

Population Redistribution of Japan*

—within the context of the national settlement system—

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I. Introduction

Around the beginning of the 1970's, a number of metropolitan areas in the industrial nations began to experience a decline in the in-movement of population from peripheral regions. (Bourne, 1980) Japan also began to show a drastic reduction in the level of this net flow. The most significant example of recent population change in Japan is the contrast between the acceleration of population concentration in the metropolitan areas in the 1960's and the resulting population redistribution of the 1970's. (Hama, 1982)

Vining and Kontuly (1978) identified Japan as a "pure" example of deagglomeration and summarized the overall pattern in inter-regional migration flows over the post-war period as follows: a steady rise in net flow into the metropolitan areas until the early 1960's, followed by a decline in the middle 1960's, though the numbers were still very large, followed by a second rise in the late 1960's, and then a precipitous and dramatic decline of the 1970's.

This paper is the result of a more detailed study of the trends in inter-prefectural as well as inter-regional migration flows in Japan since the end of World War II, with special emphasis on the flow of population to and from major metropolitan areas in the 1970's. In

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this paper, more attention will be given to the net flow of population and the influence of migration on the nature and direction of change within the context of the national settlement system of Japan. The net flow of population has not only changed direction, but the total flow has become increasingly complex and multidirectional. (DiMartino, 1980) The case of Japan does not appear to be such a pure example of deagglomeration, nor does it seem to be as simple as Vining and Kontuly have postulated. (Gordon, 1979) Since population redistribution is determined primarily by national economic development patterns and the spatial distribution of economic opportunities, population redistribution analysis and planning must be integrated into broader social and economic development efforts in a national planning context. (Gosling, 1979)

II. Trends

The annual volume of internal migration in Japan in the early 1920's amounted to a little over two million. Although the first census was taken in 1920, reliable time-series data on the origin and destination of migration have only been available since 1954. The average number of migrants in the late 1950's was 5.2 million a year, in the early 1960's 6.5 million, in the late 1960's 7.6 million, and in the 1970's over 8.0 million, reaching a peak of 8.5 million in 1973. Since then, the number of migrants has declined sharply to a level of 7 million by 1980. (Table 1)

From 1920 to 1970, there was an outflow of migrants in the majority of Japanese prefectures. In the 1920-1925 period, 39 out of 47 prefectures in Japan had net out-migration. The concentration of population in a small number of prefectures continued until 1970, when 35 prefectures lost migrants.

For the post-war period, there is a striking shift in the destination of migrants. For 1955-1960, the net out-migration from the non-metropolitan prefectures to metropolitan prefectures was accelerated and only the three major metropolitan areas were net receivers of migrants. Also noticeable is the fact that the beginning of suburbanization can be seen in three prefectures surrounding Tokyo. This metropolitan deconcentration continued in the 1960's as well as in the 1970's, with Tokyo prefecture losing population for the first time in the late 1960's, and Osaka and Hyogo in the early 1970's. Thus the prefectures near Tokyo and Osaka became net receivers of population. At this time, there was further movement of population into regions lower down the urban hierarchy: prefectures with

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Table 1 Annual Volume of Migration: 1954-1980

(in thousands)

| Year | Total migration | % of the total population | Intra-prefectural migration | Inter-prefectural migration |
|------|-----------------|---------------------------|-----------------------------|-----------------------------|
| 1954 | 5,498 | 6.27 | 3,145 | 2,353 |
| 1955 | 5,141 | 5.80 | 2,914 | 2,227 |
| 1956 | 4,860 | 5.43 | 2,736 | 2,124 |
| 1957 | 5,268 | 5.83 | 2,888 | 2,380 |
| 1958 | 5,294 | 5.81 | 2,912 | 2,382 |
| 1959 | 5,358 | 5.82 | 2,916 | 2,442 |
| 1960 | 5,653 | 6.09 | 2,975 | 2,678 |
| 1961 | 6,012 | 6.42 | 3,060 | 2,952 |
| 1962 | 6,580 | 6.95 | 3,272 | 3,308 |
| 1963 | 6,937 | 7.26 | 3,465 | 3,472 |
| 1964 | 7,257 | 7.51 | 3,622 | 3,635 |
| 1965 | 7,381 | 7.56 | 3,690 | 3,691 |
| 1966 | 7,432 | 7.55 | 3,748 | 3,684 |
| 1967 | 7,479 | 7.51 | 3,718 | 3,761 |
| 1968 | 7,775 | 7.72 | 3,837 | 3,938 |
| 1969 | 8,126 | 7.97 | 3,970 | 4,156 |
| 1970 | 8,273 | 8.02 | 4,036 | 4,237 |
| 1971 | 8,360 | 8.00 | 4,105 | 4,255 |
| 1972 | 8,350 | 7.88 | 4,193 | 4,157 |
| 1973 | 8,539 | 7.87 | 4,303 | 4,236 |
| 1974 | 8,027 | 7.30 | 4,094 | 3,933 |
| 1975 | 7,543 | 6.78 | 3,845 | 3,698 |
| 1976 | 7,392 | 6.57 | 3,827 | 3,565 |
| 1977 | 7,395 | 6.52 | 3,828 | 3,567 |
| 1978 | 7,291 | 6.37 | 3,803 | 3,488 |
| 1979 | 7,295 | 6.32 | 3,826 | 3,469 |
| 1980 | 7,079 | 6.09 | 3,717 | 3,362 |

Source: Annual Report on Internal Migration in Japan Derived from the Basic Resident Registers.

regional centers also saw increases in their population due to migration.

