The exploitation of nonfunctional spaces between blocks may also have played a role. A wider look at the neighborhood of the second corner reveals bits and pieces of building masses that start fusing. The obvious point, nevertheless, is tracing the alleys before the block development (see the zone to the right of the surveyed blocks in the second corner). The presumable scenario may have caused the owner to outline his urbanized land when transformed from rural. The buildings then are left to juxtapose along the predetermined alleys. The plots are moderate in average size around 40 m² for one flat per floor, and the building heights develop in a wide variety, from one to seven stories, in a laissez-faire manner. The piecemeal process of adding (at any time, on demand) a new floor on top of the original one clarifies the main reason for the chaotic skyline.

<Zinin>

In Zinin, comparable development is taking place. The physical context of Zinin, however, looks more determinate. Its proximity to inner city areas and the downtown keeps the site compact and under some public surveillance. Only a limited amount of land is left empty, again due to the economic implications of desired location for development. In short, Zinin blocks start where Bigam ends. Although the short-size blocks, less than 50m in length, are not found in the surveyed blocks of Zinin, the middle-size blocks that occupy the second corner obviously originated in the earliest period. They develop as two separate blocks at the two opposite tips of the main crossing streets, and keep extending towards the inner vacant plots until they meet somewhere in the middle. The recessions in the inner parts of the middle size blocks suggest their meeting points. This process is witnessed in the nearby blocks completing the corner from the right hand side. The building heights, three or four stories on average, characterize the west zone of the second corner in Zinin. Higher buildings appear in the east zone; these average five to six stories, as in their concentration on blocks

23 & 24. Meanwhile, an interesting correlation is found between building heights and the number of flats per floor. Buildings of four or more stories have more double flats per floor than do the three story or less buildings; most of these have one flat to a floor. Apart from this correlation, the building plots have an average area of 55m² per plot.

A similar process of block formation is taking place at the first corner, where the long size blocks are found. The major difference between the two corners is the length of blocks. Here the blocks exceed 300m in length while keeping the 3-4m width of alleys between them. Slightly larger plots, an average 60m² per plot, characterize this corner. In spite of the clear distinction between two flats per floor in the west zone and single flats in the eastern zone, the building heights are not correlated in this first corner. The building heights can vary, as in Bigam. Among the surveyed blocks of Zinin, three of them (nos. 9, 21 and 26) are characterized by a single strip of plots. Block 26, specifically, is special in having the largest plots, with some buildings looking at the alleys from both sides. Other special cases of blocks include the cluster of differently shaped blocks towards the west of the second corner, in addition to the huge blocks, nos. 26 and 27, to the northeast of the same corner. Apparently they possess spacious building plots of an average 250 m² and 400 m² respectively in area. These blocks, unexpectedly, accommodate one flat per floor for the average five stories.

(3) Settlement patterns of migrants in the surveyed blocks

Bigam and Zinin are suburban areas that developed rapidly from the late 1970s on. They were originally village territory, and our survey areas were agricultural fields. According to the open interview held along with the household survey, it was in the Nasser era that the two areas started to attract people from outside. These were mostly migrants from outside Cairo, attracted to job opportunities at the factories created by government initiative in Shobra El-Kheima, or administrative offices and commercial areas in the El-Doqqi or El-Giza areas.

The stream was limited, however. According to the open interview, from the late 1970s or 1980s a large number of people flowed into Bigam and Zinin. More and more apartments were built from the late 1970s. Interviewed persons (NGO directors, old residents) unanimously point out two factors mentioned above, the international migration to oil-producing countries and the economic opening (Infatih).

Table 15, Graph 4 & 5 summarize the flow of people moving into the surveyed blocks, estimating the settlement year to the actual residence, using data for the year the actual residences were owned or rent³² collected from our household survey.

