# Looking Back on 30 Years of Measures to Address the Declining Birthrate

MATSUURA Tsukasa

In Japan, despite the total fertility rate consistently remaining below 2 since 1975, the declining birthrate had not been regarded as a problem until the 1.57 Shock occurred. Following the 1.57 Shock, the government implemented various measures to address the declining birthrate, but the decline has not been halted yet. Furthermore, regional disparities in the total fertility rate have widened, with notably lower rates observed in eastern Japan. It is predicted that population decline and aging will become more severe in the Tohoku region, in particular. In light of the present situation as such, this paper first discusses the characteristics of Japan's measures to address the declining birthrate since the 1.57 Shock, dividing its history into four phases: the 1990s, the 2000s (before the establishment of the Democratic Party of Japan (DPJ) administration), the DPJ administration era, and the period after the start of the second Abe Cabinet. Next, focusing on the total fertility rate and population migration, it demonstrates that since the mid-2010s, when regional revitalization was advocated as a policy goal, the total fertility rate has declined significantly and the out-migration rate among young women has increased in the Tohoku region. Finally, based on these observations, it identifies seven key points that should be considered for future measures to address the declining birthrate.



## I. Introduction

Japan faces significant challenges due to its declining birthrate and aging population. While the total fertility rate bottomed out at 1.26 in 2005 and rose very gradually until the mid-2010s, it has been declining again since 2015, and dropped to 1.15 in 2024, setting a new record low. Similarly, the number of births fell to 705,809 in 2025, marking a new record low. Successive governments have not underestimated the low birthrate problem. As discussed later, they have implemented various policies. However, they were ultimately unable to halt the

declining birthrate.

Furthermore, population decline, declining birth rates, and population aging are not only nationwide issues in Japan but also vary in their severity and nature across regions. For example, the declining birthrate is becoming more severe in central urban areas such as Tokyo. In contrast, regional areas have relatively higher birthrates, but population aging is a serious problem. One factor contributing to this is the outflow of young people to urban areas (especially Tokyo). Specifically, in regional areas, despite their total fertility rates being relatively higher compared to urban areas represented by Tokyo, the number of young women has been declining due to their migration to cities, which is accelerating the declining birthrate in Japan as a whole. Thus, the excess concentration of population in Tokyo and the issues of the declining birthrate and aging population are closely intertwined through the migration of young women. In other words, the regional distribution of the population (unipolar concentration in Tokyo), population levels (the declining birthrate), and the age distribution of the population (aging) are inextricably linked.

Accordingly, this paper aims to discuss not only Japan's overall birthrate and measures to address the declining birthrate, but also regional disparities in fertility and population. A notable discussion of population issues from a regional perspective is found in the Masuda Report, compiled by former Minister for Internal Affairs and Communications Hiroya Masuda and others. Masuda, ed. (2014) specifically identified cities at risk of extinction based on the rate of decrease in the young female population (aged 20 to 39). To curb regional decline, the government introduced regional revitalization as a centerpiece of its policy agenda in 2014. However, despite such government effort, the decline in the total fertility rate in eastern Japan and the outflow of young women from the Tohoku and Northern Kanto regions accelerated further in the late 2010s. Ten years later, in 2024, the Population Strategy Council (Chair: Akio Mimura; Vice-Chair: Hiroya Masuda) announced findings based on the *Regional Population Projections for Japan (2023 revision)* (National Institute of Population and Social Security Research (IPSS)) published in December 2023, stating that 744 municipalities—slightly fewer than projected ten years ago—were at risk of extinction.

In this paper, Section II reviews the postwar history of population and family policies leading up to the 1.57 Shock, which brought Japan's declining birthrate issue into sharp focus. Section III provides an overview of how the government implemented policies after the 1.57 Shock throughout the DPJ administration period. Section IV examines measures to address the declining birthrate implemented following the return of the Liberal Democratic Party (LDP) to power. Section V first examines trends in prefectural fertility rates and net in-migration rates during the 2010s and shows the fact that the declines in fertility and the population outflows have been particularly have been pronounced in eastern Japan, especially the Tohoku region. It then compares changes in fertility rates brought about by the COVID-19 pandemic with those in other advanced countries. Section VI goes on to discusses future research directions and policy challenges.[1]

## II. History of Japan's postwar population policy: Before the 1.57 Shock

Japan's total fertility rate fell below 2 in 1975 and continued to decline steadily thereafter. However, the declining birthrate had not been regarded as a policy issue until the late 1980s.[2] Japan's declining birthrate began to be recognized widely as a problem when the total fertility rate in 1989 drastically fell to 1.57, below the level temporarily reached in 1966 (1.58) due to the *Hinoeuma*, a sexagenary calendar year recurring every sixty years, in which Japanese folk belief held that women born would bring misfortune to their husbands. This event, revealed in June 1990, became known as the "1.57 Shock."

So, why was there a delay in recognizing the declining birthrate as a policy issue? The first background factor is that, in Japan, since the Meiji era, except for a period during the Second World War, the major issue recognized was not population decline but overpopulation. After the war, 6.3 million Japanese nationals, including residents

in Japan's former colonies and occupied territories and demobilized military personnel, repatriated to Japan. Moreover, immediately after the war, a baby boom resulting from the rebound from wartime birth control pushed the total fertility rate above 4 between 1947 and 1949, with the annual number of births reaching an extremely high level of 2.7 million. Facing an excess of population once again after the war, Japan tackled poverty resulting from that phenomenon as a major policy issue. The preface of the *First Annual Report on Health and Welfare* (1956)—the inaugural health and welfare white paper—addressed the population problem, stating that "the pressure of overpopulation is hindering the rapid recovery or improvement of the people's livelihood." However, Japan's baby boom ended rapidly, with the total fertility rate falling below 3 in 1952. Furthermore, by 1956, the total fertility rate had fallen below the population replacement level, which means that if this fertility rate continued, the population would decline in the future. However, during this period, the total fertility rate fluctuated near the population replacement level and did not constantly fall below it. It was only after 1974 that the total fertility rate fell and remained below that level.

Second, despite the decline in the total fertility rate, the population continued to grow. After 1974, the total fertility rate consistently fell below the population replacement level, and after 1975, it remained below 2. However, the population structure at that time was characterized by a large number of women in their childbearing years, referred to as "positive population momentum." Consequently, the population continued to increase, leading to a low level of awareness regarding issues such as population decline and declining birthrates. For example, in the *Public Opinion Survey on Population Issues in Japan* (Institute of Population Problems, the Ministry of Health and Welfare) conducted in 1990 and 1995, the percentage of Japanese people who thought the population was "too large" was 46.7% in 1990 and 45.8% in 1995, whereas the percentage of those who thought it was "appropriate" was 35.1% in 1990 and 38.3% in 1995. Even at this point, it was a common perception that the population in Japan was excessive. Regarding population decline, while those who expressed negative views that it was "undesirable" (24.5% in 1990, 23.9% in 1995) exceeded those with positive views that it was "desirable" (14.7% in 1990, 15.7% in 1995), the majority responded that they "cannot say either way," indicating a lack of awareness of population decline as a problem.

