Part I

National Land and Transportation Administration for Dramatically Changing Lifestyles: Aiming for a Society where Everyone Can Shine

Chapter 1   The Changing State of Japan

Based on the premises of discussions to follow in Chapter 2 and later sections, this chapter presents overviews of changes in the form of Japanese society, land and other areas—including characteristics of the lifestyles of each generation—and also introduces new signs in Japan and government initiatives.

"Section 1: Changes in the Form of Japanese Society" touches upon the demographic problems Japan faces—namely, a declining birthrate, an aging population and depopulation—in addition to the true state of labor and leisure for Japanese citizens. This section also examines the lifestyles of each generation.

"Section 2: Changes in the Form of Japanese Land" describes changes in the land that underlies Japanese society. This section also presents an overview of the characteristics of the demographics and lifestyles of urban and regional areas, and sets out various issues related to life in the future.

"Section 3: New Signs in Japan" presents new signals of things that Japan can rely on to help solve the various problems that it faces.

Finally, "Section 4: Government Initiatives" is an overview of efforts by the national government and the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) toward promoting the dynamic engagement of all citizens.

## Section 1   Changes in the Form of Japanese Society

1   Socioeconomic Trends

(1) Japan's Socioeconomic Situation
(Progression of declining birthrate, aging population and depopulation)

Japan's total birth rate increased slightly from a postwar low of 1.26 in 2005 to 1.44 in 2016, but the roughly 980,000 births that year is a record low (Figure 1-1-1).

**Figure 1-1-1**   **Number of Births and Total Birth Rate**
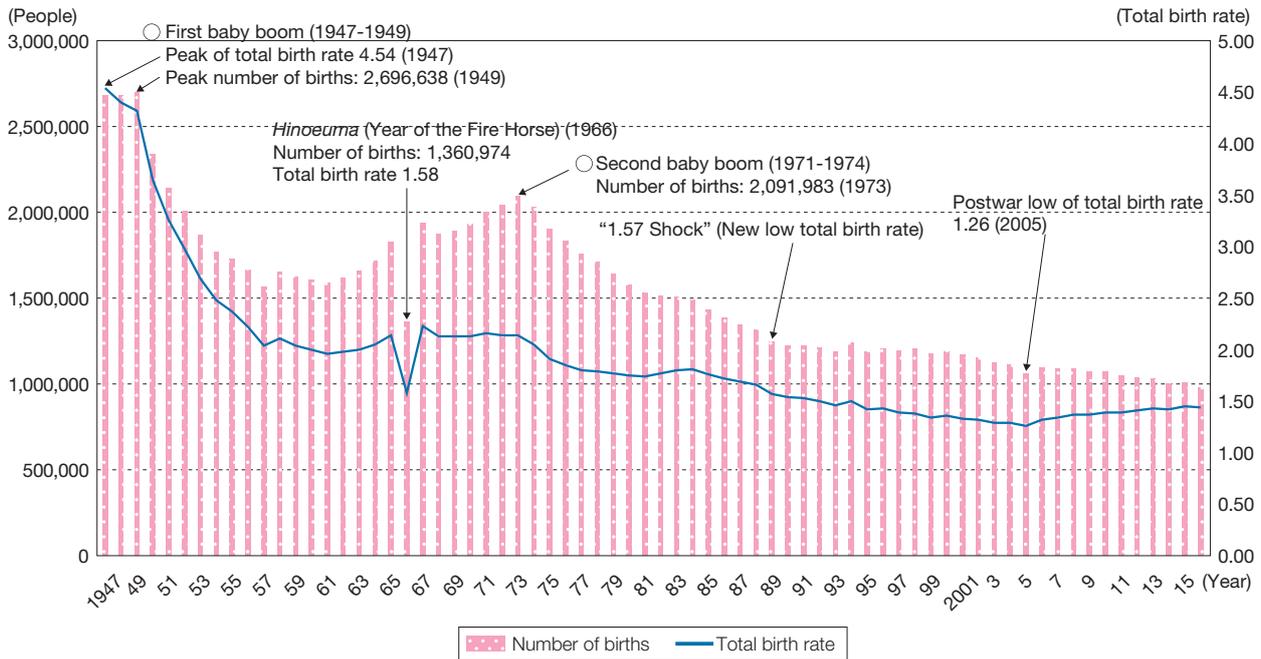
Note: Okinawa Prefecture is not included in figures prior to 1972. Figures are final through 2016, and are estimates from 2017.
Source) "Vital Statistics" (MHLW)

In 2017, people aged 65 or older accounted for 27.7% of the population, a record high[Note 1] and a higher ratio than in any other country in the world (Figure 1-1-2). Japan's population aging rate[Note 2] is projected to exceed 30% by 2025 and approach 40% by 2050; by then, Japan will be a super-aging society like none before.

The progression of this declining birthrate and aging population has driven the total population and working-age population (people aged 15 to 64) of Japan down from their respective peaks in 2008 and 1995. By 2065, the total and working-age populations of Japan will decrease to 88.08 million and 45.29 million, respectively, according to population estimates (estimated mean birth rates (mean death rates)) by the National Institute of Population and Social Security Research (Figure 1-1-3).

**Figure 1-1-2**   **Population Aging Rates by Country**
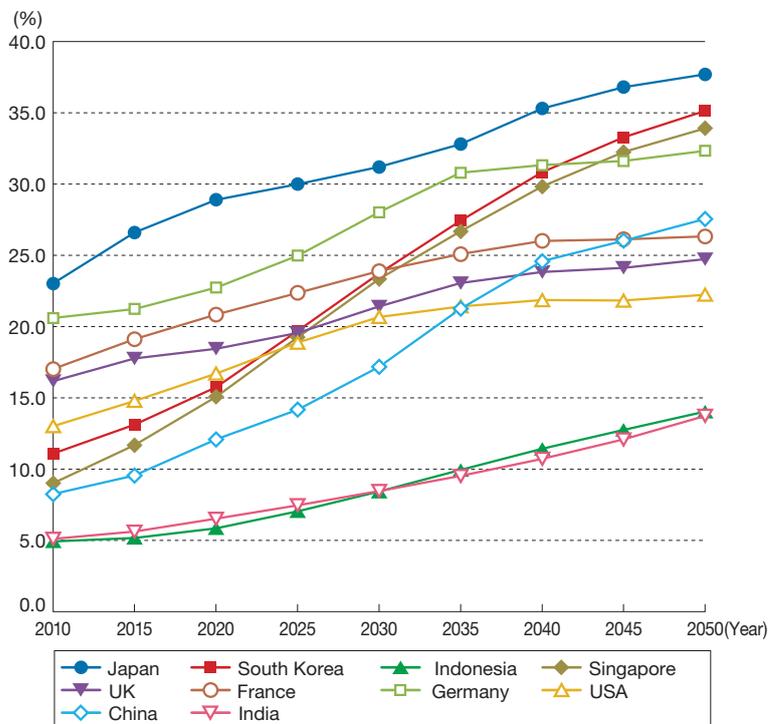
Note: All figures for 2010 are actual figures. Figures for 2011 and beyond are median estimates.
Sources) Prepared by the MLIT based on "Population Projections for Japan (2017)" (National Institute of Population and Social Security Research) and "World Population Prospects: The 2015 Revision" (United Nations) for other countries.

Note 1   The percentage of the population of elderly people (people aged 65 and older) of the total population
Note 2   "Population Projections" by the MIC (as of October 1, 2017)

Figure 1-1-3　Trend in Japan's Population
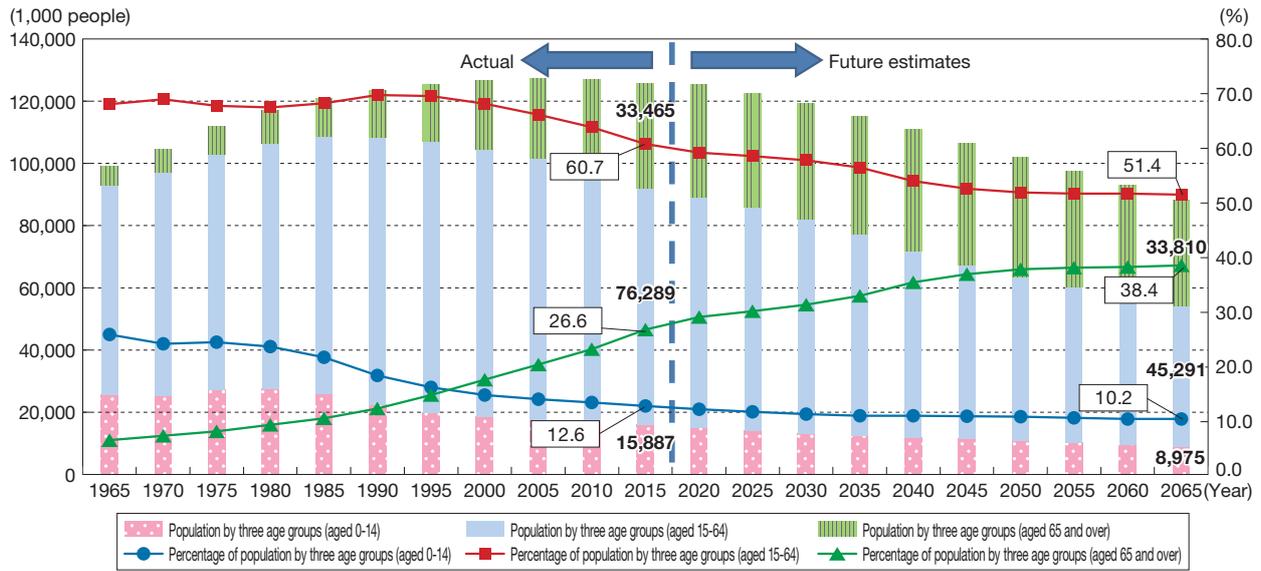
(Note) Okinawa Prefecture is not included for dates up to 1970.
Source) "National Census Report" by the Statistics Bureau of the Ministry of Internal Affairs and Communications (MIC) for dates up to 2010, "Basic Complete Tabulation on Population and Households of the 2015 Population Census" by Statistics Bureau of MIC for 2015 data; estimates are calculated by the MLIT from the median estimates of birth (median estimates of death) in "Japan's future population estimates" (estimates from 2017) by the National Institute of Population and Social Security Research (IPSS).
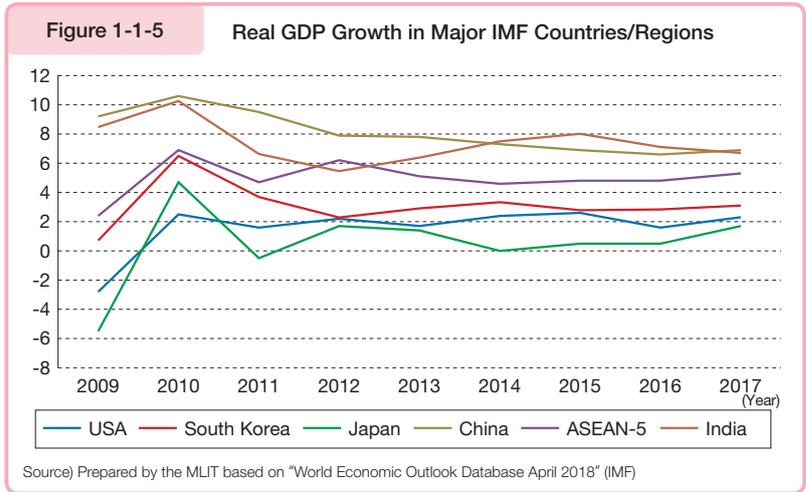
(Japan's economic situation)

Japan's GDP growth rate in recent years is lower than its rate in the 1980s (Figure 1-1-4), and its real GDP growth is lower than that of other countries and regions around the world (Figure 1-1-5).
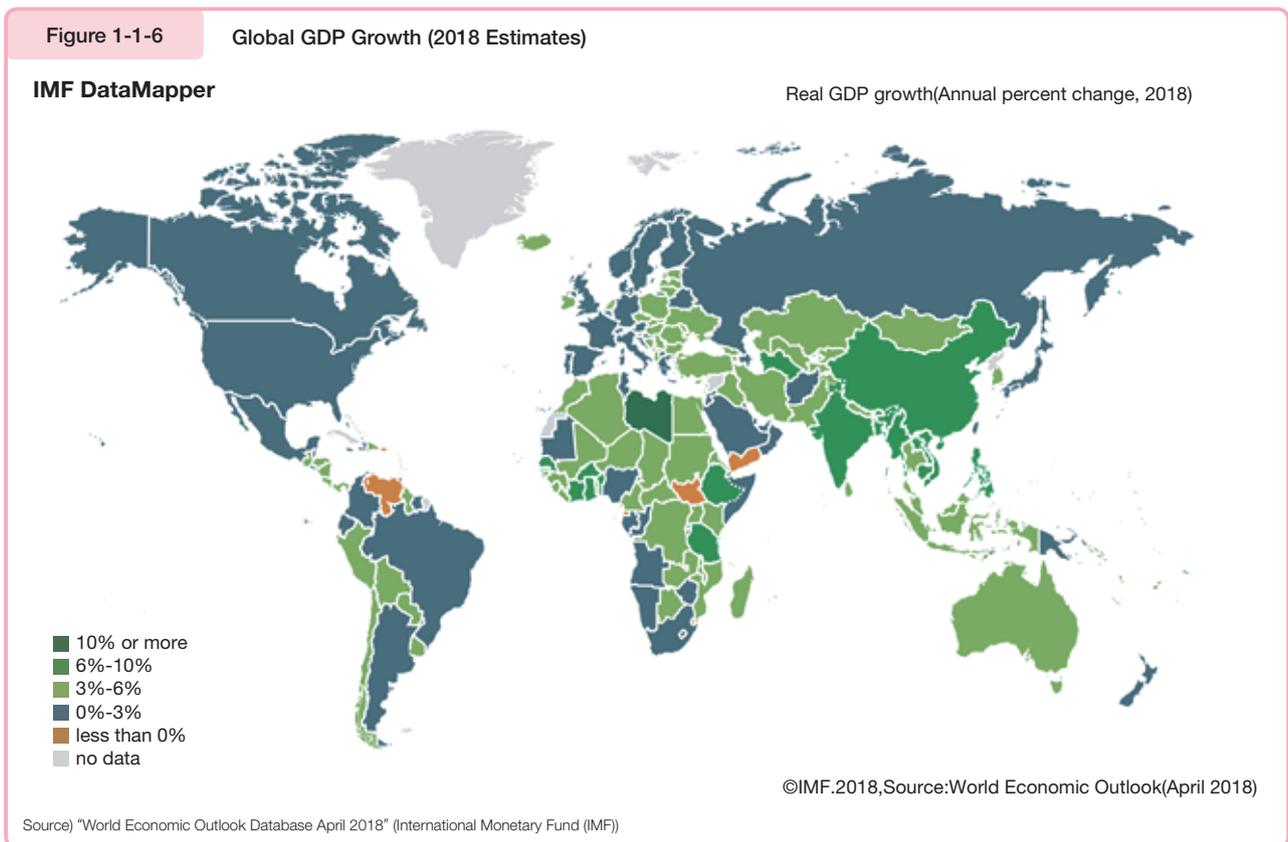

Figure 1-1-4　Trend in Japan's GDP
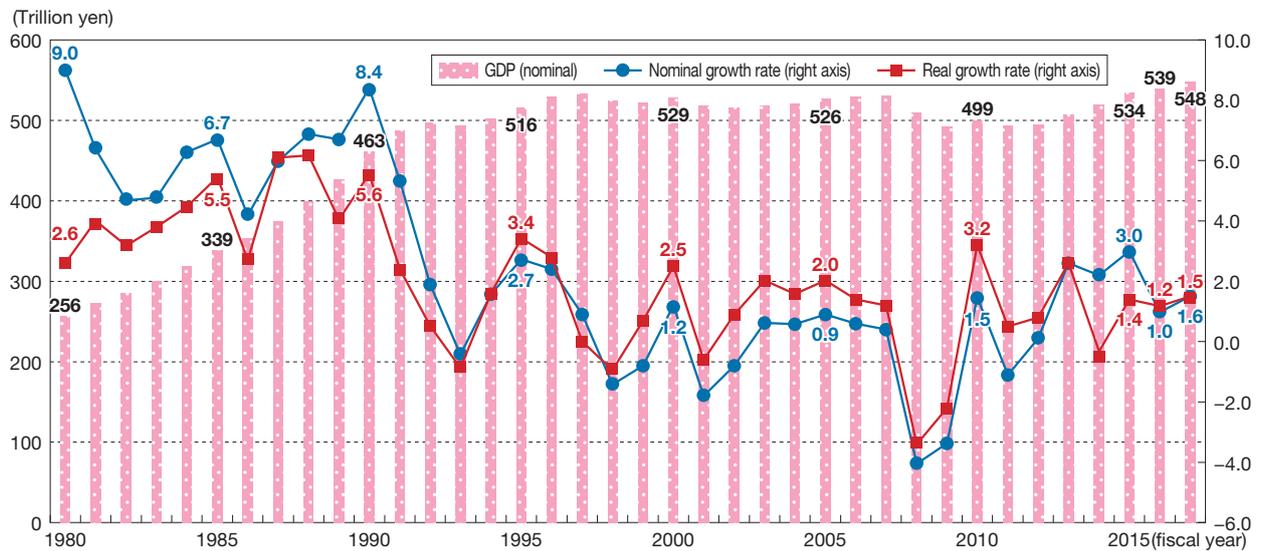
Note) Figures for gross domestic product from FY 1980 to FY 1993 (previous-year comparisons from FY 1981 to FY 1994) were taken from "FY 2011 Standard Expenditure Approach GDP System Simple Retrospective (2011 basis, 08SNA)," and for FY 1994 (previous-year comparison from FY 1995) and onward were taken from "Quarterly Estimates of GDP for January – March 2017 (First Preliminary Estimates) (2011 basis, 08SNA)".
Source) Prepared by the MLIT based on the "Annual Report on the Japanese Economy and Public Finance FY2016 (Long-term Economic Statistics, National Accounts of Japan (1/5))" by the Cabinet Office and "National Accounts of Japan (GDP Statistics)" by the Cabinet Office.

Figure 1-1-5 Real GDP Growth in Major IMF Countries/Regions

USA — South Korea — Japan — China — ASEAN-5 — India

Source) Prepared by the MLIT based on "World Economic Outlook Database April 2018" (IMF)

In contrast, China, the ASEAN-5 countries, India and other Asian nations are enjoying remarkable growth, and the region is expected to drive the global economy as it grows even further (Figure 1-1-6). It is important for Japan to maintain and build positive relationships with these countries, and to make efforts toward the vitality of the region.

Figure 1-1-6 Global GDP Growth (2018 Estimates)

IMF DataMapper

Real GDP growth(Annual percent change, 2018)

- 10% or more
- 6%-10%
- 3%-6%
- 0%-3%
- less than 0%
- no data

©IMF.2018,Source:World Economic Outlook(April 2018)

Source) "World Economic Outlook Database April 2018" (International Monetary Fund (IMF))

(Projections for the Japanese economy)

A Council on Economic and Fiscal Policy report projected real GDP growth rates in the second half of the 21st century in two scenarios. In the first, which assumes that productivity stagnates because depopulation continues at its current rate, the report projects average annual real GDP growth of -0.2%; in the other scenario, which assumes that the population stabilizes around 100 million people and that productivity improves due to increased participation in the workforce by women and elderly people, the report projects a rate of 2.0% (Figure 1-1-7).

Given these scenarios, we must use technological innovations and other advancements to improve labor productivity, and continue to proactively encourage the employment of women and elderly people and make other efforts to increase the number of people engaged in work in order to maintain and reinvigorate the sluggish Japanese economy.

Figure 1-1-7	Estimates of Future Population and Real GDP Growth Rate
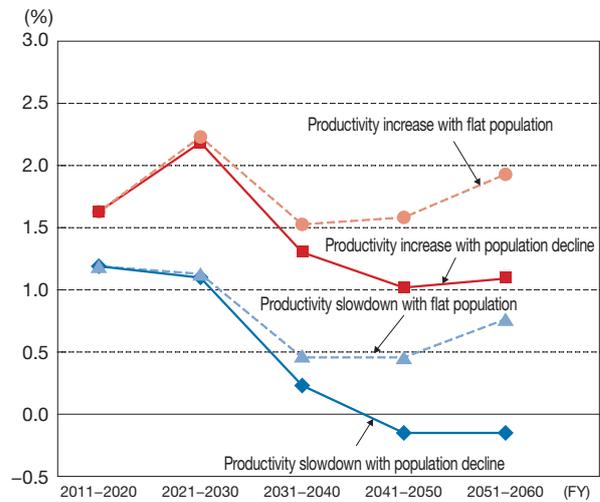
(Note) Scenario assumptions
Flat population: (i) Total fertility rate increases to 2.07 in FY2030 and is maintained at the same level thereafter; (ii) population in 50 years' time is maintained at around 100 million
Population decline: (i) Total fertility rate declines to 1.33 by FY2024 and is maintained at about 1.35 thereafter; (ii) population in 50 years' time decreases to about 85 million
Productivity increase: TFP[Note 3] increases to around 1.8% by the beginning of the 2020s
Productivity slowdown: TFP increases only around 1.0% at the beginning of the 2020s
Source) Prepared by the MLIT based on the "Growth and Development Working Group Report" by the Council on Economic and Fiscal Policy, Expert Panel, Committee for Japan's Future

(2) The State of Labor in Japan
(The state of the working population)

The Japanese workforce numbered 65.87 million people as of 2014, but is expected to shrink by 7.87 million people by 2030 if labor market participation fails to improve in a near zero-growth economy (Figure 1-1-8).

In addition, roughly 3 million women, elderly people and others who desire employment are presently not a part of the workforce (Figure 1-1-9).