Most of the migrants and those born in Greater Cairo moved into their actual residence

³² In case of owned, all the ownership is accompanied by the payment by household, except for three households that own their apartments and responded "0" for the payment. Thus, the year owned can be considered as year of purchase by household. Since the question on the rent year of the actual residence was not included in the first-round fieldwork, the percentage of the tenants for this sample group was calculated based on the proportion of tenant to owner using the data of migrants in the second-round fieldwork and those born in Greater Cairo. The percentage was calculated for each period of 5 years.

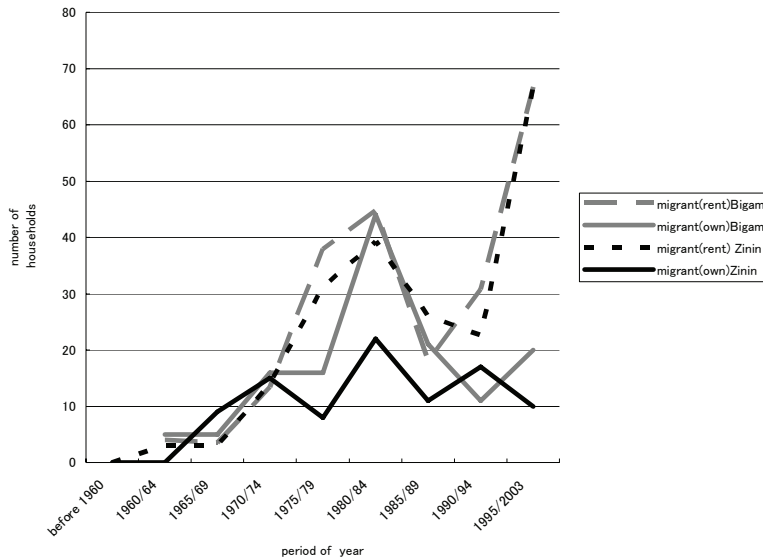
in Bigam and Zinin after the 1980s. This increase would be related to the residential development of the surveyed blocks. The proportion of surveyed households renting the actual residence increased around the 1970s or 1980s, which implies that many apartments were rented out.

As shown in Maps 52 to 55, the apartments rented out seem more likely to be located in certain buildings, specifically the ones where actual residents moved in recently (Map 57 & 58).

Table 15: Estimation of the settlement year to the actual residence by ownership

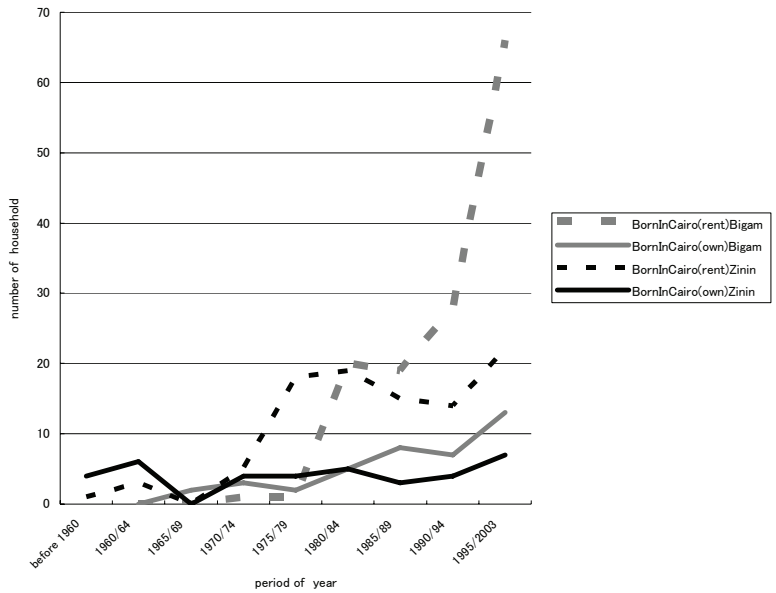
	Bigam						Zinin					
	migrant			born in Greater Cairo			migrant			born in Greater Cairo		
	rent (estimated) number %	owner number %	total number	rent number %	owner number %	total number	rent(estimated) number %	owned number %	total number	rent number %	owned number %	total number
before 1960	0	0	0	0	0	0	0	0	0	1	4	5
1960 to 64	4 44.4	5 55.6	9	0	0	0	3 100.0	0 0.0	3	3 33.3	6 66.7	9
1965 to 69	4 41.4	5 58.6	9	0 0.0	2 100.0	2	3 25.0	9 75.0	12	0	0	0
1970 to 74	13 45.5	16 54.5	29	1 25.0	3 75.0	4	14 48.3	15 51.7	29	5 55.6	4 44.4	9
1975 to 79	38 70.3	16 29.7	54	1 33.3	2 66.7	3	31 79.6	8 20.4	39	18 81.8	4 18.2	22
1980 to 84	45 50.4	44 49.6	89	20 80.0	5 20.0	25	39 64.1	22 35.9	61	19 79.2	5 20.8	24
1985 to 89	18 46.2	21 53.8	39	19 70.4	8 29.6	27	26 70.3	11 29.7	37	15 33.3	3 16.7	18
1990 to 94	31 73.7	11 26.3	42	28 80.0	7 20.0	35	23 57.1	17 42.9	40	14 77.8	4 22.2	18
1995 to 200	67 76.9	20 23.1	87	66 83.5	13 16.5	79	67 87.0	10 13.0	77	22 75.9	7 24.1	29
total	219 61.4	138 38.6	357	135 77.1	40 22.9	175	206 69.1	92 30.9	298	105 81.4	38 29.5	129