Third, historically, Japan's population policy was closely linked with war, with a strong memory remaining of the facts that overpopulation underpinned Japan's foreign aggression and that its wartime "Procreate and Multiply" policy—represented by the 1941 Konoe Cabinet's Outline of Establishing the Population Policy—violated the people's reproductive rights. Yoshihara and Hata (2016) state that "during the Showa era, it was still taboo for the government to view the declining birthrate as a problem; this only changed with the advent of the Heisei era." Tsurumi (1984), citing a 1979 projection by the Institute of Population Problems that Japan's population would reach 139 million in 50 years and then plateau, states that "population explosion was repeatedly invoked during the prewar period as a theoretical justification for Japan's military expansion," adding that "controlling population growth represents one intellectual achievement of the Japanese people." Thus, the close linkage between the prewar population growth and war and the wartime Procreate and Multiply policy were widely perceived with aversion.

Reflecting the low awareness of the declining birthrate issue, the Japanese government had implemented virtually no measures to address the problem until the 1990s.[3] According to the results of a questionnaire survey on population policy conducted by the United Nations' Population Division among national governments, the Japanese government had responded that its fertility rate was at a satisfactory level until 1986, but considered it too low in 1996. Regarding the policy on fertility level, Japan maintained a no-intervention stance until 2001 but shifted to a policy of raising the level in 2003 (United Nations 2002, 2004).[4]

## III. History of Japan's postwar measures to address the declining birthrate: From the 1.57 Shock to the DPJ administration era

The 1.57 Shock raised the public awareness of the declining birthrate as a policy issue.[5] The Childcare Leave Act was enacted in 1992. According to Abe et al. (2016), the 1.57 Shock likely influenced this legislation. Previously, employers had been required to endeavor to grant childcare leave only for women. The Act institutionalized childcare leave as a claimable right for both male and female workers with children under one year of age. In 1995, the Act was expanded to include caregiver leave, becoming the Childcare and Caregiver Leave Act. Subsequent amendments, including the 2009 amendment that made it obligatory for employers to introduce shortened working hours for workers raising children up to three years of age, further expanded provisions to include a reduction of prescribed working hours, exemption from unscheduled work, and a system of short-term leave for care for a sick or injured child.

In 1994, the Angel Plan was agreed upon by the Ministers of Education, Health and Welfare, Labour, and Construction. The Angel Plan advocated the enhancement of the childcare leave system and childcare services. Subsequently, in 1999, the Angel Plan was revised, leading to the formulation of the New Angel Plan. The New Angel Plan emphasized not only the enhancement of childcare services and the appropriate balance between work and childcare but also the correction of the gender-based division of labor and workplace-first corporate cultures.

In 2001, under the Koizumi administration, the government launched the "Strategy for Zero Nursery School Waiting List," setting numerical targets to ensure that there would be no children on waiting lists for nursery schools.[6] In 2002, as an add-on to the New Angel Plan, the Ministry of Health, Labour and Welfare (MHLW) announced the Plus One Measures to Halt the Declining Birthrate, which aimed to reform men's styles of working by setting the goal of having 10% of male workers take childcare leave. In 2003, two laws were enacted: the Act on Advancement of Measures to Support Raising Next-Generation Children (Next Generation Act)[7] and the Basic Act for Measures to Cope with Society with Declining Birthrate (Basic Act), the latter of which was lawmaker-initiated legislation. Next-Generation Act required that the national government, local governments, and large enterprises with 301 or more regular employees develop plans to improve childcare environments. In 2007, the Kurumin Certification system was launched. This certification is proof of being a childcare support company and is awarded by the Minister of Health, Labour and Welfare to businesses that have achieved the goals set in their general action plans for business operators. The Basic Act for Measures to Cope with Society with Declining Birthrate clearly defined the responsibilities of the national government, local governments, employers, and citizens to halt the declining birthrate. Based on this Act, the "Outline of Measures against the Declining Birthrate" was approved by the Cabinet in 2004 after deliberation by the Council for Measures for Society with Declining Birthrate.

The subsequent updates of the Outline of Measures against the Declining Birthrate were approved by the Cabinet in 2010, 2015, and 2020. Based on the Outline, the New Angel Plan was revamped into the Child and Childrearing Support Plan in FY2005. This plan advocated "shifting the focus from childcare services to independence and education of young people and review of their work styles." Specifically, it identified four key priorities: promoting youth independence, supporting work-life balance, understanding the role of the family, and fostering new forms of mutual support and solidarity in childcare.

Following the DPJ's landslide victory in the August 2009 general election, the DPJ took over the administration from the LDP. While previous measures to address the declining birthrate had emphasized a balance between work and childcare, the DPJ administration made cash benefits, such as the child allowance (*kodomo teate*), a central pillar of its policy for addressing the declining birthrate. The initial plan was to provide this allowance to all households with children up to junior high school age, without income limits. However, due to funding

constraints, the amount of payment was reduced from the initial plan, and in April 2012, the name reverted to the previous one (*jido teate*) and the income limits were reinstated. In January 2010, the second edition of Outline of Measures against the Declining Birthrate (Vision for Children and Childcare), based on the Basic Act for Measures to Cope with Society with Declining Birthrate, was approved by the Cabinet. It shifted the focus from the previous measures to address the declining birthrate to support for children and childcare, proposing a balanced approach combining support, such as child allowances, with services, including education and childcare, as the two wheels of a cart, moving forward in tandem. In 2010, the Childcare and Caregiver Leave Act was amended to establish the Mom & Dad Childcare Leave Plus system. Under this system, if both parents take childcare leave, each parent can take childcare leave for one year until the child reaches 14 months of age.

In 2012, as part of the legislation related to the comprehensive reform of social security and tax systems, the Child and Childcare Support Act and two other related laws[8] were enacted (effective in 2015), and based on these three laws, the Comprehensive Support System for Children and Child-rearing was established. As a result, childcare services centered on nursery centers and early childhood education centered on kindergartens were unified into a single system. Various existing child and childcare support measures were systematized to enable integrated provision at the municipal level, with consumption tax allocated as the funding source.

As described above, Japan finally recognized the declining birthrate as a policy issue in the wake of the 1.57 Shock in the early 1990s. Measures to address the declining birthrate during the 1990s focused particularly on policies, such as expanding childcare leave for women and enhancing childcare services. Around the year 2000, the focus shifted to encouraging men's participation in childcare and reforming work styles at companies for men as well as women. The DPJ administration inaugurated in 2009 shifted the focus from measures to address the declining birthrate to support for children and childcare. It emphasized not only supporting the balance between childcare and work but also initially promoted cash benefits to all households with children up to junior high school age without income limits.

