Basic Research on the Challenges of Strategic Urban Employment Policy: Tokyo's Functions in the 21st Century

Summary

1. Contributing authors (in order of authorship)

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2. Research Period

Fiscal Year 2004 to 2005

3. Objective of the Research

(1) Background

Japan's industrial employment structure has been undergoing a drastic change in recent years. According to the *Establishment and Enterprise Census* of 2004, the number of industries (subcategories) where employees increased by more than 10,000 people between 1999 and 2004 totaled only 40 industries (subcategories). On the other hand, however, the number of employees decreased by more than 10,000 people between the same period in as many as 108 industries (subcategories). There are more than twice as many industries in which the number of employees decreased, which can be regarded as a sign of employment liquidity (see Figure 1).

Higher urban functions are concentrated in the Tokyo area in terms of the number of workers. Looking at the occupational structure of the number of workers by region (*Population Census 2000*), in terms of the coefficient of specialization, we find that the level of development of occupation-based higher urban functions, such as specialist and technical workers, is the lowest in rural areas and rises in the Nagoya area, the Osaka area, and the Tokyo area in that order (see Figure 2).

As university advancement rates have continued to rise ever since the period of high

economic growth, the members of the Japanese society, regardless of gender or age, are becoming more educated. According to the *Population Census 2000*, one out of two people in all working generations are highly-educated (see Figure 3).

The employment trends differ from prefecture to prefecture. While the decrease in the labor force participation rates and the increase in the unemployment rates between 1997 and 2004 can be observed in all parts of Japan, the changes were significant in rural areas (see Figures 4 and 5).

The delayed economic recovery in rural areas is also evident from land prices. Since 2002, land prices have been recovering, starting in Tokyo and spreading to other large cities, whereas in rural areas, they are continuing to fall (see Figure 6).

If we examine the functional association between the Tokyo area and other areas from the recent interregional migration, there are signs that the functional association between the Tokyo area and rural areas is declining, while there is a possibility that the functional association between the Tokyo area and other metropolitan areas would be strengthened, for instance, between the Tokyo area and Nagoya area (see Figure 7).

(2) Objective

The objective of this research is to identify, under a rapid advancement of urbanization, the issues of employment in urban policy. In recent years, there have been an increasing number of important labor policy issues that are closely related to urban policy. In Japan's past urban policies, intensive efforts were made in aspects related to facility improvement and land use. On the issues related to human activities arising in cities where people and urban space interact, however, it appears that we have deferred promoting blanket policies to address them while we were aware that these were important, fundamental issues,. Going beyond the past urban policies, employment and human potential are today some of the cities' important elements. In revitalizing regional communities and realizing sustainable development, we are required, in this new era, to incorporate regional job creation as an effective urban policy measure and draw up comprehensive regional strategies as an essential part of urban policy. At the same time that we are required to have urban policies that give priority on job creation, we also need labor policies that take on a spatial viewpoint and address new types of labor issues, such as the employment gap between urban and rural areas, unemployment and lowering of wages resulting from fluctuations of regional industries, and other regional employment issues.

(3) Subject

When we do research on the various challenges arising from urbanization as basic

urban issues, we think of Tokyo as an area in which we can understand the phenomena most closely. For this research, therefore, we focus on Tokyo as the main subject. Domestically, Tokyo has two functions. One is to provide the space for people to live in, and the other is to fulfill its role as a metropolis within Japan. For this research, we consider both of these aspects. In doing so, we expect to present different components of those aspects.

(4) Functional association

When we focus on the functional association between Tokyo as the nation's metropolis and other regions, two points of view are important. One is the functional association between Tokyo and rural areas, and the other is that between Tokyo and other metropolises.

(a) Tokyo and rural areas

When we think of the relation between Tokyo and rural areas, several questions come to mind. Is the relation of interdependence still sustainable for the future, which functioned effectively during the successive periods of post-war recovery and economic development, in transition from high economic growth to stable economic growth? Or will this interdependent relation become diluted in this period of structural reform? Or will this relation take on a completely different nature? As for the causes of interregional labor mobility, there is a possibility that the contribution made by regional adjustment of the factors of production will be replaced by the contribution made by people's mode of living that gives greater priority on the environment and lifestyle.

When we speak of functional association between Tokyo and rural areas, the migratory behavior of the young generation was decidedly important during the period of high economic growth and also in the period of stable economic growth up until around 1990. In a typical pattern of mobility of those years, youths around the age of 20 moved from rural areas to Tokyo to study or to work. From around the latter half of their 20s and through 30s, they would either choose to move to the suburbs of Tokyo to live or return to rural areas. After this stage, their movement would become limited. From the viewpoint that employment is the major factor in population shifts, it can be explained that young people in their early 20s moved from rural areas to Tokyo in search of better jobs and sometime after the age of 25, they began to return to rural areas to be employed or transferred to jobs in which they could utilize the skills they acquired in Tokyo. This selection of places of employment at different stages of life was probably made possible by the adjustment of labor supply and demand on the national level in Tokyo and rural areas. And this association contributed to Japan's

achievement of full employment and to lowering the structural unemployment rates.

