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Problems and Implications of Japan's Aging Society for Future Urban Developments

Moriyuki Oe*

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The 21st Century Center of Excellence Program
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Problems and Implications of Japan's Aging Society for Future Urban Developments

Moriyuki Oe

Abstract

During the latter half of 20th century, Japan experienced an incomparable rapid population increase and urbanization. Now Japan is facing the turning point of a population decrease and a super-aged society, something it has never before experienced. These are mostly the end results of the demographic transition made mainly during the period 1925 to 1950. The transitional generation had more than four siblings and many of them migrated to metropolitan areas, except maybe for eldest sons who traditionally inherit their parent's "family line". Those who came to the metropolis got married there and moved to the suburbs, bringing up just two children and realizing the urban lifestyle. The children of the transitional generation, the post-transitional generation, have tended to delay their marriage and have tended to leave home after becoming financially independent of their parents. Their behavior has had much influence on the change of the population structure and the differentiation in residences. As a consequence, there are increasing numbers of suburban residential areas where almost all residents are aged. In the future, the suburbs will be more diverse in terms of the population and family structure. However, the difficulties which suburban communities actually experience need to be properly recognized and solutions sought based on the resources existing in communities to realize innovative governance.

Key word: Tokyo metropolitan area, demographic transition, transitional generation, aging, urban development, suburbs

1. Introduction

The habitable area of Japan is only 21% of its total landmass, and 66% is forest. Most of the population is concentrated in a very limited area. To better grasp the statistical presentation of urban and rural areas, the Japan Statistics Bureau developed a statistical area unit named the "Densely Inhabited District (DID)" in 1960. DID is defined as an agglomeration having 4000 inhabitants or more per square kilometer and a total population of 5000 or more. In 2000, there were 1,359 DIDs containing 65% of the total population in Japan. However, the total area of the DIDs was no more than 3.3% of the national land. DIDs are located mainly along the coastal zone facing the Pacific Ocean, and form metropolitan areas such as Tokyo, Osaka, and Nagoya.

Among the metropolitan areas in Japan, the Tokyo Metropolitan Area is the most characteristic in terms of the processes of population dynamics and urbanization. The Tokyo Metropolitan Area consists of municipalities in Saitama, Chiba, Kanagawa and the south-western part of Ibaragi prefecture, within a zone of about 50km radius from the center of Tokyo. Urbanization after World War II rapidly proceeded along the railways and wedge-shaped low-utilized areas were reserved among urbanized areas. (See slides 1 to 7)

2. From the 20th Century of Population Increase to the 21st Century of Decrease

2.1 Population Projections and Future Fertility and Mortality

Japanese population was about 44 million at the beginning of the 20th century and increased surpassing 83 million in 1950 and reaching 127 million in 2000. Japanese population doubled in the first half of the 20th century and tripled in the 100 year period.

However, according to the official population projections made in 2002, the Japanese population will reach a peak of 128 million in 2006, and then undergo a long-term decline, dropping to 121 million in 2025 and 101 million in 2050. In the next 100 years, the present Japanese population will be reduced by half. The national census in 2005 found that Japan's population totaled slightly more than 127.75 million, down 19,000 from the year before, which means that Japan's population actually peaked in 2004; coming two years earlier than had been predicted. We are standing at a very turning point in Japan's history, from the 20th Century of population increase to the 21st Century of decrease. (See slide 9)

In the population projections of 2002, the future of fertility, mortality and international migration are assumed as follows. As for mortality, the death rates by such major causes as cerebro-vascular diseases and cardio-vascular diseases are assumed to gradually continue to decline, so life expectancy at birth will have gained 3.3 years for

male and 4.6 years for female by the year 2050. Japanese longevity will continue to stay at the highest level in the world; this being one of the most important factors to realize a super-aged society. As for international migration, net international migration rates by sex and age are assumed to be at the same level as those averaged for the most recent five years, because it was difficult to predict the future policy responses to immigration by the Japanese government. Consequently, international migration is only a small factor for the future population changes in the latest projections. However, this assumption will need to be drastically reconsidered in one or two decades from now. (See slide 10)

The assumptions regarding fertility are the most important, and at the same time very difficult to predict. Population projections for Japan have been revised every five years and for the past 20 years the assumptions of fertility have been revised downward every time. Nevertheless the actual results were lower than those assumptions even in the latest projections, in which the medium variant of TFRs was assumed to reach 1.39 by the year 2050. Fertility rates in 2050 for high and low variants were assumed to be 1.62 and 1.12, respectively, while so far the actual TFRs have been tracing near the low course. (See slide 11)

2.2 Demographic Transition and Changes in TFR

Some people might think that the population decrease is caused by low fertility, but that is not correct. Population decrease is actually due to the increase of the number of deaths of the elderly population in a huge aging population that resulted from the rapid demographic transition.

During the period from about 1870 to 1960, the period of so-called demographic transition, namely the transition from a pre-modern demographic regime with high fertility and high mortality to a modern demographic regime with low fertility and low mortality, occurred in Japan. This transitional period can be divided into three periods, of which the middle period from 1925 to 1950 is the most characteristic and the main stage of the transition. In this period, the gap between fertility and mortality widened. Almost all the generation born in this period having more than four siblings on average grew up to adulthood because of the decrease in the infant mortality rate, thus the population rapidly increased. This generation is usually called “the Transitional Generation”. The generation born from 1901 to 1925 is called “the Pre-transitional Generation” and the generation born from 1950 to 1975 is called “the Post-transitional Generation”. In the year 2000, the Pre Transitional Generation is 75years old and over, the Transitional Generation is 50 to 75 years old and the Post Transitional Generation is 25 to 50 years old. (See slide 12 to 13)

TFR had remained almost at around the replacement level (about 2.1) after the end of the demographic transition, but declined below that level in the middle of the 1970s and reached the lowest level ever recorded in Japanese vital statistics at the end of the 1980s. After this, TFR has been continuously declining and recorded its lowest level at 1.29 in 2004. This phenomenon is well known as "Shoushi-ka", a decline in the number of births. Such recent low fertility in Japan is a phenomenon common to most Western European countries and Asian NIEs. In Japan, it has been clarified that the recent fertility decline has been brought about mainly by the rise in the proportion singles among young people in their late 20s and early 30s. The proportion single among women in their late 20s increased from 24% in 1980 to 54% in 2000. Further, in Japan, there are very few young people who are co-habiting with the opposite sex without a marriage registration, unlike today's Western society. (See slides 14 and 15)

2.3 The Rapid and Unique Aging Process in Japan

Japanese population started its rapid aging process as a direct result of the precipitate fertility decline in the 1950s, at a point around the end of the demographic transition. The proportion of those aged 65 and over to the total population increased from 4.9% in 1950, to 7% in 1970, and to 17.4% in 2000. According to the medium variant of the latest projections, the proportion for the aged sector will be 27.0% in 2017 and reach the 30 plus-percent range in 2033. This increase will continue to reach 35.7% in 2050. Compared with the aging process of other developed countries, the Japanese aging level had been relatively low until the early 1990s, but the speed of aging has since been the worlds fastest and Japan's aging level will be the highest in 2010.

