Chapter 4

Sustainable Growth under Supply Constraints

Japan's total population showed a steady upward trend from the 1950s onwards, influenced by the first baby boom (1947–49) and the second baby boom (1971–74). However, upon entering the 1980s, the five-year population growth rate gradually slowed (1975/70: +1.4% → 1980/75: +0.9%), peaking at 128.06 million in 2010 before turning to decline. By 2015, the population stood at 127.09 million, a decrease of 0.8% compared to 2010, and by 2020, it had further declined to 126.14 million, a decrease of 0.7% compared to 2010. Based on the latest population data, the National Institute of Population and Social Security Research (NIPSSR)'s April 2023 projections for Japan's future population trends indicate a decline to approximately 87 million by 2070, matching the 1950 level (84.11 million) (Figure 4-1-1).

The Asia Pacific Research Institute (2024) organized and analyzed the current state of the Kansai labor market under population decline based on basic statistics. It found that in Kansai, the number of employed persons is increasing in

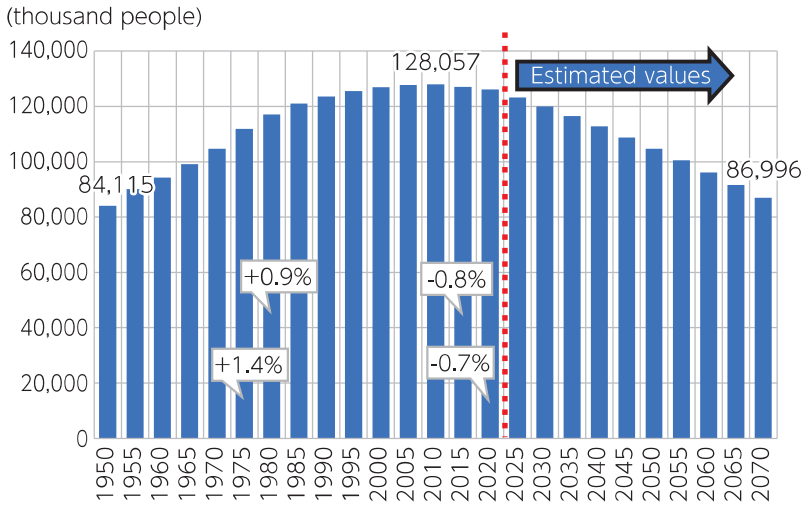

Figure 4-1-1 Changes in Japan's Total Population

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

the “Healthcare and Welfare” and “Accomodation, eating and drinking services” sectors due to progress in the labor participation of women and the elderly. On the other hand, while regular wages in these industries are steadily increasing, they remain at a low level compared to other industries, presenting challenges. Furthermore, the study highlighted that the Kansai region is experiencing population decline at a faster rate than the national average or the Kanto region, making the response to future labor shortages increasingly critical. Therefore, this year’s Chapter 4 estimates the anticipated future labor supply-demand gap in key industries, clarifying the reality of the supply constraints facing Kansai. It also examines the situation focusing on foreign workers, summarizes current efforts by government and private sector organizations to secure personnel and improve productivity, and outlines future prospects. The development of this chapter is as follows.

Section 1 examines the characteristics of the Kansai region based on employment rate trends and estimates the labor supply-demand gap in Kansai through 2050 using basic statistics.

Section 2 examines the current status of foreign workers in Kansai and uses basic statistics to project future trends for foreign workers.

Box in Section2 focuses on ASEAN nationals within Kansai’s growing foreign resident population and outlines their characteristics by country and region

Section 1
Labor Supply and Demand by Industry in the Kansai Region: Current Status and Outlook

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Introduction

Section 1 estimates the projected labor supply-demand gap using basic statistics and identifies the gap by industry.

Section 1.1 clarifies the characteristics of the Kansai region based on the trend in the employment rate up to the present. Section 1.2 examines the labor supply-demand gap in Kansai up to 2050 under certain assumptions, focusing on three industries.

