

## SELECTIVE MIGRATION TO TOKYO BY EDUCATIONAL BACKGROUND AND GENDER

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**Abstract:** In the economic boom in the 1960s, Tokyo accepted both blue collar and white collar workers from rural areas. This influx of people later formed a mixed and age-specific residential structure in this city. The migrant trend has changed since the late 1980s. Tokyo has come to require only highly educated white collar workers from outside areas in the growth of service economy. This trend is seen particularly in female population. The selective migration of the highly educated people to Tokyo seems to reinforce the regional disparity between Tokyo and the rest of Japan.

**Key words:** selective migration, industrialization, service economy, regional disparity, Tokyo

### 1. INTRODUCTION

A widening economic and social disparity which has become obvious in recent Japan, particularly since 2000, has attracted people's attention. Policy makers and mass media as well as scholars show their deep concerns with an emerging socioeconomic gap among people. Discussions are however concentrated on a widening disparity at a national scale. A socioeconomic disparity among regions has not been addressed by these people. One of the reasons why this issue has been disregarded may be that geographers in Japan did not cope with this problem sufficiently in the past. Nevertheless, as the geographers, such as Hamnett (2003), in Great Britain show a widening socioeconomic disparity under globalization is highly geographical. From a geographical perspective, the recent socioeconomic disparity in Japan can be discussed on two scales;

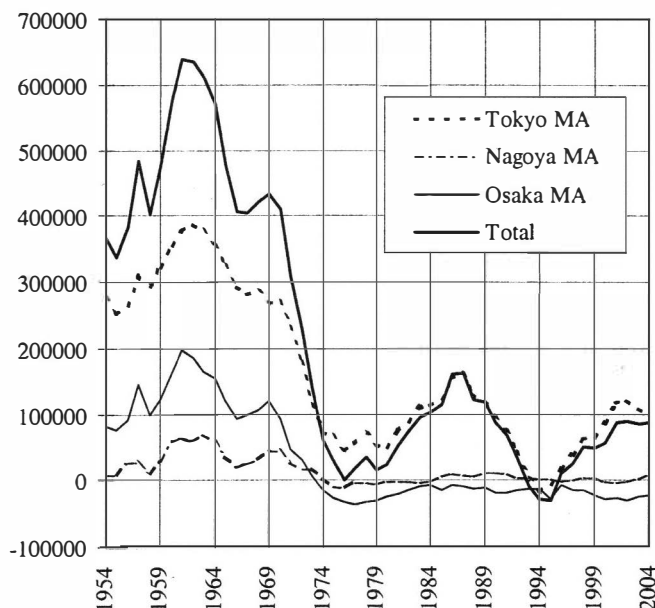
1. a disparity within a distinct region, in particular within a metropolitan area such as Tokyo and
2. a disparity between Tokyo and the rest of Japan. This paper investigates the attributes of migrants moving between Tokyo and the rest of Japan and discusses changing characteristics of the migrants who settled in Tokyo.

Among the migrants' attributes, gender and educational background are focused in this paper. Both attributes are relatively neglected in migration studies. Gender issues in migration research are popular in studies on developing world (Chant, 1992; Nakagawa 2004), but not well studied in the developed world (Boyle and Halfacree, 1999). Many studies on Japanese migration have been based on *Annual Report on the Internal Migration in Japan*, which does not provide socioeconomic status of migrants and thus main efforts of the migration researchers have been devoted to correlating the annual change in the number of migrants with the macro-economic indicators such as regional disparity of the economic growth rate. These researchers have not paid enough attentions to the attributes of migrants. They tended to regard all or most migrants as economically active and to think that migration has occurred only by economic reasons. As discussed in my previous paper (Nakagawa 2001), most of the migration between the three metropolitan areas and non-metropolitan areas in Japan occurred for job recruitment for the 1941 – 1945 born-cohort and before, namely until the early 1970s, while considerable amount of the succeeding cohorts migrated to the metropolitan areas for education and marriage. The reason for migration differed by gender. Females moved into the metropolitan areas for non-economic reasons while males moved into these areas mainly for economic reasons. Investigation stressed on the migrants' attributes, such as gender, is thus highly significant.

This paper focuses on the Tokyo Metropolitan Area (Tokyo MA) and it is regarded to consist of two concentric zones: Tokyo-to and the rest Tokyo MA. Tokyo-to is one of the administrative units generally called „ken“ or prefecture, and Japan is composed by 47 prefectures. But substantial area of „Tokyo“ is often beyond the border of the Tokyo-to and the Tokyo MA includes Tokyo-to and three adjoining prefectures, Saitama, Chiba and Kanagawa Prefectures.