The trend toward urban concentration declined somewhat in the 1970's. Both in the period between 1970-1975 and in 1975-1980, 19 prefectures had net in-migration. Growth became concentrated in middle-sized prefectures, whereas Tokyo lost population and other large cities saw relative decline in the late 1970's. In spite of this recent decline, the overall effect of these migrations and urban growth patterns was the high concentration of popula-

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tion in a few urban regions and a considerable amount of depopulation in most rural regions. (Figure 1)

Rural to urban migration and the concentration of population in large metropolises has been one of the phenomena observed since the beginning of the present century when Japan

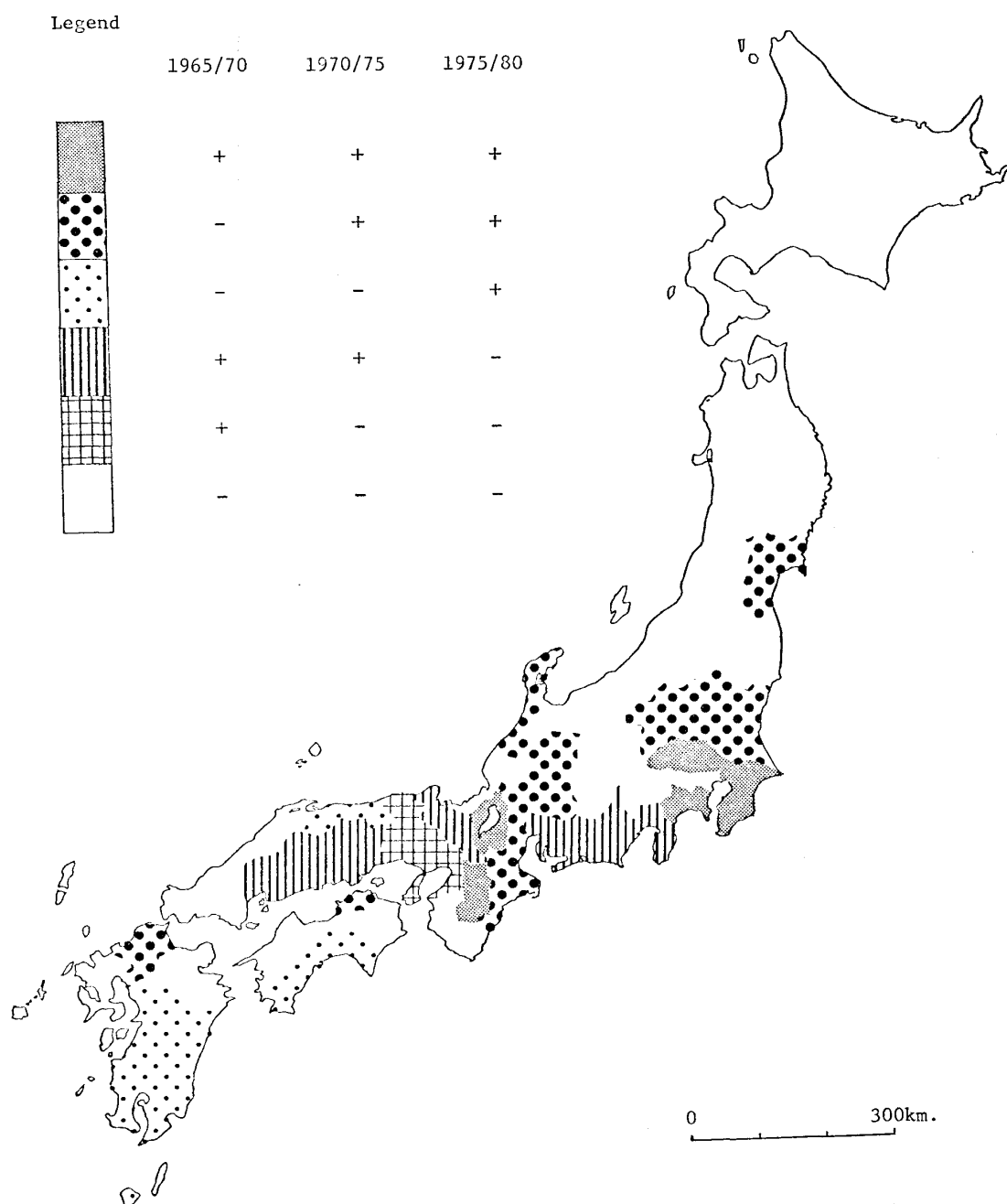


Figure 1 Types of Net Migration by Prefecture: 1965-1980

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started her industrialization. It was a movement of people from the high-fertility rural regions to low-fertility urban regions and was recognized as an initial stage of regional redistribution of population throughout the country. Consequently, there was a tremendous flow of the labor force from rural villages and small cities all over the country and a massive concentration of population into a limited area of the country known as the Pacific Industrial Belt.