1. Future of the Kansai Labor Market Based on Employment Rate Trends

Figure 4-1-2 shows the employment rate trends (total for male and female) for Kansai, Kanto, and the entire nation from 1990 to 2024. All three regions peaked in the early 1990s at the end of the bubble economy, then saw employment rates

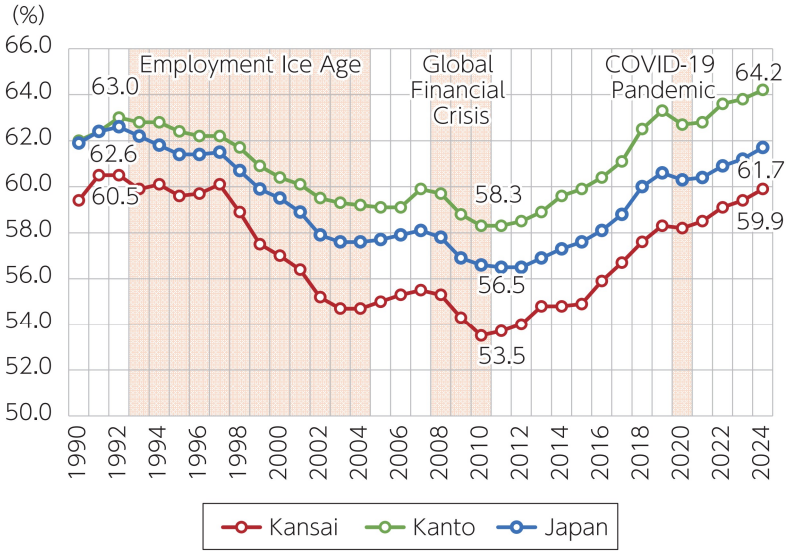

Figure 4-1-2 Trends in Employment Rate (Male and Female Combined), 1990–2024

Source: Prepared by the authors based on the "Labor Force Survey", Statistics Bureau, Ministry of Internal Affairs and Communications

decline following the bubble burst and the "employment ice age." A gradual rise was observed in the mid-2000s against the backdrop of economic recovery, but the rates fell again due to the 2008-2010 Global Financial Crisis. Since 2010, a recovering trend has been in place. Although there was a temporary stagnation in 2020 due to the impact of the COVID-19 pandemic, rates have since resumed their upward trend.

During the Global Financial Crisis period, Kansai and Kanto recorded their lowest employment rates since 1990 in 2010, respectively, while the national rate hit its lowest level in 2011. Kansai stood at 53.5%, Kanto at 58.3%, and the national rate at 56.5%, with Kansai suffering the most significant impact among the three regions. Looking at the decline from the peak at the end of the bubble period (1992: Kansai 60.5%, Kanto 63.0%, Japan 62.6%), Kansai saw a drop of 7.0%point, larger than Kanto (-4.7%point) and Japan (-6.1%point). Since then, the Kansai employment rate has been on a recovery trend, rising by 6.4%point from 53.5% in 2010 to 59.9% in 2024, exceeding the growth of Kanto (+5.9%) and the national average (+5.1%). By 2024, the employment rates were 59.9% in Kansai, 64.2% in Kanto, and 61.7% Japan, all approaching the peak levels seen at the end of the bubble economy. However, Kansai and the national level still remained slightly below those peak levels.

Furthermore, the employment rate in Kansai has consistently remained below that of other regions since 1990. Particularly during the employment ice age and the Global Financial Crisis, the gap in employment rates between Kansai and both Kanto and the national average tended to widen. Focusing on the gap between Kansai and the national employment rate, periods exceeding the average gap (2.3%) from 1990 to 2024 were mainly concentrated during the employment ice age from 2000 to 2011 and the The Global Financial Crisis.