## 2. GENDER OF MIGRANTS

Although Japanese economy is still in stagnation, the Tokyo MA has attracted migrants again since the late 1990s (Fig. 1). The trend of the internal migration in Japan from the 1950s had two peaks in term of the metropolitan and the non-metropolitan regions. The first peak was found around 1960, which coincided with the high economic growth period. It was characterized by the rural to urban migration based on the rapid industrialization in particular heavy and petrochemical industries. Those industries were concentrated in, and around, the entire three major metropolitan areas and every major metropolitan area experienced substantial population growth in the period. The second peak in the late 1980s was regarded as the consequence of the bubble economy in this period when many foreign financial companies were set up in Tokyo, attracted by large amount of surplus capital of Japanese manufacturing companies. This peak was prominent only in the Tokyo Metropolitan Area and the other two metropolitan areas did not show any considerable net migration gain. Ishikawa and Fielding (1998) explained that the global economy caused this net migration gain limited only to Tokyo as the result that Tokyo became a „global city“. As shown in Figure 1, it seems to be appropriate to divide Japan into two areas, namely the Tokyo MA and the other part of Japan for discussing the inter-prefecture migration in Japan at a national level after the 1980s.



**Figure 1** Inter-prefecture net-migration for three MAs, 1954 – 2004

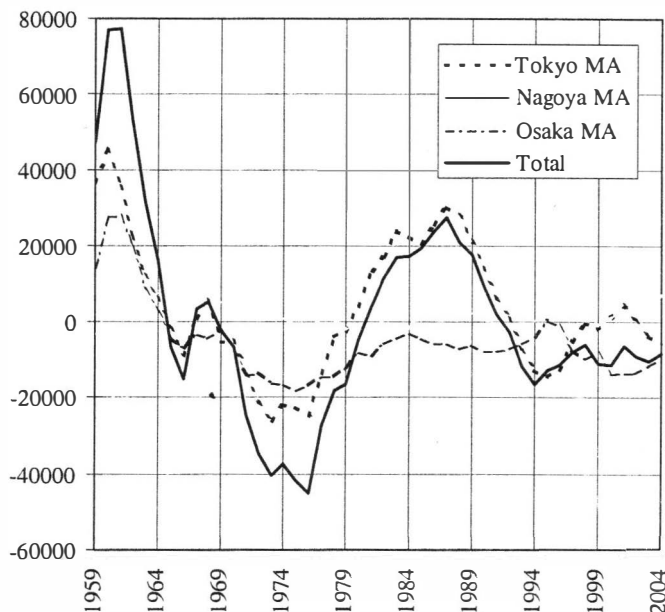
Note: Tokyo MA : Saitama, Chiba, Tokyo and Kanagawa Prefectures  
 Nagoya MA : Aichi, Gifu and Mie Prefectures, Osaka MA : Kyoto, Osaka and Hyogo Prefectures

Source: Annual Report on the Internal Migration in Japan, each year

Moreover Figure 1 tells us that the net migration gain for the Tokyo MA had been increasing again since the late 1990s as mentioned earlier. The two peaks in the migration trend were related to the economic booms in the periods around 1960 and in the 1980s. However Japanese economy was still struggling in stagnation in the 1990s. The emerging third peak of migration accordingly seems to be arisen by different factors from those that caused the past two peaks.

Figure 2 shows gender difference in the inter-prefecture migration. We can find that a gender gap in number fluctuated similarly to the net migration gain in Figure 1. Roughly speaking, the remainder becomes positive in the economic boom and negative in the economic bust. Positive value means that more males come in the metropolitan areas or more females go out from there. Males outnumbered females in in-migration to the metropolitan areas in the high economic growth period of the 1960s and in the bubble economy of the late 1980s. The factor determining the former trend is explained as more male labor force was demanded by the heavy and petrochemical industries in those days. The cause of the latter trend is understood as economic globalization in the late 1980s was also initiated by males however the equal employment opportunity law was introduced in 1986. Compared with Figure 1, the second peak for the Tokyo MA in Figure 2 looks relatively high against the first peak. It seems to imply that the male-dominated urbanization trend in the late 1980s was even stronger than that in the 1960s. In addition, a change in a gender gap was observed almost only in the Tokyo MA and the gender balances of migrants of the Osaka and Nagoya MAs had been nearly

constant for the last three decades. Gender differences in migration in accordance with economic trends thereby seem to be significant only in the Tokyo MA.

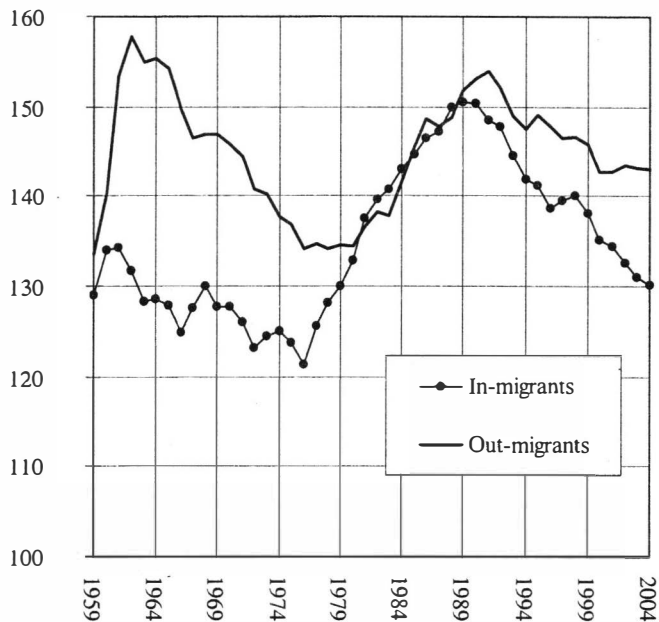


**Figure 2** Gender gap in net-migration for three MAs, 1959 – 2004

Note: Gender gap = male net-migration – female net migration  
Source: Annual Report on the Internal Migration in Japan, each year