In the background was the regional industrial development and policy support that were typically observed during the period of high economic growth. The domestic industrial structure expanded in size and became more sophisticated, mainly around the manufacturing industry, through an optimum mix of private capital spending and the public sector's infrastructure investment. By distributing the production function that had been concentrated in metropolises to rural areas and, at the same time, creating attractive job opportunities offering good conditions in those rural areas, it facilitated the movement of young people, who had gone from rural areas to Tokyo in search of jobs, to be redistributed in rural areas where the clusters of production functions were growing. We can say that interdependence between Tokyo and rural areas was made possible by the virtuous cycle of movement of the youth generation and supply of job opportunities in rural areas. In addition, the spread of urbanization on a national level resulted in the increase in consumer spending for bettering consumers' lifestyles, which led to stimulating the regional economy. Thus the Japanese society became affluent.

Globalization has substantially changed Japan's industrial structure in recent years, and there are signs that the change in young people's moving patterns might significantly alter the functional association between Tokyo and rural areas that had been maintained based on stable interdependence between the two. For example, young people in their late 20s, including those originally from rural areas, are, unlike in the past, choosing to stay in Tokyo, and fewer people are moving to rural areas to be employed. One of the reasons may be that while it is easy for young people to find the kind of job they want in Tokyo, it is difficult to find such jobs in rural areas. There is a possibility that completely different employment environments may emerge in Tokyo, where there is a wide range of job opportunities available even though there are signs of polarization of the social strata, and rural areas, where there are enough job opportunities in terms of volume but few that satisfy young people. These trends may be further accelerated by the development of knowledge-driven information industry as an advanced form of industrial structure. Typically in specialist and technical jobs, the needed talents for particular work are brought together through a network, and such talents tend to be concentrated in Tokyo. This new problem increases the need for urban policies that lay down basic strategies to incorporate measures for creating job opportunities in rural areas. The long-term functional association between Tokyo and rural areas will depend on the priorities given by labor policy makers in relation to the issue of regional maldistribution of job opportunities, in other words, the decline in the

number of jobs that each individual can be satisfied with in the affluent society.

(b) Tokyo and other metropolises

With regard to the relation between Tokyo and other metropolises, Tokyo has been enhancing its higher urban functions by building up knowledge-driven information industry and accumulating clusters of those engaged in specialist and technical work since the 1980s. At the same time, it has trended to promote functional sharing with other metropolises and strengthen interdependence with them. It is possible that such trends have been further promoted after the turn of the century. One hypothesis is that we may see the advent of the era of a megalopolis where new metropolises that have deepened functional association with Tokyo and further with other metropolises will contribute, as a whole, to economic development. In this case, employment fluidity resulting from movement of workers between metropolises will increase across a whole spectrum of jobs, from jobs that are high on productivity to those with less productivity. This new megalopolis will have a synergistic structure that combines the metropolitan functions provided particularly by Tokyo and small city functions consisting of highly concentrated urban functions with an emphasis on individuals' lifestyles. There will probably be interregional employment fluidity of those engaged in specialist and technical jobs, and the emergence of growth industries and high-wage earners working in those industries to further promote stratification in metropolises and widen income disparities with rural areas.

For Japan to continue to develop and maintain its affluent society at a time of the abovementioned changes in the employment structure, it will be indispensable to design a new functional association between metropolitan and rural areas. Rural communities will need to consider how they can actualize their growth potential. In doing so, in addition to spatial strategies, the contribution of labor policies having employment and human potential as basic elements will be important. Rural communities will be required to develop their own kinds of employment opportunities different from those in Tokyo and, at the same time, they need to create a sustainable employment structure by maintaining functional association with Tokyo but without depending too heavily on Tokyo.

(5) Advanced information society

One of the characteristics of an advanced information society, or an advanced network society, is that there are a small number of developers and a large number of users. The sophistication of a network society will inevitably change the nature of work. In the information society of the 21st century, independent workers engaged in specialist and technical jobs with a certain level of expertise will form their own networks for the purpose of creating works of high added value. In considering to what extent employment fluidity can respond to the changing society from the perspective of urban policies, we will need to properly assess the effect of IT.

4. Research Plan

We planned to conduct this research over two years from fiscal 2004 to 2005.

(1) Fiscal 2004

In fiscal 2004, we widely explored and set research topics and methods as part of preparatory research. In setting the research topics and methods, we organized a study group, which exchanged opinions on individual research topics based on the issues as perceived by the members of the study group. A summary of these issues can be considered as the "specifications" of this research. We compiled the results of research on the individual research topics that were set based on the issues. Because the objective of the first year of research was to widely explore and set the research topics, we decided to leave the coordination of the individual research topics for the research in fiscal 2005, provided that the individual topics were basically in line with the research objective mentioned above.