Figure 1-1-8	Outlook for Workforce Population
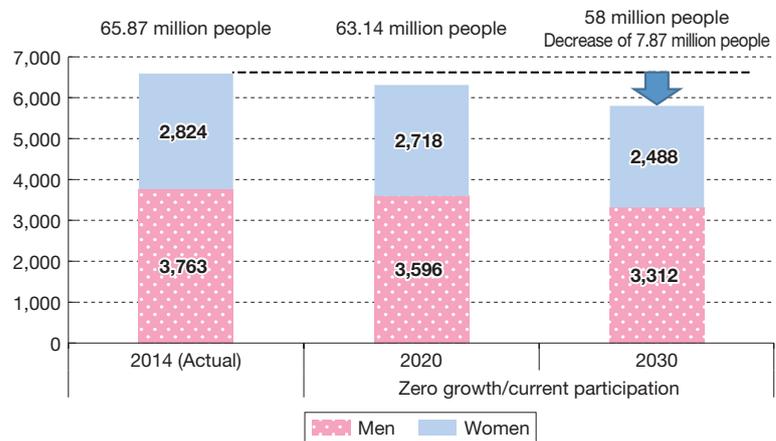
*Figures for 2014 are actual values from "Labour Force Survey" (MIC Statistics Bureau), and figures for 2020 and 2030 are estimates by The Japan Institute for Labour Policy and Training.
*"Zero growth/current participation" is a projection of a near zero-growth economy with labor participation rates by gender and age the same as they were in 2014.
*Figures in the chart are rounded to the nearest 10,000; the breakdowns may not add up to the overall figures for each year.
Source) Prepared by the MLIT based on materials from a presentation by the authors of "Labor Demand Projections: Estimates by Prefecture in Light of New National Estimates (2015)" (The Japan Institute for Labour Policy and Training)

Note 3 Total factor productivity (TFP) refers to qualitative factors of economic growth (GDP growth) other than the quantitative productivity factors of capital and labor. Technological progress and the streamlining of manufacturing fall under TFP.

| Figure 1-1-9 | Population of Non-Workers Who Desire Employment |
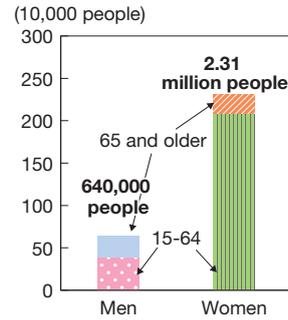
Note 1 : Prepared based on "Labour Force Survey (Detailed Summary) (October-December 2017)" (MIC).
Note 2 : The population of non-workers excludes 15- to 24-year-olds who are currently enrolled in school.

Source) "Materials from Ministerial Council on the Monthly Economic Report and Other Relative Issues (February 2018)" (Cabinet Office)

■Elderly people

Of the 67.2 million people in the Japanese workforce in 2017, 8.22 million were aged 65 or older (4.54 million were aged 65 to 69, and 3.67 million were aged 70 or older). This segment represents 12.2% of the total workforce, and is continuing to increase (Figure 1-1-10).

| Figure 1-1-10 | Workforce Population |
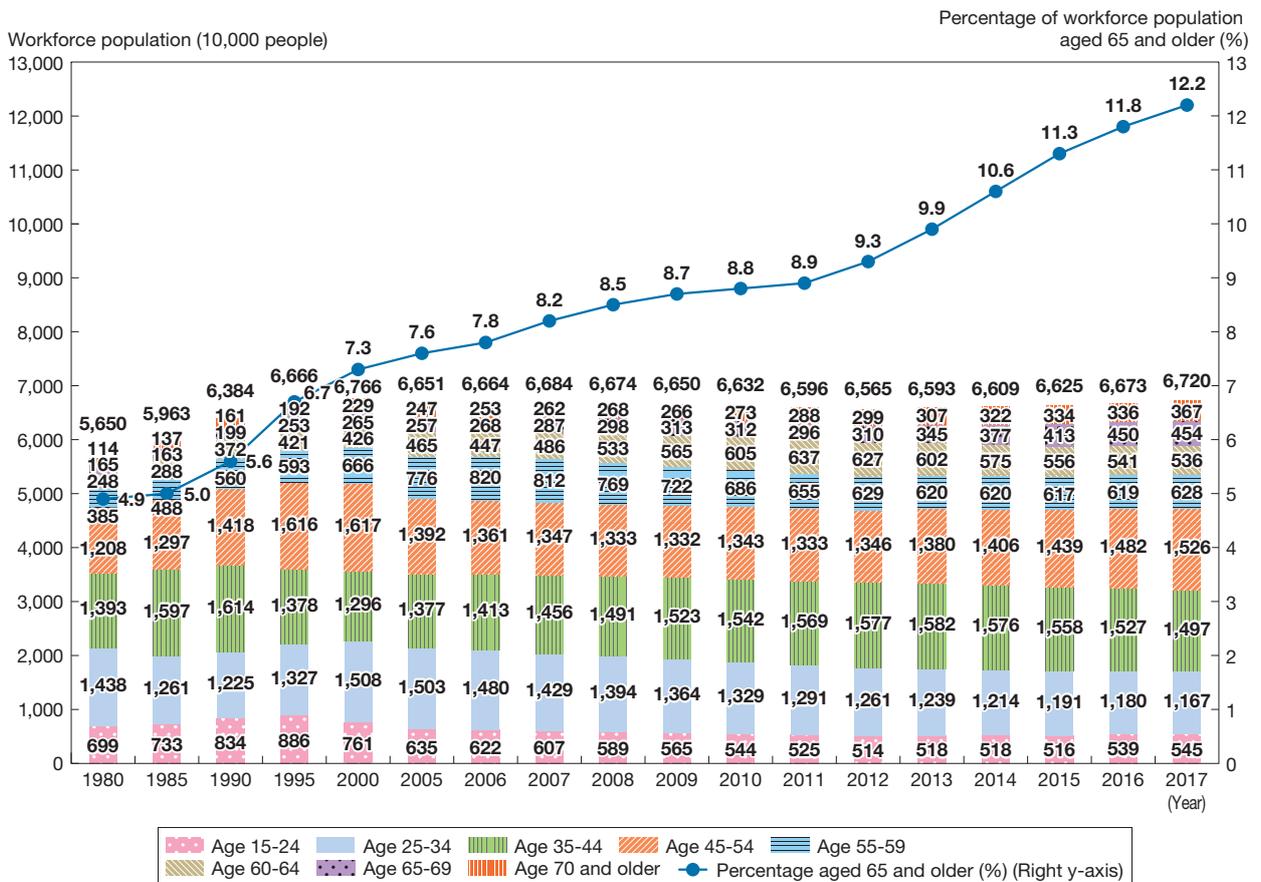
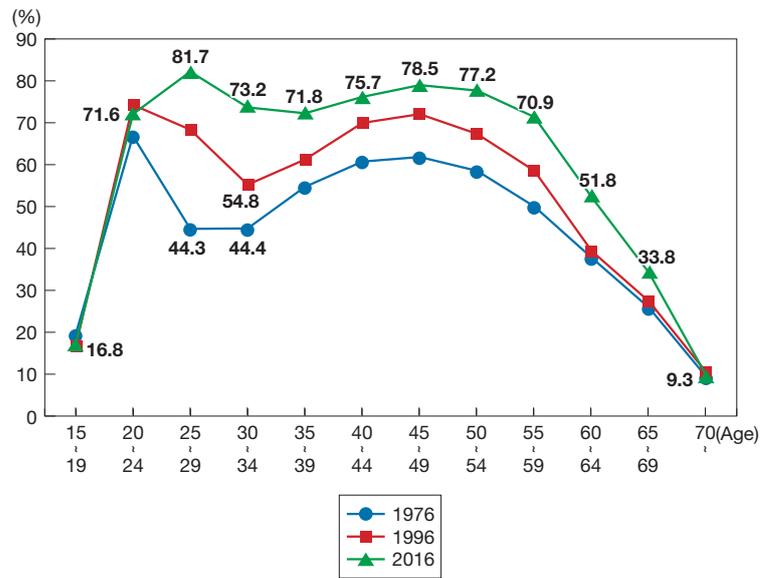Note 1: "Workforce population" is the total number of people aged 15 years and older who are employed or who are unemployed and seeking employment.
Note 2: Due to the difficulty of conducting surveys in Iwate, Miyagi and Fukushima Prefectures in 2011, figures for that year are extrapolations.
Source) Prepared by the MLIT based on "Labour Force Survey (Workforce Population and Percentages by Age Group)" (MIC)

■Women

A graph of women's labor participation by age is shaped like an M; labor participation decreases temporarily during the typical age ranges for marriage and childbearing, and increases again after childcare responsibilities wane. However, the prevalence of maternity leave and other factors have increased women's labor participation in the marriage and childbearing age ranges, which has had the effect of smoothing out the M (Figure 1-1-11).

In contrast, while South Korea also exhibits an M-shaped curve, Western countries do not (Figure 1-1-12).

| Figure 1-1-11 | Women's Labor Participation Rates by Age Group |

Note 1: Prepared by the Cabinet Office based on "Labour Force Survey (Basic Summary)" (General Affairs Bureau).
Note 2: Labor participation rates are percentages derived from the following formula: Workforce population (total number of people who are employed and people who are unemployed and seeking employment) / Population of people aged 15 and older.
Source) "White Paper on Gender Equality 2017" (Cabinet Office)

| Figure 1-1-12 | Women's Labor Participation Rates by Age Group in Major Countries |
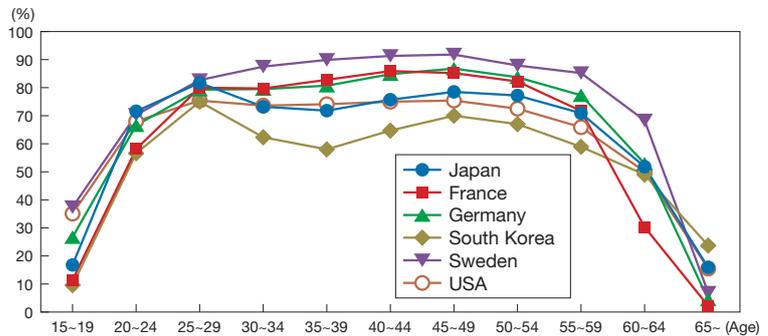
Note 1: Figures for Japan are based on "Labour Force Survey (Basic Summary) (2016)" (MIC). Figures for other countries are based on "ILOSTAT" (ILO). All figures are from 2016.
Note 2: Labor participation rates are percentages derived from the following formula: Workforce population (total number of people who are employed and people who are unemployed and seeking employment) / Population of people aged 15 and older.
Note 3: Figures for people aged 15-19 in the United States are actually for people aged 16-19.
Source) "White Paper on Gender Equality 2017" (Cabinet Office)

I

Column

Efforts of Hiroshima Electric Railway Co., Ltd.

Hiroshima Electric Railway is involved in railway and bus operations and the real estate business mainly in Hiroshima City. On September 16, 2017, the company instituted a reduced-hours system that allows regular employees to choose and even reduce their working hours to accommodate their lifestyles without losing their status as regular employees (Figure 1-1-13). In addition, the company expanded its senior employee system, which originally allowed employees to work until the age of 66, to allow employees to work until the age of 70.
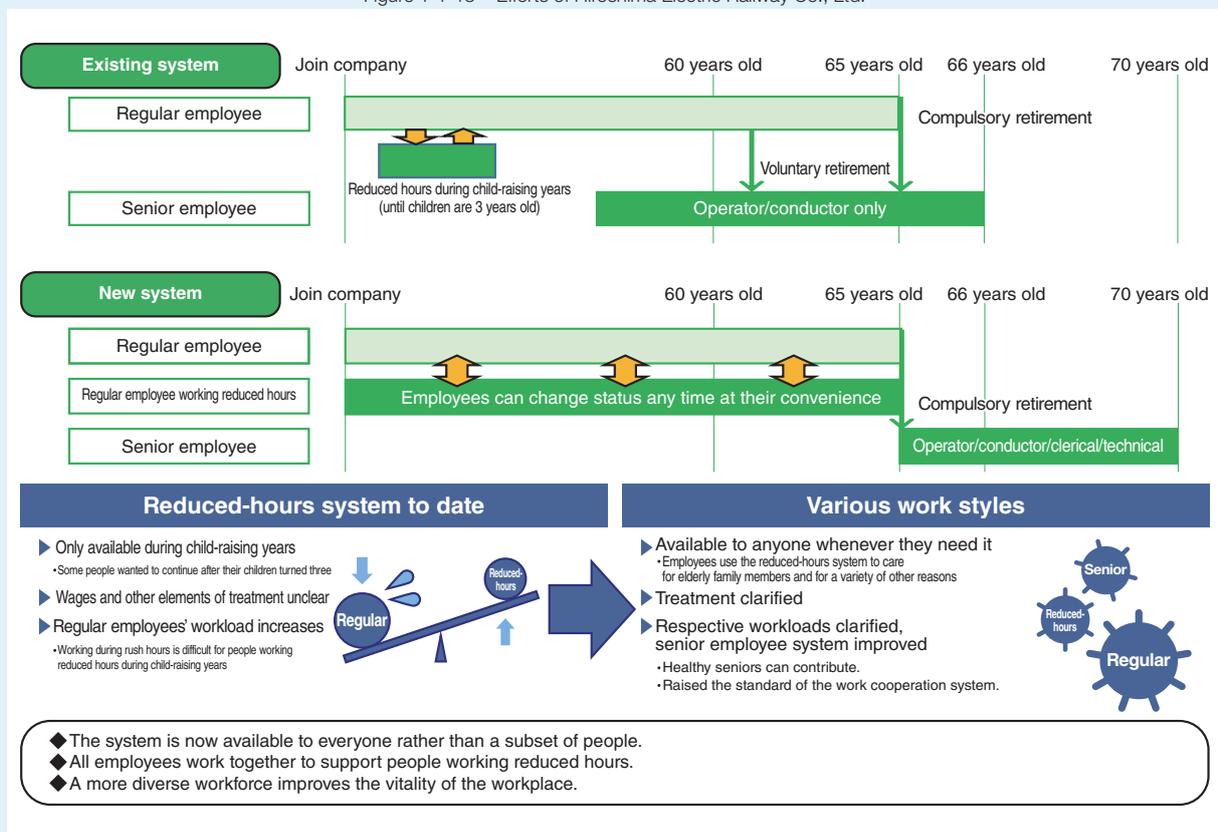
The company developed these systems for several purposes: to transition from a reduced-hours system for some employees to a system for all employees, to become an organization in which employees can help each other during times of trouble, and to diversify their team and prevent departures from the workforce due to child raising and elderly caregiving by hiring new regular employees on the reduced-hours system.

The reduced-hours system enables regular employees to set their own working hours for a defined period of their choosing lasting at least three months. There are no restrictions in terms of reasons for changing working hours or the number of times that regular employees can use this system, and, as a rule, job duties do not change. However, salaries and extraordinary pay are reduced in line with the reduced working hours. As of March 2018, 11 regular employees are using the reduced-hours system.

The company's senior employee system allows employees to work until age 70, and job duties are not limited to driver or conductor as before; senior employees are able to do technical and clerical work as well.

These efforts by Hiroshima Electric Railway have helped create a workplace where people can work regardless of their gender, age or other life circumstances, and appear to be effective toward countering labor shortages due to the declining birthrate and aging population that already plague Japan.

Figure 1-1-13   Efforts of Hiroshima Electric Railway Co., Ltd.

■Foreigners

As of the end of October 2017, 1.28 million foreigners were working in Japan (Figure 1-1-14), and another 28.69 million foreigners traveled to Japan to visit. Both figures are record highs that illustrate the accelerating globalization of Japan.

Presently, Japan is proactively accepting foreigners with residence status in professional and technical fields. As for other foreigners, in the "Investments for the Future Strategy 2017" (June 9, 2017 Cabinet decision), the government pledges to continue to "comprehensively and specifically consider the best ways to accept foreign human resources into Japan while focusing on fields of true need in order to ensure the sustainability of Japanese economic and social infrastructure."

Figure 1-1-14　Number of Foreign Workers
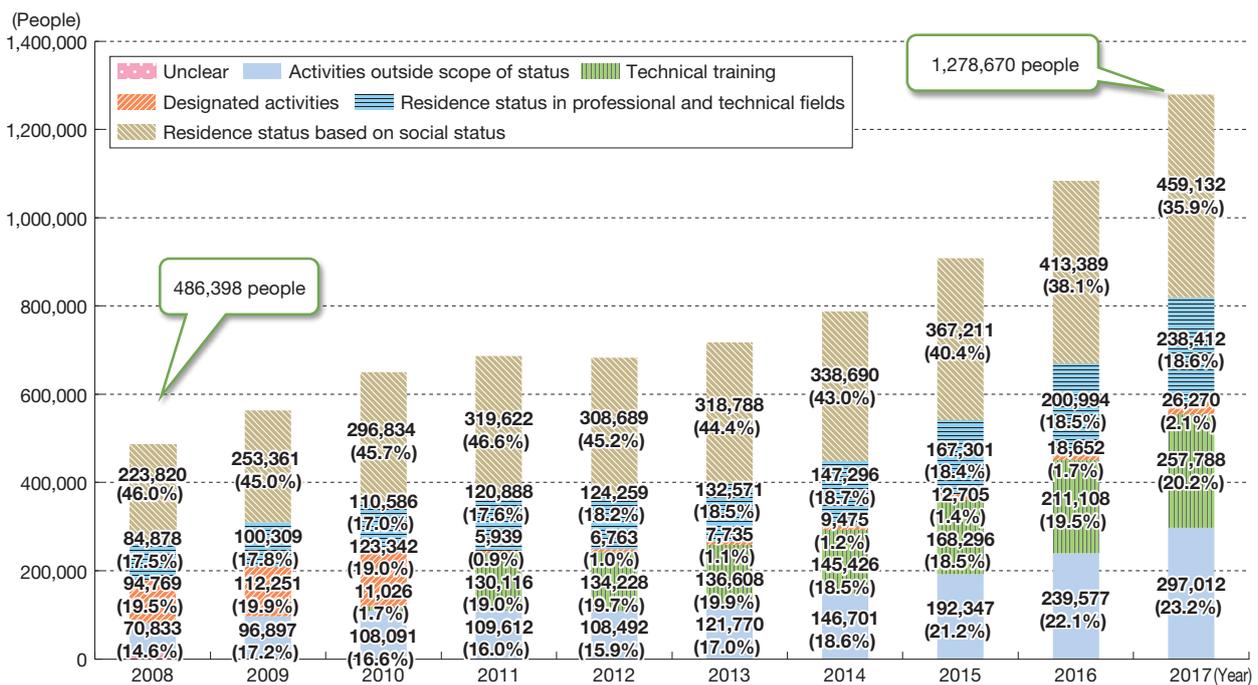
*Totals based on "Summary of Reporting of Foreign Employment Status" (MHLW) (Statistics as of the end of October of each year)
Source) "Second Council on Economic and Fiscal Policy, 2018" (Cabinet Office)

■People with disabilities

As of June 1, 2017, 495,795.0 people[Note 4] with disabilities were employed by private corporations[Note 5], an improvement from 474,374.0 people on the same day in the previous year, and a new record high for the 14th consecutive year (Figure 1-1-15).

Note 4　By law, when counting the number of employees with disabilities, each person with severe physical or intellectual disabilities counts as two people, and each reduced-hours worker with non-severe physical, intellectual or mental disabilities counts as 0.5 people.

Note 5　Private companies with 50 or more regular employees. Companies in this category are obligated to employ at least one person with a physical or intellectual disability, and must report the status of the employment of people with disabilities to the Ministry of Health, Labour and Welfare.

| Figure 1-1-15 | Employment Status of People with Disabilities and Private Corporations |

(Number of people with disabilities (1,000 people))   (Actual employment rate (%))

Legend:
- People with mental disabilities
- People with intellectual disabilities
- People with physical disabilities
- Actual employment rate

Mandatory employment rate: 1.8%   2.0%
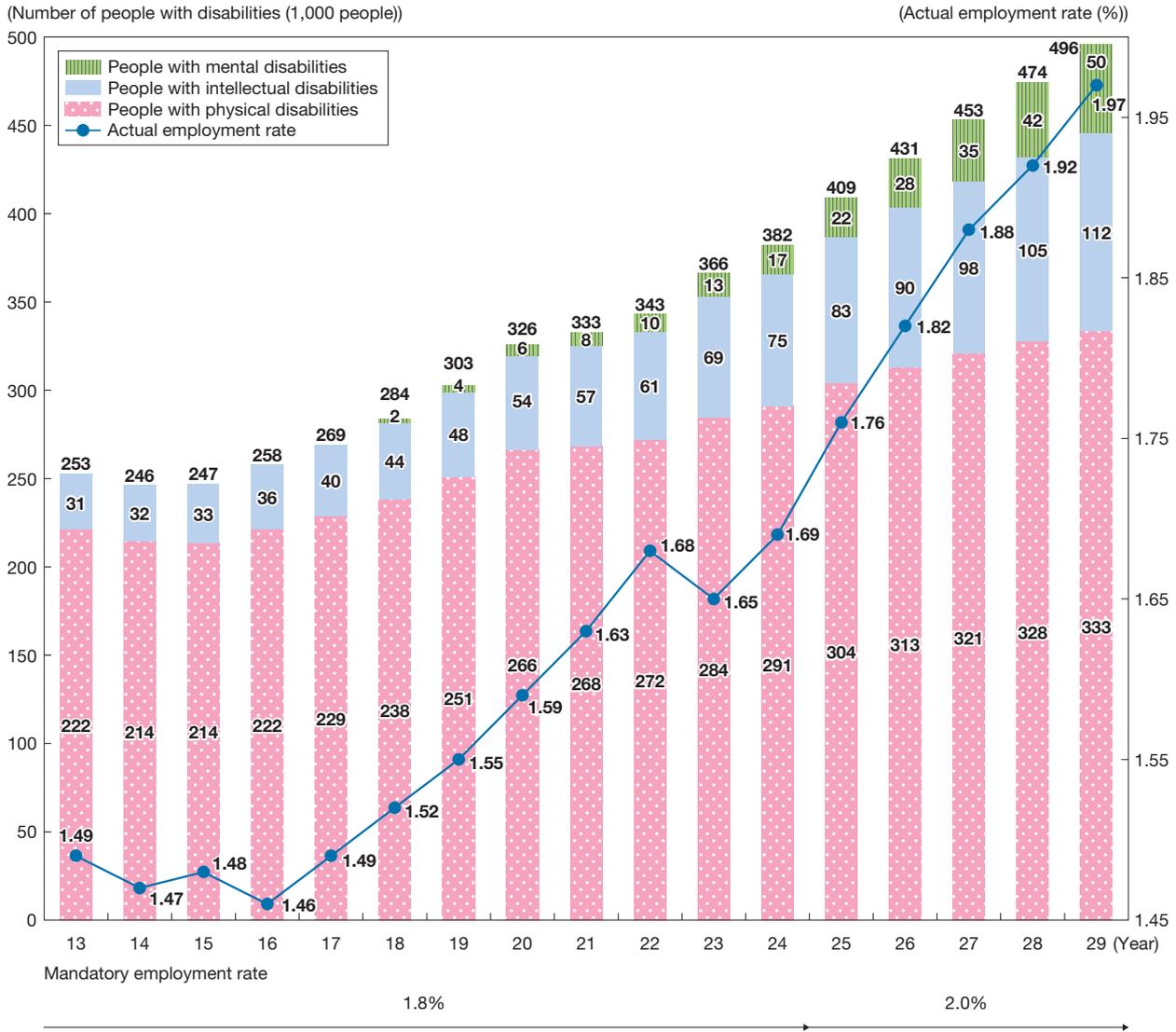
Note 1: These are totals for corporations obligated by law to employ people with disabilities (prior to 2013, corporations with 56 or more employees; since 2013, corporations with 50 or more employees).
Note 2: The number of people with disabilities is a total number of the following people:

Before 2006
People with physical disabilities (each person with severe physical disabilities counts as two people)
People with intellectual disabilities (each person with severe intellectual disabilities counts as two people)
Reduced-hours workers with severe physical disabilities
Reduced-hours workers with severe intellectual disabilities

From 2006 to 2010
People with physical disabilities (each person with severe physical disabilities counts as two people)
People with intellectual disabilities (each person with severe intellectual disabilities counts as two people)
Reduced-hours workers with severe physical disabilities
Reduced-hours workers with severe intellectual disabilities
People with mental disabilities
Reduced-hours workers with mental disabilities (each reduced-hours worker with mental disabilities counts as 0.5 people)

Since 2011
People with physical disabilities (each person with severe physical disabilities counts as two people)
People with intellectual disabilities (each person with severe intellectual disabilities counts as two people)
Reduced-hours workers with severe physical disabilities
Reduced-hours workers with severe intellectual disabilities
People with mental disabilities
Reduced-hours workers with physical disabilities (each reduced-hours worker with physical disabilities counts as 0.5 people)
Reduced-hours workers with intellectual disabilities (each reduced-hours worker with intellectual disabilities counts as 0.5 people)
Reduced-hours workers with mental disabilities (each reduced-hours worker with mental disabilities counts as 0.5 people)

Note 3: Prior to 2013, the mandatory employment rate was 1.8%; the mandatory employment rate has been 2.0% since April 2013.
Source) "Summary of Employment Status of People with Disabilities" (MHLW)

(The state of labor productivity)

The quality of labor in Japan is generally regarded as high, but labor productivity is actually low in global terms; Japan's productivity with respect to time[Note 6] is 20th of the 35 OECD member countries and continues to lag behind each of the other G7 nations (Figure 1-1-16).