Figure 3 illustrates the sex ratios of the in- and out-migrants of the Tokyo MA. When a sex ratio exceeds 100, it indicates that males outnumber females. The Sex ratios of the in- and out-migrants in this Figure were always far beyond 100. Thus, males were more mobile than females in both directions of the migration. Figure 3 shows that the sex ratio of the in-flow to the Tokyo MA in the 1980s was substantially higher than in the 1960s. This sex ratio parallels that seen in Figure 2. The sex ratio of the in-migration after the 1990s declined steeply, hence the proportion of the females among in-migrants to the Tokyo MA was rising. On the other hand, the incline of the out-migration was rather moderate.

When we compare Figures 1, 2 and 3 to each other carefully, the only significant difference among the three Figures is the trend after 1995. The third peak is observable enough in Figure 1 while Figures 2 and 3 do not show any apparent uplift after 1995. The past two peaks in the net migration change for the metropolitan areas were related to the economic booms, in other words, to the enlargement of labor force demand in the metropolitan areas, and more males moved urban-bounded. The recent third peak seems to be different from the past ones with regard to the factors that caused the net-migration change. The third peak did not correspond with any economic boom and males were not dominated in the migration flows. Although the sex ratio of the in-migrants in Figure 3 indicates that males outnumbered females even in the recent years, relative importance of the females in in-migration was apparently higher than before.



**Figure 3** Sex ratio of the in and out migration of the Tokyo MA, 1959-2004

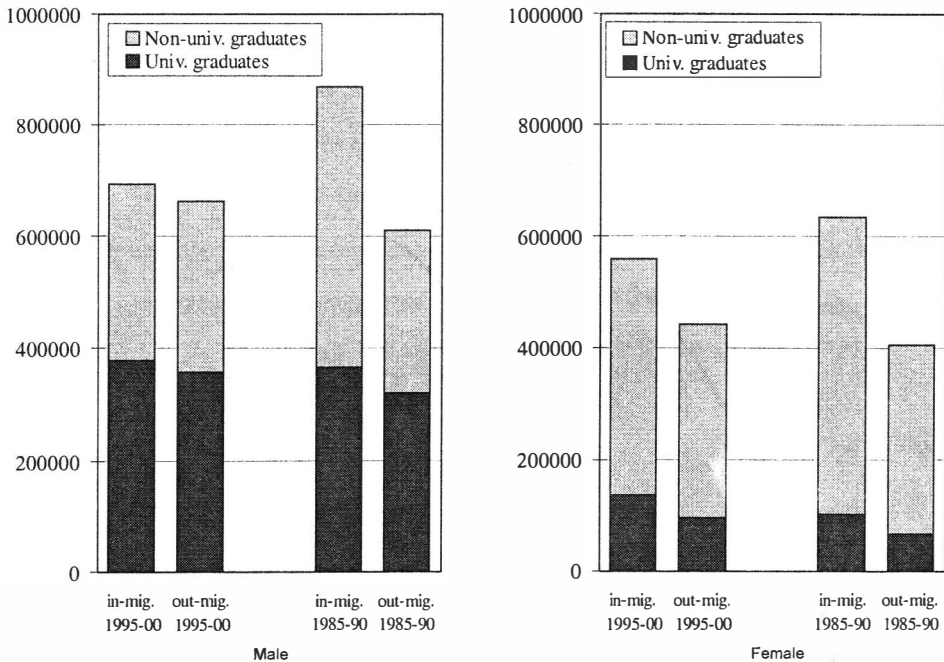
Note: Sex ratio = male migrants / female migrants \* 100

Source: Annual Report on the Internal Migration in Japan, each year

### 3. EDUCATIONAL BACKGROUND OF MIGRANTS

This chapter focuses on the changing socioeconomic characteristics of the residents in the Tokyo MA. Educational background is adopted here as an indicator of socioeconomic status because it is a relatively constant attribute compared with occupation or income and thereby convenient for a longitudinal analysis. Two kinds of statistical data are available in terms of the educational background of residents. The first one is the „School Basic Survey“ conducted annually by the Ministry of Education, Culture, Sports, Science and Technology. We can get the numbers of students that newly enrolled, and graduated from high schools and universities by prefecture. The second one is the population census. Though the population census is conducted every five years in Japan, questions concerning education are, together with those about migration, adopted only every ten years. This item is regarded as the least reliable in the population census, but it is however reliable enough to an analysis on relations between migration and educational background at a prefecture level. Figure 4 shows educational background of the migrants within the last five-years of the Tokyo MA from the population census of the 1990 and 2000. The educational status of the migrants here indicates their status at the end of each period and those still attending school are not included. In Figure 4 we can find the four socioeconomic characteristics of residents in the Tokyo MA. First, the percentages of university graduates among non-migrants in 2000 for the males and the females were

29% and 10% respectively and those in 1990 were 25% and 7% as well. Therefore migrants' educational status was much higher than that of the stayers.



