Chapter 4

Medium- to Long-Term Issues and Prospects for the Kansai Region

Section 1
The Labor Shortage Issues Facing Kansai

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1. Introduction

The population of Japan has indicated a trend of gradual increase since 1950 due to, among other factors, the first and second Baby Booms, respectively in 1947-49 and in 1971-74. In 2010, however, this growth came to an end with the population at 128.06 million, followed by a declining trend that ended with the population at 126.14 million in 2020. According to the National Institute of Population and Social Security Research, it is estimated that in April 2023, based on up-to-date data on the population, by 2070 the future population of Japan will total about 87 million; that is, return to the same level as in 1950 (Figure 4-1-1).

Section 1 shows the implications of the continuing population decline since 2010 on employment and wage structure, using basic statistics. The following outlines the Section.

Subsection 1.2 makes clear the characteristics of changes in the number of persons engaged in work and base salary over the past 10 years[1)], based on the Employment Status Survey and the Basic Survey on Wage Structure, from the four perspectives of gender, age, industry and region[2)].

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1) Employment Status Surveys have been conducted every five years since 1982, with the latest conducted in 2022. The Basic Survey on Wage Structure is published annually, and the latest was conducted in 2023. The Employment Status Survey covers the period from 2012 to 2022, and the Basic Survey on Wage Structure covers the period from 2013 to 2023.
2) In this section, we compare the data for Kansai (six prefectures), Kanto (one metropolis and three prefectures), and Japan (47 prefectures).

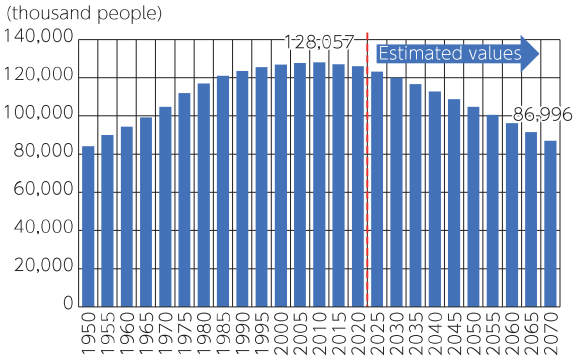

Figure 4-1-1 Changes in Japan's total population

Source: "Population Census," Statistics Bureau, Ministry of Internal Affairs and Communications; "Population Projections for Japan," National Institute of Population and Social Security Research

In Subsection 1.3, we will read the "2024 Local Government Sustainability Analysis Report" published by the Population Strategy Council of Japan in 2024, and discuss the issues facing Kansai based on this report.

Subsection 1.4 summarizes the analysis to date and discusses the implications.

2. The Evolution of the Labor Market in Kansai

First, looking at the number of persons engaged in work[3)] based on the Employment Status Survey (Figure 4-1-2), the number of persons engaged in work in Japan and Kansai decreased from 2007 to 2012 ((Japan: -1.56 million; Kansai: -0.21 million), but has been increasing since 2012. As for Kanto, the number has continued to increase since 2007.

The decline in the number of persons engaged in work in Japan and Kansai from 2007 to 2012 is believed to be due to the fact that 2012 was the year the baby boomer generation began to turn 65 years old and more people retired

3) The definition of 'persons engaged in work' in this survey is as follows. Persons engaged in work are those who usually work in order to earn income and are supposed to continue doing so after the survey date (October 1), as well as those who have work but are currently on leave.

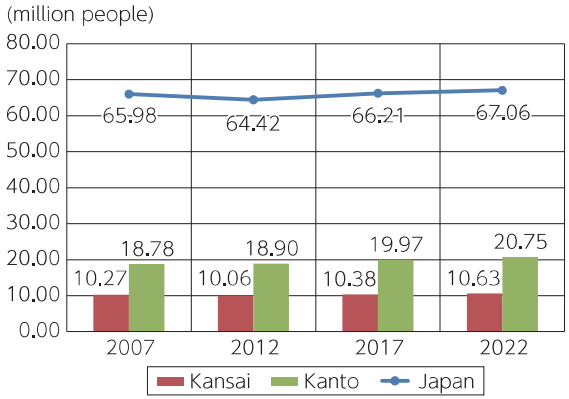

Figure 4-1-2 Changes in the number of persons engaged in work

Source: "Employment Status Survey," Statistics Bureau, Ministry of Internal Affairs and Communications

from the labor market altogether ("2012 problem")[4].

As mentioned above, Japan's total population peaked in 2010 and has been declining since then, while the number of persons engaged in work has shown an increasing trend. In the following sections, we will examine the characteristics of changes in the number of persons engaged in work and their base salaries along the four axes of gender, age, industry, and region.

(1) By Gender

<Number of persons engaged in work>

The changes in the number of persons engaged in work by gender (Figure 4-1-3) indicates a decline in the number of male workers in Kansai by 30,000 from 2012 to 2022, and an increase in the number of female workers by 590,000. In Kanto, the number of male and female workers increased by 460,000 and 1.39 million, respectively. The Japan figure for males decreased by 40,000, while the figure for females increased by 2.68 million, showing a similar trend to that of Kansai. The increase in the number of persons engaged in work over the past decade is thought to be attributed largely to the participation of women in the labor market.

