

NIDS Commentary

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# Analyzing Japan's Declining Birthrate & Aging Society as a National Security Issue

## -----Isolating the Problem and Describing Potential Solutions

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## Introduction

In the aftermath of the 1973 oil crisis, Japan's total fertility rate fell below replacement level. While Japan's current economic issues are in part a consequence of the subsequent 50 years of falling fertility, persistent low birthrates and aging demographics pose a substantial and enduring national security risk that extends beyond immediate economic and social effects. The shrinking working-age population exacerbates labor shortages, reduces economic productivity, and leads to decreased tax revenues.<sup>1</sup> The IMF estimates that Japan's economic growth will decline by 0.8 percentage points on average each year over the next 40 years due to demographics alone.<sup>2</sup> These economic effects are already straining defense budgets and are predicted to increase healthcare and pension costs.<sup>2,3</sup> Moreover, the shrinking pool of younger individuals has adversely affected Self-Defense Force recruiting and is likely to hinder the nation's ability to address global crises such as climate change.<sup>4,5</sup>

With declining birthrates emerging as a widespread global phenomenon—50% of countries now have subreplacement fertility rates, with projections estimating this will rise to 75% by 2050 and 97% by 2100— Japan's situation is a critical case study for addressing these complex national security challenges.<sup>6</sup> This paper aims to dissect the issue of declining birthrates in detail and propose potential solutions to safeguard Japan's future stability and resilience.

## **Important Terms**

**Total Fertility Rate (TFR)**: average number of children a woman is expected to have over her lifetime if current age-specific fertility rates remain unchanged. Expressed as children per woman.

**Replacement Fertility**: TFR needed for a population to replace itself from one generation to the next, without changing in size. About 2.1 children per woman in developed countries.

**Completed Fertility**: total number of children a woman has by end of her fertility period (usually age 49).

## **Falling Fertility Rates as a Global Phenomenon**

While Japan conventionally attributes declining fertility rates to domestic labor issues and educational expenses, this local focus does not fully account for the global trend. Moreover, focusing heavily on specific factors like labor conditions and educational costs may narrow the scope of potential policy solutions. Viewing declining fertility through a national security lens should provide a more holistic perspective, integrating global viewpoints and enabling the development of comprehensive solutions that leverage a more diverse range governmental resources and strategies.

So, to gain a clearer understanding of the causes of Japan's low TFR, we will start by examining global fertility trends to develop a broader model of fertility patterns. This analysis reveals that countries generally fall into three distinct patterns based on TFR and key fertility-influencing variables. (see Figure 1)

	Country Pattern	Metrics for Fertility- Influencing Variables	Total Fertility Range	Economic Modernization Pattern	Examples
	Type 1: Traditional	Low female education rates Low female workplace participation Medium to Low urbanization Low non-marital birth rates High religiosity	2.0+	Not Yet Modernized	Nigeria (4.9) Congo (4.3) Saudi Arabia (2.2) India (2.0)
	Type 2: Progressive	High female education rates High female workplace participation Medium to High urbanization High non-marital birth rates Medium to Low religiosity	1.4 to 1.8	Gradual Modernization	USA (1.6) Sweden (1.52) Denmark (1.55) UK (1.49)
	Type 3: In-between	Medium to High female education rates Medium to High female workplace participation Medium to High urbanization Medium to Low non-marital birth rates Medium to Low religiosity	>1.3	Compressed Modernization	Italy (1.2) Greece (1.2) Spain (1.2) South Korea (0.7) Taiwan (0.87) Japan (1.2)

#### Figure 1. Global Patterns of Fertility

Based on this analysis, we see that fertility falls as countries move from the non-modernized Type 1 pattern to the modernized Type 2 or Type 3 patterns. This suggests the fundamental cause of sub-replacement fertility globally is found somewhere in the transition from traditional agrarian or industrial economies to modern or modernizing economies. The effects of that transition in terms of the decreased economic utility of children and the widespread participation of women in the labor market are most likely the drivers of the falling fertility rates. In demography, this is traditionally referred to as the "demographic transition."