**Figure 4** Number of migrants by last school completed to and from the Tokyo MA, 1985 – 1990 and 1995 – 2000

Note: migrants : persons graduated from school and migrated to and from the Tokyo MA in the given period

Source: Population Census of Japan, 1990 and 2000

Second, in terms of the male population, the absolute number of migrants and the percentages of the university graduates among in-migrants and out-migrants were almost balanced in 1995 – 2000 while the in-migrants were obviously outnumbered by the out-migrants in 1985 – 1990. In particular the number of the in-migrants without university qualification decreased dramatically from 1985 – 1990 to 1995 – 2000. This implies that the Tokyo MA did not accept as many males with moderate educational background as before, reflected Tokyo's accelerated changes to the service economy in the late 1990s. The period 1985 – 1990 was regarded as the period of the bubble economy. During that time, Japan, in particular Tokyo, was considered to enter the full-scale service economy initiated mainly by the enormous surplus from the manufacturing industry and the expansion of the financial and real estate sectors. The decrease of the male in-migrants with moderate educational background might thereby have started already in the 1980s. Unfortunately the definition of migration in the population census changed in 1990 and we cannot compare the data of 1985 – 1990 with the earlier ones. The third characteristic found in Figure 4 is that the female population still showed a considerably positive net migration gain for the Tokyo MA. Figure 4 shows that while the percentage of university attendance among the younger age groups was catching up with that of the males the percentages of the university graduates among

female migrants were still apparently lower than those of the males. Furthermore, the percentages were higher among female in-migrants than out-migrants during the both periods. This indicates that the Tokyo MA acquired an educated female population through migration. This tendency was intensified in the period 1995 – 2000 because the difference in the percentages became larger than in the past. The absolute number of female in-migrants with university qualification increased while the number of in-migrants with moderate education decreased. Finally, compared with the period 1985 – 1990, the period 1995 – 2000 had less net migration gain for the both sexes. This change seems to have been affected by the economic stagnation of the 1990s. The changes in the economic situation in this period gave stronger impacts on males, in particular those without university qualification and the absolute number of the female in-migrants with higher educational status even increased to some extent.

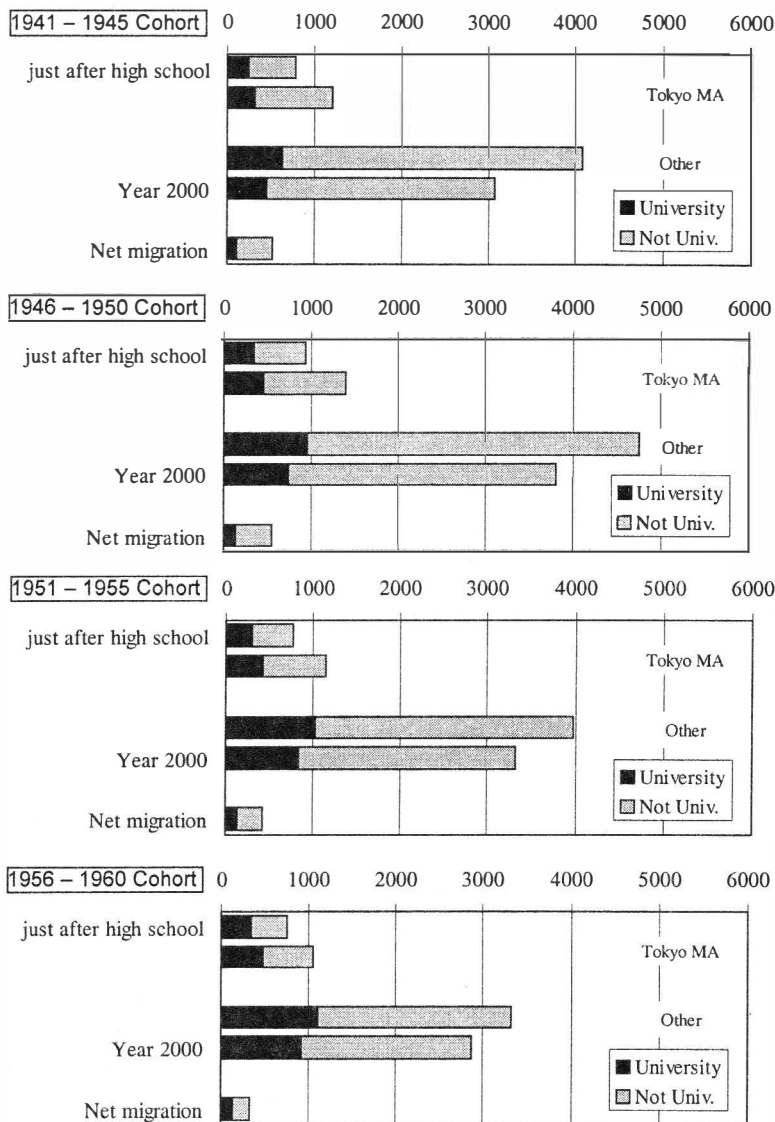
**Table 1** Percentage of university enrolled / graduates by birth cohort