By gender, the male employment rate in Kansai rose by 3.1% from 65.3% in 2010 to 68.4% in 2024, showing a higher increase than in Kanto (+2.1%) and Japan (+1.9%). However, the 2024 employment rates were 68.4% for Kansai, 72.1% for Kanto, and 69.6% Japan, all significantly below the peak levels seen at the end of the bubble era (1992: Kansai 76.0%, Japan 76.3%; 1993: Kanto 77.7%). Looking at the deviation from the peak, Kansai was down 7.6% and Kanto was down 5.6%, both larger than the national average of down 6.7%. Furthermore, examining the difference in employment rates between Kansai and the national level, no significant divergence was observed until around 2000. Subsequently, the gap gradually widened, and since 2020, the difference with the national level has tended to converge toward the average level (1.5%) (Figure 4-1-3).

Meanwhile, the female employment rate in Kansai rose by 9.2% from 43.0% in 2010 to 52.2% in 2024. While this increase is slightly smaller than that in Kanto

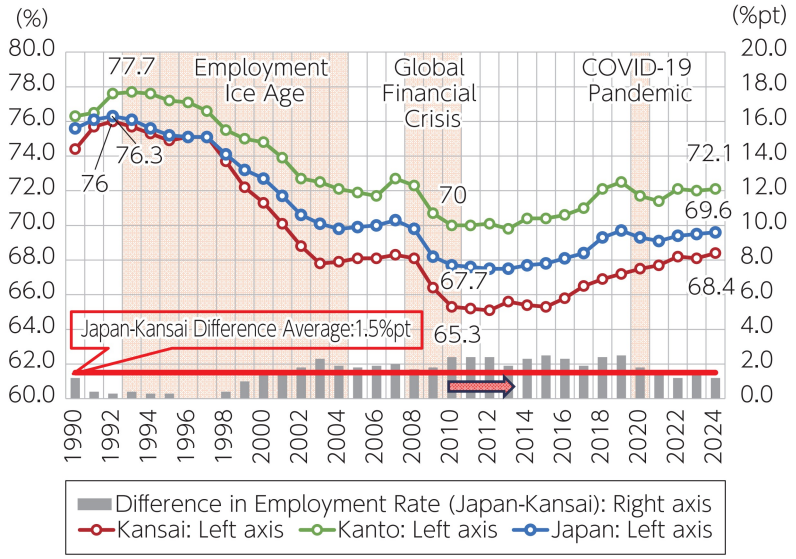

Figure 4-1-3 Trends in Employment Rate (Male), 1990–2024

Source: Prepared by the authors based on the "Labor Force Survey", Statistics Bureau, Ministry of Internal Affairs and Communications

(+9.7%), it exceeds the national average (+7.9%). Furthermore, the employment rates in 2024 were 52.2% for Kansai, 56.5% for Kanto, and 54.2% for the nation as a whole. All three exceeded the peak levels seen at the end of the bubble economy (1992: Kansai 46.2%, Kanto 48.1%, Japan 49.6%). Looking at the increase during this period, Kansai rose by 6.0%, Kanto by 8.4%, and the national average by 4.6%. While Kansai's growth was lower than that of Kanto, it still exceeded the national average. Furthermore, examining the gap between Kansai and the national employment rate, a significant difference existed between both levels until around 2010. Subsequently, the gap with the national rate narrowed somewhat, and in recent years, it has generally fluctuated around 2%, remaining slightly below the average level (2.8%) (Figure 4-1-4).

Based on the above, it is considered that the Kansai and national employment rate levels have limited potential for significant future increases compared to Kanto. As shown in Figure 4-1-2, the employment rate (total for male and female) has already reached the peak level seen during the bubble period. This is because, while the male employment rate has declined, the rise in the female employment rate has supported overall levels. Although the female employment rate is trending upward in all three regions, Kansai still lags behind both the Kanto and national levels. The rise in the female employment rate in Kansai is partly attributed to increased employment opportunities, primarily in the service sector, driven by expanding inbound tourism demand. However, these occupations tend to offer relatively low wages, and the wage level for women in Kansai remains only slightly above the national average.