Looking at the respective rates of change (Table 4-1-1), in Kansai, the

4) The "2007 problem" was perceived just before the baby boomers born between 1947 and 1949 reached the retirement age of 60, and the government amended and enforced the "Act on Stabilization of Employment of Elderly Persons" in 2006, making it mandatory to secure employment opportunities for the elderly up to 65 years old. However, this only postponed the problem for five years, following which, the "2012 problem was perceived.

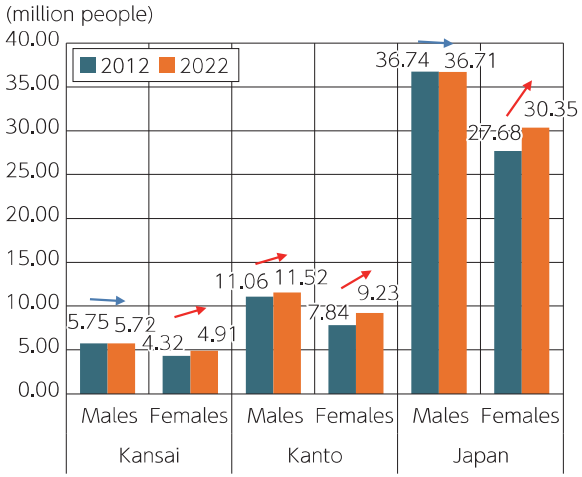

Figure 4-1-3 Changes in the number of persons engaged in work by gender

Source: "Employment Status Survey," Statistics Bureau, Ministry of Internal Affairs and Communications

Table 4-1-1 Rate of change in the number of persons engaged in work by gender (2012-22)

Kansai		Kanto		Japan	
Males	Females	Males	Females	Males	Females
-0.5%	+13.7%	+4.2%	+17.7%	-0.1%	+9.7%

Source: "Employment Status Survey," Statistics Bureau, Ministry of Internal Affairs and Communications

decrease in the number of male workers (-0.5%) is larger than the Japanese average (-0.1%), while the increase in the number of female workers (+13.7%) exceeds that of the Japanese average (+9.7%). In Kanto, both male (+4.2%) and female (+17.7%) job growth significantly exceeds the Japanese averages, indicating a concentration of jobs there.

<Base salary>

Next, let us examine the changes in base salary[5)] by gender. As shown in Figure 4-1-4, the base salary for males increased by JPY 27,000 in Japan, by JPY 25,000

5) Base salary is defined as the amount of cash salary paid on a regular basis excluding overtime pay. The definition of "regularly paid cash wages" is detailed on the website of the Ministry of Health, Labour and Welfare (https://www.mhlw.go.jp/english/database/db-slms/dl/Outline_of_Survey.pdf).

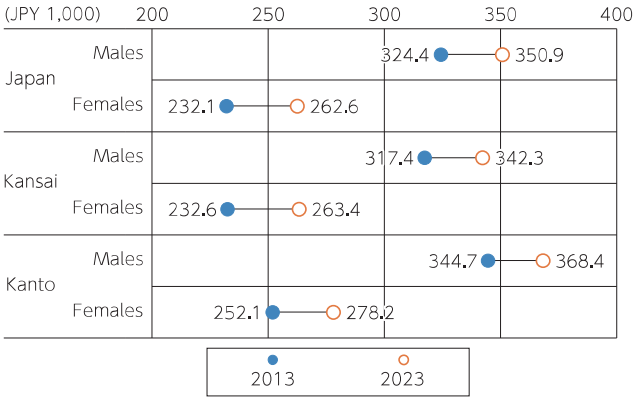

Figure 4-1-4 Changes in base salary by gender

Source: "Basic Survey on Wage Structure," Ministry of Health, Labor and Welfare

in Kansai, and by JPY 24,000 in Kanto from 2013 to 2023. The figures for females, on the other hand, increased by JPY 31,000 in Japan, by JPY 31,000 in Kansai, and by JPY 26,000 in Kanto. The increase in base salaries for males in Kansai was somewhat lower than the Japanese average, while the increase for females was on par with the Japanese average and exceeded that for Kanto.

However, by region, Kanto consistently outperforms the Japanese average and Kansai for both genders. The gap between males and females has narrowed in all three regions, but a large difference remains between them.

(2) By Age

<Number of persons engaged in work>

Figure 4-1-5 compares the share of persons engaged in work by age group between 2012 and 2022. Those aged 35 to 44 in 2012 and those aged 45 to 54 in 2022 have the highest share in all three regions, probably because the junior baby boomers fall into these age groups.

The share of young people aged 25 to34 decreased by 2.3% points in Kansai, by 1.5% points in Kanto, and by 2.1% points in the Japanese average during this period.

On the other hand, the share of those aged 65 and over increased in all three regions: +3.1 % points in Kansai, +2.0 % points in Kanto, and +3.5 % points in the Japanese average.