The variance in the aging trend due to differences in the assumptions of fertility rate grows wider as the years go by, and in 2050 the proportion of those aged 65 and over will be 33.1% in the case of the high variant and 39.0% in the case of the low variant. Certainly, this difference is not small, but it is important to remember the number of the aged in 2050 will be the same regardless of the future fertility rates, because people aged 65 and over in 2050 would have already been born before 1985 and indeed are alive now.

The most influential aspect of the aging society is the size of the elderly population, as well as its proportion of the total. So far, the population of the aged has increased from 4 million in 1950, to 11 million in 1980, to 25 million in April 2005, and it will continue to grow fast to 30 million in 2013 and reaching 34 million in 2018. The aged population will maintain a level between 34.2 million and 36.5 million until 2050. The Transitional Generation has been becoming the population aged 65 and over since 1990 and will do so

until 2015. In this period, the aged population would have rapidly increased and will have doubled or more.

Another important aspect of aging is the change of the proportion of those aged 75 and over to those aged 65 to 74. In 1970 it was 30%, but has been continuously increasing since and was 40% in 2000. It is projected that it will reach 50% in 2020 and 60% in 2030. Thus, the super-aged society which Japan has been rushing towards will be characterized not only by having an enormous number of elderly people but also by the high proportion of so-called old-old. (See slides 16 and 17)

As to the size of the working population aged 15 to 64 years; it had incessantly increased from 1950 to 1995, but since 1995 has started to decrease, and this rapid decline will continue until 2050. Consequently, Japan will lose 32.5 million of its working population between 2000 and 2050; this is more than the decrease in the total population number. The Japanese government intends to compensate for this loss by promoting that married women and the elderly participate in the labor market. However, this is insufficient and it will be inevitable that approval is given an inflow of foreign workers into the various labor fields. This must have a strong impact on future urban development in Japan. (See slide 18)

2.4 Changes in Family Structure

Population aging and the postponement of marriage that underlies low fertility are connected to the changes in the family and household structures. As for population aging and family changes, the aged before the 1990s belonging to the pre-transitional generation had more than four children; usually the eldest son and his family lived together with and generally took care of his parents. In 1970, about 80% of people aged 65 and over lived with their kin. However, as the transitional generation has been entered into the aged grouping, the co-residence rate has been decreasing. The reason is not only that the transitional generation has only two children on average and so the opportunity of co-residence is reduced, but also that their economic situation (savings, pension system, property and so on) has improved and it is not necessary for them to depend financially on their children like the pre-transitional generation. (See slides 19 to 21) According to the Households Projections for Japan, the proportion of aged married couple only or of aged single will rapidly increase in the first quarter of this 21st century. The living arrangements for the aged in 2020 will vastly differ from those for the elderly of the pre-transitional generation. (See slide 22)

Family types will also change for all other generations; for now the most dominant

family type is “parents and child”, whereas in 2010, single households will be the most common living style. This will haves mainly been caused by the postponement of marriage. People never-married in the post-transitional generation, especially those born after the 1960s, have a tendency to create single households. The single household headship rates by age for males of 45-49 year old, which was 4% in 1980, will have increased to 17% in 2020. The rates at the peak for those 20-24 years old are almost the same for each year, but the rates in middle age from 45 to about 65 years of age will have drastically increased by 2020 from what they were in 1980. The postponement of marriage and the present increase of the never-married will be reflected in the changes. (See slides 23 and 24)

3. The Urbanization and Changes of Population Structure in the Tokyo Region

3.1 Who came to live in the Tokyo Region?

In this chapter, the term the Tokyo Region is used as the unit of analysis instead of the Tokyo Metropolitan Area. The difference is that the Tokyo Region consists of four prefectures, Tokyo, Saitama, Chiba and Kanagawa and is a concept at a prefectural level; whereas, the Tokyo Metropolitan Area is a concept at a municipal level and consists of municipalities within an about 50km radius. These two terms are much alike but are differently used according to the unit of analyses in this paper.

The population of the Tokyo Region has been constantly on the increase. Especially from 1950 to 1975 the increase was prominent. In 2000, the population was about 33 million and the proportion to the Japan total about 26%. The Tokyo Region grew very fast after World War II but the expansion has now ceased. (See slide 26)

Then, who came to live in the Tokyo Region? To clarify this, “Cohort Share Analysis”was conducted. “Cohort” means a group of individuals born in the same period. The same period is generally a year, but, here, we use a period of 5 years as a cohort. “Share” means how many people are living in the Tokyo Region out of the total for each cohort. This analysis enables us to see the processes of internal migration (net migration) to the Tokyo Region for each cohort. According to the result of this study, 15% of the early 1930’s cohort lived in the Tokyo Region when they were 0-4 years old. When they became 35-39 years old, the proportion went up to 24%, and after that the proportion maintained the same level. The late 1940’s cohort which includes the baby-boomers, also started from 15%, when 0-4 years old. However, its cohort share reached the peak at 29% of 20-24 years old, and declined to 27% of 30-34 years old, and afterwards maintained the same level. The increase from 16% of 10-14 years old to 29% of 20-24 years old accounts for 13

points. The size of the late 1940's cohort population is about 11 million; therefore, the net migration to the Tokyo Region of this cohort was about 1.4 million. Cohorts such as the 1930's and 1940's, the transitional generation, can be called "the first generation" who came from outside to reside in the Tokyo Region. They came when they were in their early 20's and most of them stayed, getting married and having children. Thus, the second generation, who were born after around 1960 and are the main members of the post-transitional generation, has a rather high proportion starting at about 20 to 25%, which corresponds to the share of the first generation at the age of 35-39 and over. Most members of the second generation were born in the newly developed areas, the suburbs. (See slide 27)

As stated above, the Japanese population is rapidly aging because of the consequence of the demographic transition. However, the process of aging differs in places. In the Tokyo Region, because the influx of the transitional generation was immense and they are assumed to have remained living in the same place, the number of the aged is going to increase more rapidly here than in the rest of Japan. From the population projections, it is apparent that the aging process will be much more intense in the Tokyo region in the future. (See slides 28 and 29)

Seeing the total population in the Tokyo Region projected by both the "Cohort Share Expansion Method", which I developed, and by the National Institute for Population and Social Security Research using a traditional method; the results in both cases show the same future trend, that the peak period for the Tokyo Region will be around 2015, about ten years later than the peak for the rest Japan, with population between 34.5 and 35 million. (See slide 30)

3.2 The Urbanization Process in the Tokyo Metropolitan Area

To clarify when and where the rapid urbanization occurred, the expansion of the DIDs is here regarded as urbanization, and the Urbanization Peak Time for each municipality is estimated by applying the DID area ratios to a logistic curve.