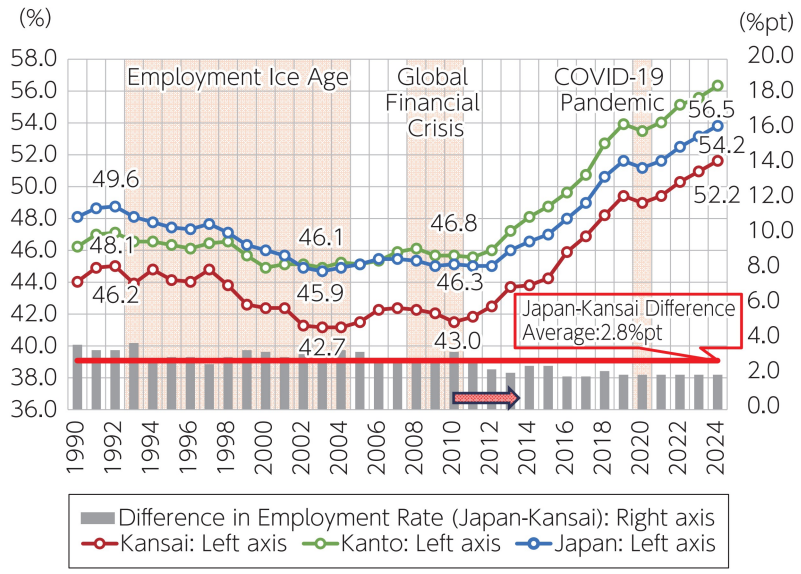

Figure 4-1-4 Trends in Employment Rate (Female), 1990–2024

Source: Prepared by the authors based on the "Labor Force Survey", Statistics Bureau, Ministry of Internal Affairs and Communications

Raising wage levels will be a crucial factor for further increasing the female employment rate going forward.

Moreover, the employment environment in Kansai appears more susceptible to external influences compared to Kanto and the national average. As shown in Figure 4-1-3 and Figure 4-1-4, during the employment ice age and the Global Financial Crisis, the decline in employment rates in Kansai exceeded that of Kanto and the national average for both male and female. Conversely, during economic recovery periods, while both male and female in Kansai generally showed recovery trends similar to those in Kanto and nationwide, the recovery level of the employment rate in Kansai remains persistently low. This is thought to be due to the structure in which small and medium-sized enterprises form the core of the regional economy in Kansai, absorbing employment in many industries including "Wholesale and Retail Trade" and "Manufacturing," while also being highly susceptible to changes in the external environment.

2. Estimating the Labor Supply-Demand Gap Using Basic Statistics

Here, we estimate the labor supply-demand gap in the "Construction," "Accommodation, eating and drinking services," and "Healthcare and Welfare" sectors through 2050 using the Ministry of Internal Affairs and Communications Statistics Bureau's "Employment Status Survey," the NIPSSR's "Future