(2) Fiscal 2005

In fiscal 2005, we closely examined the individual topics and considered the policy implications on composite labor policies that are linked to urban policies.

(3) Individual research topics

The individual research topics and issues as perceived by the members are summarized below.

(a) Factors in the decline in the labor force participation rate in the 1990s

We examine how the structural characteristics of Japan's population and labor force (Tokyo, other metropolitan areas, and rural areas) as well as their recent changes structurally influence the changes in the labor force participation rate. We elucidate how changes in the labor force participation rate, which is within the realm of labor policy, relate to the migration of people, which is the subject of national land and urban policies, as well as the cooperative (or conflicting) relation between these policies.

(b) Current state of regional employment and industrial clusters, etc. and policy direction

We explore the basic policy direction for rural communities to more effectively utilize spatial resources and existing social overhead capital stock, increase different types of employment opportunities from Tokyo, and create a stable, sustainable employment structure by maintaining functional association with Tokyo but without depending too heavily on Tokyo.

(c) Polarization of social strata in Tokyo and its effect on the city and employment

In the Tokyo metropolis, further specialization and sophistication of industries are being promoted amid the wave of globalization, and there is a possibility of further polarization of the social strata in terms of occupation and income as demand for both knowledge-intensive labor and unskilled labor grows. We analyze the aspects of this polarization and elucidate its effect on the future urban structure and society of Tokyo and on work and employment structure.

(d) Generation of IT jobs in Tokyo

We elucidate how IT jobs, which support Tokyo's higher urban functions, and their strong networks are being formed. At the same time, we also make clear the employment structure that characterizes both the advantages and fragility of IT jobs. From the quantitative analysis of the IT fields of the 1990s and the latest trends, we explore the current state of affairs and future direction of the contribution made by Tokyo's higher urban functions in increasing regional employment.

(e) Model of employment in information service industry through coordination between a metropolis and rural areas

With the advent of the advanced information society, there are expectations that more job opportunities would be created in the information service industry. We explore how employment could be distributed to rural areas in cooperation with the Tokyo metropolis.

(f) City dwellers' housing and employment in a new relation between city center and suburbs

Based on the policy assumption that Tokyo's urban structure will be reorganized in the future, it can be said that a metropolis's urban structure is governed by two of its basic functions of employment and living environment. Based on the hypothesis that there is correlation between companies' site selection and individuals' preference in where to live, we examined how we can develop a new metropolitan policy that links labor policy and urban policy.

5. Outline of Research Results

(1) Factors in the decline in the labor force participation rate in the 1990s (Chapter 2)

We examine how the structural characteristics of Japan's population and labor force (Tokyo, other metropolitan areas, and rural areas) as well as changes in those characteristics in recent years structurally influence the changes in the labor force participation rate in Japan. As the first step, we analyze the decline in the labor force participation rate (labor force/population of ages 15 and over) in the 1990s in Japan. Firstly, with the method of arithmetic decomposition of contribution to change, we categorized the factors in changing the labor force participation rates on the macro level into changes in the labor force participation rates by gender and age and changes in the composition of the population. As a result, we found that, with regard to the decline in the macro labor force participation rates from 1997 to 2004, the increase in the population of 65 and over as a result of the aging of the population contributed by more than 50 percent in the decline. On the other hand, changes in the labor force participation rates by gender and age contributed to slightly less than half of the decline in the macro labor force participation rates.

Secondly, we conducted regression analysis based on labor force participation rates by gender and age and a variable representing the business cycle (GDP gap) to survey the effect of recession on the changes in the labor force participation rates. As a result, we found that the business cycle's direct contribution to the changes in the labor force participation rates accounted only for 10 to 20 percent and that some other structural factors were largely responsible for the changes.

Lastly, we organized the required data and research procedures as a preparation for subsequent research, which will clarify how the structure of the population and labor force in Tokyo, other metropolitan areas, and rural areas as well as recent changes in the movement of people influence the changes in the labor force participation rates.

(2) Current state of regional employment and industrial clusters, etc. and policy direction (Chapter 3)

New growth industries tend to be located in urban areas because they need both clusters of specialized labor and demand in the form of orders and purchases. This tendency is particularly felt in information-related industries, and, because there are few disadvantages for these industries to form a cluster, a large number of workers in fields related to information processing and contents tend to be concentrated exclusively in Tokyo. As a result, development of new industries and expansion of employment cannot necessarily be expected in farming and fishing villages and in small- and medium-sized towns in rural areas.

As for the future direction, we pointed out the following: (1) To maintain quality employment within Japan, there is a need to affirm the concentration of information industry and other growth industries in Tokyo and promote their further development from the viewpoint of international industrial competitiveness. For this purpose, the existing urban structures and various regulations should not be impediments to growth. (2) In rural areas, there is a need to strengthen ties with metropolises in the field of the information industry and develop industries that take advantage of the unique characteristics of each region.

As employment options increase through the strengthening of growth industries in Tokyo and revitalization of regional economies, it will be possible to create a stable, sustainable employment structure with Tokyo and rural areas cooperating with each other but without rural communities being too dependent on Tokyo.