According to this analysis, 8 municipalities located in the center of Tokyo out of the 155 municipalities where DIDs have been defined since 1960 were the most rapidly urbanized before 1960. In the early 1960s, the peak period was in 21 municipalities located mostly within a 10 to 20km radius from the center of Tokyo. There were also some along the JR Chuo Line which runs from west to east, and in Kanagawa prefecture along the Tokaido Line. Most suburbs had their most rapidly urbanization before 1980, and about a half of them did so during the 1970s. As to the spatial distribution of their Urbanization Peak times, the results show almost a concentric circle pattern, except for the coastal

municipalities in Kanagawa prefecture and a few other detached areas.

As newly developed areas, the suburbs were developed mainly for relatively young nuclear families at the stage of bringing up an average of two children. Most husbands in suburban families commuted to the central business district and most wives stayed home doing housework and raising children.

Now, with their own children, the second generation have grown up and started to leave home. This means that simultaneous aging corresponding to the developed period is presently occurring in the suburbs. (See slide 31)

3.3 Aging and Generational Changes in the Suburbs

The suburbs are now entering a new phase where the influx of population to them is ceasing, their population is aging, the structure of the families living there is changing, and houses and facilities are deteriorating. A topical subject in respect to the suburbs is "what will become of the suburbs?"

In 2000, the proportion of the population aged 65 and over was higher in the inner area and the peripheral area. The suburban areas had rather low rates of aged populations. In 2015, a clear distinction between the suburbs and the inner area will not be seen. Contrarily, the rates of some suburban municipalities will be higher than those in the inner areas. (See slide 32)

To foresee the near future for the Tokyo Region, we conducted demographical analysis in terms of the generational structure of population. This analysis enables us to verify whether children left home and empty-nest households are increasing at a municipal level or not.

To ascertain the generational structure between the first and the second generations, a theoretical number for the second generation estimated from the first generation is compared to the actual number of the second generation. This ratio, <the actual number of the second generation to the theoretical number of the second generation> is referred to as GBI (Generation Balance Index) in this study. If the GBI is 1, it means the two generations are in balance. If the GBI is larger than 1, the second generation is present more than the first generation in terms of generational balance. In this analysis, the cohort born from 1954 to 1965 is focused on as the second generation.

In 1980, the second generation was aged from 15 to 26 years old and lived more in municipalities located in the west part of the 23 Wards and some municipalities along the JR Chuo line, where there are many small apartments/ flats mainly targeted for young singles. Contrarily, in many suburban municipalities the first and second generations were in

balance. This explains very well where in the suburbs became residential areas for the young nuclear families, because by 1980, most suburban municipalities had experienced their urbanization peak. (See slide 33)

In 2000, the second generation was aged from 35 to 46 years old, many of whom had gotten married and had their own children, and are at the stage of buying houses. The areas where the second generation lives appear mainly in the 30 to 50 km zone. (See slide 34)

To clarify the changes in the generational structure, the ratio of GBI in 2000 to GBI in 1980 for each municipality was calculated. The result showed a very interesting pattern. The inner areas as well as the peripheral areas showed an imbalance inclined to the first generation, but it is important to distinguish the inner area from the peripheral area. In the inner area in 1980, the second generation came from outside of Tokyo to get jobs or to go to universities, and they resided in this area. In 2000, the proportions of this child generation were still high, but lower than that of 1980. That's why these areas are all blue in the slide, and it indicates that not only the elderly live in these areas. On the other hand, the peripheral area never experienced an influx of the second generation and only an outflow of this second generation has been occurring there.

The areas whose generational structure is inclined to the second generation are located exactly along the railways on which the suburbanites commute. In these municipalities, new urban development has been undertaken during this period. This means that people at the age of the second generation came from outside of Tokyo and chose to reside in these areas as a first generation. It is notable to see that the suburbs that used to be homogenous in terms of generational structure are now becoming very diverse. Adding to this, it cannot be said with clarity at a municipal level that in the suburbs there are municipalities where only the first generation has continued to live after the second generation left home. (See slide 35)

3.4 The Changing Suburban Community – the Example of Dream Heights

Although suburban municipalities have still not faced the serious problems caused by rapid aging or by an imbalance of generations, when we investigate the suburbs at a community level many examples of suburban residential areas can be found that have already faced difficulties from aging.

"Dream Heights" in Kanagawa prefecture is one such example. This is a residential district that was developed in the early 1970s and consists of 23 high-rise condominiums. It is located about 40 km from the center of Tokyo and it is more than 20 minutes by bus from

the nearest railway station. This inconvenience in respect to transportation is one of the main characteristics of the large-scale urban development that occurred in the 1970s. (See slides 36 to 39)

Thirty years ago, 2,300 households and 7,800 people began living in Dream Heights, but since then the population has steadily decreased and the aged population has been rapidly increasing. The proportion of aged is projected to be about 45% in 2015. (See slide 40)

In 1975, when this district was developed, the population structure was very expressive of the characteristic of Dream Heights. Many in their 30's and their children under 10 years old lived there. This extremely inclined proportionality has been kept and will be maintained, because there is little influx of people from outside but much outflow to outside. In 1970 through 1980, the residents were faced with many problems concerning raising children and daily life such as the shortage of nursery schools and so on. The circumstances made them resolve the problems by themselves, such as starting a nursery school and organizing non-profit organizations to provide residents with many services related to daily life needs. This mutual aid system has so far worked very well in Dream Heights; however, the residents are now faced with a new problem resulting from their rapid aging, and so they have started to create a new aid system. (See slide 41)

4. Conclusion

During the latter half of 20th century, Japan experienced an incomparable rapid population increase and urbanization, but is now facing the turning point of a population decrease and a super-aged society, something it has never before experienced. These changes are mainly the results of the demographic transition during 1925 to 1950.