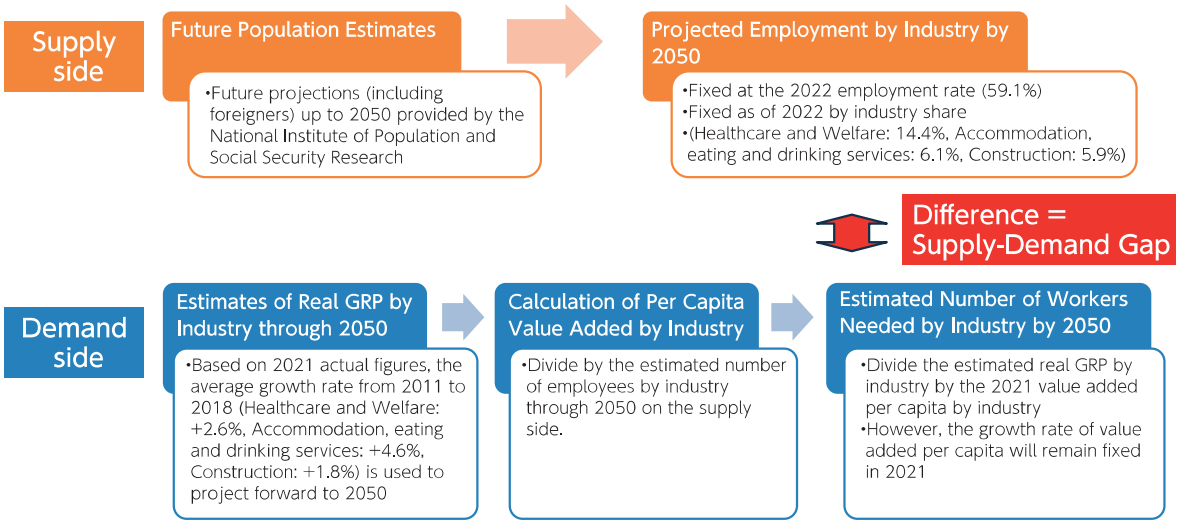

Figure 4-1-5 Flowchart for Estimating Labor Supply-Demand Gaps in Kansai

Source: Prepared by the authors

Population Projections by Region in Japan (2023 Estimates)," and the Cabinet Office's "Prefectural Economic Accounts."

Figure 4-1-5 shows the process for estimating the supply-demand gap. On the supply side, the number of employees by industry is estimated based on projected future population figures through 2050. On the demand side, the real GRP per industry is estimated through 2050 to calculate the value added per capita. Assuming this value added does not grow further (fixed at 2021 levels), the required number of workers through 2050 is then estimated. The estimated worker numbers from both the demand and supply sides reveal the extent of the supply-demand gap, focusing on three industries.

(1) Future Employment Levels from the Supply Side

First, we examine scenarios from the supply side. The number of employed persons (LE) at a future point in time (t) is calculated using the employment rate (RLE)[1)] and the population aged 15 and over (NO) at time t, as follows. For NO_t, we use the future projections from the NIPSSR.

$$LE_t = RLE_t \times NO_t \qquad (1)$$

Furthermore, the number of employed persons (LE_i) by industry (i) is calculated by multiplying the total number of employed persons (LE) by the share

1) Employment rate in defined as The proportion of employed persons in the population aged 15 and over.

of employed persons (W_i) for each industry. Here, the industry classification (i) uses the major categories (20 categories) of the Japan Standard Industrial Classification.

$$LE_{i,t} = LE_t \times W_{i,t} \qquad (2)$$

Regarding the employment rate (RLE_t), as shown in Section1.1, the current employment rate is approaching the peak seen at the end of the bubble era, and significant improvement going forward is not expected. Furthermore, the employment share ($W_{i,t}$) for each industry requires anticipating future changes in industrial structure and economic growth, making it difficult to forecast. Therefore, RLE_t and $W_{i,t}$ were fixed at their benchmark (2022) values, and the number of employees by industry was estimated using Equations (1) and (2). This is referred to as the base case hereafter.

Figure 4-1-6 shows estimated employment figures for three notable industries in the Kansai region. Actual figures by the Statistics Bureau, Ministry of Internal Affairs and Communications in the "Employment Status Survey" are used up to 2022, with estimates provided for 2023 onwards. The share by industry remains fixed for "Healthcare and Welfare" (14.4%), "Accommodation, eating and drinking services" (6.1%), and "Construction" (5.9%). While the number of employees in "Healthcare and Welfare" and "Accommodation, eating and drinking services" had been increasing, they have shown a decreasing trend since 2022, following the population projection path of the NIPSSR. In "Construction," the trend has been decreasing even recently, and it is projected to continue