Graph 4: Settlement period of migrants to the actual residence



Note: number of rent is based on the estimation.

Graph 5: Settlement period to the actual residence (born in Cairo)



<Ownership of the residence by migration year to Greater Cairo>

Earlier and recent migrants show different behavior in terms of acquisition of the actual residence (Table 16, Map 52-55). Earlier migrants are more likely to own. In contrast, recent migrants are more likely to rent. They are much like those born in Greater Cairo outside Bigam and Zinin.

It should be noted that this difference in behavior is not only due to the residential development of the surveyed blocks, not only because the apartments became available in the recent decades. Even among the migrants who acquired or rented the actual residence after the year 1980, migrants who came to Greater Cairo before 1980 are more likely to be owners.

The difference in behavior as to acquisition of the residence may be related to the difference of the migrants' trajectory after arriving in Greater Cairo from their home villages. As shown in Table 17, considerable time elapses between the year of arrival in Greater Cairo from the home village and the migrant's estimated year of settlement in the actual residence. Maps showing the year of migration to Greater Cairo and the settlement year to the actual residence also attest to this time lag: these two maps do not seem to show the same distribution (Maps 36 to 39 and 56 to 57).

The time lag is greater for migrants who arrived in Greater Cairo in the earlier period. Some of these earlier migrants have moved into the actual residence in Bigam and Zinin, after accumulating money to buy the apartment.

Table 16: Ownership of residence (%)

	migrants						born in Greater Cairo					
	Bigam			Zinin			Bigam			Zinin		
	before 80	after 80	total	before 80	after 80	total	Bigam	other	total	Zinin	other	total
owner	54.5	21.9	35.5	42.0	10.7	23.1	19.1	20.6	20.1	26.9	10.4	19.0
rent	44.3	73.4	61.3	52.9	77.3	67.8	54.0	73.5	67.3	40.4	65.6	52.5
assumed right	0.0	0.4	0.3	0.0	1.2	0.8						
gift				0.0	1.2	0.8	23.8	4.4	10.6	14.4	5.2	10.0
other	1.2	4.7	3.3	5.1	10.7	8.5	3.2	1.5	2.0	18.3	18.8	18.5
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(number)	(167)	(233)	(400)	(157)	(243)	(400)	(63)	(136)	(199)	(104)	(96)	(200)
	Pr=0.000			Pr=0.000			Pr=0.000			Pr=0.001		

Note: "Assumed right" (miza ainiya) refers to the cases in which the residence is provided by the employer.