The transitional generation had more than four siblings and many of them migrated to metropolitan areas, except maybe for eldest sons who traditionally inherit their parent's "family line". Those who came to the metropolis got married there and moved to the suburbs, bringing up just two children. Now, they have almost finished raising children and reaching the aged stage of their lives.

The children of the transitional generation, the post-transitional generation, have tended to delay marriage, have left home after becoming financially independent of their parents. They tend to choose more convenient places to live than those they grew up in. This generation has a preference for a living environment even after they get married, and because women of this generation generally choose to maintain their working career.

As a consequence, residential areas like Dream Heights where almost all the residents are aged are increasing. In the future, the suburbs will become more diverse in terms of their population and family structures. To the research question "is the traditional role of the suburbs coming to an end?", or even posited as "will there still be a role for the suburbs?" there is no easy answer, but one has to be found. To this end, the difficulties of the time that suburban communities actually have left must be recognized and solutions have to be sought based on resources available in these communities.

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Problems and Implications of Japan's Aging Society for Future Urban Development

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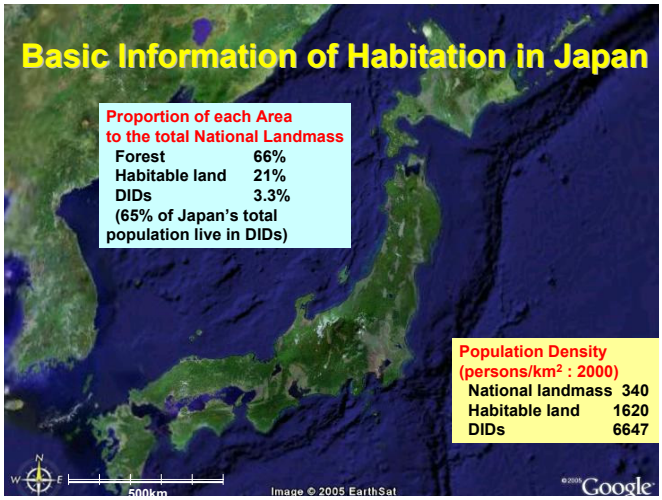
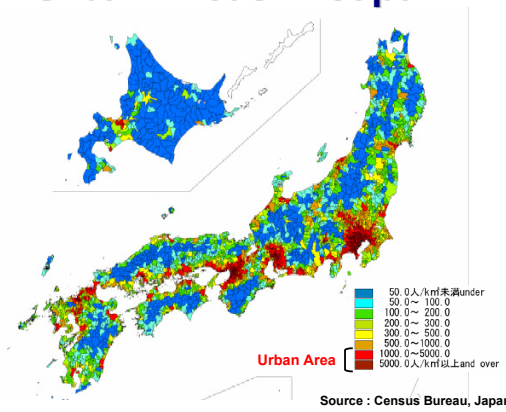
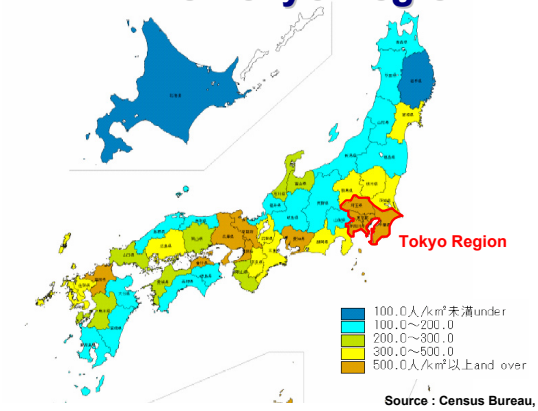


Urban Areas in Japan



Source : Census Bureau, Japan

The Tokyo Region

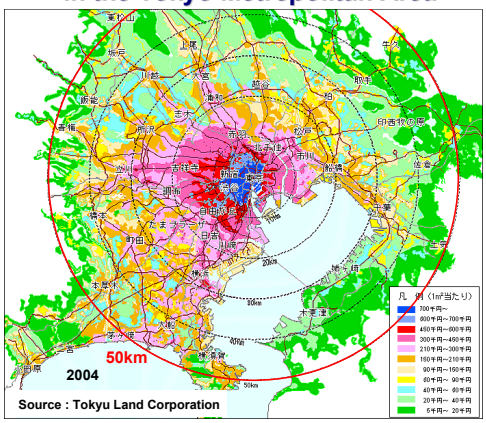


Source : Census Bureau, Japan

Tokyo Metropolitan Area and the 50km Zone

Picture : Google Earth

Urbanization in terms of Land Prices in the Tokyo Metropolitan Area

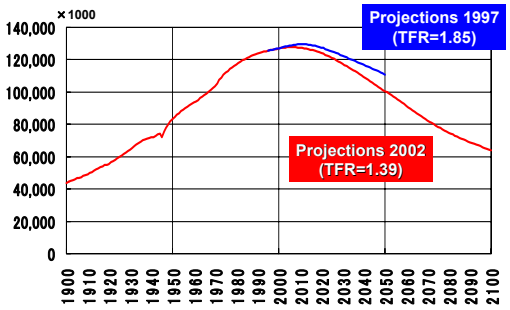


Source : Tokyu Land Corporation

Changes in Population Structure and the Arrival of a Super-aged Society

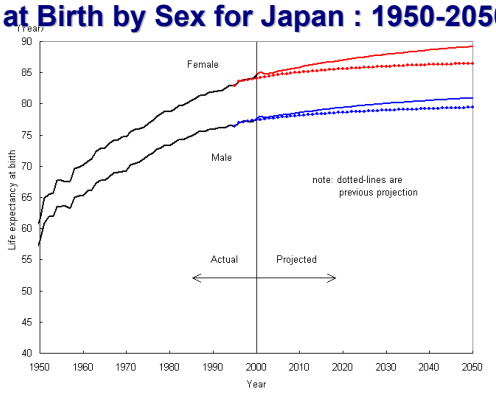
From the 20th Century of Increase to the 21st Century of Decrease

- Population Trends in Japan over 200 years-



Source: Population Census of Japan, National Institute for population and Social Security Research