Figure 1-1-16	Labor Productivity Per Unit of Time in G7 Nations
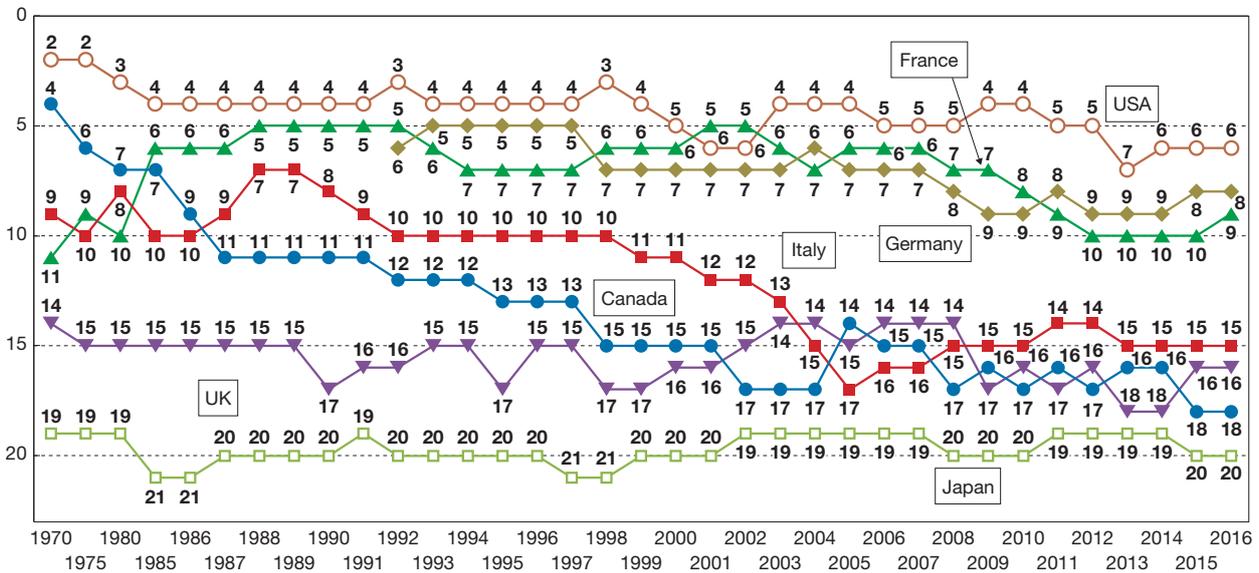
Source) "International Comparison of Labor Productivity 2017" (Japan Productivity Center)

Innovation driven by the effective use of big data, artificial intelligence (AI) and other elements of the Fourth Industrial Revolution[Note 7] are vital toward improving productivity, but Japanese corporations are slower than those of other countries to incorporate IoT and make other efforts toward that end (Figure 1-1-17).

Figure 1-1-17	State of IoT Introduction: Present (2015) and Future (2020)
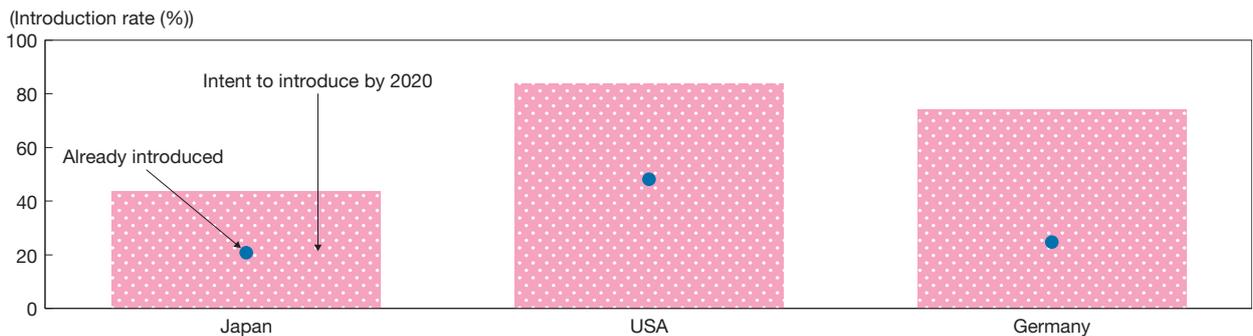
Note: The "Survey of Global Companies Regarding Economic Contributions to ICT within Japan and Efforts toward IoT in Japan and Other Countries" was administered to corporations with at least 100 employees at their headquarters in Japan, the United States, Germany, the United Kingdom, China or South Korea (Respondents: Japan: 620; USA: 135; Germany: 126; UK, China, South Korea: 125).
Source) Prepared by the Cabinet Office based on the "Survey of Global Companies Regarding Economic Contributions to ICT within Japan and Efforts toward IoT in Japan and Other Countries"

Note 6   The following formula, which is based on value added (equivalent to GDP on the national level), is used to calculate labor productivity for comparison with other countries.
Labor productivity = GDP (after purchasing power parity (PPP) conversion)/(Number of employees × Hours of labor)
Note that purchasing power parity is the expression of real purchasing power (including consideration of commodity price levels and other factors) in various countries' currencies as an exchange rate.

Note 7   The Fourth Industrial Revolution refers to innovations with the following core elements: (1) IoT and big data (the digitization of various information from the operating condition of factory machinery to transportation, climate and the health status of individuals, connected and organized over a network for analysis and application), and (2) AI (Computers are now able to learn and make decisions to an extent without being prompted by humans with all elements required for analysis. Conventional robot technology is also capable of handling more complicated tasks, and the development of 3D printing technology has made it possible to manufacture complicated articles in smaller spaces.)

(3) The State of Leisure in Japan
(How Japanese people acquire and spend leisure time)

Despite recommendations toward proactively granting paid vacation time under work style reform, Japan still ranks last in the world in the actual usage of that time (Figure 1-1-18).

Figure 1-1-18 International Comparison of Rates of Taking Paid Vacation

**For two years in a row,
Japanese people have used the lowest percentage of accrued paid vacation**

Source) "2017 Vacation Deprivation Study" (Expedia)
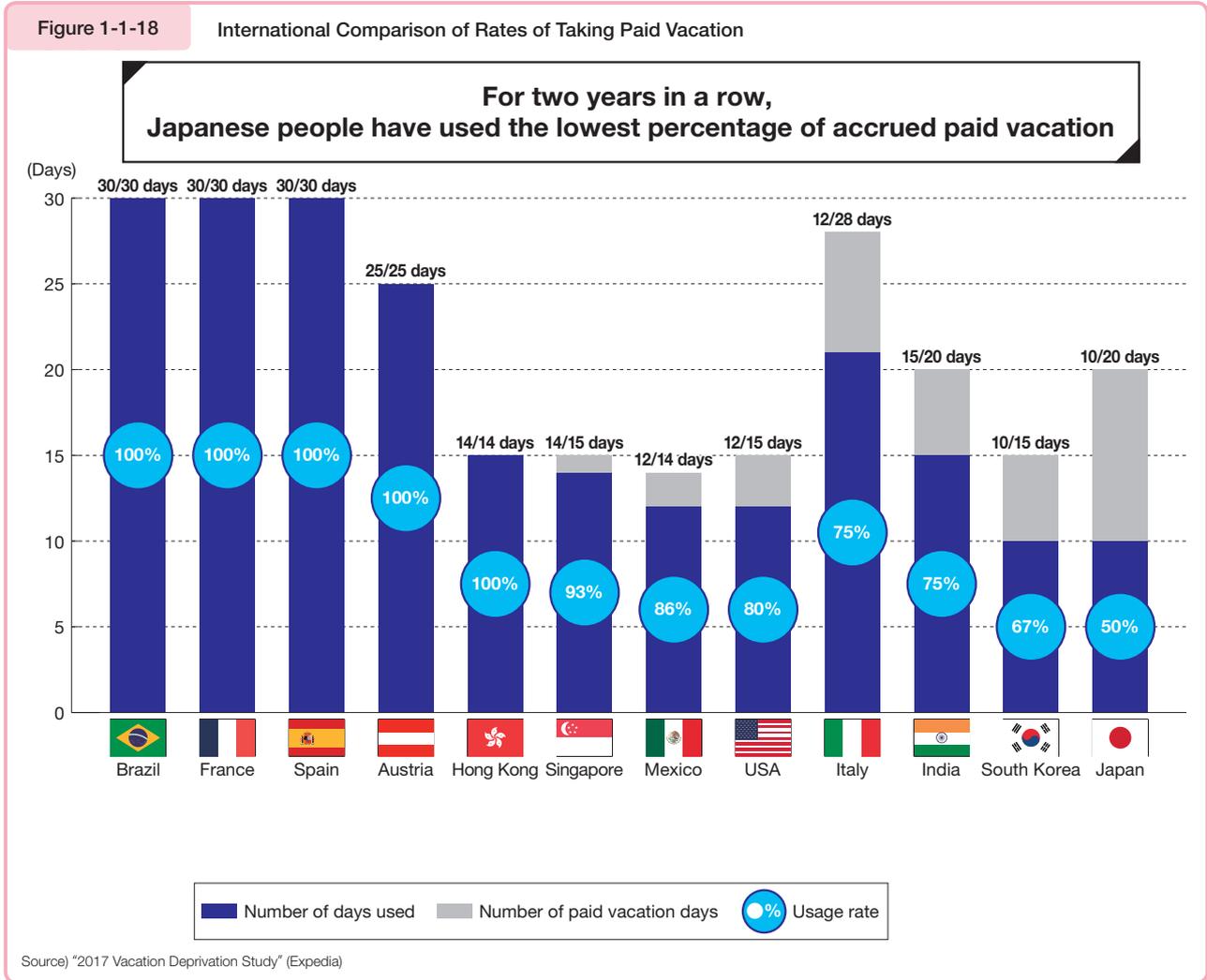
In addition, the fact that many Japanese people use their vacation time to rest at home (Figure 1-1-19) and still check work-related emails during that time (Figure 1-1-20) suggests that they are not using their vacation time to the fullest.

Figure 1-1-19	How People Actually Spend Vacation Days
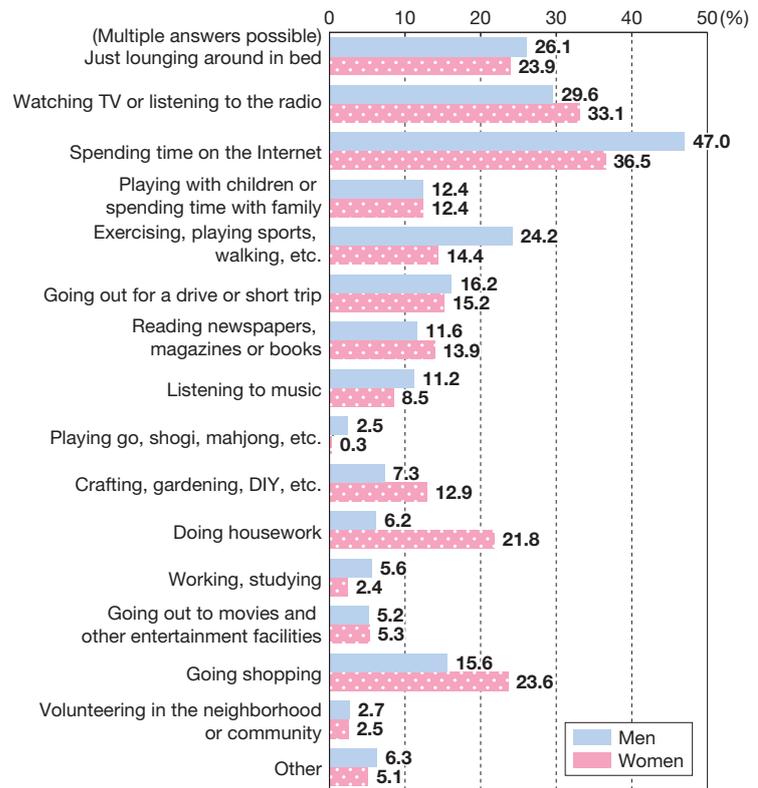
Source) "2014 Annual Health, Labour and Welfare Report" (MHLW)

Figure 1-1-20	Percentage of People Who Answer Work-Related Emails Even on Vacation
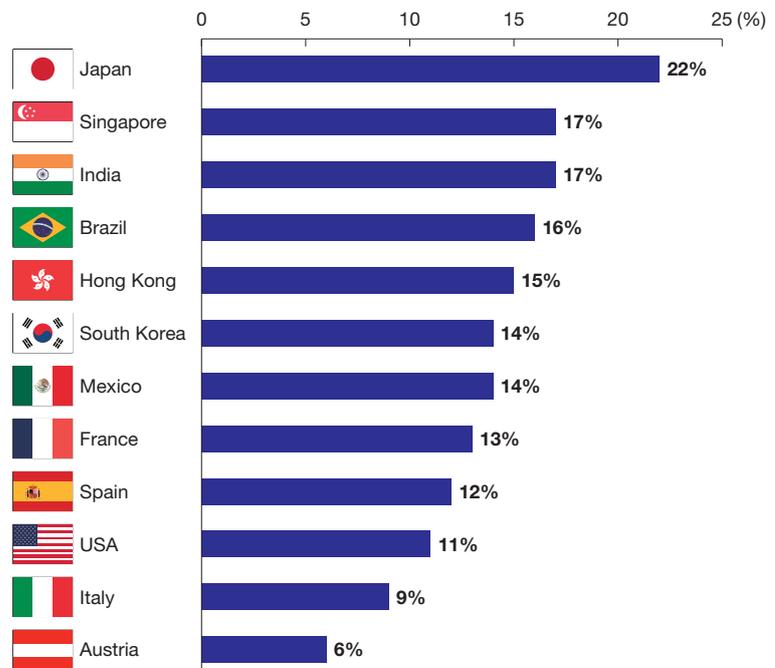
Source) "2017 Vacation Deprivation Study" (Expedia)

2   Lifestyle Trends in Japan

In this section, we consider the socioeconomic situation explained previously as we analyze the characteristics of the lifestyles of three groups: elderly people (people aged 60 or older), the working generation (people aged 30 to 59), and young people (people aged 18 to 29).

(1) Characteristics of Lifestyles of Elderly People

(Longer lives and increased motivation)

The average lifespan of Japanese people increased rapidly after World War II due to improvements in the living environment and advancements in the medical field. In 2016, the average lifespan for Japanese men was 80.98 years, while that for Japanese women was 87.14 years; Japanese people live some of the world's longest lives. Healthy life expectancy[Note 8] has also increased, from 69.40 years for Japanese men and 72.65 years for Japanese women in 2001 to 72.14 and 74.79 years, respectively, in 2016.

In addition, the Japan Sports Agency's "Survey on Physical Fitness and Motor Abilities"[Note 9] reports a five- to 10-year delay in the deterioration of handgrip strength and other physical faculties due to aging compared to 10 to 20 years ago, which suggests a rejuvenation of physical faculties among Japanese people (Figure 1-1-21).

Figure 1-1-21   Elderly People's Total Scores on the Survey on Physical Fitness and Motor Abilities

Source) "Survey on Physical Fitness and Motor Abilities 2016" (Japan Sports Agency)

Substantially increased participation in group activities by elderly people (Figure 1-1-22) and other positive trends under these circumstances demonstrate an increased desire by elderly people to participate in activities that benefit society.
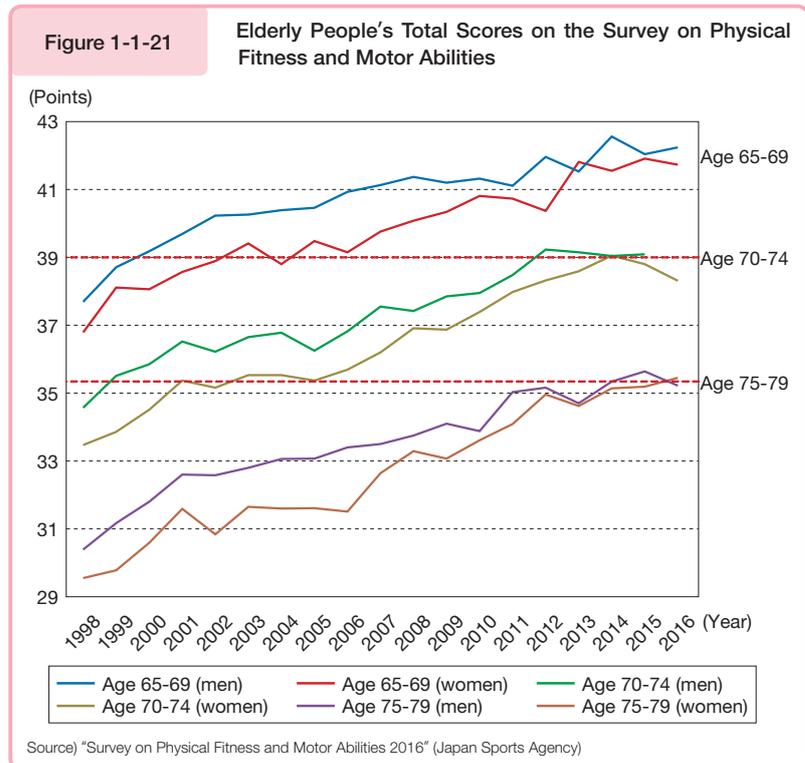
Note 8   The average period free of restrictions in everyday life (from documents from the 11th promotion committee for Health Japan 21 (the second term)).

Note 9   Physical fitness and motor abilities are measured based on total scores for six items: handgrip strength, sit-ups, sitting and reaching, balancing on one leg with eyes open, walking over obstacles for 10 m, and walking for six minutes.

Figure 1-1-22 Elderly People's Participation in Group Activities
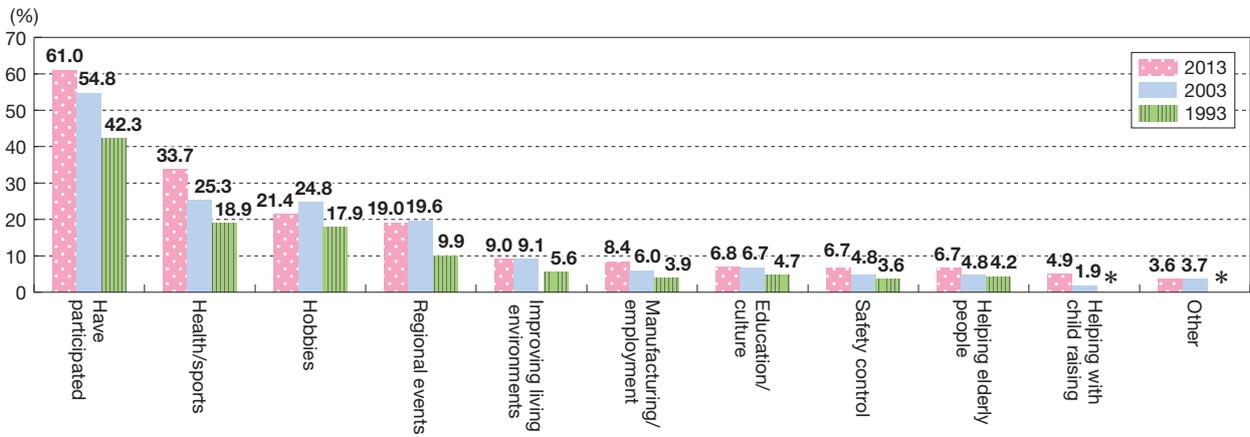
Note 1: For this survey, men and women throughout the country aged 60 or older were asked about their activities in the past year.
Note 2: Asterisks indicate that data does not exist due to factors such as lack of options on the survey.
Source) "Annual Report on the Aging Society 2017" (Cabinet Office)

(The need to create opportunities for engagement for elderly people)

Elderly people's motivation is increasing as explained previously, but a survey asking where they feel a sense of belonging outside the home after retirement revealed that roughly 20% had not found a place or did not feel that there was a particular place for them, and roughly 30% feel that that place is the library (Figure 1-1-23). These results suggest that we are not making full use of elderly people's motivation.

