Dissecting the Re-urbanization Trend in the Tokyo Metropolitan Area in 2005 – 2010

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Abstract
This report will dissect the population movement between years 2005 and 2010; I use detailed Japanese national census data from those years to identify the population change in the Tokyo Metropolitan Prefecture (Tokyo-to) and three adjacent prefectures: Chiba-ken, Saitama-ken and Kanagawa-ken. The data shows that people in their twenties are moving into West-central districts that have greater access to transit. Those in their thirties are leaving some of these districts for suburban communities that offer larger housing space, as well as for east-central districts that offer a large supply of new high-rise housing units. This trend of the second generation of post-WWII baby-boomers is the driving force behind the fast population growth in east-central Tokyo.

1. Introduction
From the late 1960s through the 1980s, post-WWII baby-boomers and following generations from throughout Japan immigrated to Tokyo to find employment in its fast-growing economy. They eventually started families. Their relocation led to a demand for large floor spaces and the large-scale suburbanization of Tokyo’s urban fringe (Matsumoto 2004). The majority of these new immigrants and their children still reside in the Tokyo Metropolitan Area; currently Tokyo-to has a population of 13 million, while the major part of the Tokyo Metropolitan Area (Tokyo-to, Chiba-ken, Saitama-ken, Kanagawa-ken and the south of Ibaraki-ken) has a population of 3.65 million in an area of 14,000 km². According to United Nations, this is the largest urban agglomeration in the world both in its population and its area (United Nations 2009).

Beginning in the late 1990s and through the 2000s, the population in many of these newly built suburban cities and towns started to shrink – ending the region’s suburbanization era –
as people started to shift to the central districts of Tokyo (Hirayama and Ronald 2008). An increased supply of housing units in former industrial areas as well as newly reclaimed land in the Tokyo Bay drove the increased residency in the urban core; since the late 1970s, heavy industries located along the Bay started to leave the city for rural Japan or overseas. After the land bubble ended in the late 1980s, major developers started to build a large volume of high-rise residential towers in Tokyo’s central districts of Chuo-ku, Minato-ku, and Shinagawa-ku. Throughout the 1990s and 2000s, the large-scale housing developments expanded its area to the entire eastern districts of Tokyo.

This short report aims to answer the following question: who is driving the residential move toward the city center? Using national census population data from 2005 and 2010, I examine population change during this five-year period by five-year age increments as major life events such as entering college, graduation and entering employment, marriage, raising children and retirement tend to happen at similar age periods. Examining the locational choices made by age groups is crucial to understand the driving force of the re-urbanization trend.

2. Background

Districts in the city vary in terms of strengths and weaknesses in their quality-of-life attributes (Kurasawa 2004, Tajima 2012). In Tokyo, central districts are conveniently connected to the network of public transit while the commuter-rail network connects suburbs to the city center. Most commuters use public transit regardless their income. As a result, people working in the central business district would choose housing in central districts, although the limited supply of housing in the center has limited population growth.

Tajima (2012) shows housing preference based on residents’ socio-economic background by using a data collected from a questionnaire survey of 4,120 respondents that identified the determinants of residential preferences in Tokyo-to’s 40 districts. Employing multivariate regression models, the study shows that easy access to public transit is the most influential factor influencing people’s choice of residential location. Controlling for gender, age, family status, housing tenure and the type of occupation, the access to transit has greater influence when the respondent has higher household income. Married couples in their 20s and 30s living with young children sacrifice transit access to a degree in favor of quality of education and better outdoor environment. For those families with children, living in the suburbs and commuting on train is a popular choice. In many cases suburban areas not only offer larger housing units at an affordable cost, but also offer more open spaces, playgrounds and lower population densities.