(3) Polarization of social strata in Tokyo and its effect on the city and employment (Chapter 4)

In the Tokyo metropolis, further specialization and sophistication of industries are being promoted with an emphasis on knowledge and information amid the wave of globalization, and there is a possibility of further polarization of the social strata in terms of occupation and income as demand for both knowledge-intensive labor and unskilled labor grows. The expansion and fixation of this urban polarization will promote employment mismatch, declining liquidation of labor, and regional divergences, and will affect future employment and labor policies.

Therefore, we decided to analyze how polarization progressed in urban areas from the 1990s to the early 21st century and how it influenced urban structures, society, and employment structures. We conducted a presurvey on Tokyo and indicated theoretical hypotheses.

Tokyo is a metropolis with an extremely high concentration of population and various functions. In recent years, there have been signs of recurrence of concentration of population and economy in Tokyo. We confirmed that there were two phenomena of polarization in Tokyo during the 1990s, namely, (1) occupational polarization as represented by a decrease in the number of those in executive management, mid-level employees in clerical jobs, and skilled engineers, and an increase in the number of those engaged in specialist and technical work and in unskilled labor; and (2) polarization in income as those engaged in specialist and technical work (information service providers, programmers, etc.) began to earn high wages. Also, there are concerns that the rapidly increasing number of *freeters*, who are in low-wage jobs, would expand the lower strata. This polarization of the social strata, together with the effects of the urban revival policies that are being implemented today, may bring about employment mismatch, widening of regional divergences and emergence of a mosaic city, social fragmentation, rising social instability, and further decline in the birth rate in Tokyo. In our future research, we will further examine these hypotheses by collecting detailed data on the subject for analysis and comparing Tokyo with other local cities in Japan.

(4) Generation of IT jobs in Tokyo (Chapter 5)

We consider the industrial transformation brought by IT (information and telecommunications technology) from the aspect of generation of new types of specialist jobs, and we examine the process of generation of those IT jobs and the possibility that establishment of such jobs in the labor market may have led to an increase in employment opportunities or to an increase in the fluidity of specialized talent. We examined the process of generation of such jobs in the construction, real estate, and other related industries during the 1990s. These new types of specialist jobs are proportional to the levels of expertise required for operating the computer programs, which means that those jobs are characteristically dependent not on the availability of a large number of programs, but on the high levels of skills that need to be acquired in running a computer-assisted program. In data processing and other fields of IT related to editing and expression, the jobs' existence, in the construction industry and other industries, is closely linked with individual specialized programs. In jobs where different programs are linked by a common purpose, there will be collaboration among workers with different occupations, and strong ties will be formed among them. This solid relation among providers of the programs, universities, and various users is a major factor in having in-house experts as well as young employees to realize how specialized their jobs are. Tokyo has an overwhelming advantage in this field today because of its sufficient human resources engaged in these jobs and the concentration of the necessary infrastructure.

To explicate the trend of generation of IT jobs, it can be said that an organically linked employment environment for those with specialized technology is concentrated in Tokyo today, whether it be within or outside companies. An important question for the future is whether this organically linked environment can only be had in Tokyo. The new types of jobs are not labor-intensive and do not need to be fixed in a location where there is a vast stock of human capital. If the information and communications environment that transcends time and space continues to spread, the advantages that Tokyo enjoys today might not necessarily be considered as such in the future. Considering that these jobs essentially require collaboration among a certain number of workers, however, regional communities or cities that offer the organically linked environment must meet the geographical and economic conditions needed for such collaboration. If we can elucidate the system of generation of IT jobs that is now a feature of Tokyo, the possibility would increase for drawing up a conception for building a spatially extensive employment environment outside Tokyo.

(5) Employment model in information service industry through coordination between a metropolis and rural areas (Chapter 6)

We study the employment model of the information service industry that is premised on the use of high-speed telecommunications network. Tokyo remains the center of economy and culture in this advanced information society. We believe, however, if coordinated employment can be realized between Tokyo and rural areas as employment demand increasingly shifts to the information service industry, improvements could be made in the concentration of people looking for jobs in Tokyo and the lack of demand for labor in rural areas.

Today the information service industry is concentrated in Tokyo. The main reasons are concentration in Tokyo of headquarters of large companies, who are the industry's major clients; the work process that is based on the Japanese practice of subcontracting; the high cost of using private lines to build a corporate WAN; and lack of IT-related human resources in rural areas. When we consider the changes in the environment, such as customer needs, the speed at which the technological environment changes, the social need for information security, the technology for building a virtual corporate WAN, and outflow of IT-related human resources from job-cutting industries, we believe that by reforming the industry's work process, it is possible to promote coordination between Tokyo and rural areas.