Figure 1-1-23 Survey of Where Elderly People Living in the Capital Region Feel They Belong Outside the Home after Retirement (Multiple answers possible/top nine answers other than "Other")
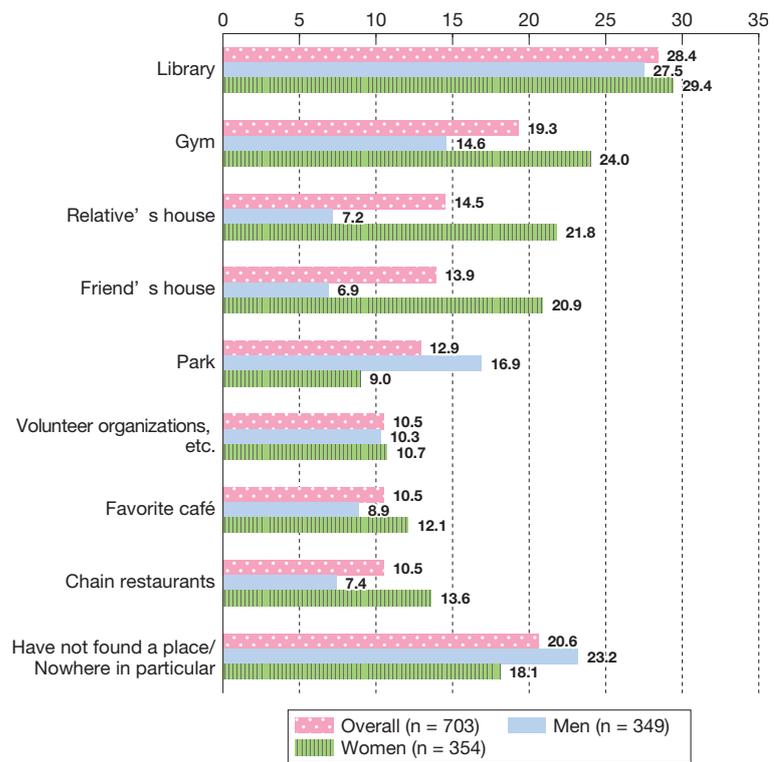
Source) "The Real Picture of a Super-Aging Society," an investigative report from September 2014 (Nikkei Research Institute of Industry and Regional Economy)

One way to make better use of elderly people's motivation is through community activities, volunteer activities and other activities that benefit society[Note 10]; elderly people who participate in these types of activities report making friends and connections through them (Figure 1-1-24).

Figure 1-1-24   Positive Benefits of Social Participation as Reported by Elderly People
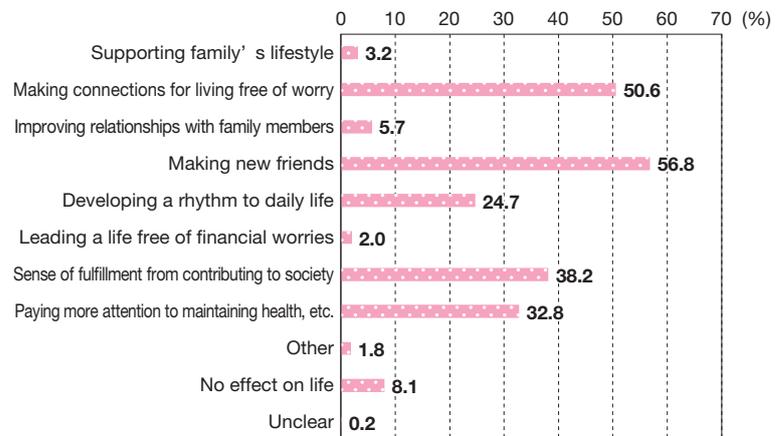
Note 1: This survey was administered to men and women throughout the country (except in Oita and Kumamoto Prefectures) aged 60 or older.
Note 2: Responses were only accepted from people who participate in social activities.
Note 3: Respondents who participate in multiple activities were asked to comment on the single activity to which they devote the most energy.
Source) "Survey of Elderly People's Economic and Living Environment (2016)" (Cabinet Office)

(2) Characteristics of Lifestyles of the Working Generation

(The unchanging lifestyles of the working generation)

Although working hours for all workers are decreasing, the negative effects of factors such as labor shortages in this quietly recovering economy have caused an increase in overtime hours among general workers (not including part-time workers) (Figure 1-1-25). In addition, as explained previously, Japan ranks last in the world in the usage of accrued paid vacation.

Figure 1-1-25   Actual Monthly Working Hours for General Workers

○   Although overtime working hours for general workers are increasing, normal working hours are decreasing.
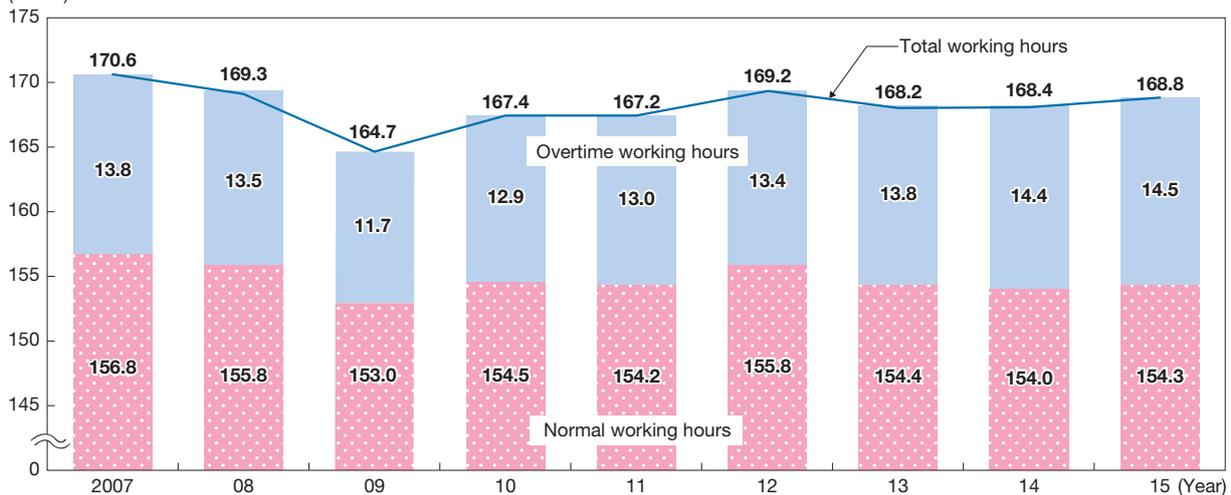
Note: Totals from industrial survey of companies with at least five employees.
Source) "Analysis of Labor Economy 2016" (MHLW)

Note 10   Here, "community activities, volunteer activities and other activities that benefit society" refer to a wide range of activities performed voluntarily and for the purpose of local communities and other people rather than for remuneration. Specific examples include beautifying and greening local areas, disaster relief, nature conservation, passing down traditional culture, and supporting the lifestyles of people with disabilities, elderly people and others.

In Japan, married men aged 20 to 54 who are employed spend an average of less than one hour per weekday on household chores and child raising, which is a low figure (Figure 1-1-26). In addition, among married men with children younger than six years of age, Japanese men spend roughly half the time that men in major Western countries do on household chores and child raising (Figure 1-1-27).

Despite an increase in the rate of Japanese men taking paternity leave and other efforts that are part of a movement to change the way Japanese men work, these figures suggest that they are still working long hours and spending little time contributing to household chores.

Figure 1-1-26   Hours Spent on Work, Housework and Leisure by Gender
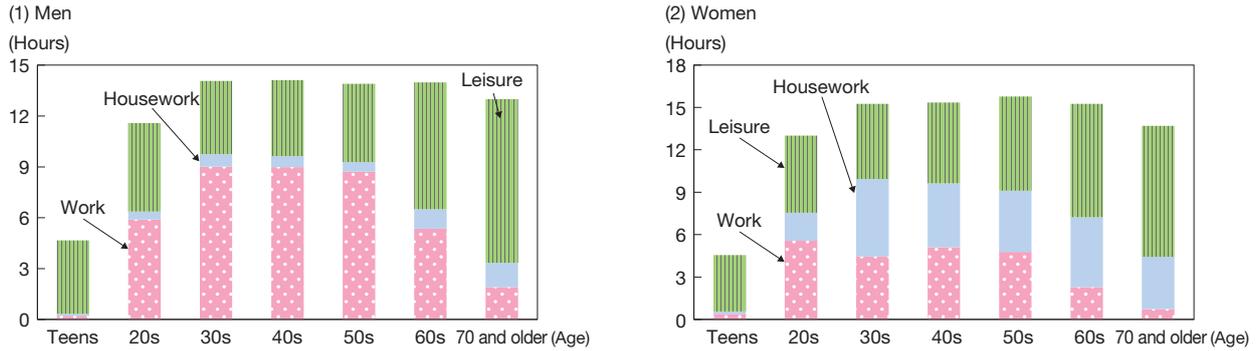
Note 1: Prepared based on "2015 Report on National Time Use Survey" (NHK Broadcasting Culture Research Institute)
Note 2: "Work" is the total number of hours spent on work, "Housework" is the total number of hours spent on housework, and "Leisure" is the total number of hours spent on social participation, conversation, social interactions, leisure activities, mass media consumption and rest (overall average hours on weekdays).
Source) "FY 2017 Annual Report on the Japanese Economy and Public Finance" (Cabinet Office)

Figure 1-1-27   Global Comparison of Hours Per Day Spent on Housework/Child Raising by Married Men with Children Younger than Six Years of Age
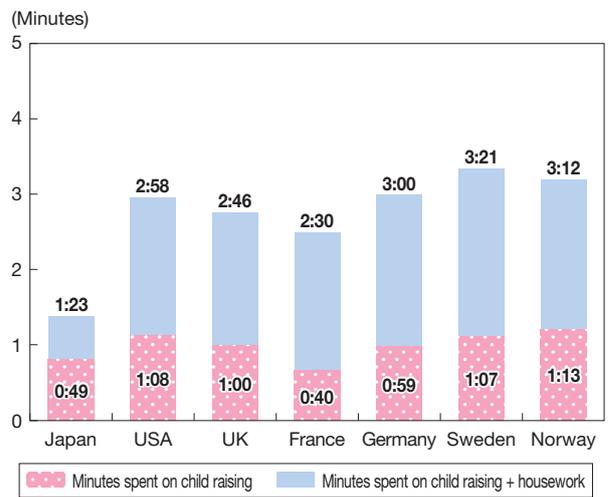
Note: The values for Japan are the total number of minutes per day that married men who live at home with their wives and children spend on housework, nursing care, child raising and shopping (overall weekly average).
Sources) Prepared by the MLIT based on "Basic Survey of Social Life 2016" (MIC), "American Time Use Survey (2014)" (Bureau of Labor Statistics of the US), and "How Europeans Spend Their Time Everyday Life of Women and Men (2004)" (Eurostat)

Under these circumstances, labor participation by married Japanese women is improving as explained previously, but is still lower than that of unmarried women (Figure 1-1-28).

In addition, 33.0% of the 2.74 million women who desired employment in 2016 indicated that childbirth and child raising were their reasons for not seeking work; this was the most common reason given (Figure 1-1-29).

Figure 1-1-28	Women's Labor Participation Rates by Marital Status/Age Group
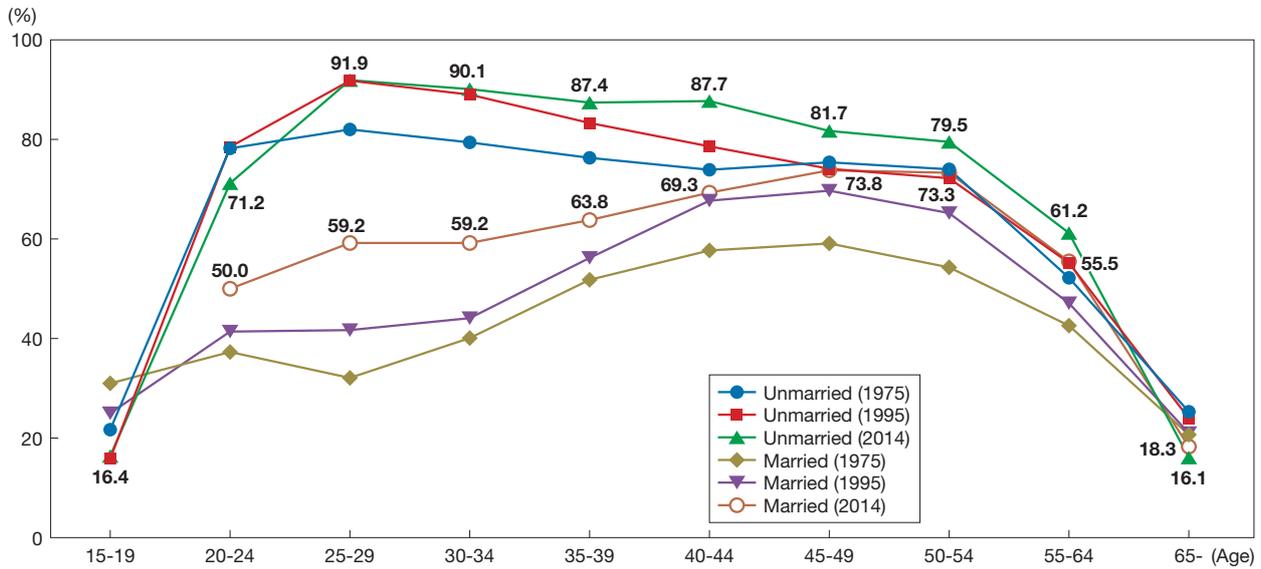
Note 1: Prepared based on "Labour Force Survey (Basic Summary)" (MIC).
Note 2: The labor participation rate is the proportion of the workforce population (the total number of people who are employed and people who are unemployed and seeking employment) among people aged 15 and older.
Note 3: No values are shown for married women aged 15-19 in 2014 because no data exists.
Source) "White Paper on Gender Equality 2015" (Cabinet Office)

Figure 1-1-29	Breakdown of Female Job Seekers (2016)
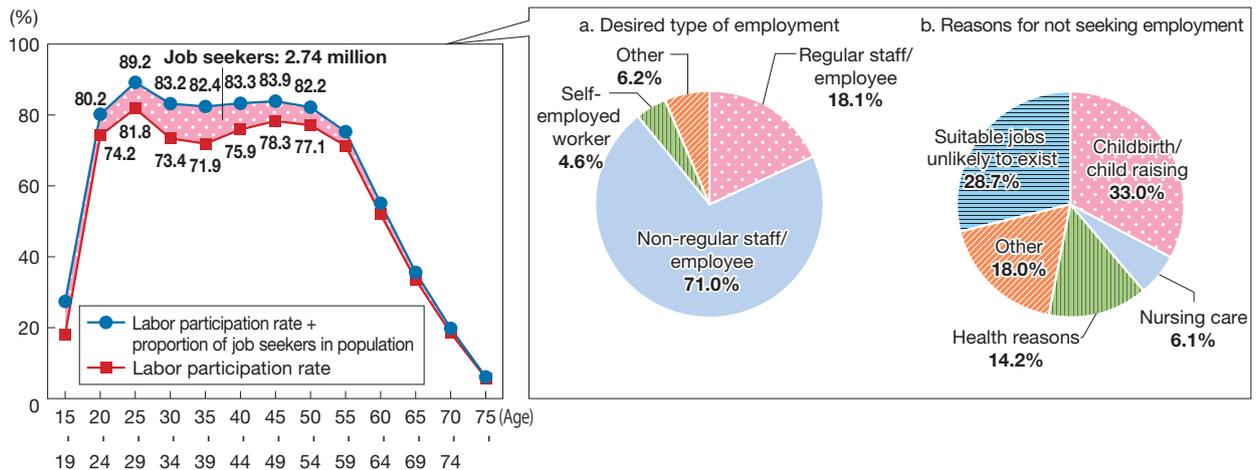
Note 1: Prepared based on "Labour Force Survey (Detailed Summary) (2016)" (MIC).
Note 2: "Labor participation rate + proportion of job seekers in population" is a percentage derived from the following formula: (Workforce population + job seekers) / People aged 15 and older.
Note 3: "Self-employed workers" includes contractors and others who work at home.
Note 4: The percentages are the totals of the breakdowns of desired type of employment and reasons for not seeking employment.
Source) "White Paper on Gender Equality 2017" (Cabinet Office)

(3) Characteristics of Lifestyles of Young People

(Young people and the internet)

The "Basic Survey of Consumer Awareness" conducted by the Consumer Affairs Agency in FY 2016 revealed that 82.4% of people aged 15 to 19, 83.2% of people aged 20 to 24 and 85.6% of people aged 25 to 29 feel that mobile phones and smartphones are vital for their lifestyles (Figure 1-1-30).

(The search for connection and a sense of belonging)

The Cabinet Office's "White Paper on Children and Young People 2017" found that young people feel more fulfilled with their lives the greater the number of places they feel they belong—including the Internet **Note 11** (Figure 1-1-31). The paper also revealed that many young people feel it is difficult to communicate their own feelings and understand the feelings of others over the internet and worry that others will misuse their personal information, which shows that young people feel unsure of and dissatisfied with the quality of communication with others online (Figure 1-1-32).

These findings suggest that young people are searching for places where they belong offline as well as online.

Figure 1-1-30	Percentage of People Who Feel that Mobile Phones and Smartphones are Vital for Life
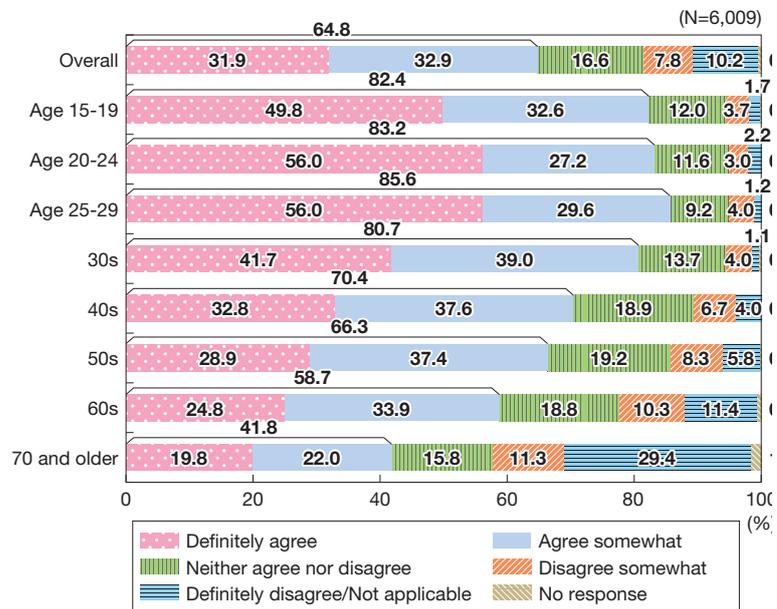
Note 1: These are responses to the following question: "To what extent do you agree that mobile phones or smartphones are vital for your life?"
Note 2: Totals may not add up to 100 due to rounding.
Source) Prepared by the MLIT based on "Basic Survey of Consumer Awareness (FY 2016)" (Consumer Affairs Agency)

Figure 1-1-31	Belonging and Life Fulfillment
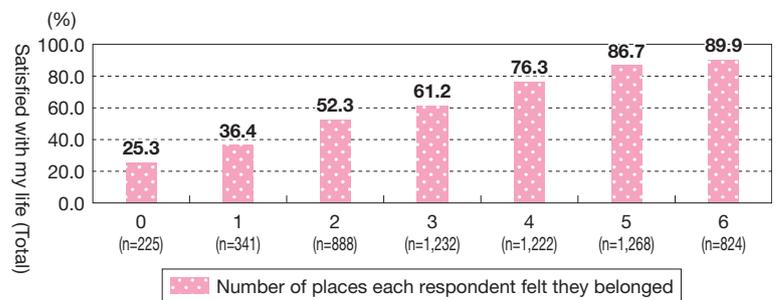
Note: Each respondent was asked whether they feel they belong in each of six places, and whether they are satisfied with their life. They are categorized by the number of places to which they responded "Yes" or "Somewhat," and the percentages show the number of respondents in each of those categories who answered "Yes" or "Somewhat" to the question about fulfillment.
Source) "White Paper on Children and Young People 2017" (Cabinet Office)

Note 11　Here, "places they feel they belong" refers to a person's own bedroom, home, school, workplace, community, or the Internet.

| Figure 1-1-32 | The Internet and Interacting with Others |

(Unit: %)

	Agree (Total)	Disagree (Total)
It is convenient because I can speak openly.	61.3	38.7
It is difficult to communicate my own feelings and understand the feelings of others.	68.8	31.3
You can participate without getting too in-volved.	67.7	32.3
There is little unity or empathy between par-ticipants.	48.3	51.7
You can participate no matter where you are.	71.9	28.1
I fear that others will misuse my personal information.	62.8	37.2
The Internet is a good way to share and gather information.	70.7	29.3

Note 1: "Agree (Total)" includes responses of "Agree" and "Agree somewhat."
Note 2: "Disagree (Total)" includes responses of "Disagree" and "Disagree somewhat."
Note 3: Shaded boxes indicate rates of 60% or higher. Pink-shaded boxes indicate a positive attitude toward the Internet, and blue-shaded boxes indicate a negative attitude.
Source) "White Paper on Children and Young People 2017" (Cabinet Office)

In addition, the percentage of young people who want to enroll in local universities and otherwise stay in their hometowns is higher than that of other age groups (Figure 1-1-33). One reason for this could be the connections they have cultivated through many years of living in their hometowns.