From the above, it is indicated that persons engaged in work are aging in all three regions. On the other hand, both the decrease in the number of young

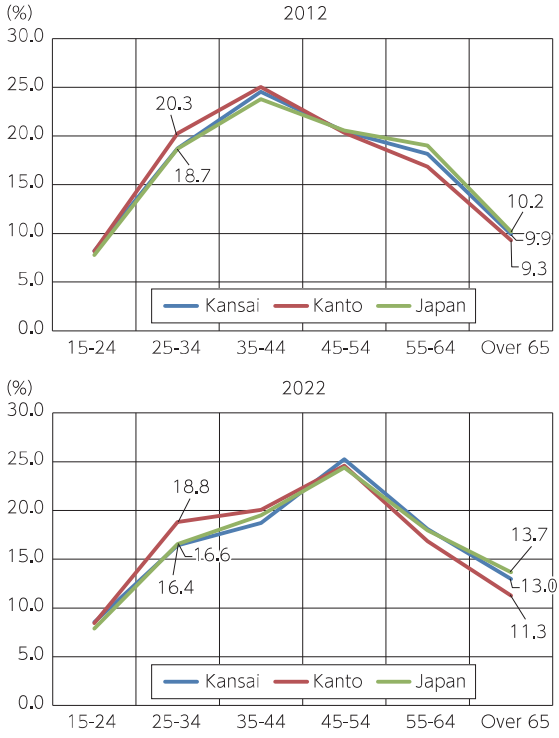

Figure 4-1-5 Share of the number of persons engaged in work by age group

Source: "Employment Status Survey," Statistics Bureau, Ministry of Internal Affairs and Communications

workers and the increase in the number of elderly workers in Kanto are slower than in the other regions.

Looking at the rates of change in the number of persons engaged in work by age group, those aged 45 to 54 and those aged 65 and over show large increases in the number of persons engaged in work in all three regions (Figure 4-1-6). Regarding those aged 45 to 54, the increase could be explained by the fact that the age group belongs to the junior baby boomer generation, and by the increased participation of women in the labor market. Those aged 65 and over includes the baby boomer generation (those aged 73 to75 in 2022). As already mentioned, in 2012, this generation began to turn 65, and many retired from the labor market, but in 2022, an increasing number of elderly workers continued to work after the age of 65, for example through extended employment or reemployment.

By region, the increase in the number of workers aged 65 and over in

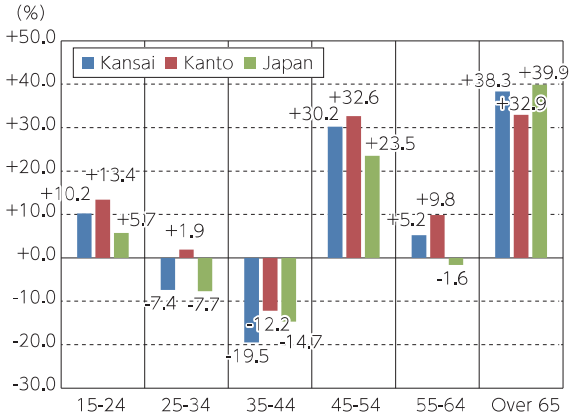

Figure 4-1-6 Rate of change in the number of persons engaged in work by age group (2012-22)

Source: "Employment Status Survey," Statistics Bureau, Ministry of Internal Affairs and Communications

Kansai (+38.3%) exceeds that in Kanto (+32.9%). Kanto is the only region where the number of persons engaged in work aged 25-34 increased (+1.9%). This suggests that the aging of the population is progressing more rapidly in Kansai than in other regions, and that younger workers in particular are flowing into Kanto for employment.

On the other hand, the rate of decrease in the 35-44 age group is large in all three regions. This corresponds to the generation in the "ice age" of employment from 1993 to 2005, after the collapse of the bubble economy, and it is possible that some of them are still unemployed. The Ministry of Health, Labour and Welfare (MHLW) continues to provide support to the "ice age" generation in order to help them find jobs, become full-time employees, and participate in various aspects of society. From the present on, it will be an important issue to promote labor market participation in various ways for those who cannot find a job even if they want to due to various reasons.

<Base salary>

Figure 4-1-7 compares 2013 and 2023 base salaries by age group. The figures for the younger age groups (ages 20-34) indicate that the figures for Kansai (ages 20-24: +JPY 29,000; 25-29: +JPY 27,000; and 30-34: +JPY 23,000), Kanto (ages 20-24: +JPY 26,000; 25-29: +JPY 25,000; and 30-34: +JPY 20,000) and the Japanese average (ages 20-24: +JPY 29,000; 25-29: +JPY 30,000; and 30-34: +JPY 25,000) all show increases. The increase in base salaries for younger workers could be attributed to the fact that companies are proactively responding to the