Furthermore, there appears to be a notable divergence among advanced economies based on the pace of

their modernization. Type 2 countries, which modernized gradually, generally over a century or more, may have had time to adapt customs that more effectively balance economic disincentives to childbearing. One such adaptation may be the higher rates of non-marital births observed in Type 2 countries. On the other hand, Type 3 countries experienced what is known as "compressed modernity", rapid modernization that creates unique societal challenges, and some may have been unable to make such adaptions.<sup>7</sup>

## The Causes of Japan's Uniquely Low Total Fertility Rates

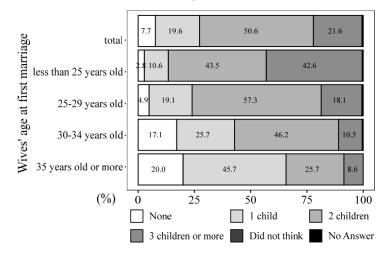
Based on the above analysis, Japan's notably low total fertility rate can be partially attributed to the unique socio-economic dynamics of Type 3 countries, where rapid economic modernization seems to have outpaced adaptations in traditional gender role expectations. In such societies, women face conflicting demands: they are expected to perform on par with male workers in a highly competitive economy (as in a Type 2 country) while also bearing near-full responsibility for childrearing (as in a Type 1 country). In Japan's case this dual burden creates a challenging environment that leads many women to choose between the "Mommy Track," which often involves exiting the workforce early to raise a family, or the "Career Track," where the pressures of balancing a demanding job and family responsibilities result in postponed or abandoned plans for marriage and children.<sup>8</sup> In either case marriage is delayed and this dynamic leads to a growing number of childless and unmarried individuals, substantially reducing TFR.

Despite fluctuations in Japan's economy since the 1970s, the number of children per married couple has remained relatively stable, indicating that economic factors like wages or housing costs do not fully account for the persistently low fertility rates.<sup>9</sup> TFR among married couples declined from 2.19 in 1977 to approximately 1.91 in 2021, while Japan's overall total fertility rate has decreased more substantially from 1.9 in 1977 to 1.3 in 2021. **So, while married Japanese couples are having fewer children, large numbers of unmarried and childless individuals seem to be having a greater effect on TFR.** 

The longer timeline to marriage appears to be what is pushing large numbers of individuals out of the marriage pool. The mean age at first marriage for women in Japan rose from 24.8 years in 1987 to 28.6 years in 2021.<sup>9</sup> During that same timespan, the average age at first encounter with a future marriage partner increased from 22.8 to 24.9 years and the duration of courtship extended from 2.6 to 4.3 years. Moreover, approximately 28.3% of Japanese women born in 1975 are childless, the highest in the OECD.<sup>10</sup>

Delayed marriage leads to a reduction in completed fertility, resulting in a higher incidence of childless or single child couples (see Figure 2). Taken with the increase in unmarried and childless individuals, <u>the</u> <u>extended period before marriage and the consequent decline in completed childbearing highlight</u> <u>how delayed marriage is the most likely central cause of Japan's low birthrates.</u>

Figure 2. Percentage Distribution of Completed Fertility by Wife's Age at First Marriage – 16<sup>th</sup> Japanese National Fertility Survey (2021)



Completed number of children

Note: Figures shown are for couples in first marriage with wives under 55 who are married before age 50 and have been married for 15-19 years. In this data we can see the rate of childless couples more than triples to 17.1% from 4.9% if the wife first marries between 30-34 years old versus 25-29 years old. Childlessness quadruples to 20.0% if the wife is over 35 years old at first marriage. The incidence of single child couples also more than doubles (19.1% to 45.7%) when comparing the 25-29 group to the over 35 group. Despite data from this survey indicating that only about 6% of surveyed couples intended to have one or no children, 27.3% of surveyed couples had one or no children.<sup>9</sup>

# **Type 4: Combining Compressed Modernization with Replacement Fertility**

With the most likely central problem isolated, it is possible to discuss solutions for improving TFR in a Type 3 country like Japan. Wholly emulating Type 2 countries might be impossible, as the conditions fostering that fertility pattern cannot be replicated. Rather, it is more practical to analyze nations that also underwent compressed modernization but maintained replacement fertility, to identify the core factors differentiating them from countries like Japan. Only two countries fit this criterion: Israel and Kazakhstan (see Figure 3).

Country Pattern	Metrics for Fertility- Influencing Variables	Total Fertility Range	Economic Modernization Pattern	Examples
Type 4: Synthesis	High female education rates	~3.0	Compressed modernization	Israel (2.89)
	High female workplace participation			Kazakhstan (2.99)
	Medium to high urbanization			
	Low non-marital birth rates			
	High religiosity			

## Figure 3. Type 4 Pattern of Fertility

While similar to Type 3 countries, Israel and Kazakhstan warrant a separate classification due to their high religiosity, which likely preserves earlier marriage and other fertility-enhancing customs regardless of compressed modernization. This is substantiated by significantly lower mean ages at first marriage, Israel (26.2 years) and Kazakhstan (22.4 years), compared to Japan (29.2 years) and the OECD average (30.7 years).<sup>11</sup> Although Kazakhstan is not yet an OECD country, it is an upper middle-income nation with rates of female education and workplace participation that would otherwise correlate with much lower TFR. **This all suggests that, to emulate these results in the mostly secular Type 3 countries, it would be necessary to develop fertility-promoting customs that are not reliant on religious practices.** 

## **5 Case Studies: Fertility-Promoting Customs absent Religion**

To assess if the fertility-promoting customs seen in Type 4 countries can be cultivated independent of religiosity, five case studies are presented below.