| Figure 1-1-33 | Migration by Generation |
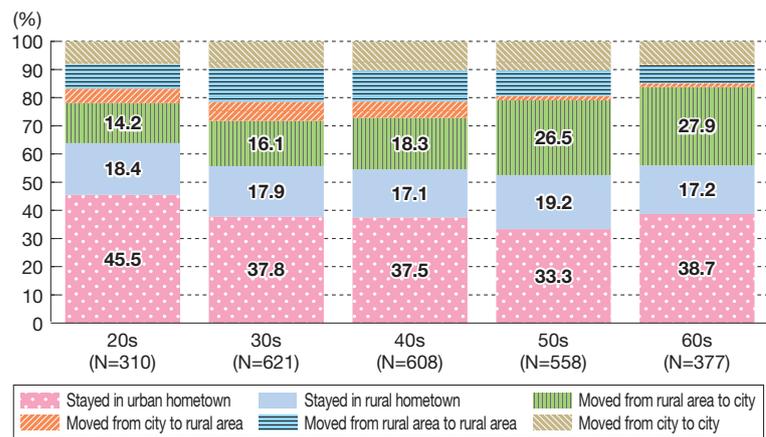
Source) "Long-Term Trends and Matching Changes in Youth Migration" (The Japan Institute for Labour Policy and Training)

Furthermore, the "Basic Survey of Consumer Awareness" conducted by the Consumer Affairs Agency in FY 2016 shows that a high percentage of people aged 24 and younger spent money on sporting events, movies and concerts (Figure 1-1-34). The survey also reported that 45.2% of people in their 20s spent money on social interactions (including eating and drinking), a significantly higher proportion than the overall average of 29.0% (Figure 1-1-35). These findings suggest that young people are more interested in spending money on experiences than on things, and emphasize connecting with others.

| Figure 1-1-34 | Percentage of People Who Spend Money on Sporting Events, Movies and Concerts |
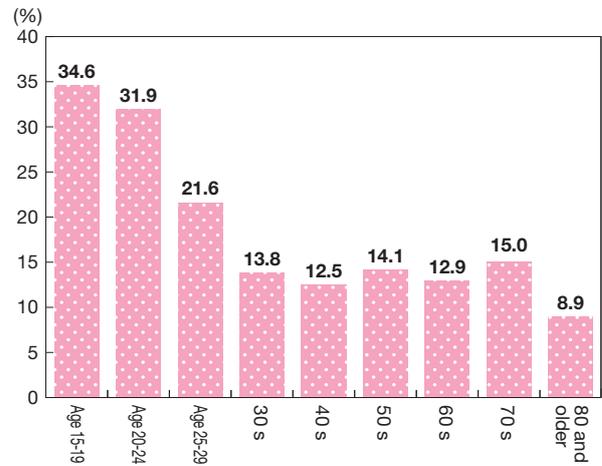
Note: These are responses to the following survey question: "Indicate each of the following things you spend money on."
Source) Prepared by the MLIT based on "Basic Survey of Consumer Awareness (FY 2016)" (Consumer Affairs Agency)

| Figure 1-1-35 | Percentage of People Who Spend Money on Social Interactions (Including Eating and Drinking) |
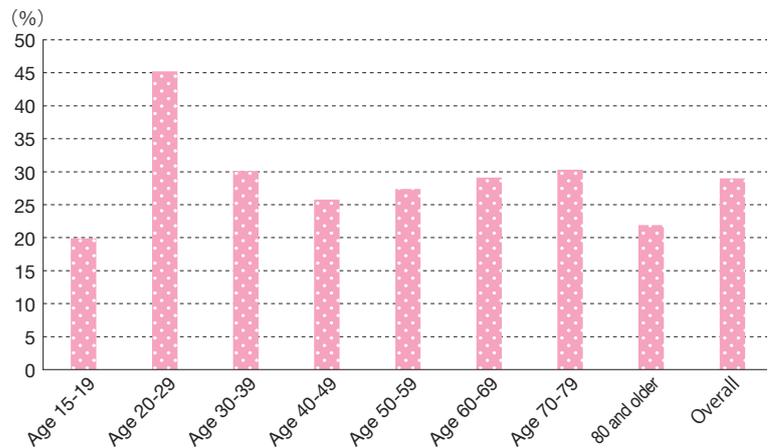
Source) Prepared by the MLIT based on "Basic Survey of Consumer Awareness (FY 2016)" (Consumer Affairs Agency)

Section 2	Changes in the Form of Japanese Land

1   Changes in the Form of Japanese Land

(1) Land Improvement and Its Effects

The rapid progression of infrastructure development in Japan after World War II has caused the form of Japanese land to change. Although the growth of infrastructure stock (net capital stock) has leveled off in recent years, it has increased substantially from its level of 30 trillion yen in FY 1953 to 638 trillion yen in FY 2014 (Figure 1-2-1). In addition, as infrastructure stock has increased, the gap in per capita income between prefectures has decreased on the whole. One specific example of the positive effects of this infrastructure improvement is the dramatic increase in the round-trip distance that can be traveled by rail from Tokyo Station in a single day compared to 1947 (Figure 1-2-2).

In light of the above, the way we have changed the form of Japanese land has reinvigorated the movement of people and goods and improved living environments among other things, thereby contributing to the development of the Japanese economy and enriching the lives of each of its citizens.

Figure 1-2-1	Infrastructure Stock and Gini Coefficient (Prefectural Per Capita Income Distribution)

Note) The Gini coefficient indicates inequalities in distribution. The coefficient has a range of 0 to 1, with values closer to 1 indicating larger disparities between regions.
     "Net capital stock" is the real value (Base year: 2011) of infrastructure stock minus depreciation (physical wear and tear, decreased value due to obsolescence, etc.) that corresponds to the age of the infrastructure.
"1962: CNDP" is the Comprehensive National Development Plan from 1962
"1969: New CNDP" is the New Comprehensive National Development Plan from 1969
"1977: Third CNDP" is the Third Comprehensive National Development Plan from 1977
"1987: Fourth CNDP" is the Fourth Comprehensive National Development Plan from 1987
"1998: 21GD" is the Grand Design for the 21st Century from 2001
"2008: NSP" is the National Spatial Plan from 2008
"2015: Second NSP" is the Second National Spatial Plan from 2015
Source) Infrastructure stock: Prepared by the MLIT based on "Japanese Infrastructure 2017" (Cabinet Office)
     Gini coefficient (prefectural per capita income distribution): Prepared by the MLIT based on "Prefectural Economic Calculations" (Cabinet Office) and "Population Census Report,"
     "Annual Report on Population Estimates," and "Long-Term Statistical Series for Japan" (MIC).

| Figure 1-2-2 | One-Day Trip Zone from Tokyo Station by Railway |

Source) "White Paper on Land, Infrastructure, Transport and Tourism in Japan 2015" (MLIT) (Sources: For November 1947, ""Reprint Edition-Train Timetable during and after War, November 1947" (Toshihiko Miyake); for April 2016, "Yahoo Japan! route search" (Yahoo!))
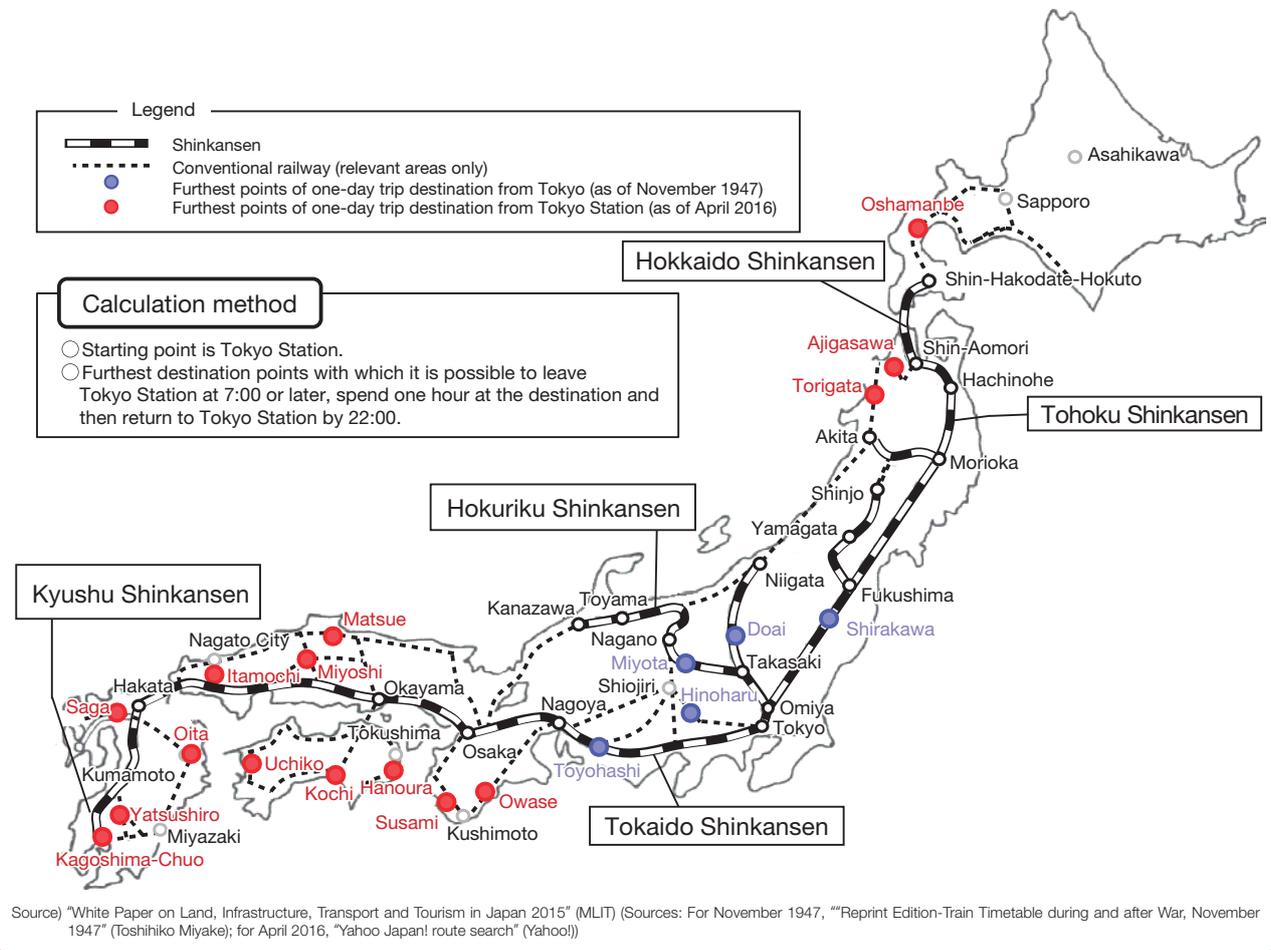
Column   Infrastructure in the Meiji Period

After the Meiji period began in 1868—a full 150 years ago—Japan took its first steps toward becoming a modern nation-state. Throughout the Meiji period, Japan made various efforts toward modernization and established the basic outline of the country we know today. These efforts included infrastructure development, and this column describes the state of that development during the Meiji period as it relates to the formation of the infrastructure stock discussed in the main text of this paper.

The development of railways in Japan began with the opening of the section between Shimbashi and Yokohama in 1872, and by the end of the Meiji period in 1912, a network of trunk lines stretched throughout most of the country. During that time, a number of private railways were established, most notably Nippon Railway, which was established in 1881. A private railway boom descended on Japan in the late 1880s and into the 1890s, but the enactment of the Railroad Construction Law in 1892 established the notion of railway construction as a state effort and served as policy to promote that notion over the long-term. Furthermore, after the Russo-Japanese War, the government acquired private railways under the Railroad Nationalization Law of 1906, and operated over 90% of the 8,047 km of railways in Japan at that time.

Road development lagged behind railway development because the Meiji government prioritized the latter. Japan's first road legislation is said to have been issued by the Grand Council of State in 1871, which encouraged private individuals to improve roads and bridges by allowing them to collect tolls. In 1876,

roads were classified into three categories: national highways, prefectural roads and vicinal roads. By 1885, the government had authorized 40 national highway routes. The Imperial Diet began deliberating over a bill for roadway legislation in 1896, and the former Road Act was enacted in 1919. Until the enactment of the current Road Act in 1952, the former Road Act played a central role in Japanese roadway administration.

As for the development of ports and harbors, the opening of the railway between Shimbashi and Yokohama at the beginning of the Meiji period increased the volume of freight transport from the Port of Yokohama, which opened in 1859, and resulted in increased demand for facility upgrades to accommodate the direct docking of large ships. Financial difficulties prevented the immediate launch of the renovation project to modernize the port, but the government was finally able to begin the work in 1889. The development of ports and harbors progressed further after the First Sino-Japanese War and Russo-Japanese War with the designation of important ports by the Port Research Committee under jurisdiction of the Minister of Home Affairs. The development was driven by the need to convert to industrial systems due to factors such as the development of heavy industry and for policy to create ports that served the changing needs of the times.

Airport development began with the 1911 establishment of a military airfield in Tokorozawa, Saitama Prefecture; full-scale airport development took place after the beginning of the Showa period in 1926.

This brings an end to our review of the Meiji-period development of the infrastructure that continues to support our way of life. We must continue to intensively, effectively and efficiently develop and improve this infrastructure to ensure that the next generation can enjoy the benefits that we have enjoyed thanks to the efforts of our predecessors.

Figure 1-2-3   Logo for policies related to "Meiji 150 Years"[Note]

Source) Office for Promoting Policies Related to Meiji 150 Years, Cabinet Secretariat

Figure 1-2-4   The First Railway in Japan (The Scene at Shiodome Station)
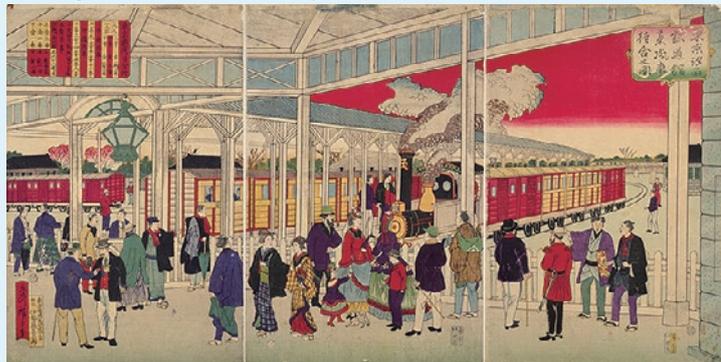
Source) National Diet Library website

Note   To commemorate the full 150 years that have passed since the beginning of the Meiji period in 1868, the Japanese government is working together with local public entities and private corporations to carry out various efforts to once again reflect on the Meiji period and carry its benefits and lessons forward into the future.

(2) Changes in Population Distribution

Changes in the form of Japanese land produced a certain level of movement between the people that live on it, a level that has essentially remained constant since the end of World War II and has resulted in a concentration of the Japanese population in cities, namely the three major urban areas. That trend continues to this day; the Ministry of Internal Affairs and Communications (MIC) reported a population surplus of roughly 120,000 people in Greater Tokyo (Tokyo Metropolis, Kanagawa Prefecture, Saitama Prefecture and Chiba Prefecture) in 2017.

Figure 1-2-5 shows the estimated population distribution in 2050 in light of this trend. The projection shows that, from 2010 to 2050, the population will increase in only 2% of all inhabited areas, and will decrease by 50% or more in over 60% of regions.

Figure 1-2-5	Projected Population Fluctuation from 2010 to 2050

[Population change in 2050 with the 2010 population as 100]

Legend: Percentage vs 2010
- ■ Decrease by 50% or more (including uninhabited)
- ■ 0% or more, but less than 50%
- ■ Increase

Source) "Grand Design of National Spatial Development towards 2050, Japan" by the MLIT (developed by the "National Census Report" by MIC and estimates by National Spatial Planning andRegional Policy Bureau at the MLIT)

(3) Recent Problems Involving Japanese Land

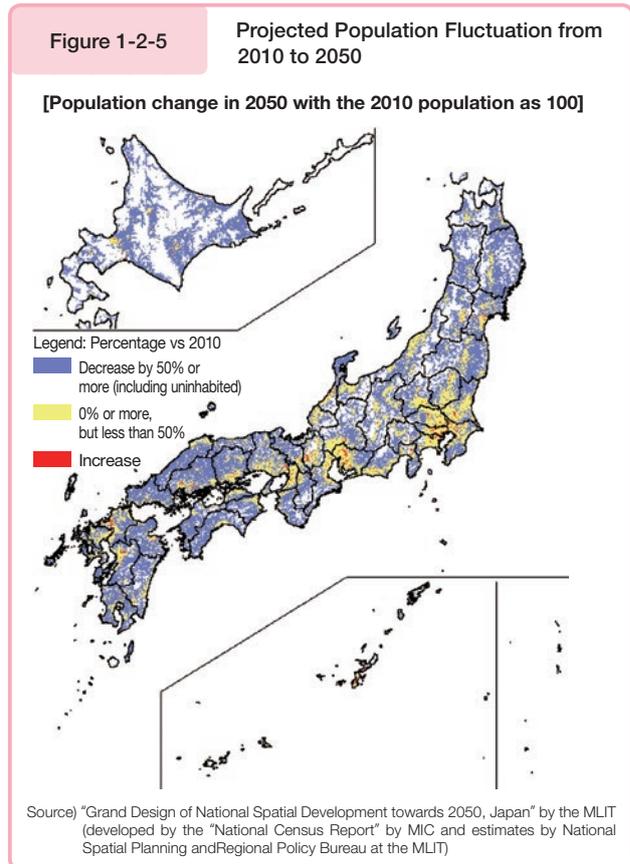### (Vacant homes and vacant land)

As depopulation progresses throughout Japan, vacant homes and vacant land have grown more pronounced as land-use related problems in recent years.

The MIC reports that the number of vacant homes doubled from 1983 to 2003, and that a total of 8.2 million vacant homes existed in 2013 (Figure 1-2-6). In addition, a private company's estimates predict an increase to 21.66 million homes in 2033.

The total area of vacant land was 1,554 km^2 in 2013, a 28% increase from the 1,217 km^2 in 2008 (Figure 1-2-7). In addition, a survey of municipalities showed that those with higher depopulation rates were more likely to report increases in vacant land (Figure 1-2-8).

These increases in vacant homes and vacant land have led to a decline in the efficiency of national land use as well as an increase in land with unclear ownership. These developments are regarded as the cause of problems such as the inability to move ahead with discussions for converting existing private roads into public roads in crowded urban areas, or to cut down trees for forest clearing projects in rural areas.

Figure 1-2-6   **Quantity and Percentage of Vacant Houses Nationwide**

(10,000 houses)   Actual ←   → Projected   (%)
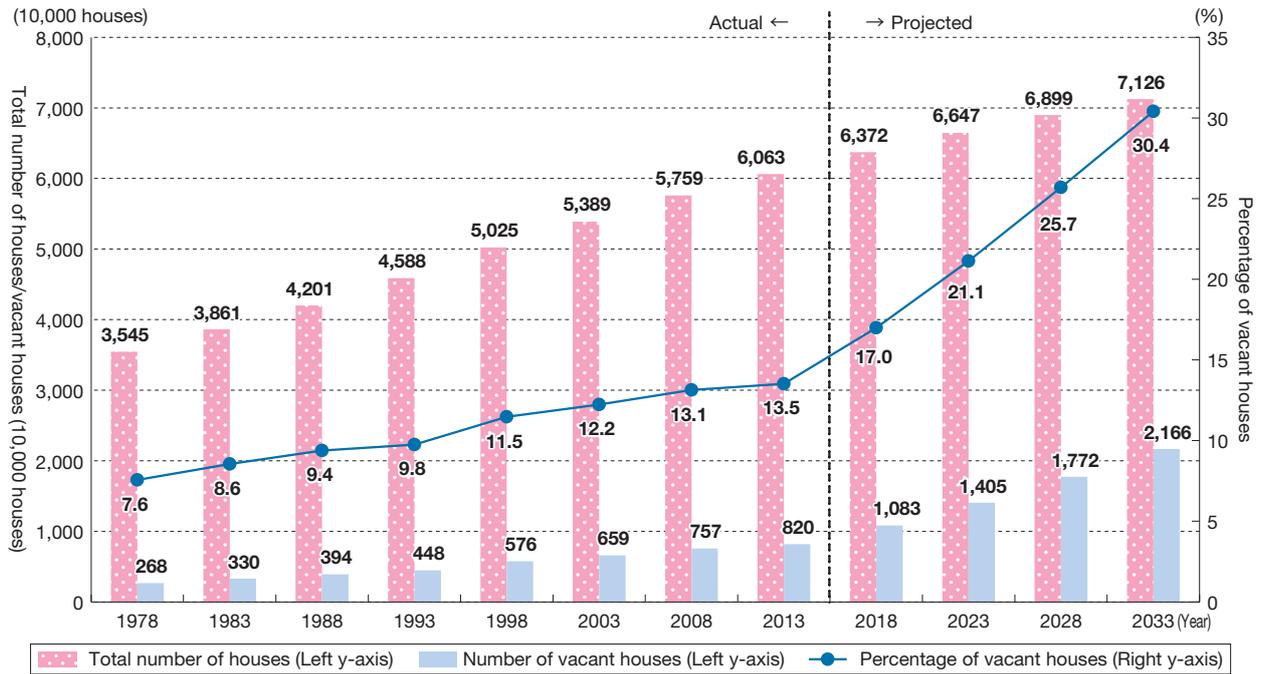
Source) Nomura Research Institute (Sources: For actual values, "Statistical Survey of Housing and Land" (MIC); for projections, Nomura Research Institute)

Figure 1-2-7   **Area and Percentage of Vacant Land Nationwide**
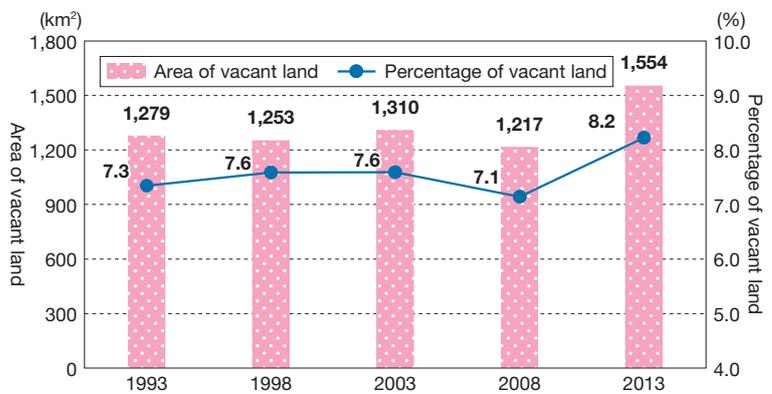
(Note 1) In this survey, "vacant land" includes wilderness, wasteland and ponds and swamps.
(Note 2) Note that estimates for 2008 may be too low.
*"Percentage of vacant land" is the sum of the following:
(1) Vacant land divided by land for housing, etc. in the results of corporate land/building basic surveys
    "Vacant land" is vacant land (including land slated for construction that has not yet begun).
    "Land for housing, etc." is all land other than land for farming, forests, railways, power transmission/distribution, etc., and includes industrial land, parking areas, equipment and material storage areas, open spaces, cemeteries, parks and wilderness.
(2) Land that is not being used divided by land for housing, etc., in the results of statistical surveys of housing and land
    "Land that is not being used" is vacant land, wilderness and other land that is not being used for a specific purpose (wasteland, ponds and swamps, etc.).
    "Land for housing, etc." comprises properties that contain the house in which a household currently resides; properties that contain non-residential buildings owned by a household; and residential land, commercial land, wilderness, wasteland, lakes, ponds, swamps and other land that is not farmland or forest.
Source) "Basic Survey on Land" (MLIT)

Figure 1-2-8	Changes in Vacant Land over Past Decade by Population Fluctuation Range
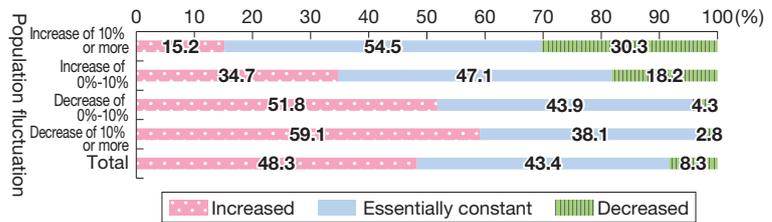
Source) "Questionnaire Survey of Municipalities across the Country Concerning the Actual State of the Appearance/Disappearance of Vacant Lots (FY 2013)", (Policy Research Institute for Land, Infrastructure, Transportation and Tourism)

(Deterioration of infrastructure)

Much of Japan's infrastructure stock was developed intensively following the rapid economic growth. The amount of infrastructure that is 50 years or older is expected to increase at an accelerating pace in the near future; therefore, we must systematically and appropriately maintain and update this infrastructure in order to ensure that we can pass on its benefits to the next generation (Figure 1-2-9).

