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Japan, Populations

Japan's Declining Population Crisis

Japan is a country that is frequently named in the news, whether that be in global politics, significant strides in science and technology, or for its distinctive culture that has made its mark all over the world, it is a nation that is recognized in the global scene and history. Although Japan appears to be prospering compared to most parts of the world, it faces one of the most unique challenges that has begun to appear in many other developed nations— a rapidly declining population. Increasing immigration, raising the retirement age, creating better incentives for increasing families and increasing technology are some of the solutions to Japan's declining population.

Japan is a small archipelago country located off the east coast of Asia, surrounded by the Pacific Ocean, the Sea of Okhotsk, the Sea of Japan, and the East China Sea. Japan's mainland is made of 4 main islands, namely Hokkaido Island, Honshu Island, Shikoku Island, and Kyushu Island [1], and 6,848 smaller islands and islets.

Due to the island's placement on different latitudes, the average temperature in Japan varies greatly, as Southern Japan faces subtropical weather patterns while other Northern parts of Japan experience sub-arctic temperatures [1]. With over two-thirds of the nation still covered in forests, Japan, fortunately, has been able to maintain much of its biodiversity and animal life [1].

With a land area of approximately 364,485 sq km or roughly 140728.4 sq miles, it can be compared roughly to the land size slightly smaller than the state of California.[3] Farmland makes up roughly 12.5% of the island, while forests take up the majority of the island making up 68.5% of the total land area[3]. The average farm size in Japan is slightly larger than 2 acres for household farms, (roughly compared to 2 football fields) in which 90% of the farmland is owned by individual families[18].

Japan has a population of 123 million people [3], with 78% of the population living in urban areas and the rest of the 22% living in rural areas [5]. Japan is a very homogenous country with roughly 97.9% identifying as Japanese, 0.6% identifying as Chinese, 0.4% identifying as Korean, and 1.1% identifying from other minority nationalities [3]. The age structure of Japan is unique compared to most nations, with a high life expectancy, making people aged 65 years and older total up to roughly 29.22% of the population, people aged 15-64 making up 58.49% of the population, and 0-14-year-olds making up the minority of the population with 12.29%[3]. This overall results in the median age being 48.6 years.[3].

Diversity is a factor that Japan, unlike many other developed countries, lacks, where the percentage of non-Japanese stands is merely 2.2% compared to 17.4% in the US and 17% in the UK. Japan is also notoriously known for having strict immigration laws, further hurting its population[48].

The typical family size in Japan is 2.22 per household compared to the 2013 number of 2.44 per household[19]. Traditional Japanese homes are made of wood and supported by wooden pillars. However modern-day and western style homes consist of wooden flooring the construction is almost entirely made out of steel pillars. Households often tend to live in large ferroconcrete apartment buildings[20].

Japan's government proclaims itself a constitutional monarchy. This is because of the presence of the imperial system where the royal lineage runs and is responsible for holding ceremonial duties for the nation, however, the family holds no significant power in the nation's politics. Rather, the government

consists of separate branches, namely the executive, legislative, and judiciary. The nation is further broken down into 47 separate administrative divisions, each having its own local government. [6]

The major crops exported by Japan (by value in dollars) are corn for 3,187 million, beef and beef products for 2,376 million as well as pork and pork products for 1,694 million, soybeans worth 1,350 million, and wheat worth 702 million USD.[7]

Most Japanese shop in supermarkets and try to get the freshest produce possible. Japanese people cook their food using abundantly available water, whether for steaming, boiling, or stewing. The typical Japanese diet is rich in rice, seafood, and seaweed from the seas around Japan, as well as soybeans, vegetables, fruits, milk, and much more. Sugar is monitored and kept to a minimum and non-sugary drinks such as green tea are consumed in the middle of meals[21].

The most common jobs in Japan are part-time consumer/service personnel often offered to housewives and students, office workers, IT workers, nurses, freelancers, mechanics, farmers, retail work stores, personal care, cooks, hair stylists, engineers, translators & researchers[9]. The average salary in Japan is 6,180,000 Japanese Yen (JPY) or 53,583 USD per year in 2021[10].