## IV. History of Japan's postwar measures to address the declining birthrate: Since the second Abe administration to present

The 2012 House of Representatives election saw the LDP's return to power, ushering in the second Abe administration. The measures to address the declining birthrate launched by the second Abe administration had the following three features. First, as pointed out by Anzo and Kamata (2015), the measures to address the declining birthrate implemented before the Abe administration primarily focused on childrearing and childcare environments. However, marriage has a significant impact as a determinant of the birthrate. Iwasawa (2015) decomposed changes in the total fertility rate up to 2012 into changes related to first marriage behavior and other changes, concluding that changes in first marriage behavior were substantial.[9] Therefore, the Abe administration focused on support measures that could actively encourage people to make efforts toward marriage. Second, the Abe administration set a numerical target of a Desired Fertility Rate of 1.8. Third, regional revitalization was advocated, with a focus on regional issues.

The argument on cities at risk of extinction indicated in the Masuda Report significantly influenced the Abe administration's measures to address the declining birthrate. The Population Decline Issue Review Subcommittee of the Japan Policy Council, established by the Japan Productivity Center and chaired by former Minister for Internal Affairs and Communications Hiroya Masuda, calculated total fertility rates based on future population projections for women aged 20 to 39, and defined municipalities where the population size would decrease by 50% or more by 2040 as "cities at risk of extinction." Based on this definition, a list of 896 cities at risk of extinction was published in May 2014 (Japan Policy Council, 2014). This report, known as the Masuda Report, caused a great sensation nationwide. In addition, the report set a numerical target for the birthrate using the

concept of a Desired Fertility Rate.

In 2013, the Task Force for Overcoming the Declining Birthrate Crisis was established under the Minister of State (for Measures for Declining Birthrate). Based on its proposals, the Council for Measures for Society with Declining Birthrate decided on Emergency Measures to Overcome the Declining Birthrate Crisis. A novel aspect of these measures was that marriage support was designated as one of the major pillars (Cabinet Office 2022). To implement these emergency measures, the Abe administration launched the Task Force for Overcoming the Declining Birthrate Crisis (Phase II) and adopted the Basic Policies[10] in June 2014, incorporating the recommendations by this task force. Furthermore, the Headquarters for Overcoming Population Decline and Vitalizing Local Economy in Japan was established within the Prime Minister's Office. In November 2014, the Act for Overcoming Population Decline and Vitalizing Local Economy was enacted. Based on this Act, the Long-term Vision for Overcoming Population Decline and Vitalizing Local Economy and the Comprehensive Strategy for Overcoming Population Decline and Vitalizing Local Economy were formulated. In March 2015, the third edition of "Outline of Measures against the Declining Birthrate" was approved by the Cabinet. Going beyond the previous framework for measures to address the declining birthrate, it introduced support for marriage as a new element and established five key priorities: further enhancing childrearing support measures; realizing people's desire for marriage and childbirth at a younger age; considering families with multiple children; reforming working styles for both men and women; and strengthening initiatives tailored to regional circumstances. As noted earlier, this new framework incorporates not only policies for married households but also support for marriage itself and a regional perspective. In 2014, the Employment Insurance Act was amended, raising the childcare leave benefit rate from 50% to 67% for a limited period of six months.

In October 2015, the National Council for Promoting the Dynamic Engagement of All Citizens was convened, comprising relevant ministers and experts, to discuss policy directions for realizing a society in which all citizens are dynamically engaged. This led to the Cabinet approval of Japan's Plan for Dynamic Engagement of All Citizens in 2016. This plan aimed to realize the three new arrows of Abenomics[11] and set the goal of achieving a Desired Fertility Rate of 1.8. Additionally, regarding work style reform, which was positioned as the biggest challenge in this plan, the Act on the Arrangement of Related Acts to Promote the Work Style Reform (Work Style Reform-Related Act) was enacted in 2018, providing for measures to correct long working hours, realize diverse and flexible work styles, and ensure fair treatment regardless of employment status.

In May 2019, the amended Child and Childcare Support Act was enacted, and early childhood education and childcare services were offered for free, starting in October of the same year. As a result, fees were waived for all children aged 3 to 5 attending kindergartens, nursery centers, certified children centers, and similar facilities. For children aged 0 to 2, fees were waived for households exempt from resident tax. Furthermore, starting in April 2020, a policy of free higher education was implemented by utilizing a portion of the increased consumption tax revenue as funding to provide an exemption or reduction of tuition and admission fees and to significantly increase non-repayable scholarships. In May 2020, the Cabinet approved the fourth edition of Outline of Measures against the Declining Birthrate, which emphasized the verification and assessment of the progress in implementing the measures and the appropriate implementation of the PDCA cycle—a management concept used to improve operations and increase efficiency by repeatedly performing a series of processes: Plan, Do, Check, and Action.

Following the Planning Meeting on a Social Security System Oriented to All Generations held with Prime Minister Suga, who succeeded to the Abe administration, serving as the chair, the Policy for Social Security Reform for All Generations was approved by the Cabinet in December 2020. This outlined measures such as providing insurance coverage for infertility treatment, eliminating waiting lists for nursery schools, and increasing the number of male workers taking childcare leave. Based on this policy, MHLW announced the New Childcare with Security Plan in 2020. The Suga administration introduced the expanded insurance coverage for infertility

treatment, making it available in April 2022. In demography, the determinants of fertility are examined from two perspectives: biological and behavioral factors, such as fertility potential, termed "proximate determinants"; and social, economic and environmental variables (Bongaarts 2003). While conventional measures to address the declining birthrate primarily targeted the latter factors as policy variables, the subsidies for infertility treatment represent a new approach focusing on fertility potential from the perspective of reproductive health.[12]

In 2022, the Act Establishing the Children and Families Agency was enacted to establish the Children and Families Agency as an external bureau of the Cabinet Office. This agency is responsible for promoting the welfare of families with children, supporting childrearing, and protecting the rights and interests of children. Additionally, the Childcare and Caregiver Leave Act was amended in 2022, introducing paternity leave after childbirth (parental leave) that male workers can take separately from childcare leave that is available until the child reaches one year of age.

The Kishida Cabinet, formed in October 2021, positioned the declining birthrate issue as a central pillar of its policy agenda, proclaiming "different dimension" measures to address the declining birthrate. In December 2023, the Children and Families Agency presented a draft proposal for a support contribution system to an expert panel. This system would collect support contributions on top of public health insurance premiums paid by companies and individuals to secure funding for Prime Minister Kishida's flagship policy, the "measures on a different dimension" to address the declining birthrate. In February 2024, the Kishida Cabinet approved a bill for the Act Partially Amending the Child and Childcare Support Act using the support contribution system as its funding source. The bill was passed in June of the same year.

To summarize the above, the second Abe administration, which was inaugurated as a result of the change in government back from the DPJ to the LDP, differed from previous administrations in several keyways: it focused not only on policies for married couples but also on marriage itself; it set a numerical target of a Desired Fertility Rate; and it emphasized regional issues under the slogan of regional revitalization. The Suga Cabinet, succeeding to the Abe administration, expanded health insurance coverage for infertility treatment. The Kishida Cabinet proposed different dimension measures to address the declining birthrate, funded by the support contribution system based on additional contributions from companies and individuals to public health insurance.