Japan is considered to have entered the stage of high economic growth in the late 1950's. These newly emerging trends in migratory movement in the post-war period are traced by the data collected from the registration system which was started in 1952. The collection of such information, termed "Basic Resident Registers", provides useful information on the annual number of people who crossed the administrative boundaries of prefectures.

The percentage of people who migrated in 1955 equaled only 5.7%, rose to 8.0% in 1960 and 1970, and then dropped to 6.1% in 1980. This total migratory flow is almost equally divided into intra-prefectural movements and inter-prefectural ones, the latter usually representing long-distance movements of migrants across prefectural boundaries. Both types of migration showed similar increases during the 1960's with the rate of increase in inter-prefectural migration surpassing that of intra-prefectural migration around 1960 and their positions being reversed around 1965. Although the rate of increase in the annual volume of migration seems to have declined since 1965, the influx into urban areas has continued to increase, and, in 1973, a high of 8.5 million was recorded.

The number of people migrating short distances from surrounding areas into the prefectural capitals and other smaller local centers had been about the same as the number of persons moving long distances into the largest cities, but the latter type of migration was stimulated by the emergence of rapid economic growth in the 1960's. The total magnitude of the more lengthy inter-prefectural migration involved about 4.2 million people in 1971, or a just slightly greater than the volume which migrated within prefectural boundaries. Later, the figure went down to 3.3 million in 1980 and intra-prefectural migration surpassed inter-prefectural movement of population after 1972. In 1980, approximately 55% of the total in-migration occurred within 8 of the 47 prefectures, all of them metropolitan in character and, therefore, offering attractive employment opportunities. Each of the eight had annual in- and out-migration of more than 100 thousand people in 1980

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and altogether comprised more than one-half of the total inter-prefectural migration of the nation.

In terms of the increase in inter-prefectural migration, it is necessary to view each sepa-

Table 2 Types of Inter-prefectural Migration: 1954-1980 (in thousands)

| Year | Migration among metropolitan areas | | Migration from metropolitan to non-metropolitan areas | Migration from non-metropolitan to metropolitan areas | Migration among non-metropolitan areas |
|------|------------------------------------|---------|---|---|--|
| | Within | Between | | | |
| 1954 | 451 | 138 | 403 | 788 | 573 |
| 1955 | 429 | 135 | 385 | 738 | 540 |
| 1956 | 410 | 130 | 342 | 743 | 499 |
| 1957 | 452 | 141 | 359 | 866 | 562 |
| 1958 | 467 | 151 | 393 | 815 | 556 |
| 1959 | 494 | 155 | 389 | 880 | 524 |
| 1960 | 533 | 172 | 406 | 999 | 568 |
| 1961 | 608 | 185 | 449 | 1,104 | 606 |
| 1962 | 708 | 212 | 536 | 1,188 | 664 |
| 1963 | 773 | 223 | 589 | 1,208 | 679 |
| 1964 | 849 | 242 | 639 | 1,217 | 688 |
| 1965 | 867 | 248 | 705 | 1,186 | 685 |
| 1966 | 890 | 254 | 732 | 1,138 | 670 |
| 1967 | 911 | 269 | 750 | 1,154 | 677 |
| 1968 | 956 | 286 | 784 | 1,202 | 710 |
| 1969 | 994 | 328 | 827 | 1,252 | 755 |
| 1970 | 1,024 | 323 | 870 | 1,263 | 757 |
| 1971 | 1,019 | 332 | 926 | 1,214 | 764 |
| 1972 | 1,035 | 326 | 921 | 1,127 | 748 |
| 1973 | 1,057 | 322 | 985 | 1,099 | 773 |
| 1974 | 958 | 301 | 949 | 987 | 738 |
| 1975 | 885 | 289 | 901 | 912 | 711 |
| 1976 | 870 | 280 | 884 | 850 | 681 |
| 1977 | 853 | 283 | 867 | 916 | 648 |
| 1978 | 847 | 280 | 829 | 837 | 695 |
| 1979 | 856 | 273 | 827 | 815 | 698 |
| 1980 | 816 | 268 | 797 | 783 | 698 |

Source: Annual Report on Internal Migration in Japan Derived from the Basic Resident Registers.

Note: The "metropolitn areas" include the prefectures of Tokyo, Chiba, Saitama and Kanagawa for Tokyo M.A., Gifu, Aichi and Mie for Nagoya M.A., and Osaka, Kyoto and Hyogo for Osaka M.A..