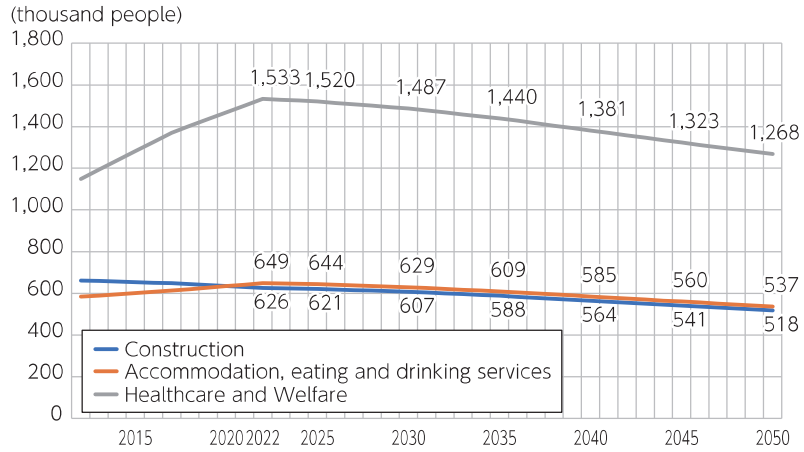

Figure 4-1-6 Estimated number of employed persons: supply side (base case), Kansai

Note: Figures from 2023 onwards are estimates.
Source: Statistics Bureau, Ministry of Internal Affairs and Communications, Population Estimates, Employment Status Survey; and National Institute of Population and Social Security Research (IPSS), Regional Population Projections for Japan (2023 Estimates)

decreasing in the future.

(2) Future Employment Numbers from the Demand Side

Next, we examine scenarios from the demand side. Here, we estimate the required number of workers as proportional to the growth in real Gross Regional Products (GRP) within each industry.

Figure 4-1-7 shows the trend in real GRP by industry in the Kansai region. GRP figures for each industry are based on actual values up to 2021 from the Cabinet Office "Prefectural Economic Accounts."

For 2022 onwards, the average growth rate from 2011-2018 (excluding the impact of the COVID-19 pandemic) was applied for "Healthcare and Welfare" (2.6%), "Accommodation, eating and drinking services" (4.6%)[2)], and "Construction" (1.8%).

Assuming constant per capita value added for 2021—that is, assuming zero productivity growth from FY2023 onward—the required number of workers from FY2023 onward (real GRP/per capita value added) was estimated based on projections of real GRP by industry (Figure 4-1-8).

While it is important to note that this assumes zero productivity growth, by 2050 employment is projected to increase 2.1 times compared to 2022 in "Healthcare and Welfare" (1,533,000 → 3,195,000), "Accommodation, eating and drinking services" will require 3.7 times more workers (649,000 → 2,368,000), and "Construction" will require 1.7 times more workers (626,000 → 1,065,000).

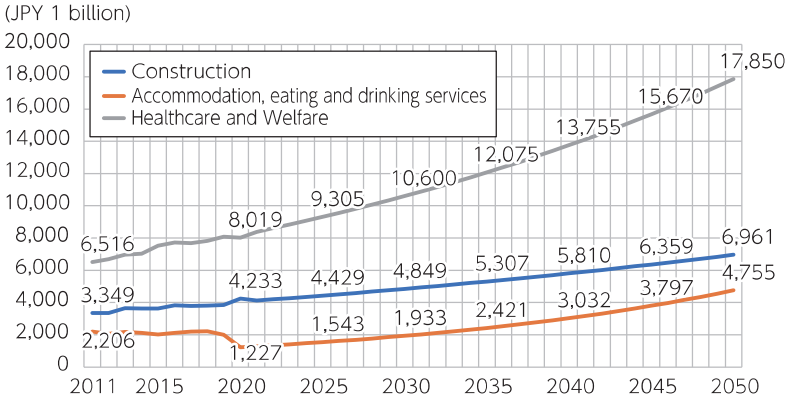

Figure 4-1-7 Trends in Real Gross Regional Product (GRP) by Industry: Kansai

Note: Figures from 2022 onward are estimates. "Public Health and Social Services" include "Healthcare and Welfare."
Source: Cabinet Office, "Prefectural Economic Accounts"

2) For "Accommodation, eating and drinking services," considering the anticipated future increase in inbound tourism demand, the average growth rate is based on 2016 and 2017 (when inbound tourism demand was expanding before the pandemic) and 2021 (which saw a temporary rebound from the pandemic).