## V. Total fertility rates and migration rates since the 2010s

Sections II to IV examined the developments in Japan's postwar measures to address the declining birthrate. Following the 1.57 Shock, the government began seriously tackling the declining birthrate issue. However, regional differences are as important as the national birthrate and population structure.

Historically, the excess concentration of population in Tokyo has been considered a policy challenge. During the period of high economic growth, the migration of young people to cities significantly exacerbated overcrowding in urban areas. To address urban problems and achieve balanced development, five successive plans were formulated since the Comprehensive National Development Plan established in 1962. Nevertheless, the trend of concentration in Tokyo continued unabated, while population decline and aging accelerated in regional areas. Meanwhile, the Great East Japan Earthquake in 2011 reminded people of the danger of excessive concentration of population and economic infrastructure within a single metropolitan area.

Faced with these challenges, the Abe administration adopted "regional revitalization" as a policy target in 2014. Ironically, since 2015, the decline in the total fertility rate in eastern Japan, particularly in the Tohoku region, has become more pronounced compared to western Japan, further highlighting the pattern of total fertility rates being higher in the west and lower in the east. Furthermore, the trend of young women moving out of eastern Japan intensified during the 2010s.

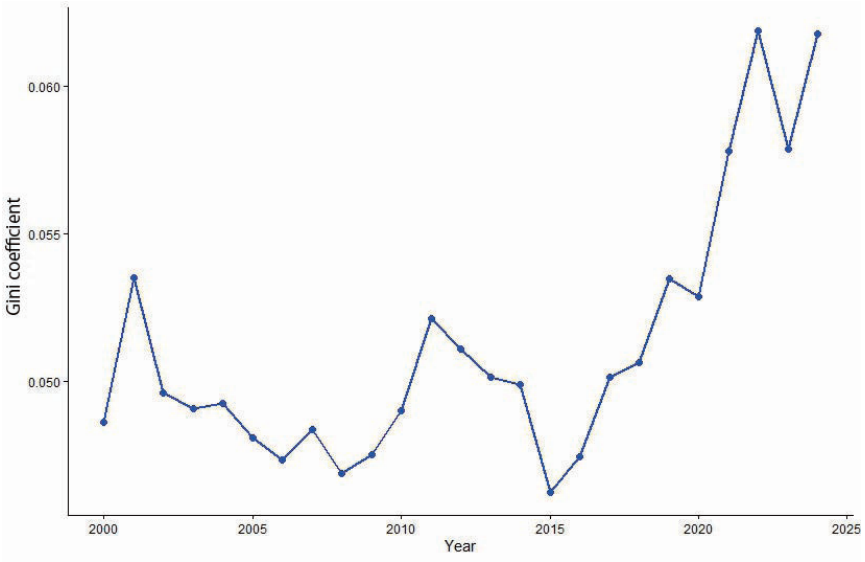
In 2020, COVID-19 spread worldwide, triggering a pandemic. The pandemic also significantly impacted

birthrates on a global scale, but the impact varied from country to country. In Japan and South Korea, the COVID-19 pandemic temporarily affected total fertility rates, but this was largely due to the influence of a structural downward trend rather than the shock of the pandemic. Furthermore, the trends in total fertility rates and migration rates in eastern Japan during the 2010s are expected to have a significant impact on the future regional population. This will be discussed using the *Regional Population Projections for Japan* published in December 2023.

**1. Total fertility rate**

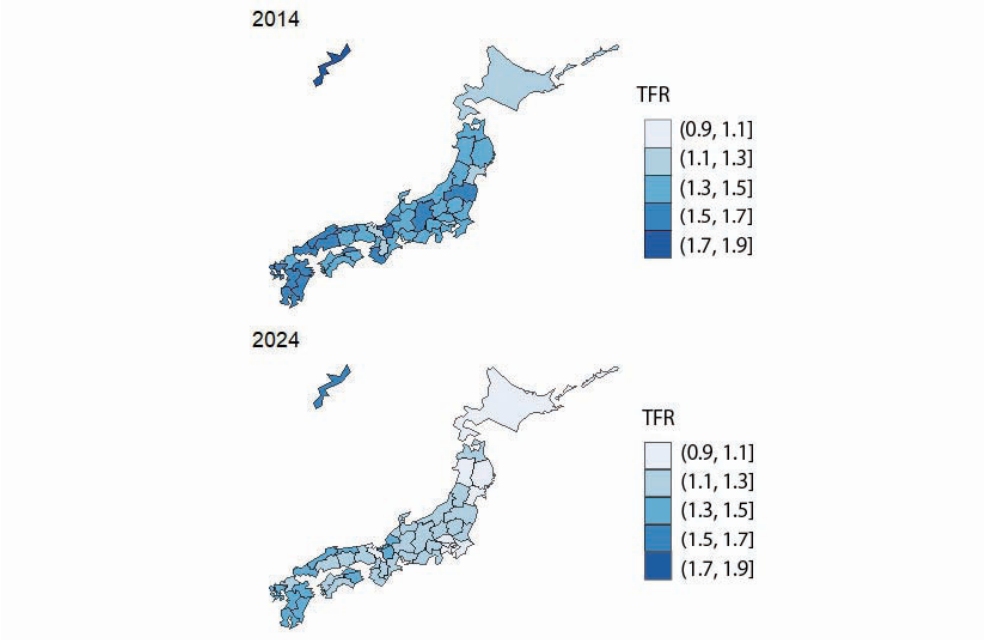
Japan's total fertility rate bottomed out at 1.26 in 2005 and showed a slight recovery trend thereafter. However, after peaking at 1.45 in 2015, it resumed a downward trend. The COVID-19 pandemic accelerated this trend, resulting in a rate of 1.15 in 2024. Not only has the total fertility rate been declining since the mid-2010s, but regional disparities in the declining trend have also widened. Coincidentally, in the period following the reginal revitalization policy launched by the Abe administration in 2014–2015, the total fertility rate has not only declined, but regional disparities within this downward trend have widened as well.

Figure 1 shows the regional disparities in the total fertility rate by prefecture, expressed as a Gini coefficient. As can be seen, the regional disparities in the total fertility rate have widened sharply since 2015. While the total fertility rate has been on a declining trend nationwide, the figure shows that in recent years, the rate has significantly declined in some regions, although the decrease has been relatively smaller in other regions. So, which regions have experienced greater declines in the total fertility rate? Figure 2 shows the total fertility rates by prefecture for 2014 and 2024. As a result, a west–high–east–low pattern is observed for the total fertility rate in every year, with higher levels in western Japan—particularly in southern Kyushu and Okinawa Prefecture.[13] Furthermore, compared to 2014, rates declined in most regions in 2024. For example, the rates in Tokyo fell below 1.0. To identify factors behind regional disparities in the total fertility rate, changes in the rate from 2014 to 2024 are examined by prefecture, as shown in Figure 3. It reveals that many regions where the total fertility rate declined by 0.3 points or more are concentrated in eastern Japan, such as the Tohoku region (Iwate, Akita, Yamagata, Miyagi, and Fukushima Prefectures).