Trends and Prospects of Life Expectancy at Birth by Sex for Japan : 1950-2050



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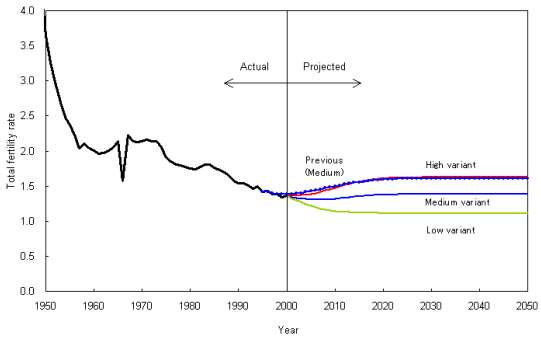
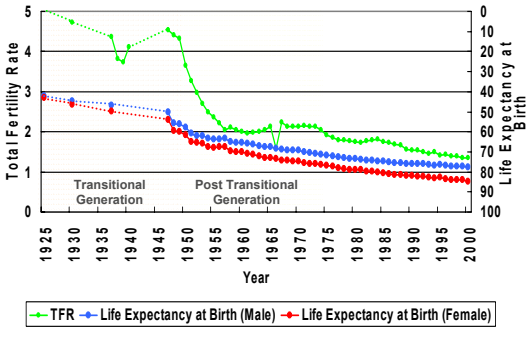
Trends and Prospects of Total Fertility Rate (TFR) for Japan : 1950-2050



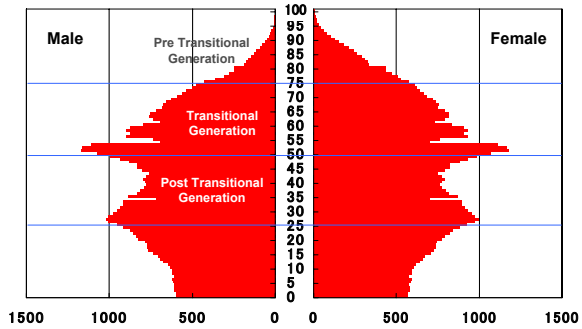
Source: National Institute for population and Social Security Research

Trends of Fertility and Mortality in Japan : 1925-2000



Source : Vital Statistics of Japan

Population Pyramid of Japan (2000)



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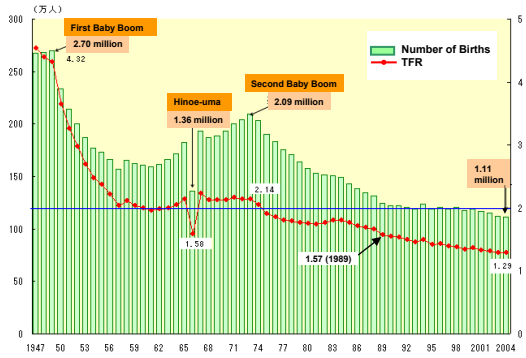
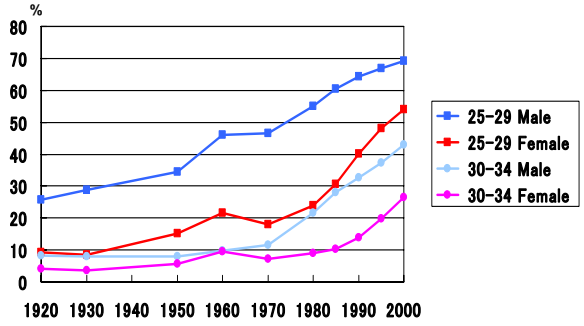
Number of Births and TFR : 1947-2004



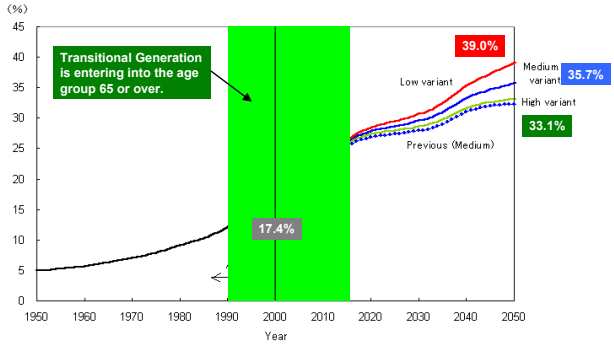
Source: National Institute for population and Social Security Research

Trends in the Proportion of Japanese Singles by Sex : 1920-2000



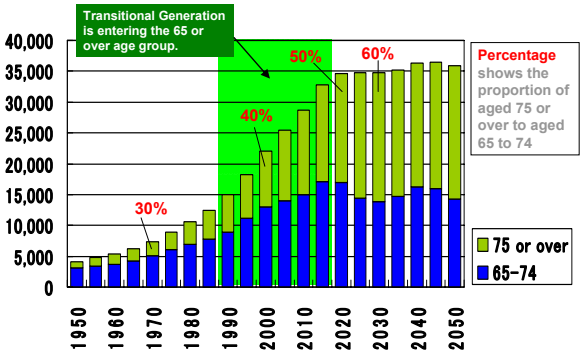
Source : Population Census of Japan

Trends and Prospects for the Proportion of Population Aged 65 or Over : 1950-2050



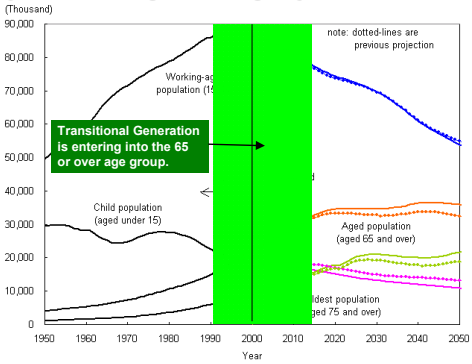
Source: National Institute for population and Social Security Research

Trends and Prospects for the Population Aged 65 to 74 and 75 or over : 1950-2050



Source: Population Census of Japan, National Institute for population and Social Security Research

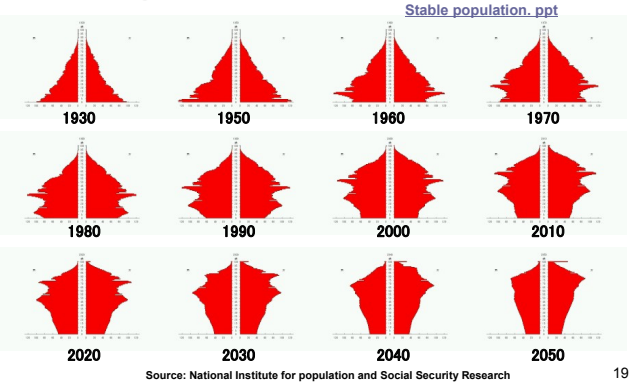
Trends in Japan's Population Prospects by Broad Age Category : 1950-2050