Based on the discussions on the results of existing surveys that have been opened to the public, we presented two models of coordinated employment as hyposeses, namely, (1) a model of coordinated employment for recovering the outflow of employment to overseas for domestic employment in rural areas and (2) a model of developing in rural areas companies that specialize in specific fields or technology and sharing work with Tokyo. Our challenge will be to examine in greater detail whether these models are realizable.

(6) City dwellers' housing and employment in a new relation between city center and suburbs (Chapter 7)

Metropolitan policies of the past aimed to disperse the excessive concentration of people in the city center to the suburbs and control the pace of development. In the Tokyo metropolis, by far the largest metropolis in Japan, a group of "business-core cities" located within 20 to 40 km from the city center were considered as a key in the dispersion policy. There were expectations on creating job opportunities in these cities, controlling the concentration of the office function in the center of Tokyo, maintaining population in the suburbs by building the core cities that provided job opportunities close to people's homes, and realizing orderly development of the metropolitan area of Tokyo.

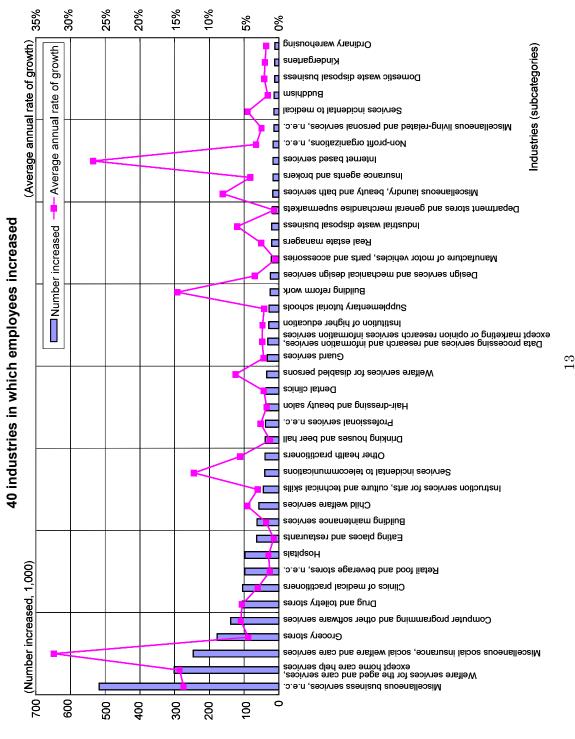
However, this dispersion policy that lasted for more than 40 years after the Second World War is coming to a close as people are moving back within the city center, suburbs are showing a decline, and the metropolis is shrinking in this mature society. In metropolitan planning, the spatial design of urban structures was based on the conviction of the traditional concept of the garden-city-type housing in the suburbs and on balanced distribution, both in time and space, of the social infrastructures and nodal urban functions. On the other hand, the basic elements in the foundation of those urban structures, namely, creation of job opportunities and appropriate site location, were not fully taken into consideration.

Today we are in need of a new basic concept that goes beyond the traditional dispersion policy. Tokyo's urban and employment structures that were made possible by the mass transport of workers from the suburbs to the city center on commuter trains in the era of high economic growth are things of the past. We need to take into consideration that workers today are beginning to choose their actions not simply as part of the mass but as individuals. In other words, the correlation between industrial characteristics that determine companies' site selection and the preference of individual workers regarding where to live may be an important factor in deciding the new urban structures. As preparatory work in demonstrating these hypotheses, we analyzed the urban structure and the trends in housing, office functions, and commercial functions in Tokyo metropolitan area.