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rately. (Table 2)

- 1) Migration within Metropolitan Areas: Began to increase in the late 1960's, reached a peak in 1973 and has become greatest in number since 1978. The main feature of this type of migration is the movement of people from the core to the periphery of a metropolitan area resulting in decentralization of population and expansion of the area. However, it is different from earlier migration which involved a shift in both residence and work. This new type of mobility requires a change of residence without a change of employment.
- 2) Migration between Metropolitan Areas: Began to increase in volume in the late 1960's, reached a peak in 1971, and has now stabilized. (The more recent data suggest that the flow of migrants between metropolitan areas is now approximately balanced.)
- 3) Migration from Metropolitan to Non-metropolitan Areas: Began to increase in the early 1960's and reached a peak in 1973, and retained a position of importance in the later 1970's. This is due mainly to the expansion of the labor market in the non-metropolitan areas, as a result of the recent establishment of factories located in rural areas and in small cities, to relieve excessive concentration of economic activities and population in the metropolitan areas. Decentralization of management functions to regional centers, as well as to prefectural capitals, may have also accelerated this trend.
- 4) Migration from Non-metropolitan to Metropolitan Areas: This trend became remarkable in terms of number of people involved and the rate of growth among the (five) types of inter-prefectural migration in the 1960's, reaching a peak in 1970 but has been decreasing in importance since then.
- 5) Migration between Non-metropolitan Areas: Showed a gradual increase in the late 1960's and has stayed at the same level through the 1970's.

Though intra-prefectural migration sometimes exceeded the inter-prefectural migration, the major pattern of migration in the 1960's was a continuation of the post-war period. That is, the rural to urban migration gravitated especially toward the metropolitan areas.

The volume of migration, however, has declined since 1973. With the shift to more stable economic growth, both inter- and intra-prefectural migrations have also declined. Inter-prefectural migration from non-metropolitan to metropolitan areas showed the sharpest drop-off with the annual inflow decreasing by one-third between 1970 and 1980. In 1976, the number leaving the large metropolitan areas surpassed the number entering such areas.

With the overall drop in the volume of migration, the trend toward further population concentration in metropolitan areas has been blunted.

Thus, the three major metropolitan areas (Tokyo, Osaka, Nagoya), which, for more than half a century have shown remarkable and consistent increases in net in-migration, have begun to show a significant slowing in the upward trend and finally entered the stage of total out-migration in 1976. The net inflow into the three major metropolitan areas between 1975 and 1980 dropped from 10 thousand down to minus 8 thousand. At the same time, the rural regions, where net-outmigration has long been the rule, began to display a reduction in their losses. For example, while the population of Tokyo metropolitan area is increasing, there is a decline in the population of Tokyo prefecture. This trend indicates the dispersed concentration of population on the metropolitan level.

III. Analysis

The massive migration of people in Japan entered a new stage in the 1970's. Change in the total number of migrants can be examined by looking at the movement among different regions within the country. Japan's 46 prefectures, excluding Okinawa due to the unavailability of comparable data in the earlier period, were grouped into 15 regions and the respective net migration was calculated for 5 five-year periods between 1955 and 1979. (Figure 2) An analysis of changes in net regional migration indicates the following trends: (Table 3)

- 1) The Tokyo and Osaka metropolitan areas absorbed a large amount of migrants from almost all of the other regions.
- 2) This migratory trend began to change around 1965. Net in-migration in the Tokyo and Osaka metropolitan areas declined sharply. An excess of out-migrants over in-migrants has been noted in the Osaka metropolitan area since 1973.
- 3) Some non-metropolitan areas in Northern Kanto, Eastern Kinki and Kyushu have gradually shifted from regions of out-migration to those of in-migration.
- 4) Other regions in the periphery, such as Tohoku, Tosan, Sanin and Shikoku, have continued to show an excess of out-migration over in-migration, but at a much reduced scale.

These changes in regional migration in Japan clarify the fact that the concentration of migration into the three major metropolitan areas had reached a peak and a new pattern