#### (1) Patriarch's Baptisms Boost Georgian TFR from 1.63 to 2.0

In 2008, Ilia II, the beloved Patriarch of Georgia's Orthodox Church, began baptizing every third child of Orthodox couples to promote larger families.<sup>12</sup> Georgia's TFR fell to sub-replacement in the aftermath of the Soviet Union's collapse but gradually rose to 2.0 following this initiative. Despite subsidies concurrent to the practice, the rise in third births indicates that the Patriarch's influence in altering family size norms had at least as much impact as the financial incentives. So far, he has baptized over 33,000 children, about 6% of all the children born since. Although rooted in religion, the increased fertility in Georgian couples was likely more influenced by the Patriarch's celebrity status than the religious practice of baptism alone.

#### (2) Secular Israeli Jews Sustain 2.2 TFR Despite Lack of Religious Practice

While Israel's TFR of 2.89 may be explainable by the country's high religiosity, Israel's secular Jewish population's TFR of 2.2 is more difficult to explain.<sup>13</sup> In addition to its robust economic incentive programs, researchers attribute Israel's high fertility to widespread fertility-promoting customs that transcend educational and religious boundaries. Therefore, high fertility in secular Jews may be due to strong fertility-promoting customs that are culturally embedded rather than religiously practiced.

#### (3) 2.95 TFR Miracle Achieved in Nagi Town

In 2002, Nagi, a small town in Okayama Prefecture, successfully generated 160 million yen by streamlining municipal operations and garnering community support.<sup>14</sup> The funds were allocated to childrearing initiatives, including grants, allowances, and subsidized housing, while elderly residents contributed to childcare. This supportive environment attracted couples nationwide, significantly increasing the town's birthrates. Although Nagi's TFR has recently stabilized at 2.21, it reached 2.95 in 2019 and has maintained levels around 2.0 for over a decade. The mayor attributes this success to both the implemented support measures and the town's robust community culture that prioritizes children and families.<sup>15</sup>

#### (4) Early Marriage and Higher Fertility in the Self-Defense Force?

Although the Ministry of Defense does not track the fertility rates or ages at marriage and childbirth of SDF members, anecdotal evidence suggests that personnel marry earlier and have more children. Given the early marriage and larger families seen in US Servicemembers compared to the general US population, the SDF may exhibit comparable patterns.<sup>16</sup> Despite stable employment possibly increasing fertility, SDF wages are not especially high compared to the general Japanese population, indicating economic factors alone do not account for any disparity. Further research is needed to identify the cultural factors involved.

#### (5) Okinawa's Enduring Population Growth

In 2023, Okinawa's TFR was 1.6, significantly exceeding the national average of 1.2.<sup>17</sup> Although this figure represents a decline from previous years, it remains the highest among Japan's prefectures and Okinawa was one of only three prefectures to experience population growth in 2023.<sup>18</sup> Approximately 12% of women in Okinawa have children when between the ages of 20 and 24, compared to the national average of 8%.<sup>19</sup> Additionally, Okinawan women marry at an average age that is typically one year younger than the national average. These higher fertility rates persist despite Okinawa being the poorest prefecture and having higher rates of non-regular employment. The observed differences are largely attributed to local cultural norms that encourage early marriage and childbearing.

#### Summary: Fertility-promoting Customs Can Exist Absent Religion

In all five case studies, high fertility rates are not solely attributable to religiosity; rather, they are driven by specific fertility-promoting customs and cultural factors. While Georgia and Israel derive these customs from religious practices, the cases of Nagi, the Self-Defense Forces, and Okinawa demonstrate that such customs can exist in Japan independent of significant religious influence. To measurably improve Japan's low total fertility rate, nationwide adoption of similar social practices is almost certainly necessary.

## **Recommendations for Implementation**

In Japan, most prospective parents already aim for two children.<sup>9</sup> So the key is to establish earlier marriage as a social norm, making two children realistic to achieve for more individuals. Also, economic incentives enabling larger families should be established to encourage couples considering more than two children. This section will describe potential governmental strategies for promoting adoption of these practices.