The rapid deterioration of the infrastructure that comprises Japanese land is a major problem that requires society-wide efforts to solve.

Figure 1-2-9	Percentage of Infrastructure 50 Years or Older

Much of Japan's infrastructure—road bridges, tunnels, rivers, sewers, ports and harbors and more—was developed after the nation's period of rapid economic growth; the percentage of infrastructure that is 50 years or older is expected to increase at an accelerating pace.
*The state of a facility's deterioration does not depend solely on the year in which it was constructed; the environment of the facility's location, the status of maintenance and other factors also play a role. However, for convenience, our guideline here is 50 years after construction.

Percentage of Infrastructure 50 Years or Older

	March 2018	March 2023	March 2033
Road bridges (Roughly 730,000 Note 1 (bridges at least 2 m in length))	About 25%	About 39%	About 63%
Tunnels (Roughly 11,000 Note2)	About 20%	About 27%	About 42%
River control facilities (floodgates, etc.) (Roughly 10,000 Note 3)	About 32%	About 42%	About 62%
Sewer lines (Total length: Roughly 470,000 km Note 4)	About 4%	About 8%	About 21%
Ports, harbors and seawalls (Roughly 5,000 facilities Note 5 (depth of at least 4.5 m))	About 17%	About 32%	About 58%

(Note 1) Construction dates are unclear for roughly 230,000 of the 730,000 road bridges; those bridges are excluded from the calculations. (FY 2017 total)
(Note 2) Construction dates are unclear for roughly 400 of the 11,000 tunnels; those tunnels are excluded from the calculations. (FY 2017 total)
(Note 3) Only publicly managed facilities. The calculations include the roughly 1,000 facilities for which construction dates are unclear. (Records exist for nearly all facilities constructed within the last 50 years, so facilities for which construction dates are unclear were treated as facilities older than 50 years.) (FY 2017 total)
(Note 4) The calculations include the roughly 20,000 km of sewer lines for which construction dates are unclear. (Records exist for nearly all lines installed within the last 30 years, so lines for which construction dates are unclear were treated as lines older than 30 years and distributed proportionately into the other categories based on construction dates on existing records.) (FY 2017 total)
(Note 5) The roughly 100 seawalls for which construction dates are unclear are excluded from the calculations. (FY 2017 total)
Source) MLIT

2　Changes in the Form of Japanese Cities

As the form of Japanese land changes, so too does the form of cities and rural areas.

First, we present an overview of the changes in the form of Japanese cities.

(1) Urban Population: Changes and Outlook
■Population changes and outlook

Depopulation is the rule rather than the exception for most Japanese cities in the near future; except for some major cities, the total population of each city in Japan will probably decrease each year. However, the population of people aged 65 and older will probably increase through 2040 in most cities, namely the special wards of Tokyo Metropolis, core cities and specially designated cities that comprise the three major urban areas (Figure 1-2-10).

Figure 1-2-10　Population Projections by Region

(Note) Prepared based on "Population Projections for Japan (January 2012)" (National Institute of Population and Social Security Research).
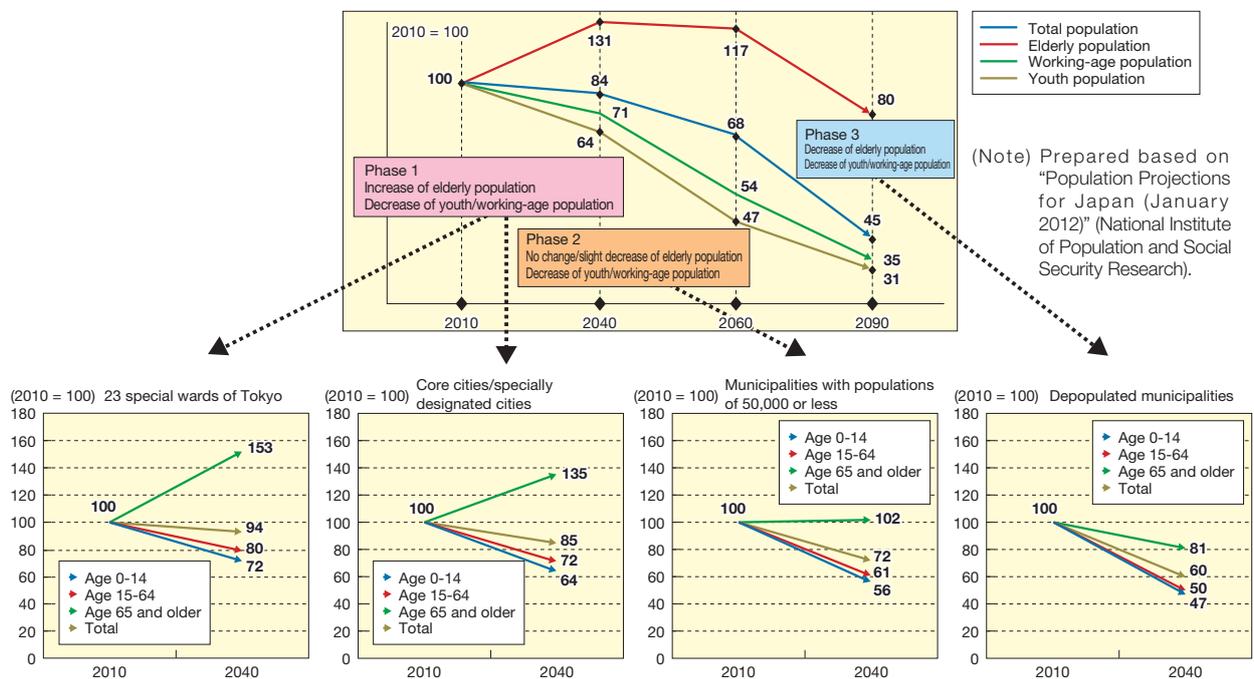
(Note 1) Prepared based on "Regional Population Projections for Japan (March 2013)" (National Institute of Population and Social Security Research).
(Note 2) Populations by region were projected for three types of municipality: municipalities with populations of 50,000 or lower (2010 figures), core cities and specially designated cities (figures as of April 1, 2014), and municipalities in depopulated areas (figures as of April 5, 2014). The projected 2040 population for each type of municipality was then indexed against the base year of 2010 (set to 100).
Source) "Reference Materials from the Long-Term Vision for Revitalizing Communities, People and Jobs" (Main Office for Revitalization of Communities, People and Jobs, Cabinet Secretariat)

Within that segment, the number of people aged 75 and older will increase substantially in the three major urban areas (Figure 1-2-11). In addition, the number of people aged 75 and older living alone or with a spouse only is expected to increase nationwide (Figure 1-2-12), and the fact that people aged 75 and older account for over 80% of those certified by the government as requiring long-term care yet living at home (Figure 1-2-13) prompts concern over an increase in that segment as well (Figure 1-2-14). In light of these projections, the three major urban areas can expect significant increases in the number of people aged 75 and older living alone or with a spouse only and the number of people certified by the government as requiring long-term care.

To prepare for these developments, cities must move ahead with efforts toward providing universally accessible facilities and housing that enables people to live free of worry.

Figure 1-2-11　Population Aged 75 and Older in the Three Major Metropolitan Areas of Japan
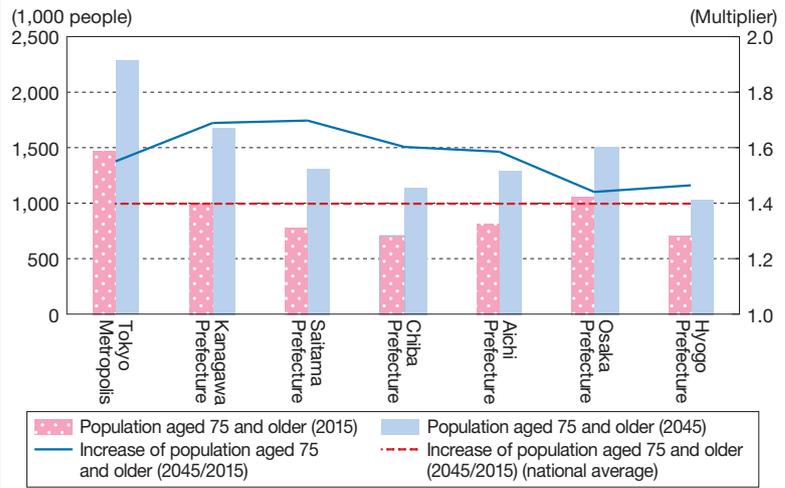
Source) Prepared by the MLIT based on "Regional Population Projections for Japan (2018)" (National Institute of Population and Social Security Research)

Figure 1-2-12　Percentage of Households with Head of Household Aged 75 or Older with the Head Living Alone or with a Spouse Only
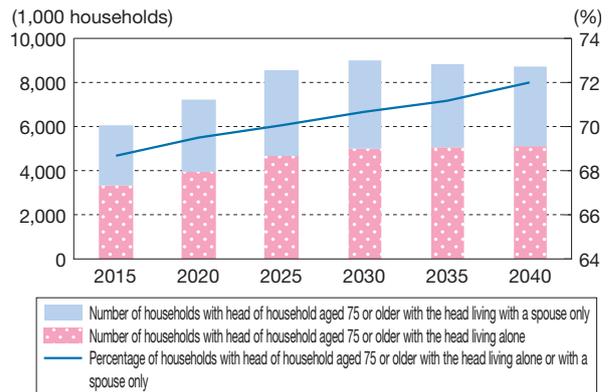
Source) Prepared by the MLIT based on "Household Projections for Japan (2018)" (National Institute of Population and Social Security Research)

Figure 1-2-13　Percentage of People Who Require Nursing Care by Age Group
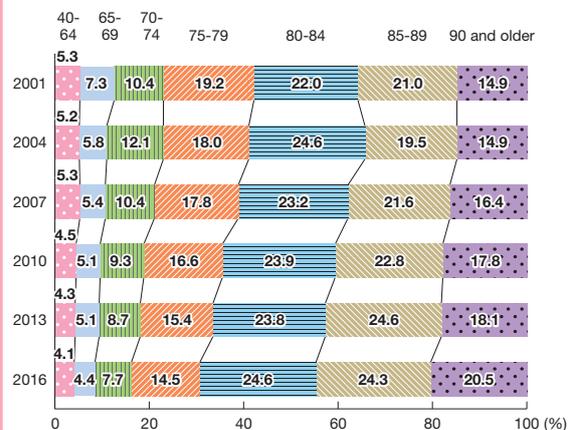
(Note) The figures for 2016 do not include Kumamoto Prefecture.
Source) "Comprehensive Survey of Living Conditions" (MHLW)

| Figure 1-2-14 | Number of People Who Require Nursing Care |

(10,000 people)

Source) Prepared by the MLIT based on "Document 1: Recent Trends in the Nursing Care Field" (55th Nursing Care Insurance Meeting of the Social Security Council Task Force, MHLW)
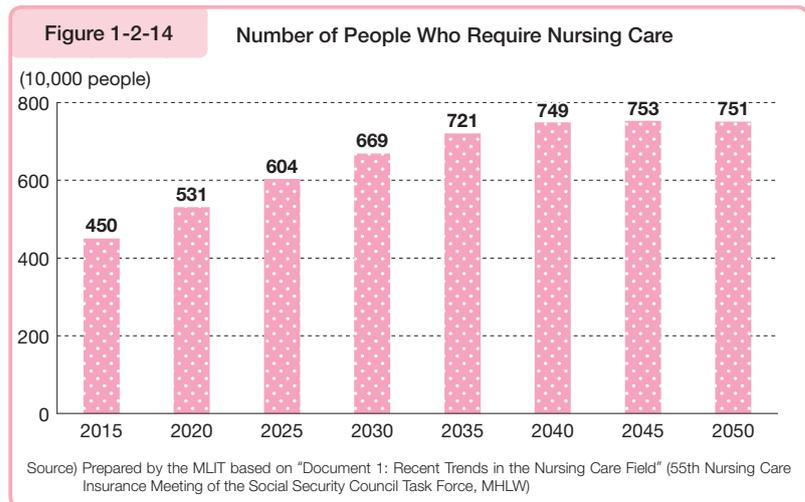
(2) Characteristics of Urban Lifestyles

Population density in major cities is a factor of daily congestion and traffic that causes economic loss and has a sizeable impact on people's lifestyles.

These problems are particularly pronounced in Greater Tokyo, the most heavily populated area in Japan. For example, the economic loss from traffic jams in Japan amounts to the annual labor of 2.8 million people each year; Greater Tokyo accounts for 30% of that (Figure 1-2-15).

In addition, commuting times to and from work and school are longer in prefectures with more high-population cities; the four longest average commuting times in Japan were reported in Tokyo Metropolis and the other three prefectures of Greater Tokyo, and each far outpaces the national average of 79 minutes (Figure 1-2-16).

| Figure 1-2-15 | Economic Loss from Traffic Jams in Japan |

Economic loss from traffic jams amounts to roughly 40% of travel time, which is equivalent to roughly 5 billion man-hours—the labor of 2.8 million people—each year
⇒ The capital region accounts for roughly 30% of Japan's economic loss from traffic jams.

Roughly 100 hours per person

30% in the capital region alone

Standard travel time (Travel time in light traffic) Roughly 8 billion man-hours

Time lost (Extra travel time caused by congestion) Roughly 5 billion man-hours

Roughly 40 hours per person

Source) "Annual Report of Capital Region Improvement FY 2016" (MLIT)

It is likely that these long commuting times affect working hours, which include both on-duty hours and commuting times. Over 30% of married men in Greater Tokyo reported working 12 hours or more each day (including commuting time), which is far and away higher than in other regions (Figure 1-2-17). Furthermore, women's employment rates were lower in areas where many men work long hours, which shows that the population density of Greater Tokyo has a major effect on people's lifestyles (Figure 1-2-18).

I

Chapter 1   The Changing State of Japan
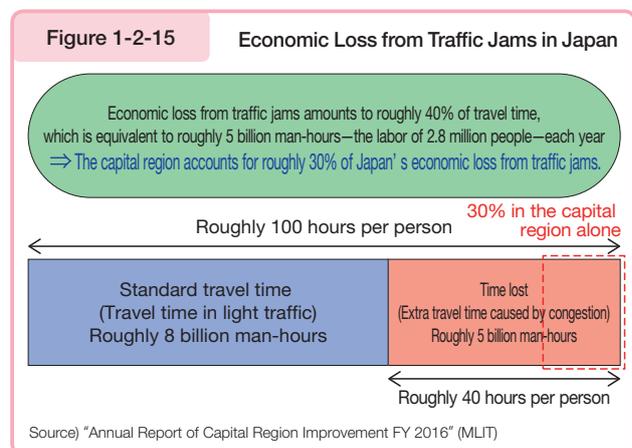
Figure 1-2-16	Round-Trip Work/School Commute Times by Prefecture

Source) Prepared by the MLIT based on "Basic Survey of Social Life" (MIC)

Figure 1-2-17	Working Hours of Married Men (by Region)

0 hours   4 hours or less   8 hours or less   10 hours or less   12 hours or less   Over 12 hours
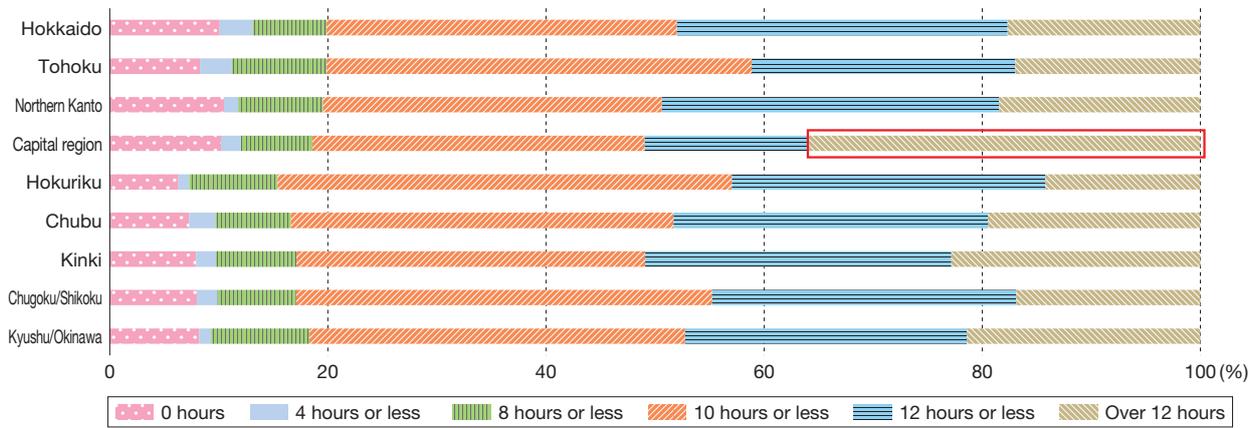
Source) Prepared by the MLIT based on "Survey of Child-Raising Environments in Urban and Rural Areas" (Cabinet Office)

Figure 1-2-18

Relationship Between Proportion of Men Working More Than 60 Hours Per Week and Employment Rate of Women Aged 15-64
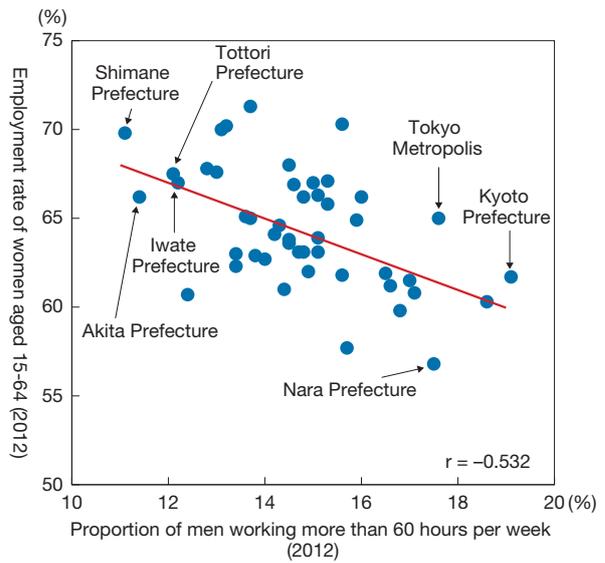
(Note 1) Prepared based on "Employment Structure Basic Survey (2012)" (MIC)
(Note 2) The proportion of employees working more than 60 hours per week is taken from the proportion of employees working more than 200 days per year (including directors at corporations, etc.).
Source) "White Paper on Gender Equality 2015" (Cabinet Office) (Source: "Employment Structure Basic Survey (2012)" (MIC))

3 Changes in the Form of Japanese Rural Areas

Now, we present an overview of the changes in the form of Japanese rural areas. Here, "rural areas" mainly refers to municipalities (including depopulated areas) with populations under 50,000.

(1) Rural Population: Changes and Outlook

In rural areas, the population of people aged 64 and younger is declining, and that of people aged 65 and older is remaining constant or decreasing. In the future, rural areas are expected to face further depopulation and population aging (Figure 1-2-10). Further analysis of these projected demographic changes reveals that depopulation rates are greater for municipalities with smaller populations (Figure 1-2-19). Specifically, although the highest depopulation rate in urban areas is 28%, the depopulation rate is 37% in municipalities of 10,000 to 50,000 people, and 48% in municipalities with fewer than 10,000 people. Therefore, finding ways to counteract this trend of depopulation is still a major issue in rural areas.