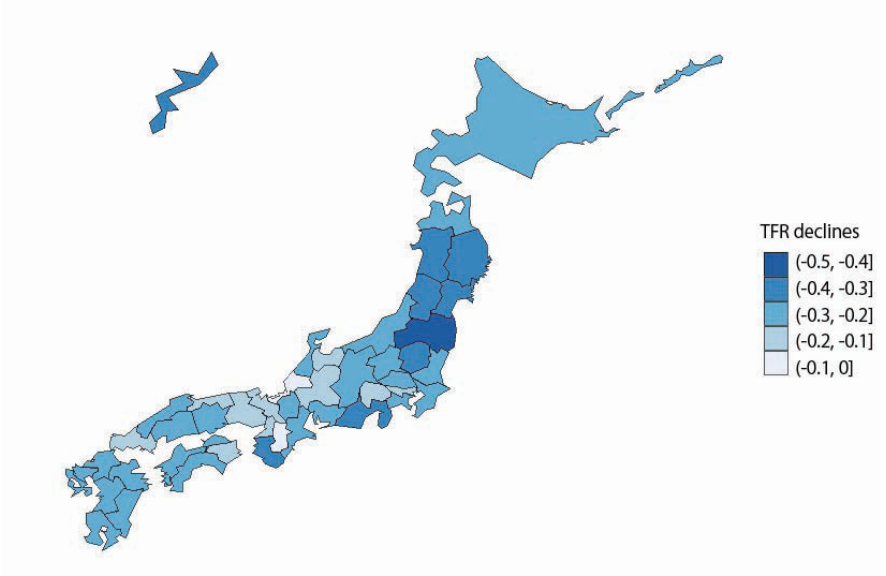

*Source*: Created by the author based on *Vital Statistics* (MHLW).

Figure 1. Changes in regional disparities in the total fertility rate by prefecture




*Source*: Created by the author based on *Vital Statistics* (MHLW).

Figure 2. Total fertility rates (TFR) in 2014 and 2024




*Source*: Created by the author based on Vital Statistics (MHLW).

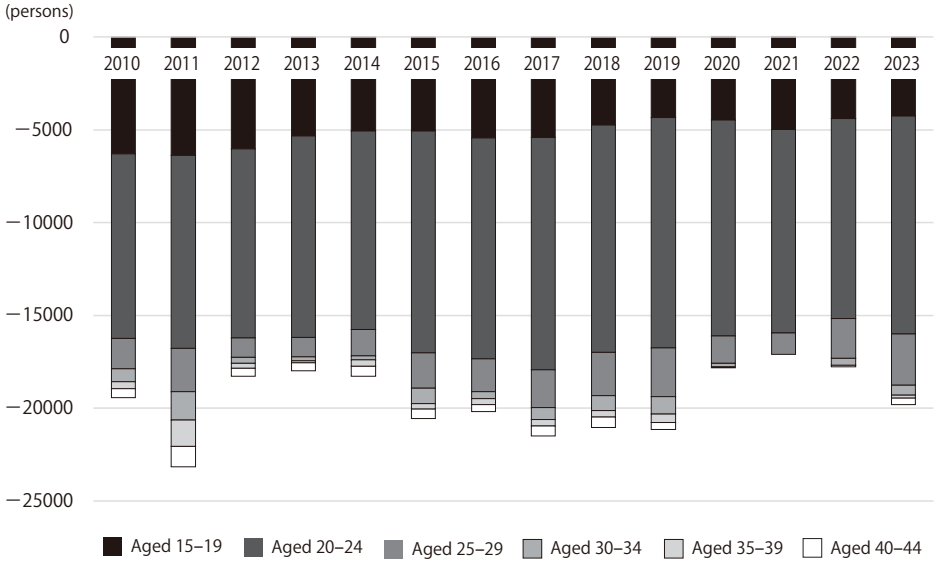
Figure 3. Changes in total fertility rates (TFR) from 2014 to 2024 by prefecture

Summarizing these results, while the total fertility rates have declined across Japan since the mid-2010s, the decline has been particularly pronounced in eastern Japan, with this trend becoming even more pronounced in recent years. Consequently, not only has the total fertility rate fallen nationwide, but regional disparities have also widened.

**2. Population migration**

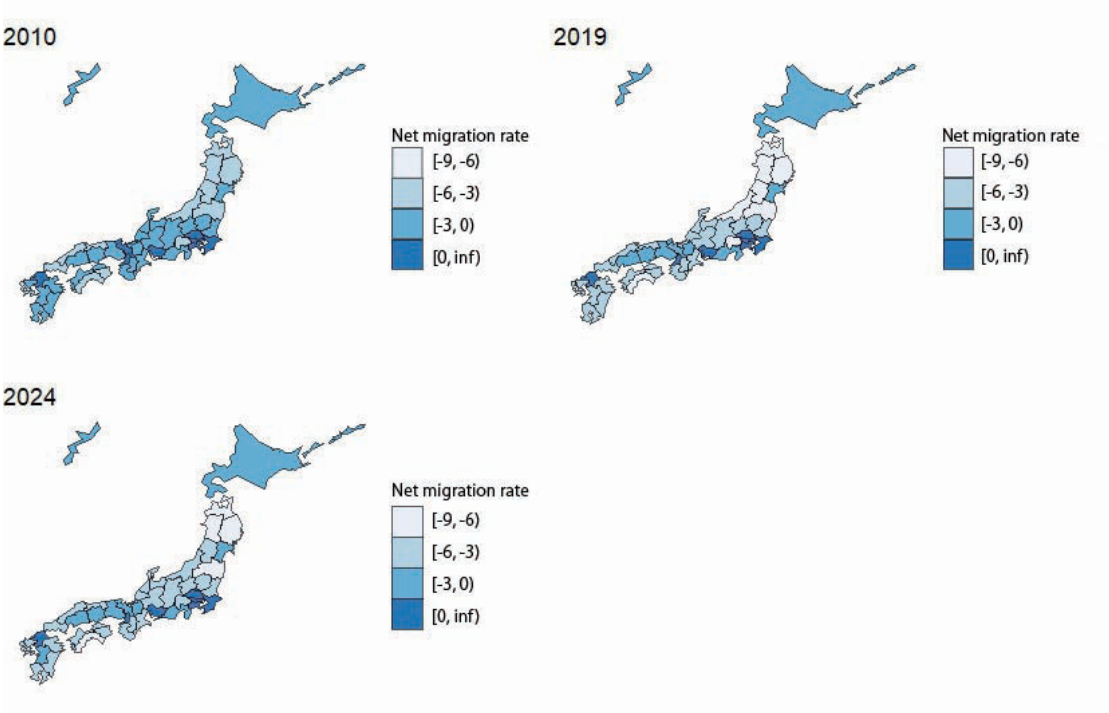
Next, let us examine the trends in migration of women aged 15 to 44 in eastern Japan. Figure 4 shows the changes in net migration by age group for women aged 15 to 44 in eastern Japan. For women , with the exception of 2011, the trend of net out-migration accelerated from 2012 to 2019. While this trend weakened in 2020 and 2021 following the COVID-19 pandemic, it has been intensifying again since 2021. The majority of net out-migrants were women aged 20 to 24. Focusing on the 20-24 age group, which accounts for the majority of in-migrants and out-migrants, women in this age group showed a growing trend of net out-migration throughout the 2010s; the number of net out-migrants stood at 10,000 in 2010 and then exceeded 12,000 between 2017 and 2019. The net out-migration trend weakened in 2020, when the COVID-19 pandemic occurred, but then it has gradually intensified again since 2021, when signs of an end of the pandemic emerged. Figure 5 shows the net migration rate of women aged 20 to 24 by prefecture for 2010, 2019, and 2024. The rate of net migration loss was high in the Tohoku region including Aomori, Akita, and Iwate Prefectures. By 2019, the rise in the out-migration rate for women aged 20 to 24 accelerated in the Tohoku region, resulting in a net migration loss of 8.1% in Aomori Prefecture, 7.9% in Akita Prefecture, and 7.2% in Iwate Prefecture. By 2024, as the COVID-19 pandemic was subsiding, the net migration loss was 7.4% in Aomori Prefecture, 6.7% in Akita Prefecture, and 7.2% in Iwate Prefecture.