**Implement a comprehensive media and cultural strategy.** Strong empirical evidence supports the idea that media depictions can have a profound impact on altering social norms.<sup>20</sup> Japan should engage its sizable media industry to improve perceptions of marriage, children, and family life by adopting a media strategy. This strategy should include, at a minimum, corporate incentives for producing television series, movies, and advertisements that feature positive, modern family dynamics.

Several recent series depict these themes so there may be a pre-existing interest within Japan's media

industry to produce this kind of content. Examples include the popular anime *Spy Family*, which features family-positive depictions of a young married couple, children as central characters, and an equitable distribution of unpaid housework. Another recent anime depicts a young man reincarnated into a world where he becomes an adoptive father to twins, reinforcing the norm that males can be primary caretakers.

The strategy should also seek to dismantle industry taboos surrounding public figures, such as idols, dating and marrying before the age of 30. Given the significant influence of these celebrities on Gen Z, their forced adherence to delayed marriage reinforces its perception as a normative social practice among their fans.

Finally, increased interaction with children is associated with a 13% higher likelihood of marriage intention among never-married Japanese, while observing the happiness of married friends correlates with a 21% increase in marriage intention.<sup>9</sup> Enhancing exposure to family-oriented social media by promoting family-centered influencers may similarly effect marriage intentions. Taken together as a wholistic strategy, initiatives like these could influence earlier marriage and other fertility-promoting norms.

**Provide progressive tax rate cuts and other incentives to enable larger families.** 52.6% of Japanese couples cite high costs as the primary barrier to having their ideal number of children.<sup>9</sup> Implementing tax reductions for each child beyond the first could help alleviate these financial concerns. In France, income is divided among family members for tax purposes, which decreases the tax bracket with larger family size. Hungary offers a 0% tax rate for women with four or more children. A practical implementation in Japan could involve applying tax rate reductions based on the mother's status while allowing them to be utilized against the spouse's income if the mother is not the primary earner, to maximize the benefit for the family. Similar policies could include education grants or housing subsidies progressive based on family size.

**Incentivize corporations to create family-friendly work environments.** In another example of Japan's private sector independently addressing declining birthrates, Itochu Corp increased its company fertility rate from 0.6 in 2013 to 1.97 in 2022 through work reforms.<sup>21</sup> Incentivizing large companies to adopt similar reforms could lead to a broader shift towards more family-friendly work environments nationwide. US brokerage firms have driven this kind of internal corporate change via mechanisms like ESG scores.<sup>22</sup>

**Engage the elderly to help shape a family-friendly society.** Nagi's achievement in raising birthrates wasn't merely a matter of economic policy. In an interview the Nagi mayor explained that the town's seniors were driven by a deep commitment to their hometown's survival, choosing to make sacrifices for the sake of future generations.<sup>15</sup> As Japan's aging population expands, they must adopt a similar outlook to ensure the nation's survival. The Government of Japan should involve the elderly, seeking their cooperation and understanding to combat the declining birthrate and foster a more family-friendly environment.

**Develop a national strategy to raise fertility; promote via flagship policy such as a 4-Day Work Week.** The policies of the first Minister of State for Gender Equality and Social Affairs, Inoguchi Kuniko, successfully increased Japan's TFR from 1.26 in 2005 to 1.45 by 2015, partly due to a "flagship policy" that raised awareness of the fertility issue.<sup>23</sup> Japan might emulate this success by consolidating its current and planned policy initiatives into a well-publicized national fertility strategy and introducing a transformative policy, such as a four-day work week—which has demonstrated success in Western nations—as a flagship policy.<sup>24</sup>

## Conclusion

While this brief paper cannot address all of Japan's barriers to childbearing, it is evident that various additional systemic factors hinder birthrates. Examples include excessive work demands and overtime, workplace gender bias, rising housing costs, increasing rural-to-urban migration, and education costs that discourage larger families. Japan has made progress in these areas but must persist in its efforts. Even so, the global trends discussed in this paper suggest that without also cultivating a culture and customs that promote fertility, advancements in these areas may result in only incremental increases in birthrates.

Declining birthrates and aging societies will be the defining national security challenge of the 21st century, not just for Japan but the entire developed world. Societies will be forced to manage the consequences of demographic decline alongside other significant threats like regional conflict and climate change. **David Goldman**, in his 2011 book *How Civilizations Die*, warns, "When a civilization loses faith in its future, it declines."<sup>25</sup> To reignite that faith and meet these challenges, Japan must build a society that puts its children and families first.