Figure 1-2-19

Rate of population decline by the size of municipality population
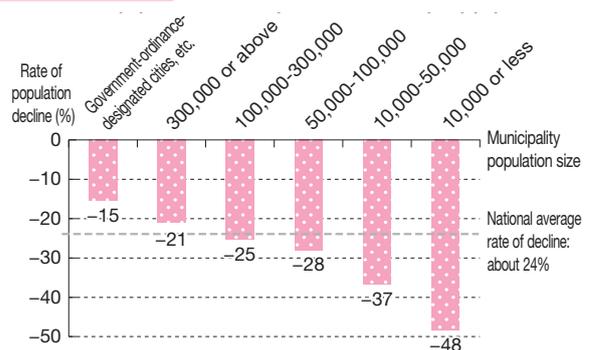
Source) "Grand Design of National Spatial Development towards 2050, Japan" by the MLIT (developed by the "National Census Report" by MIC and estimates by National Spatial Planning and Regional Policy Bureau at the MLIT)

Column   Efforts of Onan Town, Shimane Prefecture

Onan Town covers a semi-mountainous area in central Shimane Prefecture, and has a population of roughly 11,000 people and an aging rate of 43.2% (as of April 1, 2017). In October 2004, the town was formed by the merging of Hasumi Village, Mizuho Town and Iwami Town. Similar to other semi-mountainous areas, the town has long been afflicted by depopulation, a decreasing birth rate and aging population. However, the town has gained attention in recent years for its development of unique policies to tackle and overcome these problems.

In 2011, the town developed an "Offense and Defense Settlement Project" that has since produced substantial results. For the offense portion of the project, Onan Town promoted food- and agriculture-oriented community development based on the vision of fine dining, acquired the registered trademark of "Fine Dining Town" and made other efforts to improve the town's image and visibility. Efforts for the defense portion of the project included striving to make the town the best place in Japan to raise children and providing rigorous care for everyone who had already relocated to Onan Town. Because few municipalities at the time included support for child raising as part of their appeal to outsiders, the town's policies, which included completely subsidizing health expenditures for children through junior high school and childcare for couples' second and subsequent children, were effective. As a result, in 2013, the town recorded its first population surplus (the number of people moving into the area exceeded the number of people moving out) since the municipal merger, and continued to enjoy surpluses through 2015.

Onan Town is currently working on new policies based on a new vision crafted in the wake of the Offense and Defense Settlement Project. The town's new vision is to become a place where child raising is done in the community so that community members feel that the town is the best place in Japan to raise children. Policies include community-wide celebrations of the birth of children, and a point system for the support of child raising whereby parents are encouraged to use child-raising services within the community. The town is also providing continued care to transplants through efforts such as the installment of a settlement support coordinator.

The town, which is divided into 12 districts, has also developed strategies for each district that enable each and every community member to participate. For these strategies, the community forms a consensus to plan projects that community members will lead and implement to halt depopulation. For example, the Hinui District plans to implement a project to create lodging facilities and cafés on vacant land, cuisine that features local ingredients, opportunities to try pottery and other arts, and activities to attract visitors; the full-fledged project will start in FY 2018.

These efforts by Onan Town should serve as forward-looking examples for semi-mountainous areas expected to undergo accelerated depopulation, birthrate decreasing and population aging in the future.
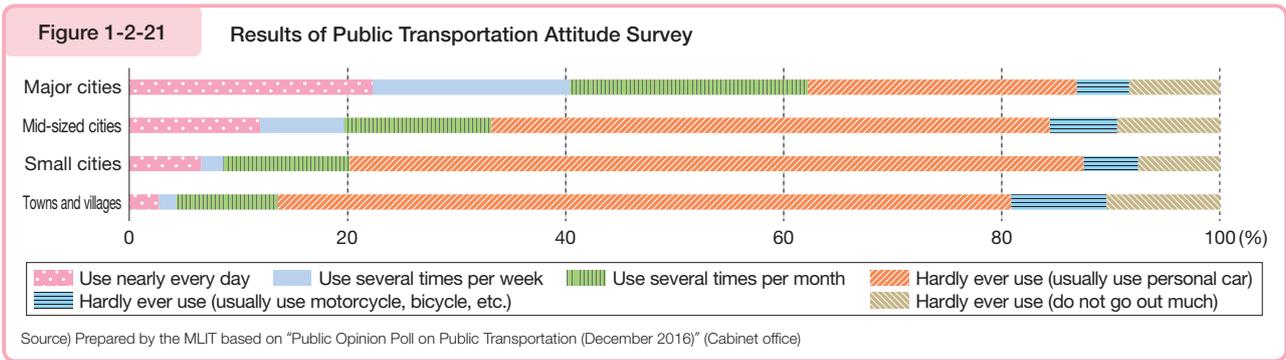
Figure 1-2-20   Picture of a meeting for the project to attract visitors to the Hinui District

Source) MLIT

(2) Characteristics of Rural Lifestyles
(Persistent automobile dependency)

According to a public opinion poll conducted by the Cabinet Office, few people use the public transportation options of railways and buses in their daily lives, while nearly 70% use automobiles on a daily basis (Figure 1-2-21). In addition, a comparison of the rates of increase in members per household and personal passenger vehicles per household from 2005 to 2015 shows that automobile dependency decreased only in the prefectures that comprise the three major urban areas; in the other prefectures, automobile dependency increased (Figure 1-2-22). Of this segment, automobile dependency increased particularly in rural prefectures with many sparsely populated municipalities.

Figure 1-2-21   Results of Public Transportation Attitude Survey

Source) Prepared by the MLIT based on "Public Opinion Poll on Public Transportation (December 2016)" (Cabinet office)

(Elderly people continue to drive)

Although the number of elderly people who voluntarily relinquish their driver's licenses has increased rapidly throughout Japan in recent years, the intent to do so is less present in municipalities with smaller populations (Figures 1-2-23 and 1-2-24). This finding suggests that, although elderly people who live in rural areas likely face a higher risk of causing traffic accidents by driving despite declining physical faculties due to age, they have no choice but to drive to maintain the convenience of life, and that this situation will persist into the future.

In light of the above, as population aging progresses further, it is important to secure modes of transportation for elderly people in rural areas.

Figure 1-2-22   Relationship Between Increase in Members Per Household and Increase in Personal Passenger Vehicles Per Household

Sources) Prepared by the MLIT based on "Population Census" (MIC) for members per household, and "Diffusion of Personal Passenger Vehicles (Registrants and Subcompact Vehicles) Per Household" (Automobile Inspection & Registration Information Association) for number of personal passenger vehicles per household

Figure 1-2-23   Number of Driver's License Returns by Elderly People

Source) Prepared by the MLIT based on "Driver's License Statistics" (National Police Agency)
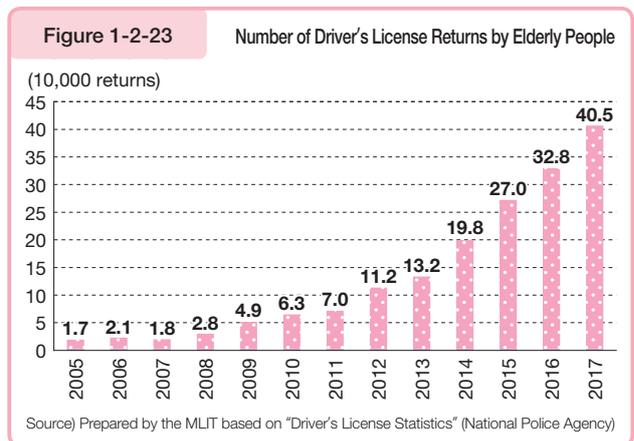
| Figure 1-2-24 | Result of Attitude Survey of Elderly People on Voluntary Relinquishment of Driver's Licenses |

Major cities (government-designated cities/23 special wards of Tokyo) (390) 63.6
Mid-size cities 1 (population of 200,000 or more) (496) 65.7
Mid-size cities 2 (population between 100,000-199,999) (209) 68.9
Small cities (population less than 100,000) (276) 71.7
Towns and villages 1 (population of 20,000 or more) (59) 72.9
Towns and villages 2 (population less than 20,000) (60) 75.0
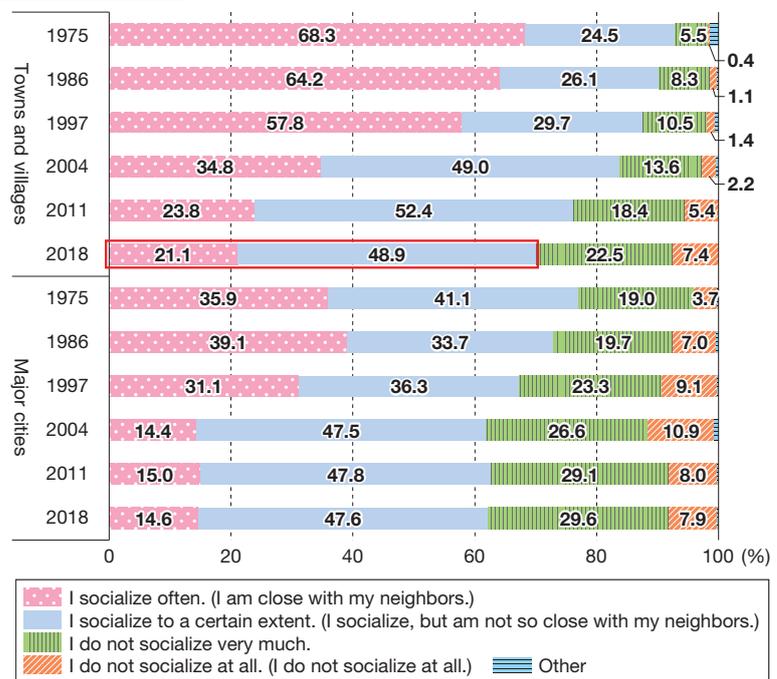Total who continue to drive (1,460) 67.4
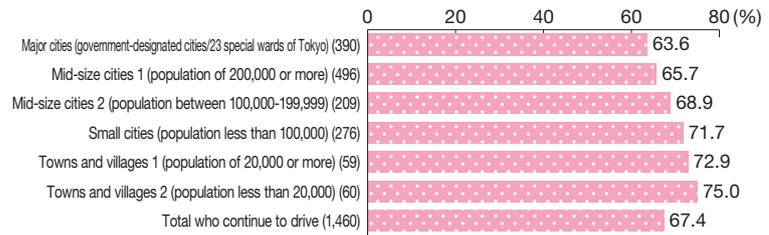
Source) "Results of Questionnaire Survey on Voluntary Relinquishment of Driver's Licenses" (National Police Agency)

(Concern over maintaining communities)

A public opinion poll conducted by the Cabinet Office showed that 70% of people in towns and villages interact with others in their local communities (they reported frequent or somewhat frequent interactions) in 2018. This is a lower percentage than in 1975, but can be interpreted to mean that local communities in these areas are functioning better than those in major cities (Figure 1-2-25). However, because sparsely populated towns and villages will face the most serious population decline in the future (Figure 1-2-19), it will become increasingly important to find ways to maintain the functions of their communities.

| Figure 1-2-25 | Results of Attitude Survey on Extent of Interaction in Community |

Towns and villages
1975 68.3 24.5 5.5 0.4
1986 64.2 26.1 8.3 1.1
1997 57.8 29.7 10.5 1.4
2004 34.8 49.0 13.6 2.2
2011 23.8 52.4 18.4 5.4
2018 21.1 48.9 22.5 7.4

Major cities
1975 35.9 41.1 19.0 3.7
1986 39.1 33.7 19.7 7.0
1997 31.1 36.3 23.3 9.1
2004 14.4 47.5 26.6 10.9
2011 15.0 47.8 29.1 8.0
2018 14.6 47.6 29.6 7.9

I socialize often. (I am close with my neighbors.)
I socialize to a certain extent. (I socialize, but am not so close with my neighbors.)
I do not socialize very much.
I do not socialize at all. (I do not socialize at all.)   Other

(Note 1) "Major cities" refers to the 23 special wards of the Tokyo Metropolis and ordinance-designated cities.
(Note 2) The question and answer options for 1975, 1986 and 1997 are as follows:
Question: To what extent do you socialize with your neighbors?
Answer options: "I am close with my neighbors," "I socialize, but am not so close with my neighbors," "I do not socialize very much," and "I do not socialize at all."
(Note 3) The question and answer options for 2004, 2011 and 2018 are as follows:
Question: To what extent do you socialize in your community?
Answer options: "I socialize often," "I socialize to a certain extent," "I do not socialize very much," "I do not socialize at all."
Sources) Prepared by the MLIT based on "Public Opinion Poll on Social Awareness (December 1975, December 1986, December 1997, January 2004, January 2011, February 2018)" (Cabinet Office)
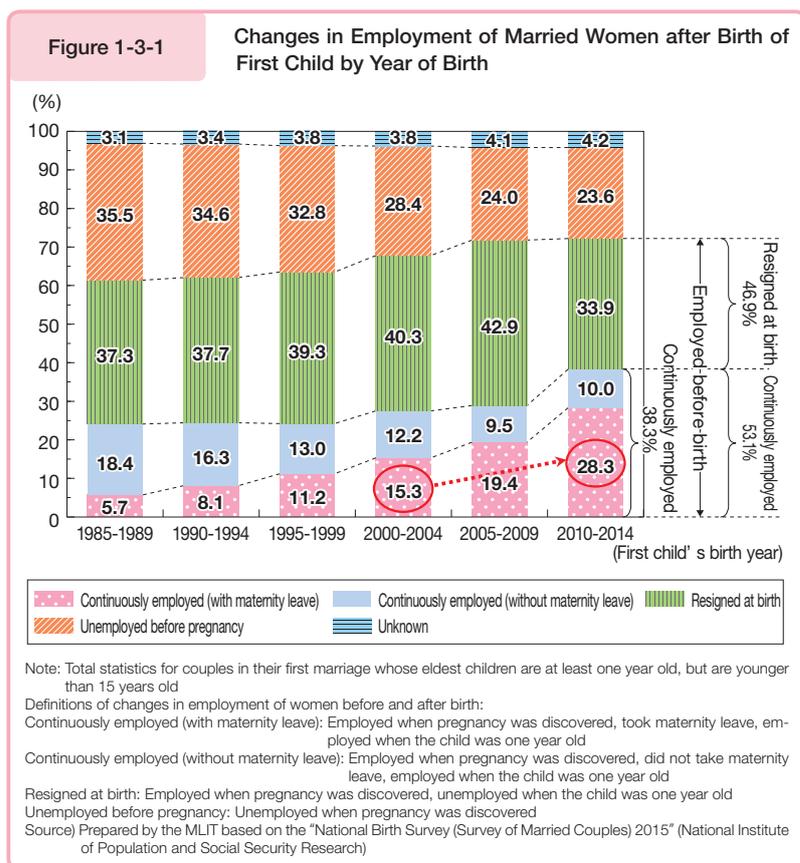
Section 3 | New Signs in Japan

In Sections 1 and 2, we presented overviews of the issues Japan faces with regard to changes in the form of Japanese society and land. Amidst these circumstances, new signs that promise to help solve these problems have appeared. In this section, we introduce these new signs in Japan from four perspectives that comprise Japanese lifestyles: how Japanese people work, have fun, live and move.

1 How Japanese People Work

(Improving balance between work and child raising)

The state of the balance between work and child raising (women's continuation of employment) has improved; the percentage of married women who take maternity leave around the birth of their first child and then continue in employment nearly doubled from 15.3% to 28.3% over a 10-year period (birth of first child between 2000-2004 and 2010-2014) (Figure 1-3-1).

Figure 1-3-1 Changes in Employment of Married Women after Birth of First Child by Year of Birth

Note: Total statistics for couples in their first marriage whose eldest children are at least one year old, but are younger than 15 years old
Definitions of changes in employment of women before and after birth:
Continuously employed (with maternity leave): Employed when pregnancy was discovered, took maternity leave, employed when the child was one year old
Continuously employed (without maternity leave): Employed when pregnancy was discovered, did not take maternity leave, employed when the child was one year old
Resigned at birth: Employed when pregnancy was discovered, unemployed when the child was one year old
Unemployed before pregnancy: Unemployed when pregnancy was discovered
Source) Prepared by the MLIT based on the "National Birth Survey (Survey of Married Couples) 2015" (National Institute of Population and Social Security Research)

Column Workcation

"Workcation" is a portmanteau of "work" and "vacation" that means telecommuting—using a personal computer or the like to do work—while on a long-term vacation at a domestic or foreign resort or in one's hometown.

Starting in the summer of 2017, Japan Airlines Co., Ltd., offered workcations as a telecommuting option to roughly 4,000 employees who are not involved in shift work at airports and the like. The purpose of the offer was to encourage employees to take vacation time; the way each employee used the time determined whether or not their case counted as a workcation. For example, if an employee took three days of vacation and only worked during the afternoon of the second day, that counted as a workcation. However, if during

an extended public holiday an employee only rested each morning and worked each afternoon, that did not count as a workcation because work accounted for too much of the time. The airline aimed to create opportunities for travel and fulfilling family time by promoting a new way of working: working at a travel destination. In sum, 34 employees took workcations during the airline's two-month trial in July and August 2017, and their impressions were generally positive; one indicated that the workcation enabled them to visit their hometown as planned despite earlier concern over canceling the trip due to work, and another remarked that the change of scenery from their usual telecommuting helped them work more efficiently.

Local governments are also proactively drawing attention to workcations. For example, the Wakayama prefectural government is taking the lead among Japanese local governments in promoting and performing public relations for workcations. The local government has planned CSR activities, such as repairing the Kumano Kodo, a World Heritage site, and events where people can try workcations—including providing workplaces where Wi-Fi is available—and has also created a PR video for workcations.

Amidst the current call for work style reform, workcations are a promising new way of working that can enable people to refresh both body and mind by changing where they work, and contribute to regional revitalization while improving productivity.

Figure 1-3-2　Workcations

Source) Japan Airlines Co., Ltd.

Figure 1-3-3　Workcations

Source) Wakayama Prefectural Government

Figure 1-3-4　Repairing the Kumano Kodo

2 How Japanese People Have Fun

(Diversification/intensification of fun)

■A park built from the ground up by people, communities and corporations (Izumi-Sano Hills Green Space in Osaka Prefecture)

Izumi-Sano Hills Green Space is a park and recreational facility operated by the Osaka prefectural government. However, the park was not created in the traditional government-centered style; the government and prefectural residents worked together to create the park from scratch, and since it opened, the two sides have collaborated to continue shaping the park. Courses and other events were held to train park volunteers—namely elderly people—and create a community. Today, those trainees form the core of a community of around 100 people who engage in activities in the park. These activities create opportunities for elderly people and others to make the personal connections that serve as the foundation of activities that benefit society.

| Figure 1-3-5 | Izumi-Sano Hills Green Space Park Club: a volunteer group of citizens of Osaka Prefecture |

Source) Osaka Prefectural Government

■Increasing demand for domestic travel

Japanese domestic tourism consumption and the total number of Japanese domestic travelers are both on the rise (Figure 1-3-6). In addition, the record-high 28.69 million foreign visitors to Japan in 2017 have had a major impact on regional tourism resources and beyond.

In light of developments such as the shift of tourism demand by foreign visitors to Japan toward experiences and away from things, it is important to encourage consumption of hands-on tourism. Investigations are underway to find new tourism resources that go beyond history and culture and other specific ways for both public and private entities to make efforts toward this end.

These kinds of efforts to make full use of existing resources and people to improve the appeal of tourism are expected to create even more fulfilling fun. In addition, strategic engagement in these efforts by local operators, residents and other key people should create connections between a wide variety of people who may or may not have connected otherwise.
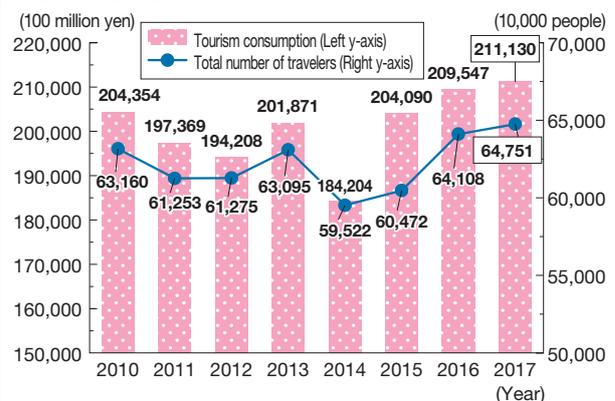
| Figure 1-3-6 | Japanese Domestic Travel |

(100 million yen)

- Tourism consumption (Left y-axis)
- Total number of travelers (Right y-axis)

(10,000 people)

Year	Tourism consumption	Total number of travelers
2010	204,354	63,160
2011	197,369	61,253
2012	194,208	61,275
2013	201,871	63,095
2014	184,204	59,522
2015	204,090	60,472
2016	209,547	64,108
2017	211,130	64,751

Source) "Survey on Travel/Tourist Spending Trends (FY 2017 Values)" (Japan Tourism Agency)

Column　Adult Daycare-Style Cooking Studio

Nanairo Cooking Studio is a cooking-themed participatory adult daycare center located in Jiyugaoka in Meguro city, Tokyo. The concept of cooking—the first of its kind in the nursing care industry—is the foundation of this completely new type of adult daycare center, which feels more like a cooking class and is designed to fill participants with feelings of joy, accomplishment and motivation.

UNIMAT Retirement Community Co., Ltd., created this service from the desire to spread awareness and understanding of efforts to encourage elderly people and people with dementia to enjoy cooking and give them motivation in life. The lessons start with simple tasks and advance gradually, so everyone—even first-timers and others who are not good at cooking—can feel free to join. In addition, cooking is considered to be a highly effective method of occupational therapy for rehabilitation. This "cooking therapy" involves cutting and peeling ingredients, adding ingredients in the proper balance, counting, thinking about time, plating food and other activities that stimulate the five senses, all of which can improve cognitive functions.

The stylish red awning on the exterior of the building draws people's attention. The interior has a natural white tone with an elliptical cooking station in the center. The colorful pendant lights and various interior decorations are very charming and brighten the emotions of the participants. Staff members make preparations for the cooking while visitors take turns getting their vitals checked, and then the program begins with a lecture by a registered dietitian, who explains the recipes and nutritional components of each ingredient. Then the staff members assign tasks to each participant in line with their physical condition—participants are asked to cut vegetables, crack eggs, peel and the like while seated in wheelchairs or on chairs or while standing. Participants enjoy conversation with the chef and staff members in a friendly atmosphere, and the cooking is completed in around one hour. Three hours pass in no time as participants enjoy the meal time together at their tables.

The current ratio of women to men at the center is 4-to-1, and the oldest participant is a 96-year-old woman. Many participants not only make food for themselves, but also make meals to take to their families, which is a delight to the families. Presentations are held once every six months. At these presentations, participants invite family members and caregivers to watch them prepare a full party menu, and then eat together. Family members are impressed by the participants' excitement and energy as they cook in a different environment from home, and the participants rediscover the joy of achievement and motivation for life through cooking, which motivates them to continue to work hard for themselves and others.