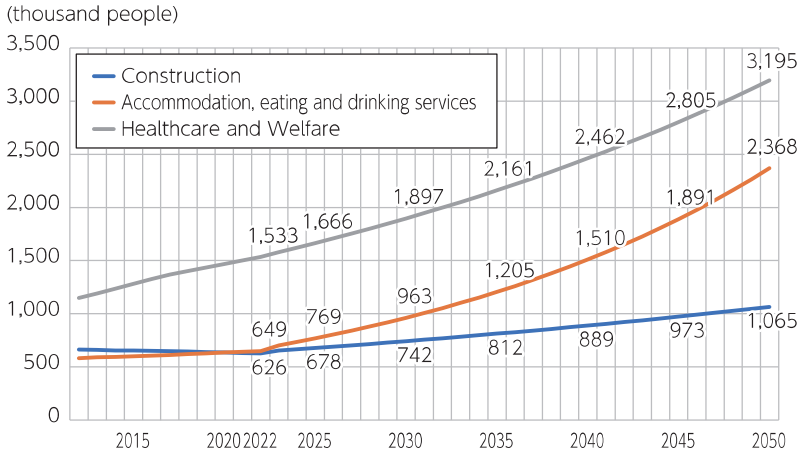

Figure 4-1-8 Estimated number of employed persons: Demand side: Kansai

Note: Figures from 2023 onwards are estimates.
Source: Statistics Bureau, Ministry of Internal Affairs and Communications, "Employment Status Survey"; Cabinet Office, "Prefectural Economic Accounts"

(3) Estimation of the Labor Supply-Demand Gap by Industry

Figure 4-1-9 shows the trends in labor demand and supply within the Kansai construction industry. By 2030, the estimated number of workers employed in the industry will be 607,000, falling short of the 742,000 workers needed to support the sector's growth in Kansai. This represents a labor supply shortage of 135,000 workers (18.2% of demand). By 2040, demand is projected to reach 889,000 workers, while supply is expected to be 564,000 workers, resulting in a supply-demand gap of 325,000 workers (38.2%). By 2050, demand is projected to reach 1,065,000 workers, while supply is expected to be 518,000 workers, widening the supply-demand gap to 547,000 workers (51.4%).

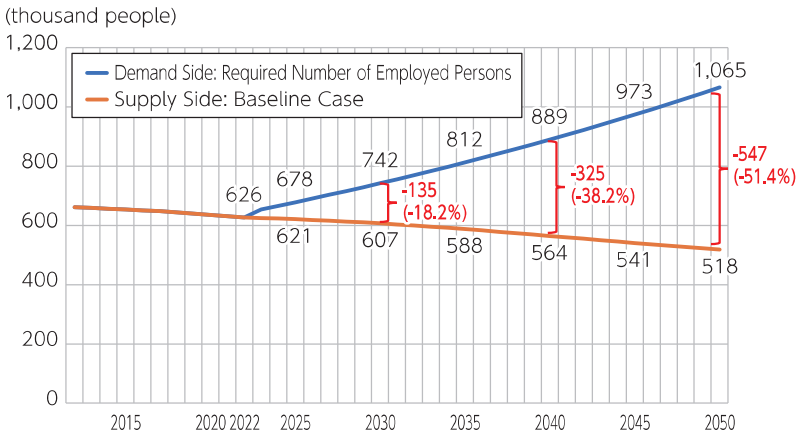

Figure 4-1-9 Estimate of the Supply-Demand Gap: Kansai –Construction

Source: Statistics Bureau, Ministry of Internal Affairs and Communications, "Employment Status Survey"; Cabinet Office, "Prefectural Economic Accounts"

Next, looking at "Accommodation, eating and drinking services" (Figure 4-1-10), demand is projected to reach 963,000 people in 2030, while supply will be 629,000 people, resulting in a supply-demand gap of 333,000 people (34.6% of demand). By 2040, demand is projected to reach 1,510,000 people, while supply will be 585,000 people, resulting in a supply-demand gap of 925,000 people (61.3%). By 2050, demand is projected to reach 2,368,000 people while supply stands at 537,000 people, resulting in a significantly widened gap of 1,831,000 people (77.3%).