<sup>3</sup> International Monetary Fund. <u>"Japan: Demographic Shift Opens Door to Reforms"</u> February 10, 2020.

- <sup>5</sup> UN. <u>Ageing, Older Persons and the 2030 Agenda for Sustainable Development</u> (United Nations, 2017).
- <sup>6</sup> The Lancet. "Global fertility in 204 countries and territories, 1950–2021, with forecasts to 2100" March 20, 2024.
- <sup>7</sup> Kyung-Sup Chang. <u>"The second modern condition? Compressed modernity as internalized reflexive cosmopolitization"</u> (Br J Sociol, 2010).
- <sup>8</sup> Arora, S and Kumari, N. "Diverging Women on the Mommy Track to the Career Track" (Journal of International Women's Studies, 2022).
- <sup>9</sup> National Institute of Population and Social Security Research. <u>"The Sixteenth Japanese National Fertility Survey"</u> February 14, 2024.
- <sup>10</sup> Organization for Economic Co-operation and Development. <u>Society at a Glance 2024 OECD Social Indicators</u> June 20, 2024.
- <sup>11</sup> World Bank. <u>Mean age at first marriage.</u> (World Bank Group, 2019).
- <sup>12</sup> Lyman Stone. <u>"In Georgia, a Religiously-Inspired Baby Boom?"</u> October 14, 2017.
- <sup>13</sup> Taub for Social Policy Studies in Israel <u>"Why are there so many children in Israel?"</u> February 2019.
- <sup>14</sup> Mainichi Shimbun <u>"Japan's 'miracle town' tackling low birth rate gains attention for child-rearing support"</u> April 28, 2023.
- <sup>15</sup> Mayor Masachika Oku, interview by Tony Arnold. April 30, 2024.
- <sup>16</sup> Department of Defense <u>2020 Demographics Profile of the Military Community</u> (DoD, 2020).
- <sup>17</sup> Asahi Shimbun <u>"Japan sees record low births, fertility rate in 2023"</u> June 5, 2024.
- <sup>18</sup> NHK World Japan <u>"Japan's population declines for 15th consecutive year"</u> July 24, 2024,

<sup>25</sup> David Goldman. How Civilizations Die (and why Islam is dying too). (Regnery Publishing, 2011)

<sup>&</sup>lt;sup>1</sup> World Economic Forum. <u>"Elderly and the Oldest Population in the World: Japan's Demographic Challenge"</u> September 2023.

<sup>&</sup>lt;sup>2</sup> Nikkei Asia. "Japan Defense Spending Plan takes 30% Hit from Weak Yen" June 18, 2024.

<sup>&</sup>lt;sup>4</sup> Asahi Shimbun. <u>"SDF Losing Recruiting War with Record 50% Enlistee Shortfall"</u> August 3, 2023.

<sup>&</sup>lt;sup>19</sup> South China Sea Post <u>"Fertility secrets of Okinawa give birth to hope in sexless, ageing Japan"</u> December 21, 2019.

<sup>&</sup>lt;sup>20</sup> Eric Arias. <u>"How Does Media Influence Social Norms? Experimental Evidence on the Role of Common Knowledge."</u> (Political Science Research and Methods, 7(3), 561–578, 2018).

<sup>&</sup>lt;sup>21</sup> Asahi Shimbun <u>"S. Korea turns to Itochu for ideas to reverse falling birthrate"</u> July 29, 2024.

<sup>&</sup>lt;sup>22</sup> Bloomberg <u>"How BlackRock Made ESG the Hottest Ticket on Wall Street"</u> January 1, 2022.

<sup>&</sup>lt;sup>23</sup> Hon. Kuniko Inoguchi, interview by Tony Arnold, June 10, 2024.

<sup>&</sup>lt;sup>24</sup> World Economic Forum "The world's biggest trial of the four day work week has come to an end. These are the results" March 10, 2023



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#### PROFILE

## **Tony Arnold**

Captain Tony Arnold is a Maureen and Mike Mansfield Foundation Fellow of the 27th class of the Mansfield Fellowship Program. During his fellowship year, he worked in Government of Japan agencies such as the Ministry of Foreign Affairs, Ministry of Defense, and National Diet, focusing on issues related to the relationship between Japan's national security and its declining birthrate and aging society.

Captain Arnold graduated with B.A.s in Japanese Language and Literature and in Criminology from The Ohio State University. He entered the United States Air Force in 2015 as an intelligence officer and has focused on East Asia for his entire career with posts at Kadena Air Base, Okinawa and Joint Base Pearl Harbor-Hickam, Hawaii.

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