Table 17: Migration period to Greater Cairo & settlement period to the actual residence (%)

period	Bigam				Zinin			
	migrants		born in Greater Cairo		migrants		born in Greater Cairo	
	migration	settlement	migration	settlement	migration	settlement	migration	settlement
before 1950	1.5	0.0	0.0	0.0	0.8	0.0	0.0	0.0
1950/54	2.8	0.0	0.0	0.0	2.0	0.0	0.0	0.0
1955/59	2.5	0.0	0.0	0.0	4.8	0.0	0.0	3.9
1960/64	6.3	2.5	0.0	0.0	6.3	1.0	0.0	7.0
1965/69	4.8	2.4	1.1	1.1	7.8	4.0	0.0	0.0
1970/74	11.5	8.2	2.3	2.3	9.5	9.7	0.0	7.0
1975/79	12.5	15.1	1.7	1.7	8.3	13.1	0.0	17.1
1980/84	31.3	24.9	14.3	14.3	31.3	20.6	0.0	18.6
1985/89	9.8	10.9	15.4	15.4	9.8	12.4	0.0	14.0
1990/94	9.5	11.7	20.0	20.0	10.3	13.3	0.0	14.0
1995 & after	7.8	24.3	45.1	45.1	9.5	25.7	0.0	22.5
total	100.0	100.0	100.0	100.0	100.0	99.9	0.0	100.0
(number)	(400)	(357)	(175)	(175)	(400)	(298)	(129)	(129)

<Settlement patterns by attributes>

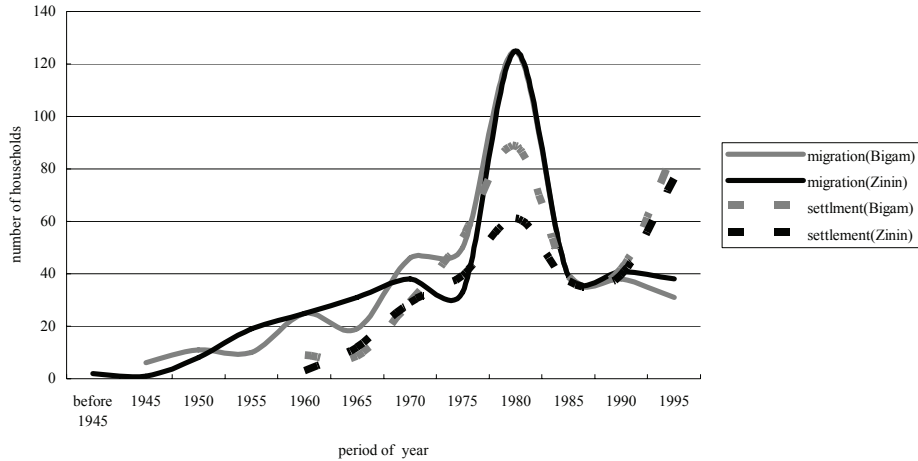
Maps 44 to 51 show the settlement patterns of the surveyed household heads by attributes. Maps 40 to 43 indicate the settlement patterns by migrants' region of origin. It seems that migrants prefer to settle in buildings where migrants from the same region of origin live, or in buildings adjacent to these. Migrants from Menoufia seem especially to have this tendency.

Other maps show the settlement patterns by migrants' attributes, such as educational level, age, and income level. No specific pattern of settlement according to income level or other attributes can be identified.

VI Conclusion - Some problems to be surveyed

In this paper, we have attempted to make a preliminary analysis of rural migration to Greater Cairo, a phenomenon that indicates the dynamics of rural-urban linkage. We used

Graph 6: Migration period to Greater Cairo & settlement period to the actual residence



Note: Data on the settlement period includes the estimation.

three kinds of data: census, household survey and GIS. The results of the analysis can be summarized as the following problems to be surveyed in detail in the future.