	Tokyo MA		Other		Net migration	% Living in Tokyo MA in 2000
	Just after high school	Year 2000	Just after high school	Year 2000		
<b>Male</b>						
born in 1941-45	31,0%	26,2%	15,4%	14,6%	19,9%	41,4%
born in 1946-50	37,1%	32,6%	20,2%	19,4%	25,5%	38,0%
born in 1951-55	40,0%	37,1%	25,9%	25,1%	32,3%	33,9%
born in 1956-60	45,6%	44,8%	33,2%	32,1%	43,1%	33,9%
born in 1961-65	40,7%	42,8%	32,5%	30,6%	49,0%	37,7%
born in 1966-70	35,7%	38,6%	31,0%	29,1%	48,5%	38,8%
born in 1971-75	34,4%	37,2%	30,3%	28,7%	48,4%	37,2%
<b>Female</b>						
born in 1941-45	7,7%	6,5%	3,2%	3,0%	4,7%	45,1%
born in 1946-50	10,5%	9,8%	5,0%	4,5%	8,6%	43,8%
born in 1951-55	14,7%	14,0%	7,8%	7,2%	12,8%	39,4%
born in 1956-60	18,9%	19,1%	11,4%	10,6%	19,7%	38,0%
born in 1961-65	17,1%	18,7%	11,5%	10,5%	24,5%	40,6%
born in 1966-70	16,9%	20,1%	13,0%	11,4%	35,7%	43,1%
born in 1971-75	19,8%	24,9%	16,5%	14,2%	52,2%	42,4%

Source: Population Census of Japan, School basic survey and author's estimation

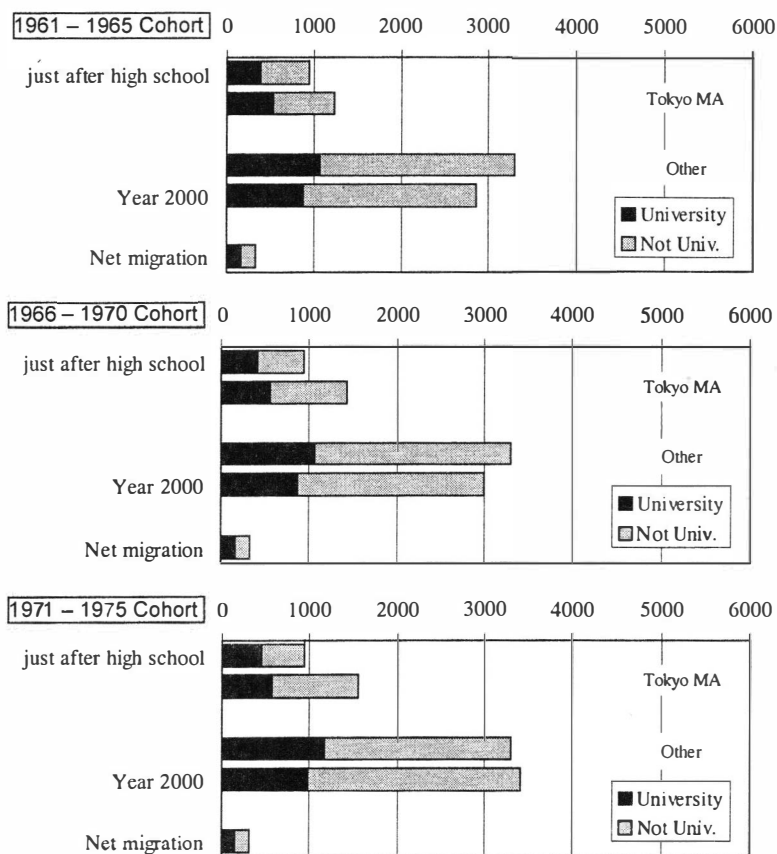
University attendance in Japan became popular in the 1970s and it seems accordingly more appropriate to analyze university attendance by age or by birth cohort. Moreover, Figure 4 shows the change of socioeconomic attributes of the migrants only after 1985. We utilize the „School Basic Survey“ and the population census together and try to calculate the numbers of university graduates by birth cohort and by residence. Table 1, and Figures 5, 6 and 7 were made based on my previous research (Nakagawa 1996) and put the newest data both from the population census and the „School Basic Survey“. These Figures illustrate how the Tokyo MA obtained university graduates from other part of Japan. Both population distribution and ratio of university enrolled differ considerably by year. Therefore it is reasonable to analyze this issue cohort by cohort, as seen in, for example, the male cohort born in 1971 – 1975. After this cohort graduated from high school around 1990, 34.4% of those living in the Tokyo MA proceeded to university while 30.3% of those in the other part of Japan entered university. This cohort became 25 – 29 years old in 2000, and 37.2% of the Tokyo MA residents were university graduates while only 28.7% in the other region. This indicates that the Tokyo MA obtained higher educated people from outside in the 1990s and consequently the

percentage of university graduates in the other region declined from 30.3 % to 28.7%. Of the net migrants, 48.4% were estimated as university graduates, and as a result, 37.2% of the university graduates of the cohort in Japan lived in the Tokyo MA in 2000. Figures 5 and 6 demonstrate the absolute numbers by birth cohort. Figure 7 illustrates the increasing number and rising ratio of university graduates concentrating in the Tokyo MA.