The aim of this short report is to show the different patterns of population growth by age group in Tokyo-to and three adjacent prefectures (Chiba-ken, Saitama-ken, and Kanagawa-ken) surrounding Tokyo Bay. Figure 1 shows the prefectures, delineated by local municipalities, covered in this analysis. The core part of Tokyo-to (23 ku, ward or districts) lies on the Bay and encompasses Tokyo’s central business area. The western part of Tokyo-to and three adjacent prefectures serve as Tokyo’s suburb, although there are several major cities in these prefectures such as Yokohama, Kawasaki, Saitama and Chiba that have their own central business districts.

In the period between the year 2005 and 2010, the population in the center of Tokyo grew rapidly. Figure 2 shows the population growth rate of the Tokyo Metro Area. The fastest growing area was Chuo-ku, in the center on the shore of Tokyo Bay. Its population increased by 24.7%, from 98,399 to 122,762. Two other central districts grew by over ten percent: Chiyoda-ku (from 41,778 to 47,115) and Minato-ku (from 185,861 to 205,131). Koto-ku, east of Chuo-ku had the largest absolute population increase; it gained almost 40,000 people, expanding 9.5 percent from 420,845 to 460,819. Other districts on the Bay, as well as the area on the East of Tokyo, grew by more than five percent. A major part of the
population growth in the Central and Eastern Tokyo is due to development of housing complexes in former industrial sites.

Other areas that experienced large population growth are located on the edge of the metropolitan area. The small town of Ina-cho near the center of Saitama-ken was the only municipality that grew faster than fifteen percent. Its population grew from 36,535 to 42,494. It is important to note that the municipalities that grew faster than ten percent were in the suburbs as most of these areas experienced major new suburban housing developments on previously undeveloped land. A common characteristic among these municipalities is that they are all connected to Tokyo’s center through major commuter railways. Other communities that are located in the outer suburbs showed a consistent trend of population loss. As Figure 2 shows, the further from Tokyo’s center the greater the population loss.

Figure 3 shows the distribution of the four prefectures’ population by age. Despite the growing rate of elderly in Japan, Tokyo’s large metropolitan area draws younger people in workforces from all over Japan. The largest age cohort is at the age 35–39 – those born in 1971–75 –of which the second generation of post-WWII baby-boomers consists. The second-largest peak is at the age 60–64 – those born in 1945–49 – which is the post-WWII baby-boomers.

Table 1 shows the total population by the age groups. In the four prefectures in 2005 and
2010, the population of those 20–24 years old born in 1986–1990, increased by 20 percent. Every age group experienced a population increase except for those above fifty years of age. Those above fifty’s decrease is due to their leaving the metropolitan area, in many cases after retirement, and death.

Figure 4 shows the population change of those between the ages of 15 and 19 in the year 2005, and became subsequently 20 to 24 in 2010. As shown in Table 1, this is the age that many move into the Tokyo Metropolitan Area. Some of them also move from Tokyo’s suburb to the city center. (Most of high-school graduates at age 18 go to college or enter employment. Those who graduate college commonly enter employment at the age 22-23. Therefore the location changes associated with both high-school and college graduates are included in this age group.)

The young show a clear trend of moving into the city center. Shinjuku-ku experienced an influx of these younger people (from 8,026 to 25,904 persons, a 222.8% increase). Likewise did other areas northwest of the 23-ku area of Tokyo including Toshima-ku (9,408 to 22,746, 141.8%); Nakano-ku (11,494 to 22,410, 94.9%); and Bunkyo-ku (8,026 to 15,477, 92.8%). These districts share easy access to public transit and a large stock of small rental housing units. Many young people apparently start to live on their own in a small rental apartment in these central-city locations. In contrast, municipalities on the outer edge of all four
prefectures lost a large portion of this group of young people. High-school graduates who grew up in these communities are likely to leave their hometowns and start living in the city center along with other youth outside the region. Exceptional outer-edge communities in the

Table 1  Change of Population of Tokyo Metropolitan Area in 2005-2010 period by 5-year Age Group