Source: National Institute for population and Social Security Research

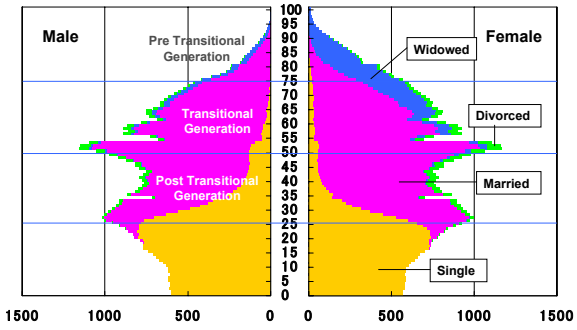
Demographic Transition and Changes in Population Structure

Stable population. ppt



Source: National Institute for population and Social Security Research

Japanese Marital Status by Sex and Age : 2000

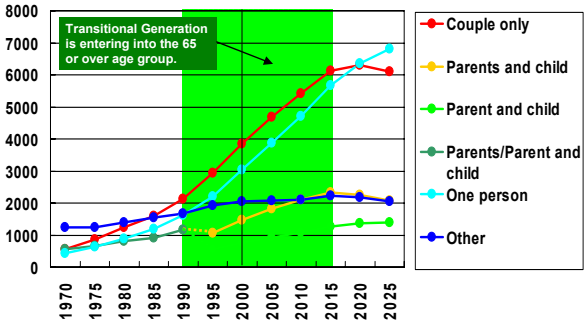


Source : Population Census of Japan

Transitional Generational and Family Changes

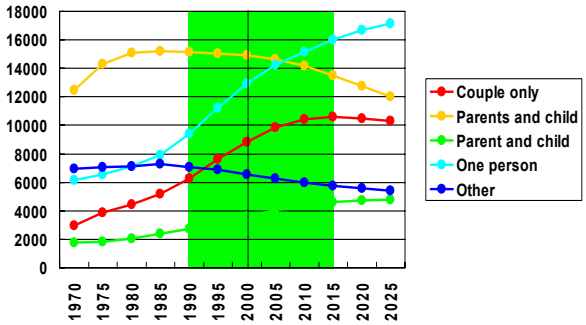
Generation	Pre-Transitional	Transitional	Post-Transitional
Age in 2000	75-	50-74	25-49
Population in 2000	8 million	40 million	43 million
Siblings on Average in Adulthood	3	>4	2
Children on Average	>4	2	<2
Birthplace	Rural	Rural	Urban (Suburban)
Place of Household Formation	Rural	Urban (Suburban)	Urban (?)
Family Type (as children)	Stem Family	Stem Family	Nuclear Family
Family Type (as parents)	Stem Family	Nuclear Family	Nuclear / Single

Trends and Prospects for Households with Heads Aged 65 or over by Family Type : 1970-2025



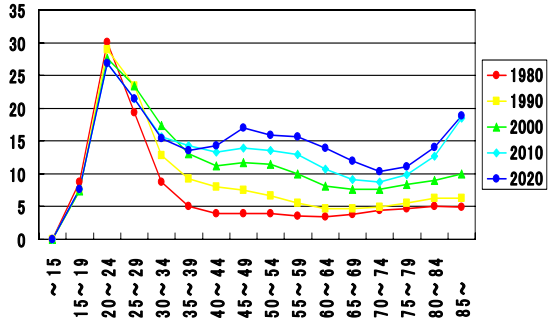
Source: Population Census of Japan, National Institute for population and Social Security Research

Trends and Prospects for Households by Family Type : 1970-2025



Source: Population Census of Japan, National Institute for population and Social Security Research

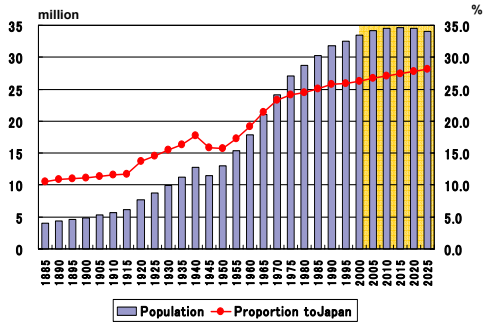
Single-household Headship Rates by Age (Male) : 1980-2020



Source: Population Census of Japan, National Institute for population and Social Security Research

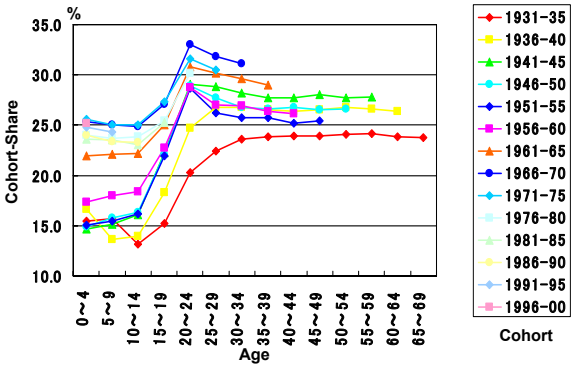
Formation of the Tokyo Metropolitan Area and Changes of Population and Generational Structures

Trends and Prospects for the Population of the Tokyo Region : 1885-2000



Source: Population Census of Japan, National Institute for population and Social Security Research

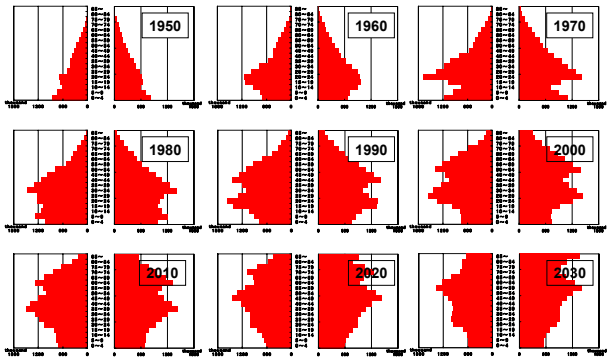
Cohort Share in the Tokyo Region



Source: Population Census of Japan

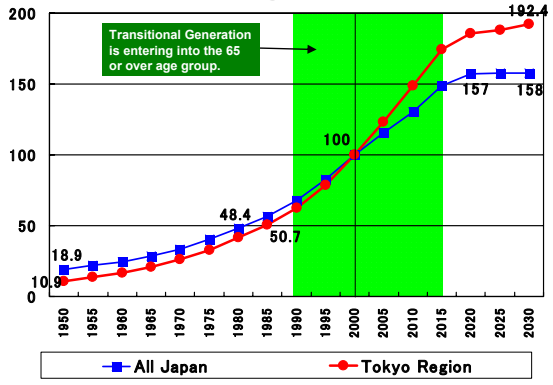
Population Pyramid for the Tokyo Region : 1950-2030