**Figure 5** Population by university enrolled/graduates and by birth cohort : Male population (in thousand)

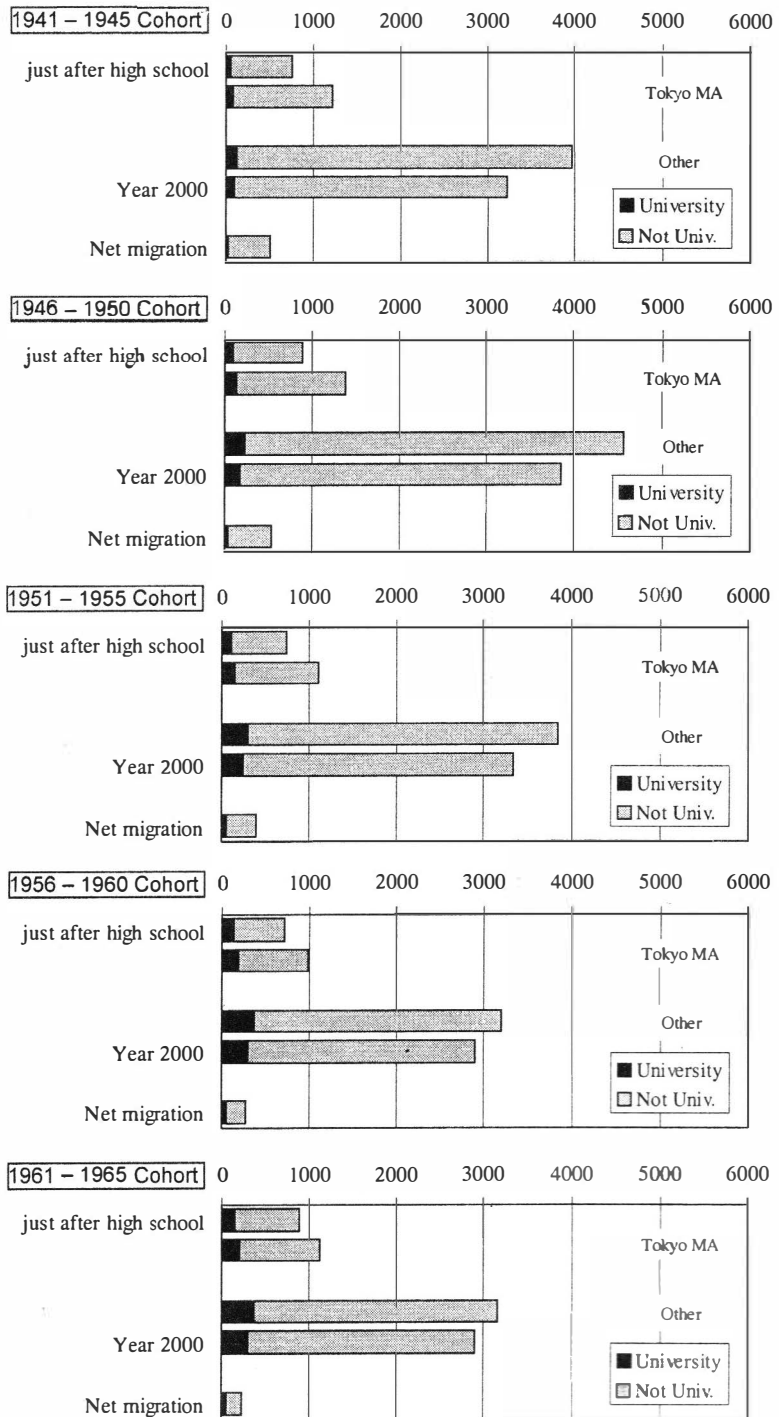




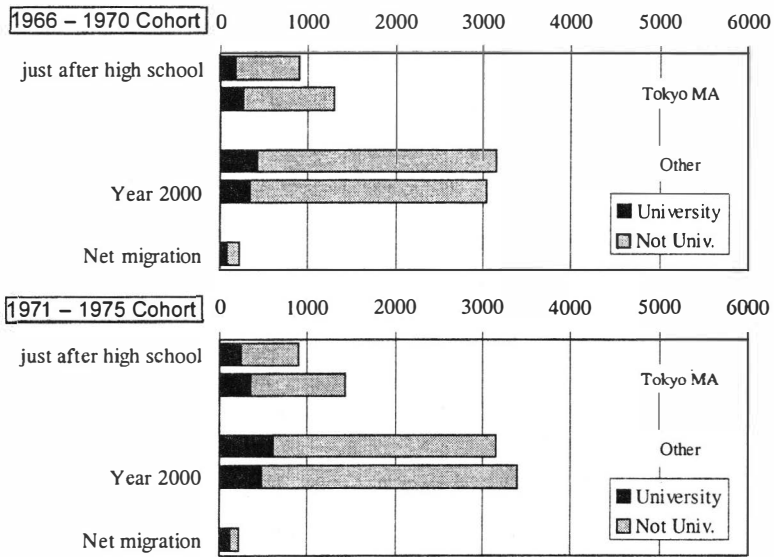
**Figure 5 continue** Population by university enrolled/graduates and by birth cohort : Male population (in thousand)