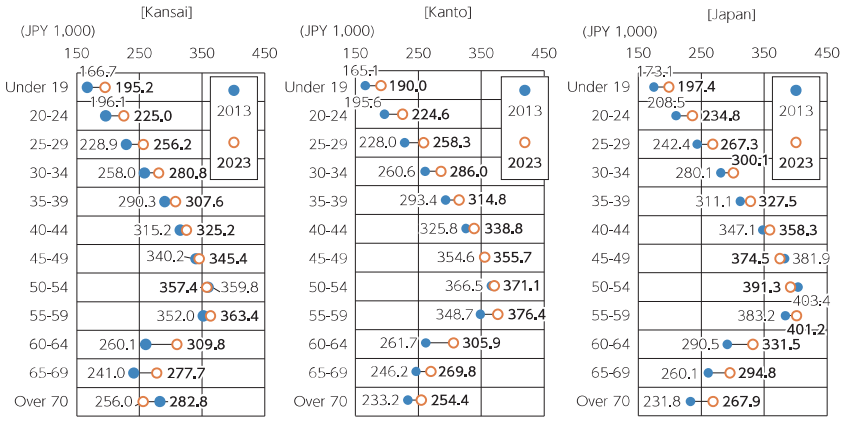

Figure 4-1-7 Changes in base salary by age group

Source: "Basic Survey on Wage Structure," Ministry of Health, Labor and Welfare

labor shortage, which is becoming more pronounced due to the declining population, in order to secure human resources.

In the older age group (ages 60-69), similar to the younger age group, there were increases in Kansai (ages 60-64: +JPY 50,000; 65-69: +JPY 37,000); Kanto (ages 60-64: +JPY 41,000; 65-69: +JPY 35,000) and the Japanese average (ages 60-64: +JPY 44,000; 65-69: +JPY 24,000).

Possible explanations include the extension of the retirement age at some companies, as mentioned above, as well as the increase in the start of pension payments and the increase in employment opportunities for the elderly. In the middle-aged group (ages 40-54), however, while the Japanese average increased only slightly for each age group, the average decreased slightly in Kansai for those aged 50-54 (-JPY 2,000), and in Kanto for those aged 45-49 (-JPY 7,000) and for those aged 50-54 (-JPY 12,000), respectively.

As shown above, the current substantial wage increases[6] and changes in the working styles of the elderly are influencing the flattening of the differences in base salaries across various age groups.

6) According to the Japanese Trade Union Confederation (2024), the final tally for the 2024 spring labor negotiations ("shunto") shows an average wage increase of 5.1%, exceeding 5% for the first time in 33 years since 1991. However, it should be noted that the annual labor negotiations do not include small and medium-sized enterprises without unions or managers.

(3) By Industry

<Number of persons engaged in work>

Looking at the change in the number of persons engaged in work by industry (Figure 4-1-8), the "Medical, health care and welfare" category has grown significantly in all three regions. One of the reasons for this growth is thought to be the increase in demand for medical and nursing care services due to the aging population.

The "Accommodations, eating and drinking services" category shows an increase of 66,000 in Kansai, while Kanto and Japan as a whole decreased by 74,000 and 102,000, respectively, which means that Kansai is the only region to show an increase. The tourism industry is an important industry that supports the Kansai economy, and with the current expansion of inbound tourism demand, it is evident that Kansai is proactive in securing human resources.

Looking at the "Information and communications" and "Scientific research, professional and technical services" industries, the Japanese increase was +1,052,000 and +513,000, respectively, of which +791,000 and +245,000 were in Kanto and +102,000 and +69,000 were in Kansai. In these industries, Kanto is absorbing a significant amount of human resources.

In Subsection 1.2.(2), the growth in the number of persons engaged in work aged 65 and over was confirmed but let us examine in which industries the number of persons engaged in work in this age group has increased (Figure 4-1-9).

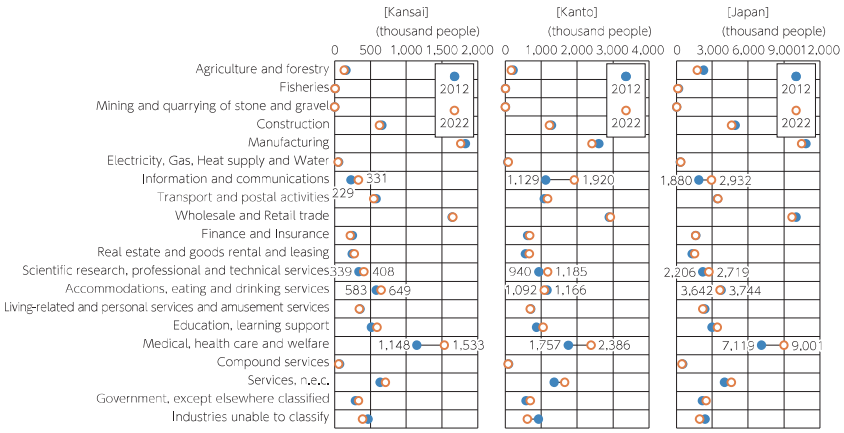

Figure 4-1-8 Changes in the number of persons engaged in work by industry

Source: "Employment Status Survey," Statistics Bureau, Ministry of Internal Affairs and Communications