- (1) Our assumption was confirmed that rural migrants have been settled in suburb areas of Greater Cairo like the two survey areas in Bigam and Zinin. No difference on the quantitative level can be observed between migration from Lower Egypt and from Upper Egypt. Menoufia and Suhag represent governorates from which many inhabitants migrate to Greater Cairo. Menoufia, in South Lower Egypt, is famous for agriculture on small farms. Suhag in deep Upper Egypt, on the contrary, is known as one of the poorest governorates in Egypt. In spite of quantitative similarity, they differ as to the migration trend: while the migration from Suhag is constant by year, that from Menoufia fluctuates. Clearer differences between them are revealed by migration patterns of age, education and occupation. In addition, migrants from Menoufia tend to settle collectively in Bigam near to Menoufia, while migrants from Suhag are scattered, settling in both Bigam and Zinin. Certainly the most important reason, of several, for this difference is the possibility of access to information about jobs in Greater Cairo. On this point, then, the essential factor influencing Menoufia's migration pattern appears to be physical distance, that is, the proximity of Menoufia to Greater Cairo. For Suhag, that factor would instead be the social or human network located far from Greater Cairo.

- (2) Previous literature shows the decreasing, or at least stagnant, trend of migration from rural areas to Greater Cairo since the 1980s. Our survey confirms this, for the number of migrants to the survey areas does not much vary with the year except for the remarkable increase in the beginning of the 1980s. It is also well known that the rate of natural population growth in Cairo has not been high in recent years. On the contrary, Greater Cairo is gaining living space, including the construction of modern satellite cities in the desert near Cairo. The space of Greater Cairo is thus expanding at a higher rate than its population growth. All these facts lead us to speculate that the division of living space among classes and the expansion of civil functions are now occurring in Greater Cairo. This seems to be why there is only a little difference between the some old residential areas in the center of Cairo and the suburban areas of Cairo on the levels of income, age, education, unemployment, and occupation (see Maps). In fact, the majority of inhabitants in the surveyed areas are “born in Greater Cairo”, and many of them are believed to have moved to the surveyed areas from other areas in Greater Cairo. Today, the migration problem related to Greater Cairo has shifted from rural migration to intra-Cairo migration.
- (3) Of the inhabitants in the two surveyed areas, migrants from rural areas are poorer than those “born in Greater Cairo”. Menoufia and Suhag, from which many people migrate to Greater Cairo, are poor governorates. According to *Egypt Human Development Report 2003*, the GDP per capita, Gini coefficient, and rate of poverty of Menoufia are 4212.7LE (in 2001), 22.6 (in 2000) and 21.7% (in 2000) respectively. For Suhag, the same data are 3278.1LE, 22.0 and 45.5%³³. Based on their GDP and rate of poverty data, Menoufia and Suhag are the poorest governorates in Lower Egypt and Upper Egypt respectively. This indicates a strong relationship between migration and poverty. The statistical analysis in our survey, however, shows that this relation is not a simple one. Our survey revealed that the migrants from Upper Egypt, where the poverty is more widely spread, do not have lower income level than those from Lower Egypt: they have equal income level as those from Lower Egypt. This fact leads us to think that, on qualitative side, the transfer of poverty differs by region. Thus, to understand the problem of poverty in relation with migration, we need to take into consideration the difference in regional as well as local (markaz and village level) structures. The poverty in Egypt is a problem to be analyzed in detail on the level of small units and related to other indicators: age, education, unemployment, occupation and so on.
- (4) The trends and patterns of migration to Greater Cairo are influenced by many factors, the most important of which is certainly the income level and employment situation: the

³³ UNDP/INP, *EHDP 2003*, p.148.

structure of the labor market in Greater Cairo that absorbs migrants from rural areas on the one hand, while on the other hand the rural areas are sending migrants to Greater Cairo. The decreasing trend of rural migration to Greater Cairo clearly indicates that the Cairo labor market, under the transitional economy from planned economy to market economy, is not so active in scale and quality as to offer sufficient jobs for the inhabitants of rural areas. Another possible reason for the decreasing trend is the formation and development of new labor markets in local provinces. These give the inhabitants of rural areas job opportunities other than in Greater Cairo. The inner-or intra-regional migration is the important and interesting migration issue in Egypt, to be surveyed in detail in the future.