Source: Population Census of Japan, School Basic Survey and author's estimation

Based on Table 1 and Figures 5, 6 and 7 we can identify, first until the mid 1970s corresponding to the cohort born in the 1950s, the Tokyo MA did not obviously obtain only highly educated population. It suggests that the demand of labor force in the Tokyo MA was orientated towards working class population or the labor force in the manufacturing sector during the high economic growth period. Second, after 1980 the Tokyo MA came to acquire highly educated people from other prefectures. Intensifying service economy and globalization seemed to affect changes in the labor force demand into more service class workers, in particular obvious in the male workers in the 1980s. This period corresponds to the period of the bubble economy and the second peak of net migration gain in Figure 1. Third, the most recent years after the late 1990s was characterized by the increase of the highly educated females in the Tokyo MA. More than the half of the female net migrants were estimated to have university qualification in the 1971 – 1975 cohort. Finally, Figures 5 and 6 show that the net migration loss for the other part of Japan reduced in the last decades while the region was losing more and more educated population against the Tokyo MA.

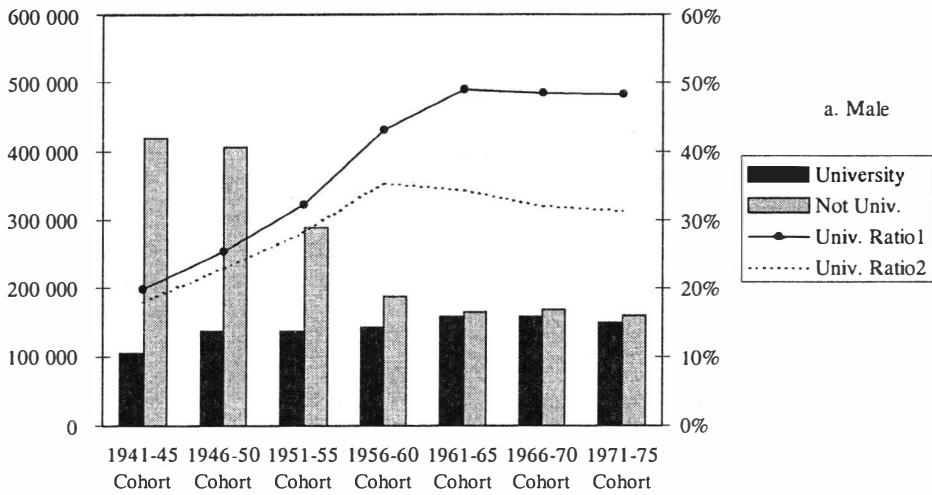


**Figure 6** Population by university enrolled/graduates and by birth cohort : Female population (in thousand)

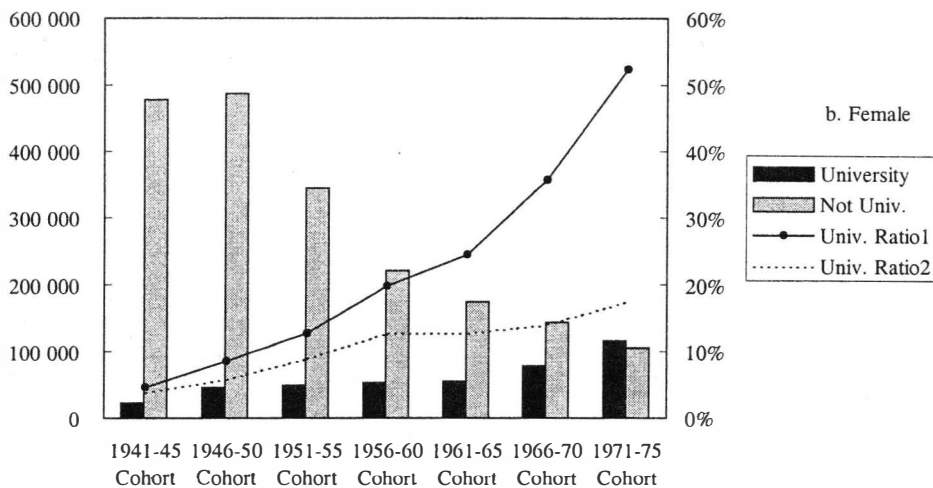


**Figure 6 continue** Population by university enrolled/graduates and by birth cohort : Female population (in thousand)

Source: Population Census of Japan, School Basic Survey and author's estimation



**Figure 7** Number of net migration for the Tokyo MA by university enrolled/graduates and by birth cohort (in thousand)



**Figure 7 continue** Number of net migration for the Tokyo MA by university enrolled/graduates and by birth cohort (in thousand)

Note: „Univ. Ratio1“ indicates ratio of university enrolled/graduates among the total number of net migration and „Univ. Ratio2“ indicates ratio of university enrolled/graduates among the relevant cohort in the year 2000.