Finally, looking at "Healthcare and Welfare" (Figure 4-1-11), demand in 2030 is projected to be 1,897,000 people, while supply is estimated at 1,487,000 people. This results in a supply-demand gap of 411,000 people (21.7% of demand). By 2040, demand is projected to reach 2,462,000 people while supply stands at 1,381,000 people, resulting in a supply-demand gap of 1,081,00 people (43.9%). By 2050, demand is expected to reach 3,195,000 people while supply stands at 1,268,000 people, resulting in a supply-demand gap of 1,927,000 people (60.3%).

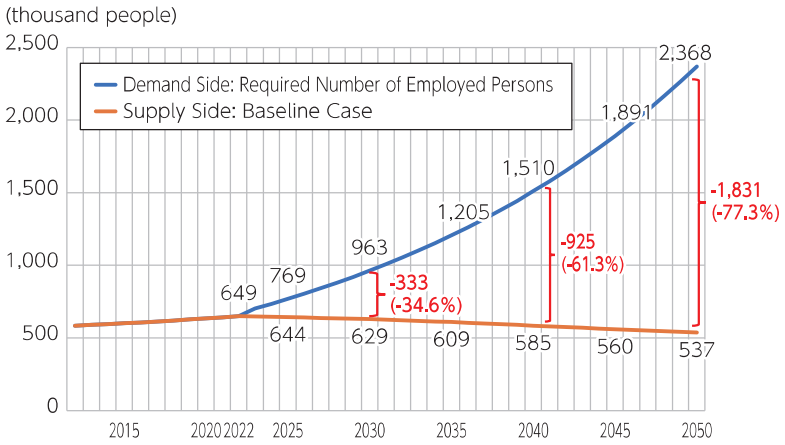

Figure 4-1-10 Estimate of the Supply-Demand Gap: Kansai – Accommodation, eating and drinking services

Source: Statistics Bureau, Ministry of Internal Affairs and Communications, "Employment Status Survey"; Cabinet Office, "Prefectural Economic Accounts"

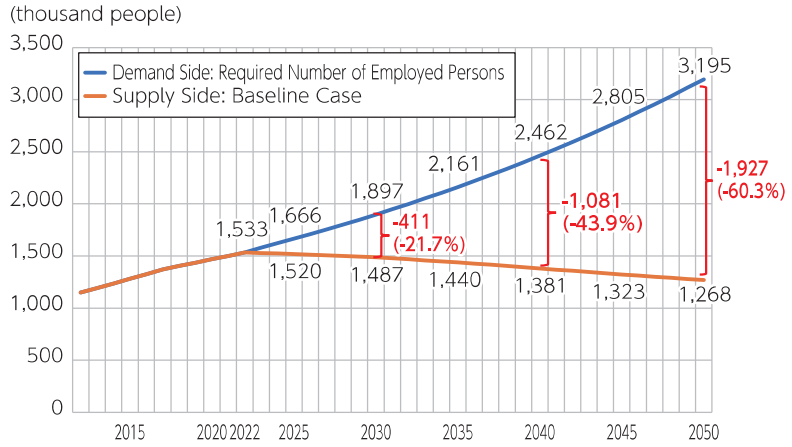

Figure 4-1-11 Estimate of the Supply-Demand Gap: Kansai – Healthcare and Welfare

Source: Statistics Bureau, Ministry of Internal Affairs and Communications, "Employment Status Survey"; Cabinet Office, "Prefectural Economic Accounts"

As described above, all three industries—"Construction," "Accommodation, eating and drinking services," and "Healthcare and Welfare"—will face significant gaps in labor supply and demand by 2050. Therefore, it is necessary to discuss how to compensate for the labor shortages required for industrial growth caused by population decline. In this context, for Japan which is under population decline, how to accept foreign workers will be crucial. Section 2 organizes the current status of foreign workers, clarifies their characteristics, and uses basic statistics to project future trends for foreign workers.

References

Asia Pacific Institute of Research, (2024), Asia Pacific and Kansai and the Asia Pacific Economic Outlook 2024. Chapter 4, Section 1,