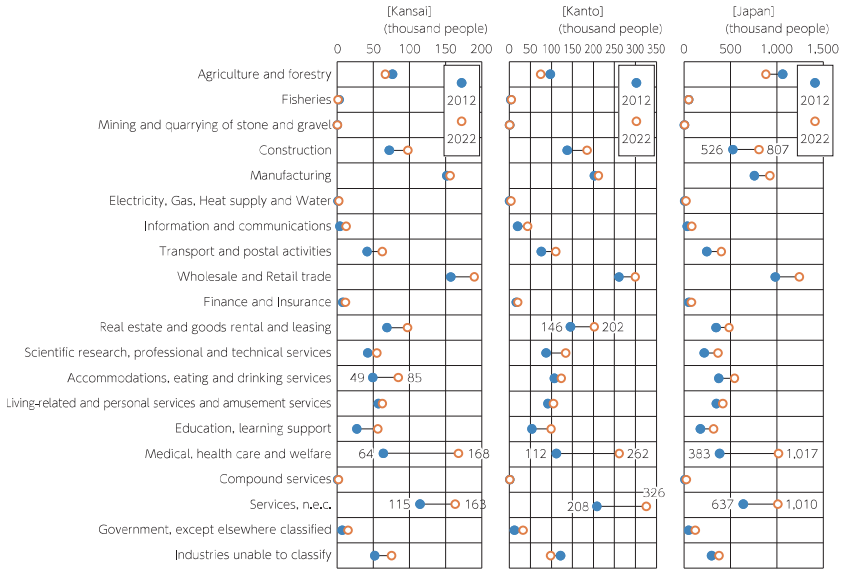

Figure 4-1-9 Changes in the number of persons engaged in work by industry: Aged 65 and over

Source: "Employment Status Survey," Statistics Bureau, Ministry of Internal Affairs and Communications

The top three industries with the largest increases in each region were, in all three regions, "Medical, health care and welfare" (Kansai: +104,000; Kanto: +149,000; Japan: +635,000), and "Services, n.e.c." (Kansai: +49,000; Kanto: +117,000; Japan: +373,000). In third place was "Accommodations, eating and drinking services" (+35,000) in Kansai, "Real estate and goods rental and leasing" (+57,000) in Kanto and "Construction" (+281,000) in Japan.

One of the possible reasons for the increase in "Medical, health care and welfare" is the aging population, where elderly individuals care for other elderly individuals.

The "Services, n.e.c." includes occupations such as building superintendents, security guards, and maintenance workers.

<Base salary>

Let's compare base salaries by industry (Figure 4-1-10)[7]. The top three

7) As Figure 4-1-8 shows, the number of persons engaged in work in "Mining, quarrying, and gravel extraction" and "Electricity, gas, heat supply, and water supply" are small compared to other industries. For this reason, the analysis here compares industries other than these two.

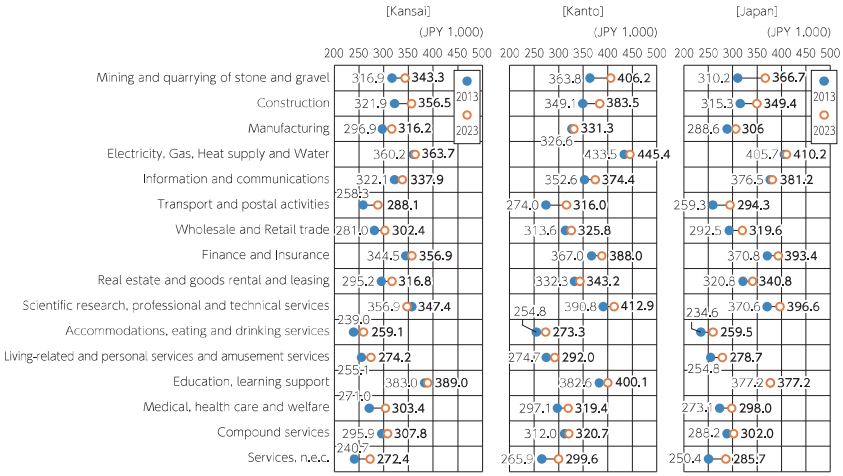

Figure 4-1-10 Changes in base salary by industry

Source: "Basic Survey on Wage Structure," Ministry of Health, Labor and Welfare

industries with the largest increases in base salaries from 2013 to 2023 are "Construction" (+JPY 35,000), "Medical, health care and welfare" (+JPY 32,000), and "Services, n.e.c." (+JPY 32,000) in Kansai. On the other hand, in Kanto, "Transport and postal activities" (+JPY 42,000), "Construction" (+JPY 34,000), and "Construction" (+JPY 32,000). The Japanese average was "Services, n.e.c." (+JPY 35,000), "Transport and postal activities" (+JPY 35,000), and "Construction" (+JPY 34,000).

The top three industries in each region with the highest base salary in 2023 are "Education, learning support" (JPY 389,000), "Finance and Insurance" (JPY 357,000), and "Construction" (JPY 357,000) in Kansai, while in Kanto they are "Scientific research, professional and technical services" (JPY 413,000), "Education, learning support" (JPY 400,000), and "Finance and Insurance" (JPY 388,000). In particular, the base salaries in "Scientific research, professional and technical services" are higher than those in other regions[8]. It is highly likely that these factors are contributing to the influx of highly skilled human resources from other regions.