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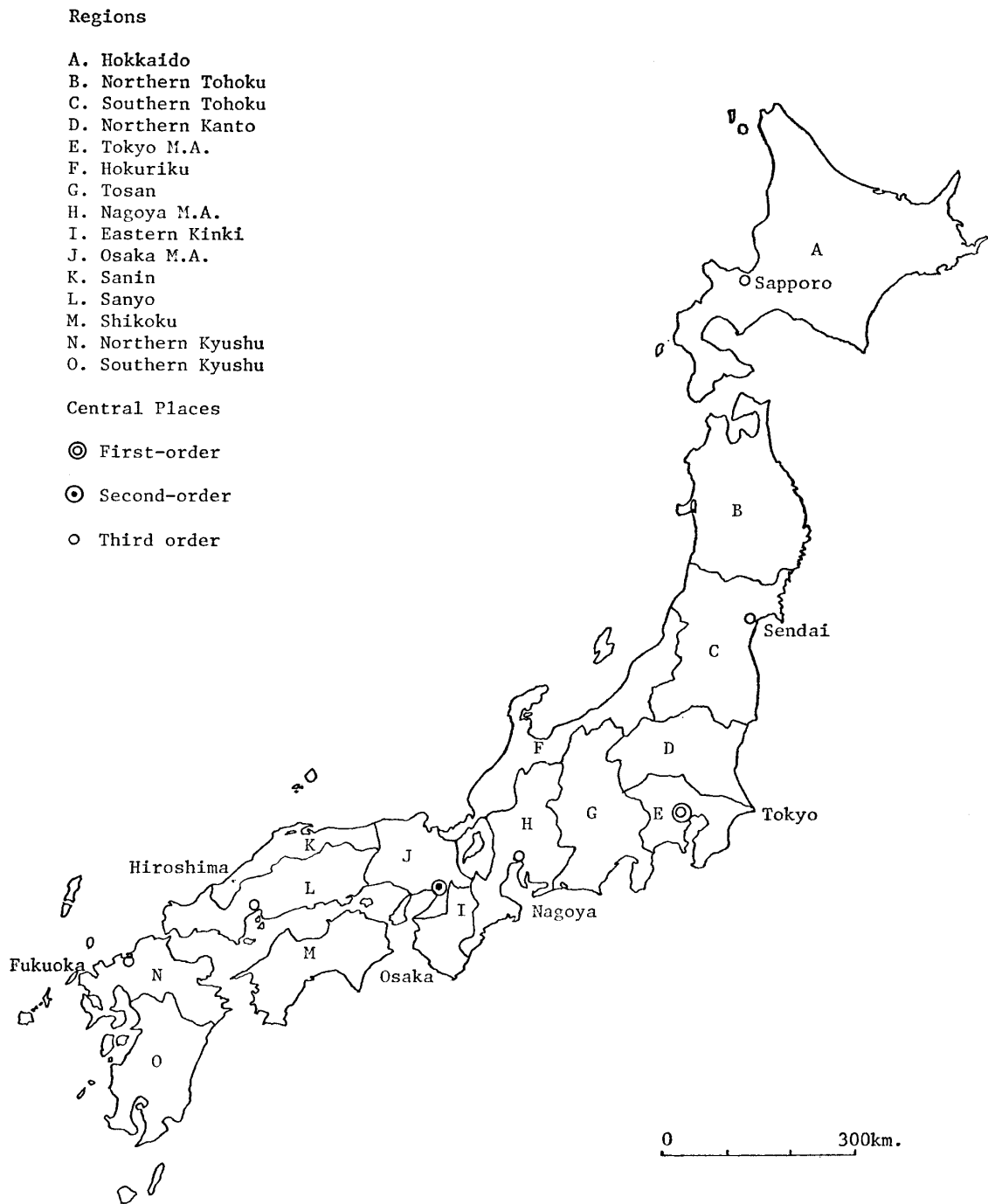


Figure 2 Regions and Central Places in Japan

has emerged by the late 1960's. (Okita, et al., 1979) The overall tendency for the Japanese population to agglomerate in the Pacific Industrial Belt is the most important feature of Japan's settlement system. (Yamaguchi, 1979) The growth of the three major metro-

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Table 3 Changes in Net Migration by Region: 1955-1979 (in thousands)

| Region | 1955/59 | 1960/64 | 1965/69 | 1970/74 | 1975/79 |
|--------------------|---------|---------|---------|---------|---------|
| A. Hokkaido | +23 | -151 | -199 | -217 | -17 |
| B. Northern Tohoku | -160 | -298 | -250 | -204 | -52 |
| C. Southern Tohoku | -280 | -361 | -219 | -79 | -13 |
| D. Northern Kanto | -285 | -201 | -90 | +95 | +114 |
| E. Tokyo M.A. | +1422 | +1854 | +1452 | +876 | +290 |
| F. Hokuriku | -245 | -254 | -212 | -121 | -49 |
| G. Tosan | -222 | -137 | -87 | -20 | -37 |
| H. Nagoya M.A. | -70 | +311 | +157 | +111 | -34 |
| I. Eastern Kinki | -57 | -37 | +22 | +107 | +112 |
| J. Osaka M.A. | +633 | +929 | +526 | +62 | -285 |
| K. Sanin | -88 | -115 | -93 | -46 | -3 |
| L. Sanyo | -127 | -185 | -53 | +25 | -12 |
| M. Shikoku | -212 | -289 | -199 | -79 | -25 |
| N. Northern Kyushu | -177 | -606 | -407 | -241 | +21 |
| O. Southern Kyushu | -293 | -461 | -349 | -228 | +20 |

Source: Annual Report on the Internal Migration in Japan Derived from the Basic Resident Registers.

Note: The fifteen regions are made up of 46 prefectures and each of them includes the following prefectures: (See Figure 2)

A. Hokkaido; B. Aomori, Iwate, Akita; C. Miyagi, Yamagata, Fukushima; D. Ibaraki, Tochigi, Gunma; E. Saitama, Chiba, Tokyo, Kanagawa; F. Niigata, Toyama, Ishikawa, Fukui; G. Yamanashi, Nagano, Shizuoka; H. Gifu, Aichi, Mie; I. Shiga, Nara, Wakayama; J. Kyoto, Osaka, Hyogo; K. Tottori, Shimane; L. Okayama, Hiroshima, Yamaguchi; M. Tokushima, Kagawa, Ehime, Kochi; N. Fukuoka, Saga, Nagasaki, Oita; O. Kumamoto, Miyazaki, Kagoshima.

politan areas which form the backbone of the Pacific Industrial Belt was particularly rapid in the post-war period, especially in the 1960's. However, movement of population toward the Pacific Industrial Belt came to an end in the 1970's. (Figure 3) Total net in-migration in these areas was over 600 thousand a year in the early 1960's. It has declined sharply since 1964, reaching around 100 thousand in 1973 when the total volume of migration marked its national peak. A drastic decline in total in-migration to the metropolitan areas continued and, in 1976, an excess of out-migration over in-migration was recorded for the first time. The downward trend continued and net out-migration reached a level of 8 thousand in 1980.