As the Japanese population continues to age, the number of elderly people who require nursing care is increasing. Adult daycare centers are helpful for people whose jobs and other responsibilities make it difficult for them to provide the constant nursing care that their elderly relatives require. As society diversifies, we should be aware that various kinds of adult daycare centers are appearing to make the lives of those who require care and their families more fulfilling and active.

Figure 1-3-7　Nanairo Cooking Studio

Source) UNIMAT Retirement Community Co., Ltd.

3   How Japanese People Live

(Increasing interest in moving to the countryside)

The Furusato Kaiki Shien Center[Note 12] is an NPO that offers consultations to help people move to the countryside from major cities—whether they are moving back to their countryside hometown or to a countryside area that is not their hometown. The Center's research shows an increase in the number of visitors and inquiries. The Center's research also shows an increasing interest in moving to the countryside (Figure 1-3-8), particularly among people in their teens, 20s and 30s (Figure 1-3-9).

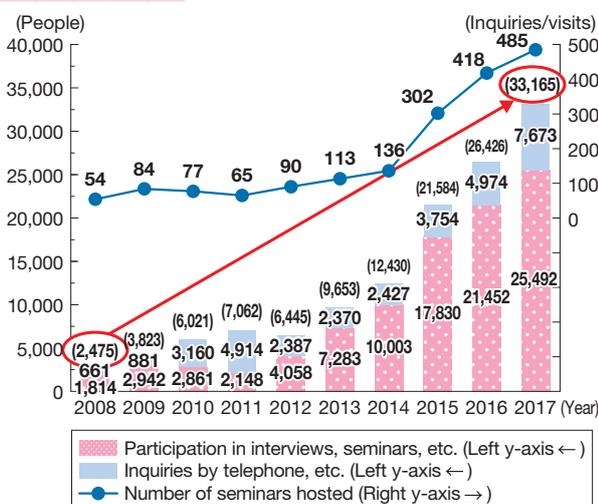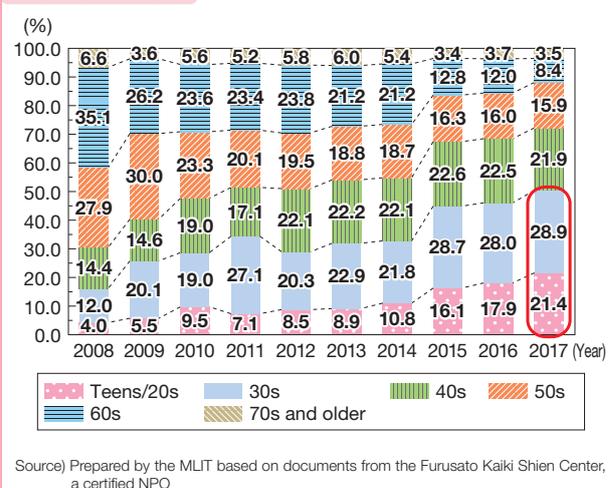| Figure 1-3-8	Visitors/Inquiries to the Furusato Kaiki Shien Center (Tokyo, 2008-2017)

Source) Prepared by the MLIT based on documents from the Furusato Kaiki Shien Center, a certified NPO

Figure 1-3-9	Furusato Kaiki Shien Center User Ages (Tokyo, 2008-2017)

Source) Prepared by the MLIT based on documents from the Furusato Kaiki Shien Center, a certified NPO

(Municipalities successfully increase number of transplants)

As efforts toward regional revitalization continue, some municipalities have successfully increased the number of transplants they receive through efforts such as stimulation of local industry by the government and private entities, support for receiving transplants, and hosting high school students from other prefectures (Figure 1-3-10).

Note 12   An organization that collaborates with 850 communities throughout Japan to provide information about moving to the countryside in support of people who desire to do so—whether to move back to their countryside hometown or to a countryside area that is not their hometown—or to interact with those communities. The organization strives to revitalize the countryside and reinvigorate communities by serving as a bridge between urban areas and farming, mountain and fishing villages. The organization has a constant supply of pamphlets and information about living in the countryside on hand, and consultants from each community provide more specific information about their communities and various advice to people who want to live in the countryside. In 2017 alone, the organization held 485 seminars about life, housing and work in various countryside locations.

Figure 1-3-10	Rate of Population Change in Municipalities (Excerpt, Excludes Three Major Metropolitan Areas)
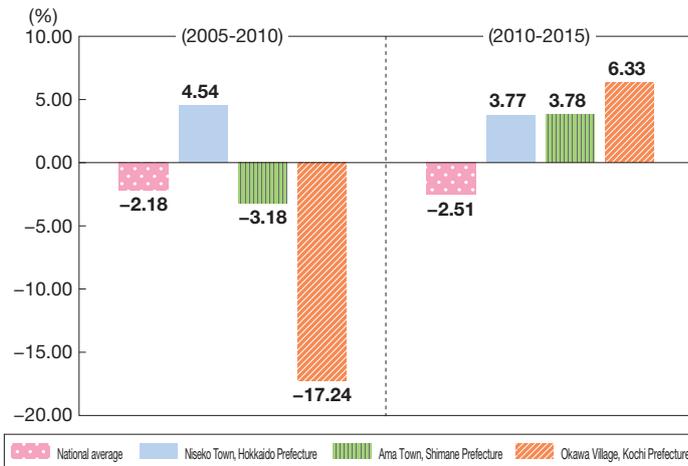
Note 1: Rate of population change in municipalities (national average excluding the three major metropolitan areas)
(2005-2010)　　(2010-2015)
△2.18%　　　△2.51%

Note 2: Three major metropolitan areas
Greater Tokyo (Saitama/Chiba/Tokyo/Kanagawa), Greater Nagoya (Gifu/Aichi/Mie), Greater Osaka (Kyoto/Osaka/Hyogo/Nara)

Note 3: The population increased in 436 of 1,741 municipalities nationwide (2010-2015)

(Source/calculation method)
Population: "Population Census" (MIC) (Total population)
Rate of population change: (from first year to final year) Population change*1/Total population in first year
*1 Population change = (total population in first year - total population in final year) - natural fluctuation (number of births from first year to final year - number of deaths from first year to final year) *2
*2 Number of births/deaths: "Vital Statistics (Final Figures)" (MHLW)
It is not possible to obtain monthly totals from the data for each municipality; therefore, the period from October to December in the first year was calculated as one quarter of the first year total, and the period from January to September in the final year was calculated as three fourths of the final year total.
Source) Prepared by the MLIT based on "First Collection of Positive Examples of Policy for Relocation to/Settlement in Rural Areas" (Main Office for Revitalization of Communities, People and Jobs, Cabinet Secretariat)

Column　Intergenerational Homesharing

Intergenerational homesharing is gaining popularity as a communal way of living in which young people live with elderly people who live alone because their own children have grown up and moved out. In this communal life, the two sides agree to rules to maintain a healthy distance; for example, the young people help the elderly people but do not provide nursing care, and each prepares their own meals.

For young people who move away from home to study or work, the arrangement is economically advantageous because they can live in high-quality housing at a reasonable price, and it also provides them with a place they belong in their new location, and with opportunities to learn from their elders. Elderly people also benefit substantially by avoiding isolation and feeling a sense of security in life, and the ability to converse with young people provides new stimuli.

Live and Live is an NPO that coordinates these communal living arrangements between elderly people and university students with the aim of creating new relationships that transcend blood. The two sides are free to go about their business during the day and are encouraged to communicate by spending time together in the evening and at night. The organization goes beyond making connections; each pair has a co-ordinator dedicated to their case, and each month, the coordinator checks in with the two sides to listen and offer advice to encourage them to enjoy supporting each other in their lives. Participants in this initiative have a positive impression of it; one elderly homeowner described the enjoyment of learning about thoughts and world views that are new to them on a daily basis, and another told of feeling safer and more secure living with a student after the student turned off a stove that the homeowner had forgotten to shut off. One student also reported feeling that their life is more fulfilling because someone else is happy to have them around.

Although the isolation of elderly people living alone plagues Japanese society, intergenerational homesharing is a new way of living that gives both elderly people and young people a place where they belong.
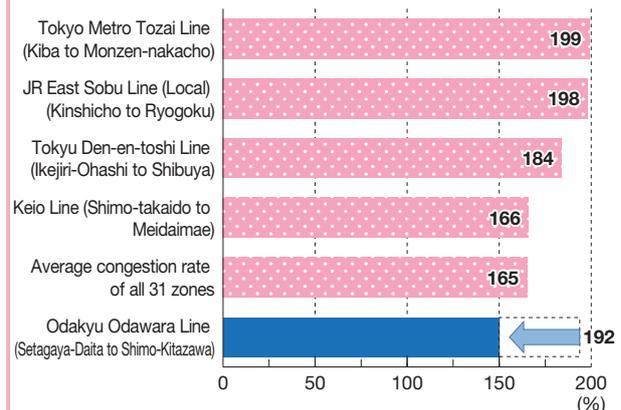
Figure 1-3-11　Intergenerational homesharing

Source) Live and Live, a non-profit organization

4　How Japanese People Move

(Mitigating congestion on railways)

Congestion on railways in major metropolitan areas during commuting to and from work and school is improving substantially as a result of efforts such as establishing new lines, quadruple tracking and adding cars onto trains (however, the rate of congestion on some routes still exceeds 180%). For example, in March 2018, Odakyu Electric Railway Co., Ltd., added one inbound line and one outbound line to create quadruple tracks between Yoyogi-Uehara and Noborito Stations to ease congestion rates during the peak of the morning rush hour and provide more comfortable transportation services. Their average congestion rate is now below 150%[Note 13], which is regarded as the rate at which passengers can comfortably read newspapers in the train cars (Figure 1-3-12).

Figure 1-3-12　Congestion Rates in Primary Zones of Greater Tokyo

	Congestion rate (%)
Tokyo Metro Tozai Line (Kiba to Monzen-nakacho)	199
JR East Sobu Line (Local) (Kinshicho to Ryogoku)	198
Tokyu Den-en-toshi Line (Ikejiri-Ohashi to Shibuya)	184
Keio Line (Shimo-takaido to Meidaimae)	166
Average congestion rate of all 31 zones	165
Odakyu Odawara Line (Setagaya-Daita to Shimo-Kitazawa)	192

Note: The figure of 150% for the Odakyu Odawara Line is from research by Odakyu Electric Railway Co., Ltd. Other figures are from "Congestion Rate Data" by the MLIT.
Source) MLIT

Column　Universal Accessibility Apps

Smartphone apps for sharing information about universal accessibility are gaining popularity as a way for wheelchair users and able-bodied people alike to post and share information about universally accessible toilets, elevators and other facilities.

WheeLog! is an app unveiled in May 2017 that saves information about universally accessible facilities posted by users onto a map for sharing with others. Wheelchair users can also turn on the "traveling log" function when they go out to trace the path they take on the map. This allows wheelchair users to learn which places are accessible.

Note 13　Survey by Odakyu Electric Railway Co., Ltd. (as of April 2018)

WheeLog! was invented by a woman who uses a motorized wheelchair. The project to create this app began after the inventor won the grand prize in a contest for socially beneficial ideas hosted by a search engine operator. The governor of Tokyo created a buzz by attending an event to mark the app's release in Roppongi, Tokyo. The app has also received favorable reviews by users.

The app was used to conduct a demonstration experiment[Note] as part of a barrier-free navigation project (pedestrian assistance using ICT) promoted by the MLIT, and the results are expected to be used in discussions about such factors as efficiently gathering information about universal accessibility.

An impassioned push for universal accessibility is underway in Japan in the lead-up to the Tokyo 2020 Olympics and Paralympic Games. We must continue to further our understanding of universal accessibility to prepare for the many Japanese and foreign people with disabilities who will visit competition venues. We must understand each other's way of life and cooperate to enable people from multiple generations to live in comfort.

Figure 1-3-13   An event in which the app is used to navigate the city streets

Source) WheeLog!

Figure 1-3-14: Images of the app in use

Source) WheeLog!

Section 4   Government Initiatives

1   Overall Government Trends

(1) Promoting the Dynamic Engagement of All Citizens

In a society in which all citizens are dynamically engaged, everyone—women and men, elderly people and young people, people who have failed or made mistakes, and people with disabilities and intractable diseases—can be active and participate in their homes, workplaces, communities and everywhere else.[Note 14]

To successfully create such a society, the Japanese government developed "Japan's Plan for the Dynamic Engagement of All Citizens" (June 2, 2016 Cabinet decision). The government identified work style reform as the highest hurdle to clear toward creating such a society, and thus developed a specific plan of action known as the "Action Plan for the Realization of Work Style Reform" (March 28, 2017 Council for the Realization of Work Style Reform decision). On December 8, 2017, the Cabinet decided on a "New Economic Policy Package" to encourage revolutions in productivity and human resources development to serve as the wheels on the cart for overcoming the immense barriers of a declining birthrate and aging population. For the revolution in human resources development, the package includes a policy worth 2 trillion yen for free early childhood education, elimination of waiting lists for child care, free higher education, and improved treatment of caregivers toward the elimination of departures from that line of work. In addition, discussions about recurrent education, university reform and other points of contention have progressed since the beginning of the year.

■Japan's Plan for the Dynamic Engagement of All Citizens

A Commission for the Dynamic Engagement of All Citizens comprising relevant Cabinet ministers and experts and chaired by Prime Minister Shinzo Abe was convened in October 2015 to discuss the general direction of policies for tackling the structural problems of a declining birthrate and aging population head-on and promoting the dynamic engagement of all citizens.

The eighth meeting of the Commission on May 18, 2016, resulted in the development of Japan's Plan for the Dynamic Engagement of All Citizens, which the Cabinet decided on June 2 of that year. The plan aims to realize a new three-arrow approach (a robust economy that creates hope, childcare support that fosters dreams, and social security that creates a sense of safety) to promote the dynamic engagement of all citizens, and sets out to create a virtuous cycle between growth and distribution and realize a society where everyone has motivation in life and can exhibit their capabilities to the fullest.

It is worth noting that follow-up meetings are being held to facilitate discussions to revise policies and continuously investigate the progress of the roadmap set out in Japan's Plan for the Dynamic Engagement of All Citizens.

■Action Plan for the Realization of Work Style Reform

Work style reform sets out to fundamentally reform the labor system and change the corporate culture and landscape from the perspective of working people. The pursuit of this reform aims to give each and every person who works the ability to dream of a better future.

The Council for the Realization of Work Style Reform, which is chaired by the Prime Minister, was convened in September 2016, and developed the Action Plan for the Realization of Work Style Reform in March 2017. The plan sets out specific measures and roadmaps for nine fields of work style reform, including improved treatment for non-regular employees, wage increases and labor productivity improvement, and correction of long working hours (Figure 1-4-1).

Note 14   From Japan's Plan for Dynamic Engagement of All Citizens

Figure 1-4-1   Items of Action Plan for the Realization of Work Style Reform

1. Improved treatment for non-regular employees

2. Wage increases and labor productivity improvement

3. Correction of long working hours

4. Establishment of atmosphere that encourages flexible work styles

5. Promotion of balance between work and healing from illnesses, child raising and nursing care; promotion of work for people with disabilities

6. Acceptance of foreign workers

7. Establishment of atmosphere that encourages women and young people to flourish

8. Support for switching careers to/finding employment in industries with high employment absorption, fulfillment of human resources development and education that battles inequality

9. Promotion of the employment of elderly people

Source) Prepared by the MLIT based on "Action Plan for the Realization of Work Style Reform"

2   Ministry of Land, Infrastructure, Transport and Tourism Trends

(1) MLIT Productivity Revolution Project

To increase Japan's capacity for potential growth and unearth new demand, productivity must be improved to counteract and exceed the reduction of workers. We must also push forward with work style reform to secure and train the leaders of industry for the medium and long term, and productivity improvement is required toward that end as well.

The MLIT oversees infrastructure and other field sites throughout Japan, and is responsible for transportation, construction and a wide range of other industrial fields that underlie economic activity; thus, the MLIT plays an extremely important role in achieving productivity improvement and other goals for Japan.

In light of the above, the MLIT Productivity Revolution Headquarters, which was established in March 2016 and is chaired by Minister of Land, Infrastructure, Transportation and Tourism Keiichi Ishii, spearheads ministry-wide efforts toward productivity improvement and other goals, and has selected and continues to promote 20 innovative projects (productivity revolution projects) (Figure 1-4-2) for improving productivity in the following three areas:

1. On roads, in cities and at ports and harbors, airports and other bases of society

2. In the tourism industry and other industries

3. Through autonomous driving, climate business and other future-oriented investment and new technology

Figure 1-4-2	MLIT Productivity Revolution Project 20

◆Projects to increase the productivity of the bases of society

(1) Pinpoint Congestion Measures

(2) Smart Fee System for Expressways

(3) New Era for Cruises: Toward the Realization of the Goal of 5 Million Passengers on Cruises to Japan

(4) Compact Plus Network: Improving Productivity in a Saturated Economy

(5) Promotion of Optimal Use of Real Property

(6) Infrastructure Maintenance Revolution: Promoting Reliable, Efficient Infrastructure Maintenance

(7) Dam Revitalization: Quickly Improving Water Management and Flood Control Capacities to Support Regional Economies

(8) Air Travel Infrastructure Revolution: Best Mix for Airports and Air Traffic Control

◆Projects to increase the productivity of specific industries

(9) Promotion of i-Construction

(10) New Development for the Housing Life Industry: Reinvigorating the Circulation of Existing Housing and the Renovation Market

(11) i-Shipping and j-Ocean: Maritime Productivity Revolution for Strong Industry, High Growth and Prosperity in Rural Areas

(12) Distribution Productivity Revolution: Realization of Efficient, High-Value-Added Smart Distribution

(13) Road Distribution Innovation: Improving Truck Transportation Productivity

(14) Tourism Industry Revolution: Making the Tourism Industry a Core Industry of Japan (Lodging Industry Revolution)

(15) Sewer System Innovation: Strategy for Creating "Made-in-Japan" Resources

(16) Railway Industry Revolution: Increasing Productivity through Next-Generation Technology

◆Projects to increase productivity in future-oriented investing and new technology

(17) Using Big Data for Transportation Safety Measures

(18) Overseas Expansion of Quality Infrastructure: Japan as a Spark for a Massive Market

(19) Automobile ICT Revolution: Combining Autonomous Driving and Pilot Projects

(20) Creation of Climate Business Market

MLIT Productivity Revolution Product: Version 3
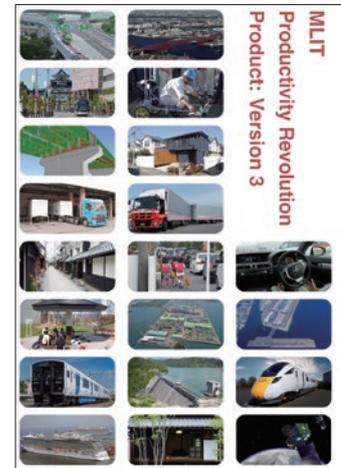
Source) MLIT

(2) MLIT Focus 2018

　The MLIT will prepare a publication called "MLIT Focus" to introduce the various efforts and policies it is implementing in each new fiscal year. The publication will focus on novel, highly creative policies that fit the theme for the year.

　The MLIT regards 2018 as a year of intensification for the productivity revolution, and is working to make individual efforts carried out to date stronger and more concrete as well as to make the approach of creating the largest possible output from even the smallest input—the foundation of the productivity revolution—permeate throughout every policy area in the administration of national land and transportation.

　"MLIT Focus 2018," which was released on March 27, 2018, and is the first edition, contains 28 policies to be implemented in FY 2018 that fit the theme of providing innovation through (1) ensuring safety and security, (2) strengthening the capacity for economic growth by promoting productivity improvement, and (3) building communities to help improve social activity and the quality of life (Figure 1-4-3).

Figure 1-4-3   MLIT Focus 2018

◆Ensuring safety and security

(1) Shifting to a Society with Higher Disaster Prevention Awareness

(2) Intensification of Efforts toward Ensuring Transportation Safety and Security

(3) Expressway and Local Road Safety Measures that Combine Structural and Non-Structural Elements

(4) Promotion of Electric Power Pole Removal to Prevent Disasters and Ensure Safe, Smooth Transportation

(5) Improvement of Station Platform Safety through Efforts on Both Structural and Non-Structural Fronts

(6) Creating Maritime Safety: Toward the Realization of Safe, Efficient Maritime Activities

◆Strengthening of economic growth capacity through the promotion of productivity improvement, etc.

(7) Intensification of i-Construction

(8) Automobile ICT Revolution: Combining Autonomous Driving and Pilot Projects

(9) Distribution Innovation

(10) Improvement of Productivity and Convenience of Taxis and Buses

(11) Development of Maritime Industries and the Human Resources to Support Them: Intensification of the Maritime Productivity Revolution

(12) Intensification of Efforts to Realize a New Era for Cruises

(13) Realization of World-Class Airport Services

(14) Improvement and Advancement of Tourism Infrastructure, Tourism Industry Revolution and Reinvigoration of Tourism Resources toward Becoming an Advanced Tourism Nation

(15) Promotion of the Use and Open Provision of Overland and Maritime Data

(16) Creation and Expansion of a Climate Business Market: Promoting the Effective Use of Climate Data

(17) Overseas Expansion of Quality Infrastructure: Strengthening the System for Robustly Promoting Overseas Expansion

(18) Work Style Reform in the Construction Industry: Improving Working Environments, Securing/Cultivating Leaders

(19) Work Style Reform in the Automobile Transportation Industry, etc.

◆Community building to help improve social vitality and the quality of life

(20) Using the Tokyo Olympic and Paralympic Games to Promote Universal Accessibility

(21) Promoting the Introduction of a Concessions Industry

(22) Environmental Innovation

(23) Innovation in the Use of Little-Used and Unused Real Property

(24) Shimakaze Concept: Using Island Culture to Create a Refreshing Approach

(25) Developing Parks to Commemorate Earthquake Disasters and Sustain History and Culture, etc.

(26) Road Infrastructure Development toward Creating Appealing Tourist Sites

(27) Focused Development of International Exchange based on Public-Private Partnerships

(28) Creating Safe, Comfortable Environments for Bicycle Use

Source) MLIT