In contrast, the bottom three industries in 2023 in each of the three regions

8) In Chapter 5, Section 2 of this document, it is pointed out that Kanto has a higher share of value added in the "Scientific research, professional and technical services" sector and higher value added per capita than other regions, which is thought to be one of the reasons for the higher base salaries.

are "Accommodations, eating and drinking services" (Kansai: JPY 259,000; Kanto: JPY 273,000; Japan: JPY 260,000), "Living-related and personal services and amusement services" (Kansai: JPY 274,000; Kanto: JPY 292,000; Japan: JPY 279,000), and "Services, n.e.c." (Kansai: JPY 272,000; Kanto: JPY 300,000; Japan: JPY 286,000). These industries are particularly low in Kansai compared to Kanto and Japan.

(4) Summary

Let us summarize the points made so far.

(1) While Japan's population has been declining since 2010, the number of persons engaged in work has been on an increasing trend, and the labor force has been supported by the participation of women and the elderly (aged 65 and over) in the labor market. In Kansai, the number of persons engaged in work has been increasing, especially in the "Medical, health care and welfare" and "accommodation and food services" industries. This can be attributed to the increase in demand in the medical, health care and welfare industries due to the aging population and the expansion of the tourism industry, including inbound tourism demand.

(2) The base salaries in these industries (2023) are lower in Kansai than in Kanto (Kansai: JPY 303,000; Kanto: JPY 319,000; Japan: JPY 298,000). In the "accommodation and food services," Kansai is lower than Kanto and Japan (Kansai: JPY 259,000; Kanto: JPY 273,000; Japan: JPY 260,000), and is the lowest among all industries across the three regions.

Looking at the range of increases in base salaries from 2013 to 2023, the "Medical, health care and welfare" sector has increased more in Kansai than in Kanto and Japan (Kansai: +JPY 32,000; Kanto: +JPY 22,000; Japan: +JPY 25,000), while the "Accommodations, eating and drinking services" sector has seen weaker growth in Kansai than in Japan as a whole (Kansai: +JPY 20,000; Kanto: +JPY 19,000; Japan: +JPY 25,000).

Despite the increase in the number of persons engaged in work in these industries in Kansai, base salaries are lower than in other regions or industries, and the region is facing challenges concerning productivity[9].

(3) On the other hand, the industry with the largest increase in base salary in Kansai was "Construction" (+JPY 35,000), but the number of persons engaged in work decreased by 35,000. Although construction demand has

9) The examples of DX applications for productivity improvement in the "medical and welfare" and "accommodation and food service" industries are described in detail in Chapter 4, Section 2 of this document.

been strong due not only to public infrastructure development, private investment, and residential investment, but also to the Osaka-Kansai Expo in 2025, the so-called "3K" (*Kitsui*, meaning tough; *Kitanai*, meaning dirty; *Kiken*, meaning dangerous) working environment illustrates the difficulty securing human resources.

In this regard, the construction industry is accelerating efforts to improve the working environment by establishing the "Construction RX Consortium" to promote Robotics Transformation (RX) for the development and use of construction robots and IoT applications. In March 2024, the cabinet approved a bill to revise the Construction Business Act, which includes measures for improving the treatment of workers, facilitating the passing of material price increases, and strengthening measures against dumping during the construction period, and the public and private sectors are accelerating measures to secure human resources in the medium to long term.

3. Challenges for Kansai Gleaned from the Sustainability Analysis Report

In Subsection 1.2, we reviewed the structural changes in the declining population, focusing on the number of persons engaged in work and base salaries. Subsection 1.3 changes the time frame to explore what kind of future can be anticipated, and to consider the challenges that lie ahead and potential breakthroughs for them.

(1) What Is the Sustainability Analysis Report?

Ten years have passed since the Japan Policy Council released its list of "municipalities at risk of disappearing" in May 2014, and in April 2024, the Population Strategy Council released a report analyzing the "sustainability" of local governments nationwide.

The Population Strategy Council (2024) focused on trends in the young female population (aged 20-39) in the National Institute of Population and Social Security Research (2023), and estimated that if the young female population continues to decline, the number of births will also decrease, which will likely lead to eventual extinction. Based on this concept, the study identified 744 (43%) out of the Japan's 1,729 municipalities as "municipalities with the potential of extinction" where the population of young females is expected to decline by more than 50% between 2020 and 2070.

Furthermore, focusing on the characteristics of the population of young females, the municipalities were classified into nine categories by combining

three assumptions for Closed Population (population estimates based on births and deaths alone, that is, natural increase or decrease) and Migration (population estimates assuming that population movements continue to a certain extent, that is, social increase or decrease) (Table 4-1-2).

Among the nine categories, "black hole-type municipalities" are defined as municipalities that have a low fertility rate and thus suffer severe natural decrease, although the rate of decline among young females remains low as a result of population inflows from other regions. The "black hole-type municipalities" comprise 25 municipalities mainly in the Tokyo metropolitan area, and Osaka City and Kyoto City in Kansai.

Of the 198 municipalities in Kansai, 81 (41%) have been identified as "municipalities at risk of disappearing" including Kadoma City in Osaka Prefecture, where more than 100,000 people live (Figure 4-1-11).