<table>
<thead>
<tr>
<th>Birth Year</th>
<th>Age in 2005</th>
<th>2005</th>
<th>Age in 2010</th>
<th>2010</th>
<th>2010 / 2005 Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986 - 1990</td>
<td>15 - 19</td>
<td>1,658,194</td>
<td>20 - 24</td>
<td>1,988,237</td>
<td>1.20</td>
</tr>
<tr>
<td>1976 - 1980</td>
<td>25 - 29</td>
<td>2,503,405</td>
<td>30 - 34</td>
<td>2,596,403</td>
<td>1.04</td>
</tr>
<tr>
<td>1971 - 1975</td>
<td>30 - 34</td>
<td>2,993,498</td>
<td>35 - 39</td>
<td>3,059,818</td>
<td>1.02</td>
</tr>
<tr>
<td>1966 - 1970</td>
<td>35 - 39</td>
<td>2,733,730</td>
<td>40 - 44</td>
<td>2,770,158</td>
<td>1.01</td>
</tr>
<tr>
<td>1961 - 1965</td>
<td>40 - 44</td>
<td>2,359,734</td>
<td>45 - 49</td>
<td>2,375,128</td>
<td>1.01</td>
</tr>
<tr>
<td>1956 - 1960</td>
<td>45 - 49</td>
<td>2,034,444</td>
<td>50 - 54</td>
<td>2,030,413</td>
<td>1.00</td>
</tr>
<tr>
<td>1951 - 1955</td>
<td>50 - 54</td>
<td>2,242,886</td>
<td>55 - 59</td>
<td>2,216,652</td>
<td>0.99</td>
</tr>
<tr>
<td>1946 - 1950</td>
<td>55 - 59</td>
<td>2,729,835</td>
<td>60 - 64</td>
<td>2,659,258</td>
<td>0.97</td>
</tr>
<tr>
<td>1941 - 1945</td>
<td>60 - 64</td>
<td>2,365,063</td>
<td>65 - 69</td>
<td>2,267,139</td>
<td>0.96</td>
</tr>
<tr>
<td>1936 - 1940</td>
<td>65 - 69</td>
<td>1,958,188</td>
<td>70 - 74</td>
<td>1,834,007</td>
<td>0.94</td>
</tr>
</tbody>
</table>

Figure 4  Population Change in 2005-2010: Cohort born in 1986–1990
Tokyo region of Hakone-machi (in the Southwest Kanagawa) and Narita-shi (in the North Chiba) also saw their population of youth increase. Both areas have a concentration of tourist and service industries that hire a younger workforce.

Figure 5 shows the change of population of those born between 1981 and 1985. (They were 20 to 24 years old in 2005, and were 25 to 29 years old in 2010.) Many of them spent these five years as young single professionals, while others started families.

Compared to the younger 1986-90 cohort, this cohort moved to eastern Tokyo: Chuo-ku experienced a 100.9% increase, the largest influx of people in this age group (from 5,199 to 10,446). Other districts in the east-central Tokyo experienced strong growth rates including Minato-ku (from 10,150 to 14,993, 47.7%); Taito-ku (from 8,596 to 12,602, 46.6%); and Sumida-ku (13,330 to 19,454, 45.9%). In Kanagawa Prefecture, Yokohama City's Nishi-ku saw a 53.3% increase rate from 4,966 to 7,611 people. Kawasaki City's Nakahara-ku also experienced a 52.4% increase from 14,890 to 22,690 people. All these areas transformed from industrial (or relatively new land-fill) areas to centers of residential, high-rise condominium/apartments. As opposed to those in their early-20s, the late-20s are more likely to have been attracted to the new housing developments along the Tokyo Bay.

Figure 6 shows the change of population of those born during the 1976-1980 period. They
were 25 to 29 years old in 2005, and were 30 to 34 years old in 2010. This group is the one most likely to have been married and started to live as a couple in this five-year period. In addition, they likely began having children. Such change in life often motivates people to change their location; in this case, changing from a small rental apartment to owning a larger floor space.