The above results can be summarized as follows. Since the mid-2010s, the decline in the total fertility rate and the population outflow became noticeable in eastern Japan. Population migration is particularly pronounced among women aged 20 to 24, accounting for a large proportion of young people moving out of that region. While employment situations may be a primary factor, another possible cause is that there is a conservative climate that views marriage and childbirth as the only desirable life course for young women, and as a sort of resistance to this, some young women may be choosing not to have children or leaving the region.[14]




*Source*: Statistics Bureau, Ministry of Internal Affairs and Communications, *Report on Internal Migration in Japan*.

Figure 4. Changes in net migration by age group (Hokkaido, Tohoku region, and Niigata Prefecture) Women




*Source*: Statistics Bureau, Ministry of Internal Affairs and Communications, *Report on Internal Migration in Japan*.

Figure 5. Net migration rate of women aged 20 to 24 from outside the prefecture

**3. Situations since 2020 and future population projections**

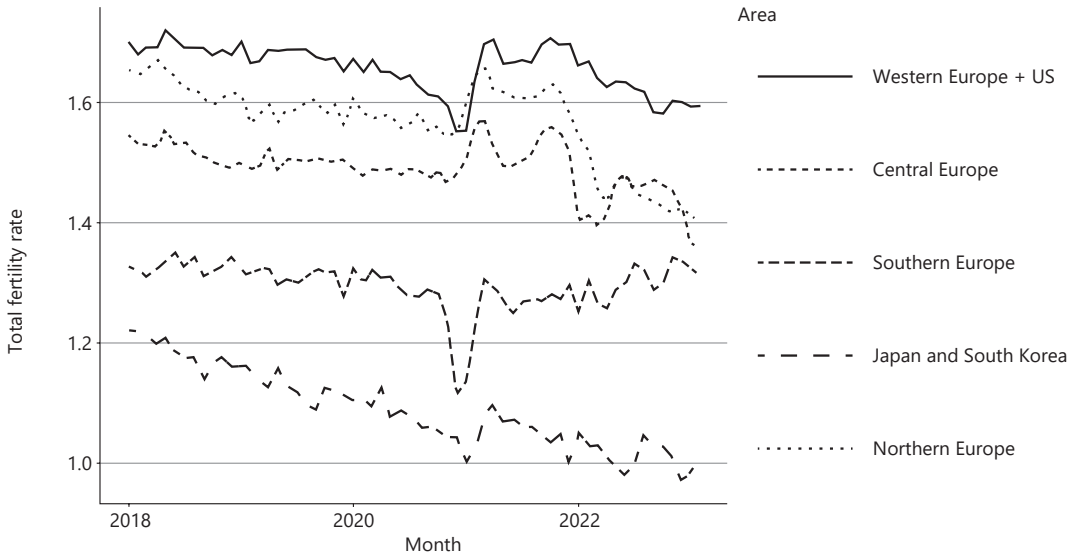
The COVID-19 pandemic, which caused a major shock worldwide in 2020, significantly altered birthrates not only in Japan but also in other developed countries. However, the shock the pandemic delivered to birthrates and the subsequent changes in birthrates varied considerably across countries.

Let us look at the trends before and after the COVID-19 pandemic by dividing high-income countries into five groups: Northern Europe; Central Europe; Southern Europe; Western Europe in the narrow sense (including the United States);[15] and Japan and South Korea. Figure 6 shows that significant changes in the total fertility rate were observed in many countries between November 2020 and January 2021. Considering that pregnancy lasts approximately 10 months, these changes likely resulted from the causes that occurred between February and April 2020. This period coincides with the global spread of COVID-19, suggesting that the shock of the pandemic had a major impact on the total fertility rate worldwide.

Interestingly, among high-income countries, some saw significant increases and others experienced substantial declines in the total fertility rate during the COVID-19 pandemic. In Japan and South Korea, the total fertility rate declined during the pandemic and then slightly recovered, but it has been on a consistent downward trend both before and after the pandemic.[16] Conversely, in Western European countries, such as Portugal, the total fertility rate rose sharply after the sharp drop, then remained flat for a period before showing an upward trend. In Northern Europe, the total fertility rate has been on a declining trend since before the COVID-19 pandemic. It temporarily increased during the pandemic but then decreased rapidly to a level where there is little difference compared with Central European countries, such as Germany. Even in Northern European countries, known for their advanced gender equality and excellent social security systems, the total fertility rate has been falling rapidly in recent years.[17]