Kadoma City had already been implementing various measures to create a sustainable city in response to the population decrease of 6,706 people between 2010 and 2015, especially a 21.5% decrease among young females, and the announcement of the Population Strategy Council (2024) led to the publication of these measures. For example, the redevelopment of the area in front of Kadoma City Station, the lifelong learning complex in front of Furukawabashi Station, and a tower condominium are being promoted to create a living environment

Table 4-1-2 9 classifications based on the population characteristics of municipalities

Migration \ Closed population	Decrease rate of less than 20%	Decrease rate of 20% or more, less than 50%	Decrease rate of 50% or more
Decrease rate of less than 20%	[Self-sufficient and sustainable]	[Other] Measures to counteract natural decline are necessary	[Black hole-type] Measures to counter natural decline are extremely necessary
Decrease rate of 20% or more, less than 50%	[Other] Measures to counter social decline are necessary	[Other] Measures to counter natural and social decline are necessary	[Black hole-type] Measures to counteract natural decline are extremely necessary, as are measures to counter social decline
Decrease rate of 50% or more	[Risk of disappearing] Measures to counter social decline are extremely necessary	[Risk of disappearing] Measures to counteract social decline are extremely necessary, as are measures to counter natural decline	[Risk of disappearing] Measures to counter natural and social decline are extremely necessary

Note: The vertical and horizontal axes show the rate of decrease in the young female population (ages 20-39)
Source: Population Strategy Council (2024)

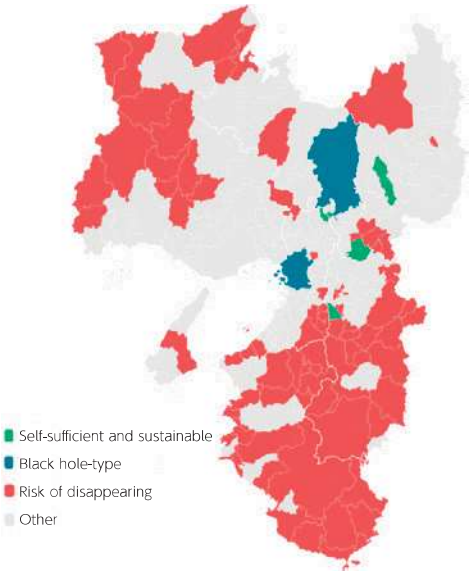

Figure 4-1-11 Map of sustainability in Kansai

Source: Sankei Shimbun (2024)

where diverse generations, from those raising children to the elderly, can "continue living" and "want to live," as well as to ensure convenience and create further liveliness. A city official stated, "Urban development is the power to attract the child-rearing generation. The city is aiming to break away from the status of "municipalities with the potential of extinction"[10].

The Population Strategy Council (2024) points out the emergence of "potentially extinct" or "black hole-type" municipalities based on the assumption that no measures are taken at this point, which makes us slightly more optimistic. It is important to use this as a stepping stone to consider and promote medium- to long-term measures tailored to the characteristics of each region, with the aim of creating sustainable cities.

(2) Challenges for Kansai from the Perspective of Future Population Estimates

As mentioned above, the survival of municipalities in Kansai will become increasingly difficult if measures are not taken to cope with the declining population. As Figure 4-1-12 shows, the population of Kansai is expected to decline faster than

10) See Yomiuri Shimbun (2024).

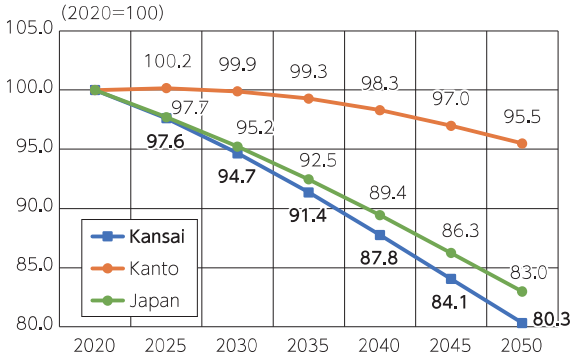

Figure 4-1-12 Comparison of changes in Population Estimates: 2020-50

Source: National Institute of Population and Social Security Research (2023)

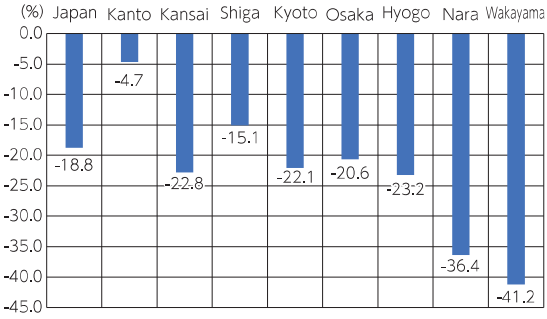

Figure 4-1-13 Comparison of population decline rates: 2023-50

Source: National Institute of Population and Social Security Research (2023)

that of Japan as a whole and Kanto.

Furthermore, the population estimates for each of the prefectures in Kansai show that the rate of decline will not be uniform. As shown in Figure 4-1-13, Wakayama Prefecture is expected to experience the largest decline in population between 2023 and 2050, at -41.2%, followed by Nara Prefecture at -36.4%, indicating that the population will decline faster than those in other prefectures.