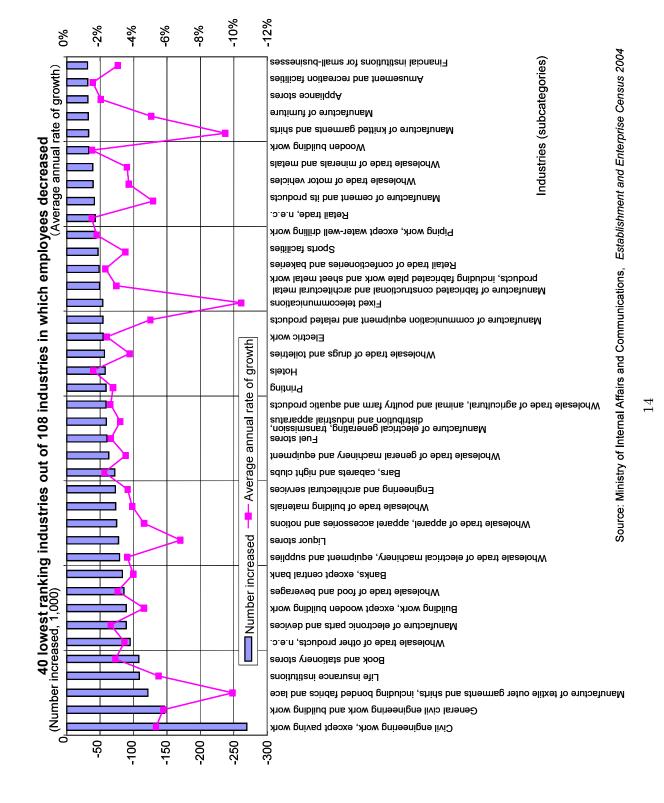
6. Related Figures

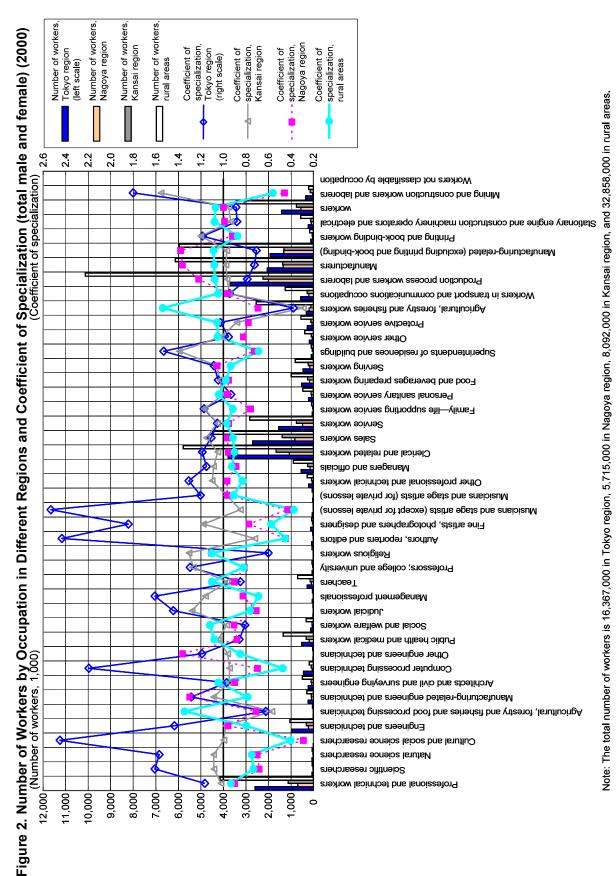
The related figures are shown below.



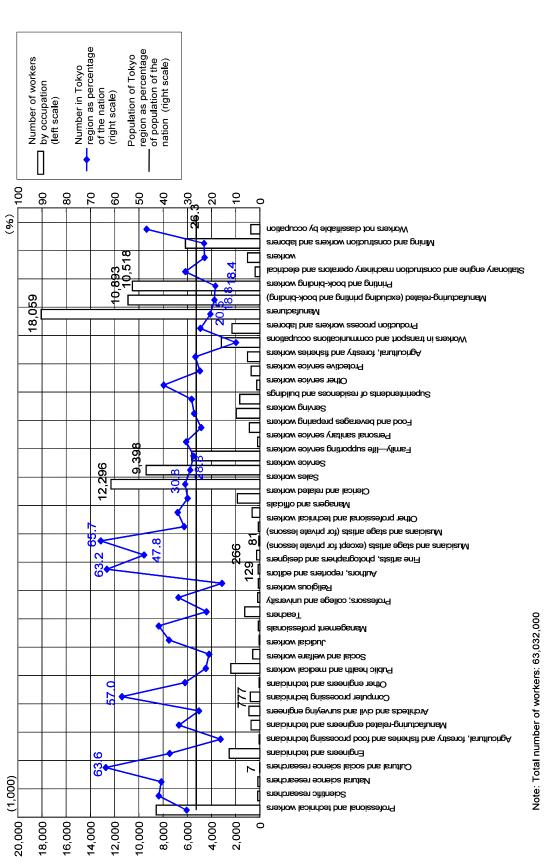


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Source: Ministry of Internal Affairs and Communications, Population Census

Note: Tokyo region = Saitama Prefecture + Chiba Prefecture + Tokyo Metropolis + Kanagawa Prefecture. Nagoya region = Gifu Prefecture + Aichi Prefecture + Mie Prefecture. Kansai region = Kyoto Prefecture + Osaka Prefecture + Hyogo Prefecture + Nara Prefecture. Rural areas = The nation – (Tokyo + Nagoya + Kansai).