Attention should also be given to the remarkable change in the position held by migration relative to population increase in metropolitan areas. Up until 1965, more than one-half

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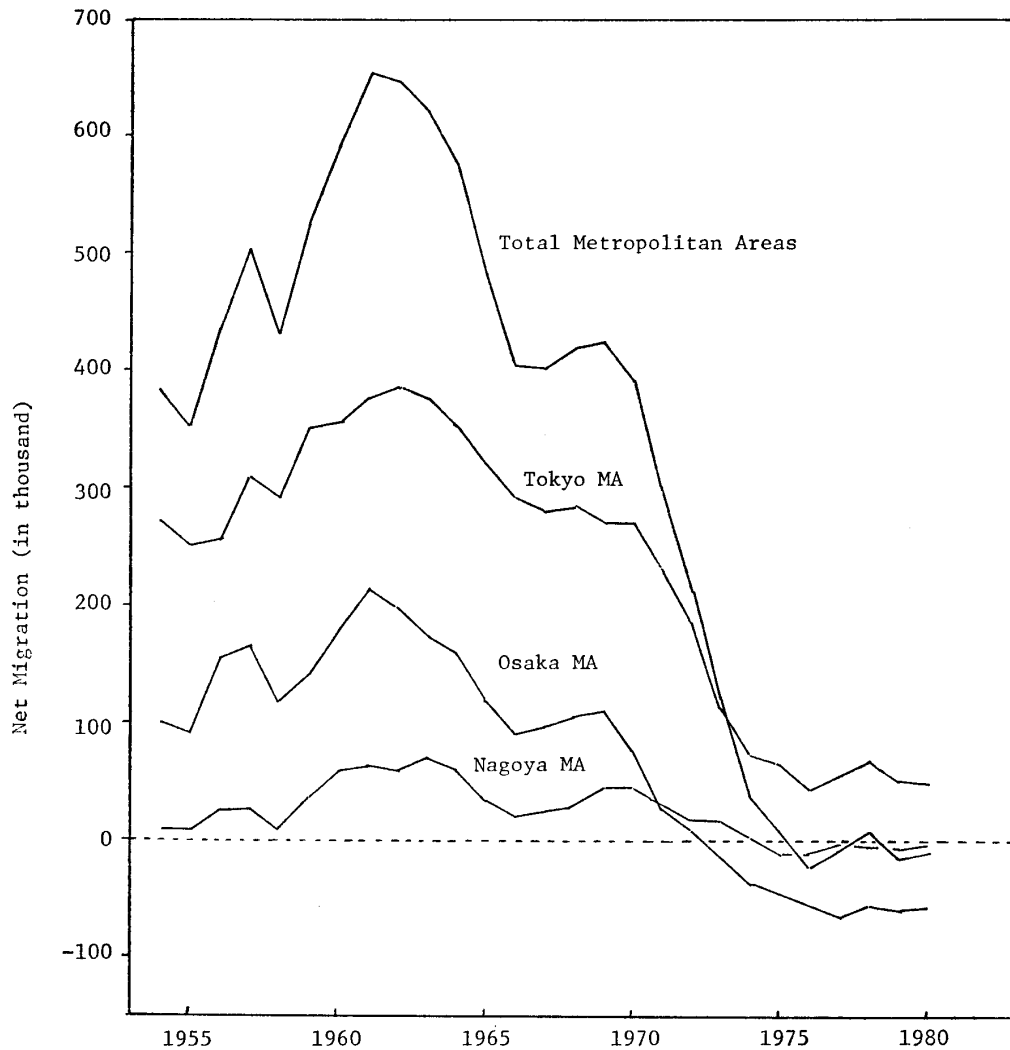


Figure 3 Annual Net Migration into Three Major Metropolitan Areas: 1954-1980

of the population in both Tokyo and Osaka metropolitan areas was attributed to an excess of in-migration. The relative weight of social increase (net migration) has started to change since then. In the five-year period, 1970-1975, it had fallen to no more than 3% in the Osaka metropolitan area and, in the period 1975-1980, when the excess of out-migration reached a level of 300 thousand, all of the population increase was maintained by natural increase. Even in the Tokyo metropolitan area, the relative weight of in-migration had fallen to 30% during the 1970-1975 period and to 12% in the period between 1975 and 1980. It may be recalled from the earlier discussion that the year 1965 was one of the turning points in migratory movement in post-war Japan.