Source: Population Census of Japan, School Basic Survey and author's estimation

#### 4. CONCLUDING REMARKS

We would conclude the paper by referring Figures 1 and 7 again. There were three peaks of the net migration gain for the metropolitan areas after 1950s. The first peak in the 1960s was apparently large in scale compared with the following two peaks. The rapid economic growth in that period was propelled principally by the heavy and petrochemical industries. These industry sectors were located mainly in the three major metropolitan areas. The 1960s was regarded as the period of the shift in the economic structure from the primary to the secondary sector. There existed plenty of surplus labor force in the rural areas due to the high fertility in the 1940s while the increasing demand of labor force in the metropolitan areas could not be filled up by the newly recruited within the area. Mass migration from rural to urban occurred as a result from the late 1950s. The cohorts born in the 1940s corresponded to the mass migration period and the educational background of those migrated to the Tokyo MA was as high as those of the average of the cohorts. Tokyo did not only have a command function but also a vigorous production function and both the blue collar and the white collar workers could find jobs and settled down there. Males were preferred to females by the employers in the metropolitan areas and a substantial number of females moved there later for marriage with the spouse of the same origin. This mixed and massive volume of the migrants made the age-specific concentric engraved residential structure of the Tokyo MA later in the 1970s.

The second peak of the net migration gain was found in the period of bubble economy in the late 1980s. Tokyo experienced the industrial shift from the secondary to the tertiary sector in those days and the characteristics of the newly recruited changed gradually into more educated. The educational background of migrants to the Tokyo MA showed much higher than the average of the relevant cohort. Relocation of the production function from Tokyo substantially started then and the jobs required moderate education could be replaced by the indigenous young people. At the same time, the rural areas did not have any more surplus labor force because of the fertility decline in the 1950s and the mass out-migration in the 1960s. Furthermore, increasing number of relocated factories from the metropolitan areas provided employment opportunities in the non-metropolitan areas. The necessity to move for the non-metropolitan young dropped and only those with higher educational background and ambition tended to move to, and were accepted by, Tokyo.

The third peak, which was not directly related to the economic boom, started in the late 1990s. The recent net migration increase for the Tokyo MA is characterized by the increasing share of females in migrants. Figure 7 tells us that highly educated females tend to concentrate to Tokyo obviously in recent years. After the enforcement of the equal employment opportunity law in 1986, the volume and the variety of job opportunities for females improved to some extent, but the jobs for the highly qualified females were still limited in number and concentrated in Tokyo. Moreover, more educated females tend to stay single in the recent Japan and Tokyo seems to attract such females due not only to providing them with job opportunities but satisfying their particular requirements for daily life such as safe and convenient apartments and personal networks. The changing numbers and characteristics of the new sedentary population in Tokyo also affected the residential structure of the Tokyo MA.

The relations between Tokyo and the rest of Japan changed substantially in the past decades, and the volume and the substance of the migration changed as well. In general, the imbalance between population distribution and employment distribution at a national level became relatively moderate and an increasing number of people came to enjoy their lives within their locality. More and more younger generation of the non-metropolitan origin prefer to stay at their parents' home or return there even after graduating university of the metropolitan areas. However, when we focus on the attributes of the recent migrants, Tokyo seems to acquire and accept only highly educated people from outside through the selective migration process. This may cause further imbalance in human resource and reinforce a regional disparity between Tokyo and the rest of Japan. In terms of the disparity within Tokyo, a metabolic replacement with other regions is working only for the service class and the working class tends to stay unchanged, which contributed to widening a gap between the two groups.

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### **Selektívna migrácia do Tokia na základe vzdelania a pohlavia**

#### **Resume**

Počas ekonomického „boomu“ v 60. rokoch 20. storočia sa do Tokia z vidieku prisťahovali ako „modrogolierníci“ (robotníci), tak aj „bielegolierníci“, t.j. vzdelaní ľudia, úradníci. Tento prílev ľudí vytvoril neskôr rôznorodú a vekovo špecifickú štruktúru obyvateľstva mesta. Migračný trend sa zmenil v druhej polovici 80. rokov. Tokio požadovalo iba vysoko vzdelaných úradníkov z okolitých regiónov do rastúcej ekonomiky služieb. Tento trend sa prejavil najmä v populácii žien mesta. Selektívna migrácia vysoko vzdelaných ľudí do Tokia ešte viac posilňuje regionálne disparity medzi Tokiom a zvyškom Japonska.

## 教育歴とジェンダーによる東京への選択的な人口移動

中川 聡史

高度成長期であった 1960 年代、東京はホワイトカラーとブルーカラー両方の労働者を農村部から大量に受け入れた。彼らは東京に定着し、東京は社会経済的な住み分けよりも、年齢別の住み分けが卓越する居住構造が形成された。サービス経済化の進展とともに東京への人口移動者の属性は 1980 年代後半になると変化し、高学歴者が選択的に東京へ移動するようになった。この傾向はとくに女子で著しい。このような選択的な人口移動は東京とその他の地域との地域格差を固定化、あるいは強化する役割を果たしている。