As shown in Figure 6, municipalities that gained population from this age group are much more diversified compared to younger age groups. In the center of Tokyo, Chuo-ku again experienced the highest growth rate of 43.7% from 9,663 to 13,890 persons, followed by three adjacent districts that all gained nearly 25% of this age group’s population: Minato-ku from 16,528 to 20,721; Taito-ku from 11,277 to 14,246; and Koto-ku from 31,305 to 39,341.

Other places that experienced a population increase from this group include the neighboring northeast municipalities of Adachi-ku (41,056 to 49,490, 20.5%) and Yashio-shi of Saitama Prefecture (5,042 to 6,418, 27.3%).

Many regions in the west of Tokyo also saw an increase from this age group including Toshima-ku (20,440 to 27,501, 34.5% increase), Nerima-ku (42,926 to 58,098, 35.3%) and Mitaka-shi (12,738 to 15,596, 22.4%). However, neighboring areas saw a decrease in population from this age group including Suginami-ku (50,257 to 35,718, -29.0%, Nakano-ku (34,081 to 30,699, -10.0%) and Musashino-shi (13,592 to 12,196, -10.3%). As shown in Figure 4, the municipalities that lost this age group had gained a large number of those 20-24 year old in the 2005-2010 period. Although a detailed analysis is beyond the scope of this report, I suspect this is due to the type of housing stock in these areas: a relatively large portion of low-rent, smaller-spaced apartments. As people age and marry, they require larger floor space and move to suburban areas that offer it along with lower land-rent. An alternative to suburban residency appears to move to east-central districts that offer new, tall condominiums.

Compared to younger age groups, there is no clear geographical migration trend of this group’s. We suspect the life events and experience is not commonly shared among people in this age group—some got married while others stayed single, some couples had children while others did not. Some couples both stayed in workforce, while others stayed home to raise children. The disparity in their life choices may explain the lack of clear migration trend.

Figure 7 shows the change in population for the group born during the 1971-1975 period. They were 30 to 34 years old in 2005, and 35 to 39 years old in 2010. This is the age group that corresponds to the second generation of WWII baby-boomers. Since this age group moves less often compared to the younger groups, there are fewer fastest-growing
municipalities. Although newly-developed areas in north-western Chiba Prefectures (Inzei and Shiroi, both of which are the central part of the Chiba New Town) show the largest percentage population increase of 35.3% and 34.2%. This high growth rate is also affected by the small size of the original population (4,653 and 4,010). The area that gained the largest number of those from this population is again the central Tokyo districts. Chuo-ku showed the largest increase from this this group, growing from 12,046 to 15,020 (24.7%). Others in the east and center showed similar increases: Chiyoda-ku (3,604 to 4,299, 19.3%); Minato-ku (20,156 to 23,099, 14.6%); Koto-ku (41,377 to 46,687, 12.8%); and Taito-ku (13,561 to 15,501, 14.3%). In the west, several regions saw an increase in population including Toshima-ku (20,221 to 25,524, 26.2%) and Nerima-ku (52,304 to 65,583, 25.3%) which gained the most of this age group, while Suginami-ku (49,868 to 39,110, -21.6%) and Nakano-ku (32,640 to 29,037, -11.0%) experienced the greatest percentage fall in population. As a whole, this migration pattern is not much different from the age group that turned 30-years old during the 2005-2010 period.
4. Conclusion

Through examining Japanese National Census Data maps of population change by five-year age groups during the years between 2005 and 2010, we find people in their twenties are moving into west-central districts that offer low-rent housing and have greater access to transit. Those in their thirties are leaving some of these districts for suburban communities or districts in east-central Tokyo that offer new housing units. These families – the second generation of post-WWII baby-boomers – are the driving force of the fast population growth in the central Tokyo.

This article solely examined the geographical pattern of location change by age group. Further study can offer empirical explanations as to why these changes happened. This research will need to address the relationship between the change of population and the actual change of housing stock, cost of housing and quality-of-life factors in order to ascertain the driving forces of locational change.
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**References**