In the early 1970's, Japan entered the stage of mobility transition which followed the

demographic transition of the previous decade. Therefore, migratory behavior should now be viewed as a response to a new stage in mobility transition which includes a set of new priorities which greatly influence residential selection. As Kuroda (1981) has pointed out, new migratory patterns observed in the 1970's may be summarized with supplemental explanation as follows:

- 1) The population redistribution trend may be characterized as a rapid increase of medium-and small-sized cities with a population of 50 thousand to 500 thousand and comprising 81% of the increase in urban population in the 1970's. A pronounced drop in the rate of increase of large cities with populations over one million was noticeable. The rate of increase was only 2.6% in this class of cities and negative rates of population increase have already been noted in the cities of Tokyo and Osaka during the same period.
- 2) There has been a striking increase in out-migration to neighboring regions. Until 1965, the Tokyo metropolitan area was the region toward which Northern Tohoku migrants gravitated. After that year, Southern Tohoku became the most important destination for out-migration from Northern Tohoku. Meanwhile, the Osaka metropolitan area used to have a strong inflow from both Sanyo and Sanin until 1960. But, since 1965, the migration may be described as a reciprocal flow between two neighboring regions. The same situation can be seen between Northern and Southern Kyushu.
- 3) There was a change in migration according to age group. Especially since 1965 a noteworthy change has occurred in regard to Japanese men between 20-24 years of age. In 1970, an excess of out-migration over in-migration of this group was evident in Tokyo, Osaka, Kyoto and Fukuoka prefectures, with a net outflow exceeding 20% in the first two. Almost all the other prefectures exhibited a net increase in this category. In addition, males 20-24 years old in 1970 had declined in three major metropolitan areas by 1975. The same age group increased in all other non-metropolitan areas. Even more noticeable was that by 1975, as this group of 25-29 year old men aged in 1970, fewer of them remained in the three metropolitan areas than anticipated. This indicates a rise in the age of migrants from metropolitan to non-metropolitan areas (from 20-24 to 25-29 years) in the middle 1970's.
- 4) The reversal in the flow of the young labor force from metropolitan to non-metropolitan areas was heavily influenced by the Comprehensive Development Plans of 1962 and 1969, and the simultaneous development plans of each individual prefecture under the guidance of the national government. These plans stimulate

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the development of local economies which brought forth greater employment opportunities in the secondary and tertiary industries. Central places with tertiary activities used to serve areas dominated by primary production, but now they increasingly serve areas developed for secondary activities. Push factors encouraging people to move from the metropolitan areas include: subsequent deterioration of living conditions after rapid economic growth; an astonishing rise in land and housing costs; and an undesirable commuting distance in the metropolitan areas. With prosperity and higher living standards, people's attention turns increasingly toward the quality of their lives.

According to Uchino (1976), there are at least two major migration streams in contemporary Japan. One is the reciprocal migratory movement between metropolitan areas at the national scale and the other is the movement among neighboring regions at the local scale. This analysis, using a preference index, suggests that peripheral regions of the country have come to show more population exchange with their neighboring regions than with major metropolitan areas.

IV. Discussion

A fundamental alternation in the increasing amount of return migration from Japan's metropolitan areas, at a higher rate than rural out-migration, is an example of mobility transition in the post-industrial stage. The narrowly defined economic motivation which brought people to the major metropolitan areas in search of employment opportunities has been replaced by a more complex process in which a number of non-economic factors are involved.

Ishikawa (1978) has investigated the internal migration stage in post-war Japan and the major factors which have brought about the recent internal migration patterns, including the U-turn phenomenon. According to this paper, it was not until the latter half of the 1960's that internal migration had shifted to the new stage of mobility transition. Once out-migration from non-metropolitan areas became weaker, population concentration in metropolitan areas came to be less distinct. Major factors that brought the inter-prefectural migration, examined by multiple regression analysis, led to the following findings:

- 1) Inter-metropolitan migration is influenced by more specific factors than migrations between metropolitan and non-metropolitan areas.

- 2) The inter-prefectural differential factor of per capita income is less valid for explaining any type of migration, but the increase in employment opportunities still plays an important role in out-migration.
- 3) Distance is still a strong and stable factor. Migration is determined by the contiguity of areas to a considerable degree.
- 4) In terms of destination, the agglomeration of management functions which had been thought to be a leading determinant of urban growth in major cities does not always play a significant role in attracting in-migration.
- 5) The migrants' attitudes, represented by age groups and levels of education, are important determinants which set the direction of migration.

It has been common, since the end of the 19th century, for young people in the rural areas to move to the city temporarily and return home for inheritance of family property or for marriage at a later date. Consequently, an increase in the number moving to the cities was accompanied by an increase in the number returning to the countryside, though perhaps with a time lag. It is interesting to note that we may be experiencing a return to a traditional pattern whereby only single young people leave their hometowns. (Kawabe, 1980) If this becomes the dominant pattern, and these young people later return to their homes, the distribution of Japan's population will become stabilized. At the same time the pattern of migration characterizing Japanese society in the prewar period seems to have re-emerged. Since this pattern is quite complex, further research is needed on this point.

Abe (1980) has analyzed socio-economic components of return migration from three metropolitan areas to four regional centers and classified the types of out-migration. The continuous growth of the regional centers depends mostly on the in-migration from the three major metropolitan areas. This research has noted that the main regional centers had much closer ties with the major metropolitan areas than with their hinterlands in order to maintain balance between in- and out-migrations. After conducting a factor analysis for socio-economic attributes of in-migration to these regional centers, Abe reached the following rather different conclusion in contrast to the Ishikawa's study. The predominant factor explaining 40% of the total variance represents the migration pattern of white-collar workers. In this migration pattern, the volume of in-migration from major metropolitan areas to main regional centers is larger than those from neighboring regions, resulting in the increasing distance of migration. The growth of main regional centers has actually been stimulated by the influx of white-collar workers engaged in management functions.