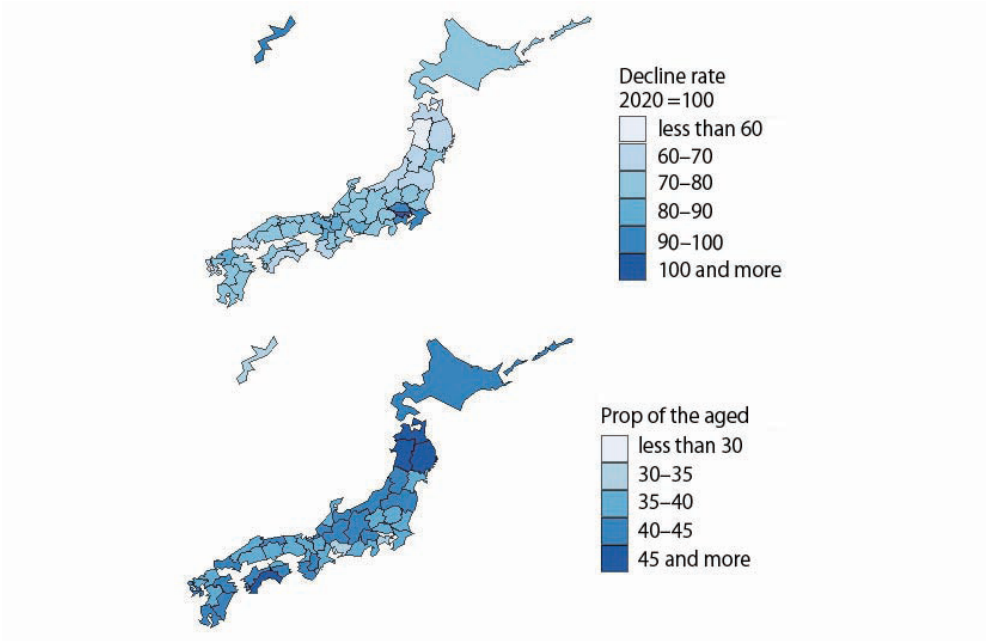
In Japan, the declining total fertility rate and the acceleration of the out-migration of young women in the

Tohoku region, which became pronounced in the mid-2010s, is expected to have a significant impact on the rates of decrease in population and rates of population aging in the future.[18] Let us examine this point using the *Regional Population Projections for Japan* published by IPSS in December 2023. Figure 7 shows the projections




*Source*: Human Fertility Database, Max Planck Institute for Demographic Research (Germany) and Vienna Institute Demography (Austria), *Vital Statistics* (MHLW); and Masuda and Matsuura (2023).

Figure 6. Monthly changes in total fertility rates (TFR) in developed countries before and after the COVID-19 pandemic




*Source*: IPSS, *Regional Population Projections for Japan (2023 revision)*.

Figure 7. Rate of decrease in population and rate of population aging in 2050

of the rate of decrease in population and the rate of population aging from 2020 to 2050 by prefecture. The rate of decrease in population in the Tohoku region is projected to be significantly higher than in other regions. For example, the population in Akita Prefecture in 2050 is projected to be smaller by over 40% from the 2020 level. Similarly, the rate of population aging is also expected to rise sharply in the Tohoku region, with a projection that by 2050, one in every two people in Akita Prefecture will be aged 65 or older.

Thus, due to the declining total fertility rate and the outmigration of young women in eastern Japan, which became even more pronounced from the mid-2010s, the Tohoku region is projected to face a more severe population decline and aging than other regions in 30 years. In fact, in April 2024, the Population Strategy Council, a private expert group, projected that the number of women aged 20 to 39 would decrease by half in 744 municipalities between 2020 and 2050, with many of these located in Hokkaido and the Tohoku region.

## VI. Conclusion

Although Japan's total fertility rate had consistently remained below 2 since 1975, the issue of the declining birthrate was brought to widespread attention for the first time due to the 1.57 Shock—it was revealed in 1990 that the total fertility rate in 1989 fell below that of 1966, a year superstitiously considered as the bad year for the birth of girls. Subsequently, the Angel Plan was enacted in the 1990s, followed by legislation such as the Basic Act and the Next Generation Act in the 2000s. Based on the Basic Act, the Outline of Measures against the Declining Birthrate has been approved by the Cabinet approximately every five years. When the DPJ took power in 2009, it attempted to introduce the child allowance, a cash benefit without income limits, in addition to conventional childcare and childrearing support measures. After the LDP returned to power in 2012, the Abe Cabinet set a numerical target of a Desired Fertility Rate of 1.8. In addition, it focused on regional disparities in population and launched the regional revitalization initiative.

Although successive administrations implemented various policies since the 1.57 Shock, they were not successful in curbing the decline in the birthrate. Since the mid-2010s, when the regional revitalization policy was launched, the declining total fertility rate and the outflow of young women have accelerated in eastern Japan, particularly in the Tohoku region. While the declining total fertility rate is a national issue, the decline has been particularly pronounced in eastern Japan since 2015, intensifying the trend of an east-high west-low gradient. Although Japan saw a temporary drop in the total fertility rate due to the COVID-19 pandemic, the persistent downward trend remains more characteristic. Consequently, the number of births in 2023 stood at 758,631 (preliminary figure), setting a new record low.

The final section outlines key points to understand when discussing measures to address the declining birthrate. First, respecting reproductive rights—the right to self-determination regarding childbirth and marriage—is a fundamental principle. Sato (2016) argues that the government should not intervene directly in childbirth; instead, or rather it should address the following five issues: (1) reproductive health and rights, (2) work-life balance, (3) gender equality, (4) family and household support, and (5) support for children and youth. These are challenges that must be tackled independently of fertility rates. For example, policies such as enabling women to continue working, promoting gender equality, and creating environments conducive to childcare are necessary regardless of measures to address the declining birthrate. This was the rationale behind the DPJ administration's shift from conventional measures to address the declining birthrate to support for children and childcare. However, policies such as the child allowance without income limits lacked clarity in their objectives and funding sources. They were revised within a few years, and no consistent, sustained policies were implemented.

Second, in relation to the first point, since the Abe administration, the government has set a numerical target of a Desired Fertility Rate of 1.8. Numerical targets were long considered taboo in population policy after the

Second World War, partly due to the strong aversion to the wartime population policy of "Procreate and Multiply" slogan. It is important to understand that persistent criticism remains against policies setting numerical targets for the total fertility rate even today. Anzo and Kamata (2015) argue that it is inappropriate to set a total fertility rate, a figure calculated from data, as a policy target, in addition to the perspective of reproductive rights mentioned earlier. While the Desired Fertility Rate differs from the wartime Procreate and Multiply policy and primarily focuses on fulfilling people's desire for marriage and childbirth, the concern remains that a numerical target can take on a life of its own. The crucial point is that policies should align desired outcomes with reality.

Third, as discussed in Section V, birthrates and population are not solely national issues; regional disparities also exist. These disparities notably widened during the 2010s. A major factor is the outmigration of young women and the declining total fertility rate in the Tohoku region. While issues in the employment environment for young women are considered significant, the strong persistence of a gender-based division of labor may also be a factor. For example, among high-income countries, the gender-based division of labor is one of the key factors contributing to the low fertility rates in East Asia, as it creates differences in the level of satisfaction between men and women derived from having children. The declining total fertility rate and increasing out-migration rate in the Tohoku region may be parallel to the low total fertility rates observed in East Asian high-income countries. This point calls for further empirical research. On the other hand, as many previous studies indicate, the impact of population migration to metropolitan areas on total fertility rates is small, and population migration is considered to be less effective in recovering the birthrate.