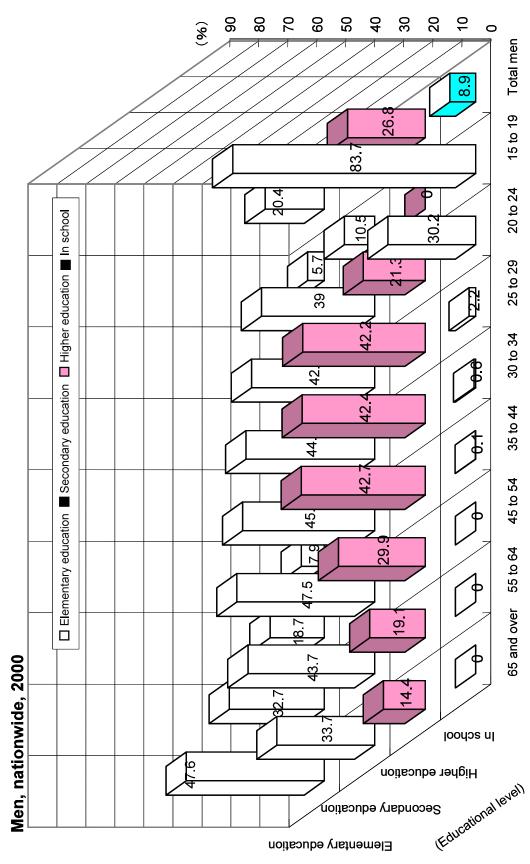
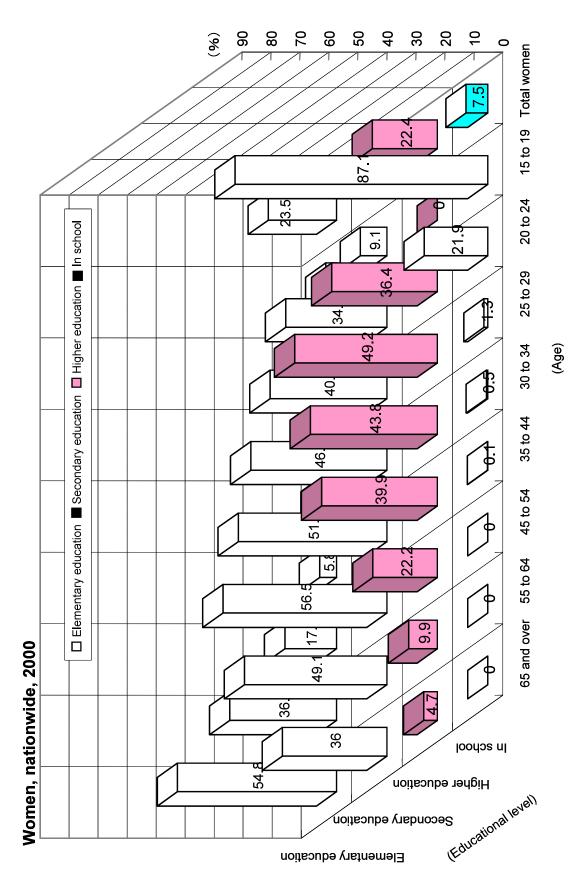


Figure 3. Breakdown of the Population by Educational Levels by Age Group (by gender) (2000)

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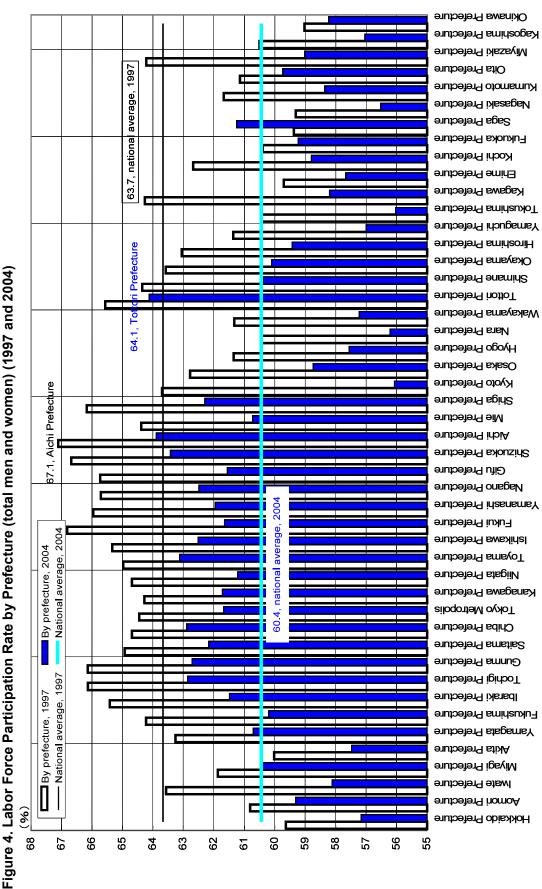
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Source: Ministry of Internal Affairs and Communications, Labour Force Survey