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The attractiveness of the regional centers has had little effect on the migration stream of blue-collar workers.

Meanwhile, attention should also be drawn to the role played by the advancement of communication and transportation in closing the gap between metropolitan and non-metropolitan areas. Improved communication and transportation facilities encourage the concentration of population in the 1960's, but, in the 1970's, helped to disperse population. The nation-wide development of this infrastructure can be thought of as having had a significant effect on the regional redistribution of population. (Ginsburg, 1973)

The distinctions between rural and urban populations are becoming vague as the rural population engages increasingly in non-agricultural activity. After rapid post-war increase prior to 1970, the percentage of the labor force engaged in manufacturing seems to have stabilized. And, after a period of intense concentration of population in three major metropolitan areas forming the Tokaido Megalopolis, there now appears to be the development of four major regional centers outside the megalopolis. These centers are: Sapporo, for Hokkaido; Sendai, for northern Honshu; Hiroshima, for western Honshu; and Fukuoka, for Kyushu. Each has formed a group of third-order central places, which also includes downgraded Nagoya for central Honshu within the Megalopolis. The stability of manufacturing is consistent with the growth of tertiary activities that tend to be highly concentrated in the central cities of the three metropolitan areas, the four main regional centers, and other prefectural capitals. With the post-industrial nature of Japanese economy, employment in tertiary industry is increasing and has reached 55.4% of the total labor force in 1980. Even if manufacturing activities were to be deconcentrated from central cities to their suburbs, or to non-metropolitan areas as a result of government policy or of labor shortages, the central cities of metropolitan areas are likely to have a continued increase in day-time working population since the expanding tertiary as well as quaternary industries are concentrated in these cities. (Harris, 1982)

As the dominant first order central place of the nation, the Tokyo metropolitan area continues to show population growth, although it is not in the central city but in the suburbs and satellites that lie across prefectural boundaries, spilling over into the Kanto Plain. On the contrary, Osaka, which used to be a first-order central place and for many years a close rival of Tokyo, now stands as the third largest city, next to Yokohama, and is a second-order central place for the southern half of the country. The concentration of population

in the three major metropolitan areas remains very high even at the stage of deagglomeration, containing approximately 47% of the Japanese population and accounting for almost 50% of the population increase between 1975 and 1980. Unless the Japanese economy enters another period of high economic growth, it does not seem likely that there will be a further redistribution of population in the near future. Government incentives to encourage the regional dispersion of industry are likely to be very costly if they are to be effective in offsetting the market advantages of major metropolitan areas.

In this respect, it may not be accurate to refer to the Japanese case as a pure example of deagglomeration. Rather, it seems likely that the concentration of population will continue in the Tokyo metropolitan area at the expense of other metropolitan areas within the nation. Therefore, Japan today is in the process of population reconcentration in its national, regional and prefectural centers. In short, the Japanese settlement system is in the stage of centralized decentralization, or of dispersed concentration, as has also been confirmed by Glickman's study (1979).

V. Conclusion

Japan entered the stage of high economic growth in the late 1950's. The average number of migrants at that time was around 6.5 million, reached a peak of 8.5 million in 1973 and then declined to 7.1 million in 1980. With the shift to more stable economic growth, both intra- and inter-prefectural migration has declined. By 1980 the number leaving the three major metropolitan areas reached a level of the number entering such areas. Blumenfeld (1982) explicates this to mean that the centripetal "country-to-metropolis" movement is now being balanced by the centrifugal "overflow" from these major metropolitan areas. With the overall drop in the number of migrants, the trend toward further population concentration in the metropolitan areas has been blunted.

Since 1970, migratory patterns have started to diversify, including: a decline in the flow to metropolitan areas and the outflow from metropolitan to non-metropolitan areas; a transition from migration to the larger cities to migration to medium and small cities; and a relative stability of migration among prefectures. There has also been a marked change in the position held by migration relative to increase in population. Natural increase has come to be a decisive factor contributing to population increase, particularly in the Tokyo and Osaka metropolitan areas. These facts suggest that migration in Japan has entered a new

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stage of mobility transition. (Nanjo, 1981)

Mobility transition implies a trend toward redistribution of population and manifests itself as a change in the regions selected by migrants for residence. The narrowly defined economic motivation which brought people to the metropolitan areas in search of employment opportunities has been replaced by a more complex process in which a number of non-economic factors are involved. Therefore, migratory behavior should be viewed as the response to a new stage of development which leads people to new decisions in selecting places of residence.

More recent research done by Vining and Pallone (1982) indicates that North America, Western Europe, and Japan show either a reversal in the direction of net population flows from their sparsely populated, peripheral regions to their densely populated core regions or a drastic reduction in the level of this net flow. In most of these countries, this reversal or reduction became evident only in the 1970's; although in several of them its onset was recorded in the 1960's.

While the massive deconcentration of population outward from large urban areas already dominant in the United States and most of Western Europe is not yet evident in Japan, all of the indicators of a similar direction of change are present. Accordingly, further research on this process is needed in a sense that these trends are basic, underlying features of a post-industrial society.

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