Population Pyramid of Tokyo Region. ppt



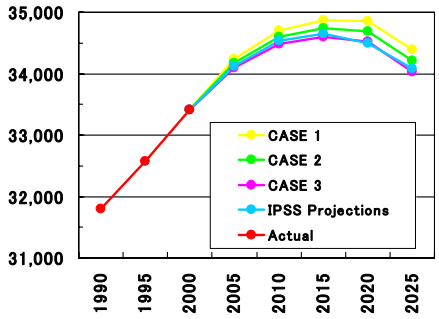
Source: Population Census of Japan, National Institute for population and Social Security Research

Trends and Prospects for Population Aged 65 or Over (year 2000 =100)



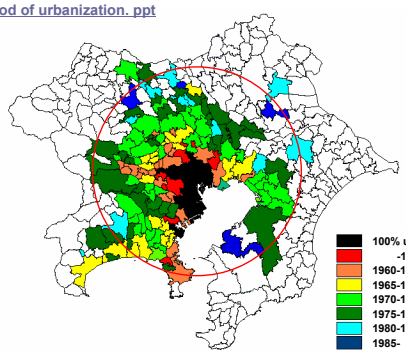
Source: Population Census of Japan, National Institute for population and Social Security Research

Population Projections for the Tokyo Region : 1990-2025



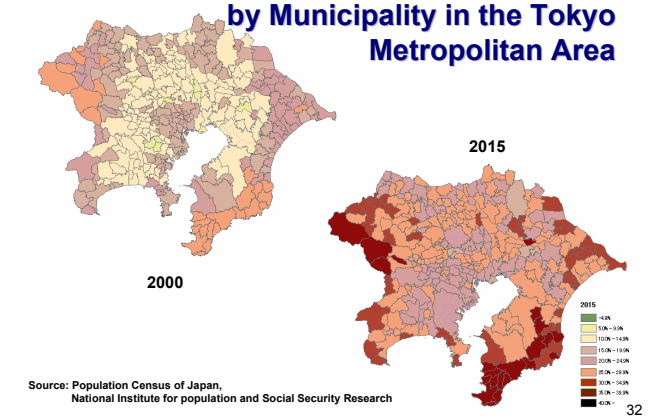
Peak Urbanization Period by Municipality in the Tokyo Metropolitan Area

Peak period of urbanization. ppt



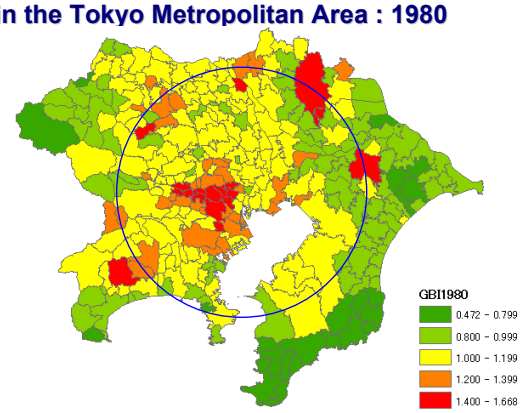
Source: FUJII, Takiko, OE Moriyuki (2004)

Proportion of Population Aged 65 or over by Municipality in the Tokyo Metropolitan Area



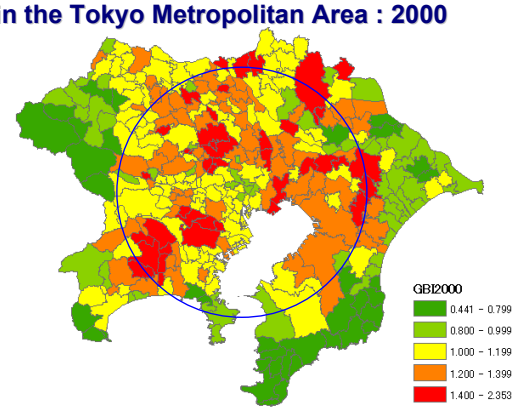
Source: Population Census of Japan,
National Institute for population and Social Security Research

Generational Structure by GBI in the Tokyo Metropolitan Area : 1980



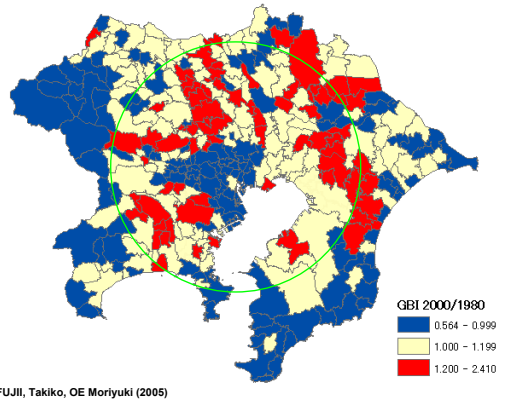
Source: FUJII, Takiko, OE Moriyuki (2005)

Generational Structure by GBI in the Tokyo Metropolitan Area : 2000



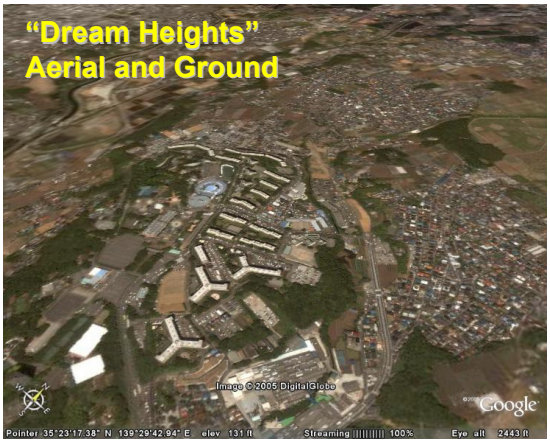
Source: FUJII, Takiko, OE Moriyuki (2005)

Changes in GBI : 2000 compared to 1980



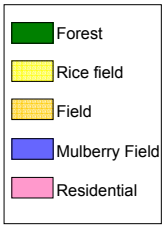
Source: FUJII, Takiko, OE Moriyuki (2005)