As the population continues to decline, there is concern that economic growth will stagnate due to labor shortages, especially in rural areas. However, as discussed in Subsection 1.2, the increasing participation of women and the elderly in the labor force may help to secure a certain degree of labor force even in the face of a declining population.

(3) Can the "Silver Workforce[11]" Ease Labor Shortages

Based on population estimates, the rate of change in the working-age population from 2025 to 2050 (Figure 4-1-14) shows that the peak of decline will occur in 2040, when the junior baby boomer generation reaches retirement age.

However, if the labor participation rate of the elderly population increases and the working-age population is extended to those aged 15-74, the peak of the decline will shift to the year 2050. Thus, an increase in the labor participation rate of those in the 65-74 age group will be able to support the decline in the working-age population. In this case, it will be important to improve productivity by utilizing AI and ICT.

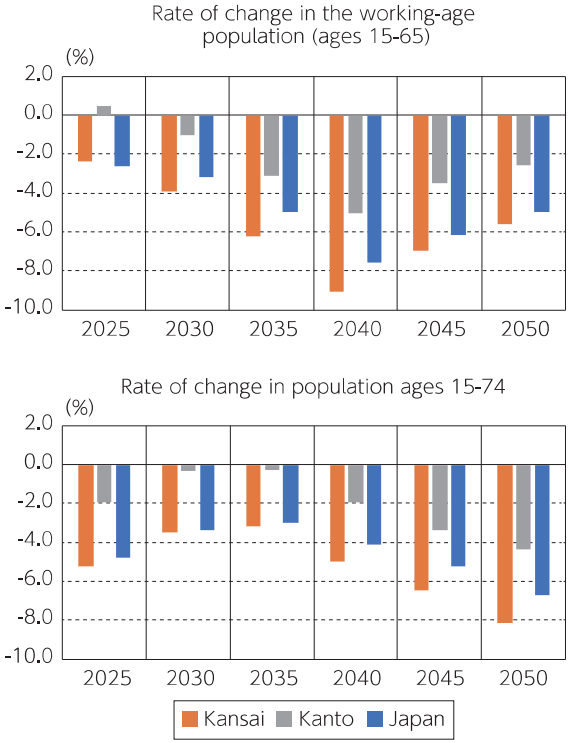

Figure 4-1-14 Comparison of changes in population decline rate: Working-age population (ages 15-64) vs. population ages 15-74

Source: National Institute of Population and Social Security Research (2023)

11) The word "silver" here refers to the elderly.

4. Conclusion

We have analyzed the labor market in Kansai under a declining population, using basic statistics. In Kansai, the number of persons engaged in work increased in the "Medical, health care and welfare" and "Accommodations, eating and drinking services" industries, partly due to the increased labor participation of women and the elderly. On the other hand, base salaries in these industries, while steadily increasing, are still low compared to other industries.

Kansai's population is declining faster than that of Kanto and of Japan as a whole, and it will be important to find ways to cope with future labor shortages. In particular, the challenge is to secure essential workers in an aging society with a declining birthrate, especially in such industries as "Medical, health care and welfare." To this end, it will be necessary to improve the working environment, in terms of, for example, long working hours and low wages, by utilizing AI and ICT and promoting DX.

References

Japanese Trade Union Confederation. (2024). "First Time in 33 Years that the Rate Exceeds 5% - Results of the Seventh (Final) Round of Responses to the Spring Seasonal Living Struggle in 2024" (Japanese title: *33-nen-buri no 5-pāsento goe: 2024 shunki seikatsu tōsō dai 7-kai (saishū) kaitō shūkei kekka ni tsuite*). July 3. https://www.jtuc-rengo.or.jp/activity/roudou/shuntou/2024/yokyu_kaito/kaito/press_no7.pdf?6548 (last visited on July 9, 2024)

Kadoma City. (2024). "A Plan for Sustainable Kadoma City" (Japanese title: *Jizoku kanōna kadomashi no machi-dzukuri ni tsuite*). https://www.city.kadoma.osaka.jp/soshiki/kikakuzaisei/2/4/koho/30783.html (last viewed on June 28, 2024)

National Institute of Population and Social Security Research. (2023). "Regional Population Projections for Japan (2023)." December 22.

Population Strategy Council (2024), "2024: Local Government 'Sustainability' Analysis Report" (Japanese title: *Reiwa 6-nen chihōjichitai `jizoku kanōsei' bunseki repōto*). April 24.

Sankei Shimbun. (2024). "744 Municipalities with 'Possibility of Extinction': Sustainability of 1729 Municipalities in Japan Seen on a Map" (Japanese title: *'Shōmetsu kanōsei' ga aru no wa 744 jichitai chizu de miru zenkoku 1729 jichitai no jizoku kanōsei*). Industrial economic newspaper, April 24.

Yomiuri Shimbun. (2024). "12 Municipalities in Osaka Prefecture 'May Disappear,' Osaka City is 'Black Hole-Type' With Its Low Birth Rate, Popula-

tion Strategy Council Report" (Japanese title: *Ōsakafu-nai no 12 shichōson 'shōmetsu kanōsei', Ōsakashi wa shusshōritsu hikuku 'burakkuhōru-gata', jinkō senryaku kaigi no hōkoku-sho*). April 26.