Fourth, even if the total fertility rate were to rise above the desired rate of 1.8 and reach the population replacement level of 2.07, the population decline would continue for some time. In Japan, population growth persisted for over 30 years from 1974, when the total fertility rate fell below 2.07, until the late 2000s. This was due to a positive population momentum created by a population structure with a large number of women in their childbearing years. Conversely, Japan now faces negative population momentum, characterized by a smaller cohort of women of childbearing age. Consequently, the population will decline in the medium term even if there is a recovery in the total fertility rate. That is to say, it is essential to recognize that population decline is unavoidable and to adopt policies, considering population decline as a given. Economic and social policies based on this assumption include promoting employment among women and older adults, labor-saving through productivity increase, and accepting foreign workers. However, some point out that Japanese employment practices can be an obstacle to promoting employment for women and older adults. Yamaguchi (2009) points out problems with Japanese employment practices in promoting work-life balance and supporting women's engagement in both work and childrearing. Tsutsui (2015) also argues that Japanese employment practices hinder the overcoming of the gender-based division of labor. On the other hand, some note that stable employment is crucial for marriage and childbirth. Accordingly, it is necessary to review the merits and demerits of Japanese employment practices.

Fifth, if the birthrate rises, the total age-dependency ratio will increase in the short term due to the growth in the younger population, accelerating the demographic burden on the economy (population onus). In other words, if measures to address the declining birthrate are successful and the birthrate rises, the overall social burden will increase in the short term through higher education and childcare costs. Facing a fiscal situation where national debt exceeds 1,000 trillion yen, if the government increases the budget allocated to measures to address the declining birthrate, it will have to either reduce other expenditures or impose additional burdens on citizens in the form of taxes or social insurance premiums. Therefore, it is essential to quantitatively demonstrate the effectiveness of measures to address the declining birthrate, and simultaneously, to create a consensus in society on whether maintaining the population size holds any value other than monetary value, and if so, what degree of burden is acceptable in the consideration of such other value. When discussing non-monetary values, national traditions and cultural development would be impossible to gain a consensus, and that argument would actually

become an obstacle to addressing the declining birthrate. On the other hand, with regard to the regional distribution of population, the creation of multipolar urban areas rather than concentration in Tokyo cannot be judged solely in terms of economic value. For example, creating multipolar urban areas is also important for disaster preparedness.

Sixth, policy continuity is crucial. The total fertility rate is highly susceptible to temporary influences. Therefore, even if a policy temporarily raises the total fertility rate, it may prove meaningless as a measure to address the declining birthrate if it does not ultimately affect the number of children born to the generation. To put it another way, even if a policy leads someone who intended to have two children to have their first child at age 25 rather than 30, it would only have the effect of slightly altering the population structure by changing the timing of births and it does not necessarily follow that such changes would improve the population structure in a favorable way.

Therefore, in order to implement effective measures to address the declining birthrate, policies must be sustained, and their effects must persist over time. Furthermore, policy analysis regarding the determinants of fertility behavior must distinguish whether a policy affects the timing of births or the completed fertility rate, i.e., the final number of children born to women by the end of their reproductive life. To analyze the final number of children born, it is necessary to use long-term dynamic panel data or, in the case of aggregate data, focus on the life course of birth cohorts.

Seventh, some point out that enhancing social security and achieving gender equality are challenges for Japan and are causes of its low birthrate. Indeed, many prior research papers show that gender equality and child support policies are correlated with the birthrate. In recent years, causal relationships have also been rigorously demonstrated. Furthermore, in East Asian countries, which are known for their strong tendency towards a gender-based division of labor and eagerness in educational investment compared with other developed countries, total fertility rates are at low levels and show declining trends. However, it is important to note that even in Northern European countries, where gender equality is advanced and social security is comprehensive, the decline in the total fertility rate is prominent. While international comparisons are meaningful from a research perspective, adopting other countries' policies or systems does not necessarily guarantee a silver bullet for Japan's low birthrate.

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**Notes**

1. Ato (2000) comprehensively discusses topics such as causes and measures to address the declining birthrate, as well as regional disparities in population distribution.
2. This does not mean that Japan had not implemented any family policies at all before the 1.57 Shock. For example, the Child Allowance Act was enacted in 1971, and the payment of an allowance for the third and subsequent children under the age of five started in January 1972.
3. Changes in the postwar population policy have been discussed by Tama (2019) and Hiroshima (2020).
4. Hiroshima (2020) discussed the history of Japan's postwar population policy by dividing the period into four phases.
5. Moriizumi (2015) overviews the measures to address the declining birthrate implemented from the 1990s through to 2013; Abe, Kato, and Nakai (2016) cover the measures implemented from the 1.57 Shock through to 2014; and Moriizumi (2019) examines the measures implemented since before the 1.57 Shock through to 2015.
6. In 2008, the New Strategy to Achieve Zero Waiting List for Nursery Schools was launched, followed by the Acceleration Plan for Reducing Children on Waiting Lists for Nursery Schools in 2013.

7. Established as a temporary legislation effective for the 10-year period from April 2005 to March 2015, this Act was extended for another 10 years. At the time of its amendment, the scope of its application was expanded to include companies with 101 or more regular employees.
8. The three laws are: Child and Childcare Support Act, Act Partially Amending the Act on Certified Children Centers, and Act on Preparation of Related Laws Accompanying Enforcement of the Child and Childcare Support Act and the Act Partially Amending the Act on Certified Children Centers.
9. Studies decomposing the total fertility rate into factors such as the rate of married people and the total marital fertility rate include Hiroshima (2000), Iwasawa (2002), and Kaneko (2004). Many studies suggest that 70-75% of the total fertility rate can be explained by changes in marriage behavior. Sasai (2005) and Takahashi (2011) studied this using prefectural data.
10. The official name is Basic Policies for the Economic and Fiscal Management and Reform 2014.
11. The three arrows are: "a robust economy that gives rise to hope"; "dream-weaving childcare support"; and "social security that provides reassurance."
12. Since 2004, subsidies have been available to partially cover the specific high-cost infertility treatments.
13. In the 2020 *Population Census*, the rate of unmarried people aged 25 to 39 also showed a pattern of an east-high west-low gradient.
14. Other factors may include the impact of the Great East Japan Earthquake. However, for women aged 20 to 24, while the net out-migration increased in Miyagi and Iwate Prefectures immediately after the earthquake in 2011, it decreased between 2012 and 2015 compared to 2010 levels. In Fukushima Prefecture, since 2011, the net out-migration of women aged 20 to 24 has been larger than the 2010 level.
15. Northern Europe: Finland, Sweden, Denmark; Central Europe: Germany, Austria; Southern Europe: Italy, Spain, Portugal; Western Europe in the narrow sense: France, the United States, the Netherlands, Belgium.
16. Komura and Ogawa (2022) analyzed the impact of the COVID-19 pandemic on marriage and divorce rates using monthly data by prefecture.
17. Several foreign studies have analyzed COVID-19's impact on birthrates (Nitsche et al. 2022; Pomar et al. 2022; Lappegård et al. 2023). For Japan, see Iwasawa et al. (2021) and Masuda and Matsuura (2023).
18. The rate of population aging is determined by the current population structure, birthrate, and life expectancy, excluding population migration.

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**MATSUURA Tsukasa**
Professor, Faculty of Economics, Chuo University.
Specialization: Population Economics.