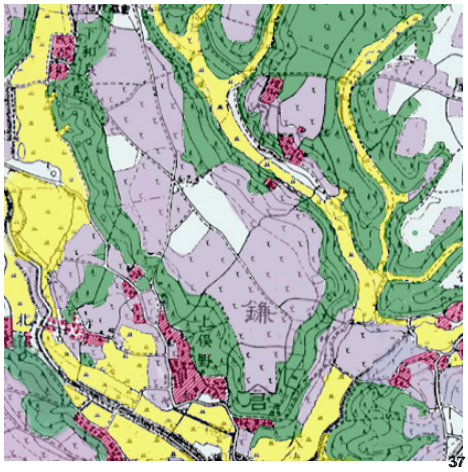
"Dream Heights" Aerial and Ground



Picture : Google Earth

Land Use in the "Dream Heights" Estate and the Surrounding Area (1925)





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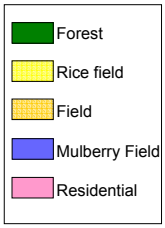
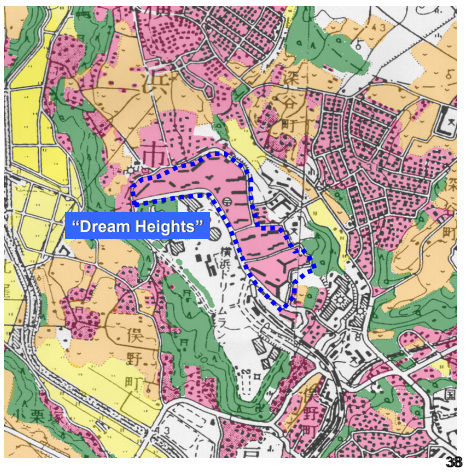
Land Use in the "Dream Heights" Estate and the Surrounding Area (1995)





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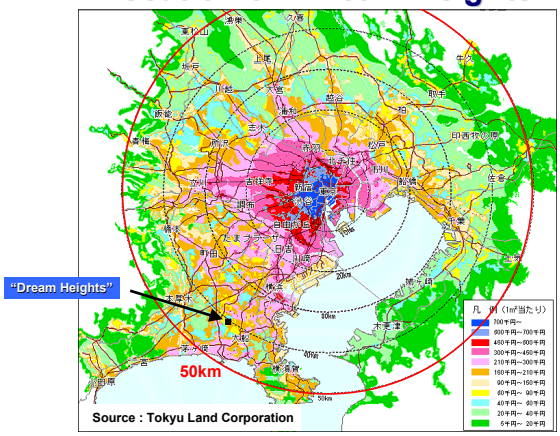
Location of "Dream Heights"



Source : Tokyu Land Corporation

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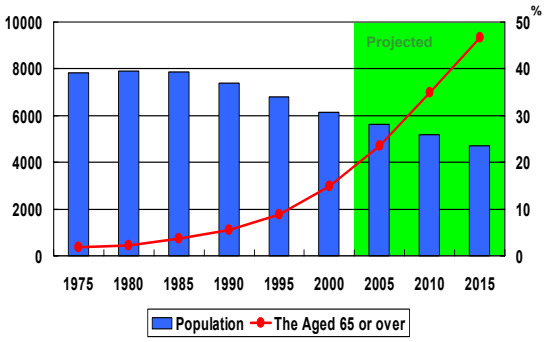
Trends and Prospects for the Population of "Dream Heights" (1975-2015)



Source : Population Census of Japan

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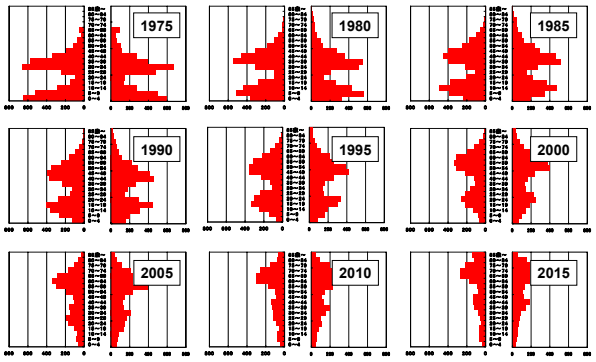
Population Pyramid for "Dream Heights" : 1975-2015

Population Pyramid of DH. ppt



Source : Population Census of Japan

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Revised December 22, 2004

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3. (**Submission procedure**) Contributors are requested to store the paper in a single document file (using, as a general rule, MS Word or LaTeX) and to transmit the paper as an e-mail attachment. It should be sent to the editors of "Policy and Governance Working Paper Series" (see below for the e-mail address). Hard-copy printouts of the manuscript are not required unless editors specifically request them. Working papers are going to be continuously published and there is no time limit for submission.

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5. (**Refereeing**) Given the aim of the series, there is no refereeing process per se. However, any submitted paper may be excluded, if the editorial committee regards the manuscript inappropriate for the series. The editorial committee may ask for minimum revisions before printing. Upon acceptance of the paper, the Secretariat may request the author to provide original data (such as Photoshop EPS) to improve the clarity of the printing.

6. (**Submission fee**) There is no submission fee. Forty copies of the paper will be provided to the author free of charge (and more will be available upon request).

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1) The manuscript should be typed with double line-spacing (including all notes and references) on A4 size paper.

2) The font size should be 10.5-11point in the case of Japanese or Chinese, and 11-12 point in the case of English. (In the case of other languages than these three, interpret the guidelines appropriately here, and below also.)

3) The title page (page 1) should contain the following information: (1) the title; (2) the name(s) and affiliation of the author(s), (3) the email addresses of the author(s) , (4) the background of the paper, such as conference presentation, and acknowledgments (if applicable). If the paper is in any way funded by the COE or its related programs, it must be so mentioned.

4) The second page is for the abstract of the paper. The abstract must be in a single paragraph that summarizes the main argument or the conclusion of the paper in about 150 words in the case of English, and 7-12 lines of characters in the case of Japanese or Chinese. At the end of the abstract, a list of four to six keywords should be included. If the paper is written in languages other than Japanese or English, a corresponding Japanese or English version of the abstract should also be printed.

5) Main text should begin on page 3. Beginning from the cover page (page 1), all pages should be numbered consecutively.

6) Footnotes should be numbered consecutively and should be placed at the bottom of the appropriate page.

7) Tables and charts may (1) be placed in the appropriate place in the text, or (2) be prepared on separate pages and attached at the end of the text, provided that the place to be inserted is indicated in the text.

8) Reference list must be attached at the end of the text. Only works referred to in the text should be included in the list.

9) Although there is no exact limit of the length of the paper, the editorial committee requests that the paper be of approximately 15-30 pages in length.

10. (**The revision of the instructions**) This Instructions to Contributors will be revised from time to time, and the current version is always shown on the COE web page.

11. (**Correspondence**)

-Submission of the paper: coe2-wp@sfc.keio.ac.jp
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