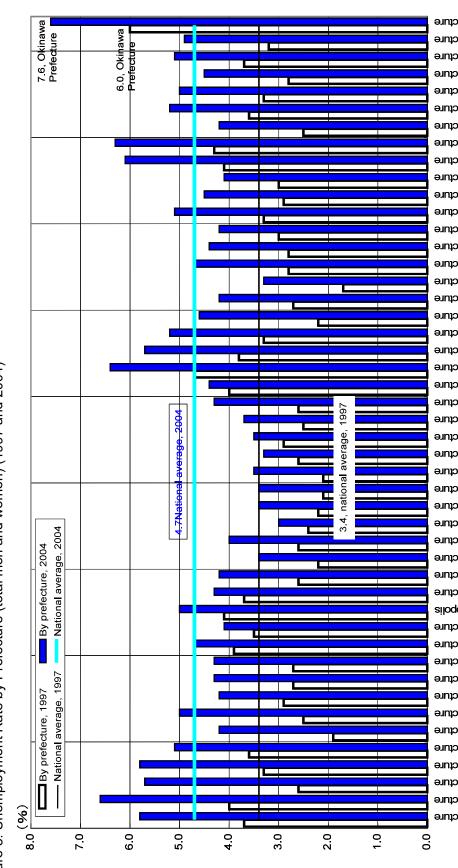
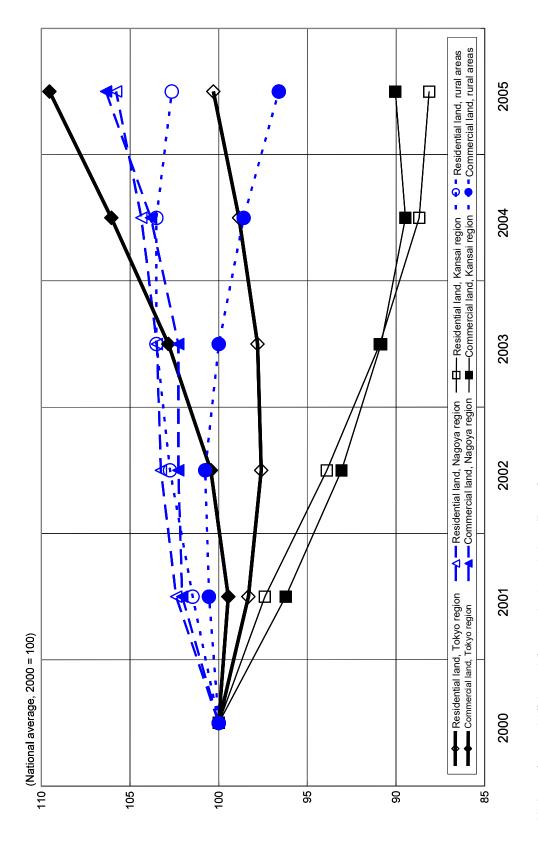


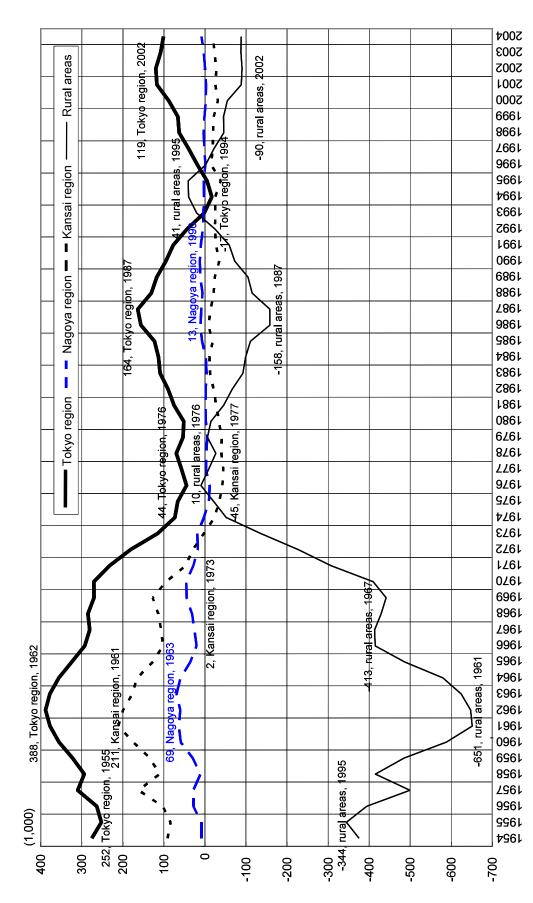
Figure 5. Unemployment Rate by Prefecture (total men and women) (1997 and 2004)

Okinawa Prefecture Kagoshima Prefecture Miyazaki Prefecture Oita Prefecture Kumamoto Prefecture Nagasaki Prefecture Saga Prefecture Fukuoka Prefecture Kochi Prefecture Ehime Prefecture Kagawa Prefecture Tokushima Prefecture Yamaguchi Prefecture Hiroshima Prefecture Okayama Prefecture Shimane Prefecture Tottori Prefecture Wakayama Prefecture Nara Prefecture Hyogo Prefecture Osaka Prefecture Kyoto Prefecture Shiga Prefecture Mie Prefecture Aichi Prefecture Shizuoka Prefecture Gifu Prefecture Construction Prefecture and Communications, Labour Force Fukui Prefecture Ishikawa Prefecture Toyama Prefecture Niigata Prefecture Kanagawa Prefecture ziloqorteM otyo T Chiba Prefecture Saitama Prefecture Gunma Prefecture Tochigi Prefecture Ibaraki Prefecture Fukushima Prefecture Source: Ministry of Internal Affairs Yamagata Prefecture Akita Prefecture Miyagi Prefecture Iwate Prefecture Aomori Prefecture Hokkaido Prefecture











Source: Ministry of Internal Affairs and Communications, Report on Internal Migration in Japan

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