The Japanese place a high value on education which is seen by the government requirement for primary/lower secondary education, and public school education up until 12th grade is free and affordable[12]. Healthcare in Japan also is very similar and is completely free for all citizens & non-citizens[13]. Nearly everyone in Japan has access to electricity[14]. 95% of people in Japan have access to clean water[39]; 100% have access to electricity[40], 99.82% of Japanese residents have access to some sort of bathroom[41] 85% of the population is using phones as of 2022[42]. Roads and local markets are accessible throughout Japan. However, people living in rural areas may still have trouble accessing such numbers that were not accounted for by the greater developed nation as a whole. [43]

Japan's population first began to hit replacement levels in the early 2000s, and then by late 2010, Japan's population began to decline which later accelerated in recent years with the current TFR of 1.367[34]. With patterns only predicted to snowball and worsen every year, Japan reported that there were 800,000 fewer babies born in 2022 than what was previously predicted, breaking its previous record of 640,000 in 2020. This year on January 1st, the population was at 124.77 million while on January 1, 2022, the population was at 125.308 million.[44]

The main factors contributing to this trend include low rates of fertility due to Japan's high cost and standards of living making child care unaffordable to many, women's access to education, and the ability to work full time in the workforce leaving them to get married off late lowering the bracket of giving birth leading to lower fertility rates[46]. Another principal factor in the declining population is that over 29% of the population is over the age of 65[3]. This is crucial because, unlike the Western world, Japan's culture focuses on living in a joint family, consisting of old parents, and one child. This makes the total dependency ratio roughly at 51%, diverting focus on parents rather than getting married and having children which will only increase their already expensive living costs [3].

The population decline was more prominently seen to be a problem in rural areas than compared to urban areas due to two substantial reasons– 1. Fewer available opportunities in rural areas driving the youth out to the cities due to more economic opportunity and 2. There is a large aging population in rural areas that is dependent on their children. This leaves children to only have time to tend to their own parents, leading to a death spiral[15]. Urbanization took place mainly during the later part of the 1900s, wherein in 1960, 63% of the population lived in urban areas, and in 2021, 92% lived in urban areas[5].

This issue, however, affects the environment positively because a declining population means fewer emissions will be produced and less use of energy will be used, thus benefiting the environment in the long run [17].

As ironic as it may sound, a declining population does not help with the issue of food security. A declining population in Japan specifically where rural populations and towns are disappearing will take a negative toll on domestic food production and thus food security because people are often moving to cities to pursue a nine-to-five job. Over the course of a few decades, there will be a minuscule number of farmers left and the majority of Japan will be dependent on imported food, not making use of its land passed down by generations in an economical way and everyone will live in urban areas.

With the issue around declining populations mainly in rural areas and fewer births occurring due to highly demanding work hours, higher standards of living, and a high dependency ratio due to a third of the population being over 65+ years, the solutions call for a multi-faceted approach.

The most obvious and popular solution many would propose is immigration. Immigration can offset Japan's low birthrate with strategically devised policies, and can even help increase its stagnant economy to a more healthy economic growth[25].

When compared to Germany whose TFR, life expectancy, and growth rate are the same as Japan's, the nation however is able to keep the population at its constant population size, neither rising or declining. The differentiating factor of Germany is that its net migration is at 120 compared to Japan's 0, and Germany has a dependency ratio of 32.2 compared to Japan's 43.3, almost 10% more compared to Germany[26]. A dependency ratio is calculated using the population 0-15 divided by the population 16-64 and a number characterized above 26.7 meaning that both nations are immensely strained when it comes to a higher burden on the working class and a higher standard of living[27].

Although Japan has good healthcare services, they lack institutional nursing care for the elderly, both in quantity and in quality, which further increases the dependency ratio and hinders economic growth[22]. This makes immigration an easy solution to combat Japan's declining population. Offering more visa options and the opportunity of dual citizenship with the focus geared toward migrants taking over institutional care jobs can help offset the high dependency ratio. The eventual good that will come out of offering dual citizenship and permanent resident cards is higher GDP, eventual income, social security benefits, and filling up shortages seen in the social care industry[25]. However, immigration was never one of Japan's strongest suits, having one of the lowest diversity rates out of many developed countries. The culture surrounding immigration is not exactly the most welcoming either, often seen as competition in certain workplaces[38].

Another solution could simply be raising the minimum retirement age. This however is not very popular among the public, and will not be effective as the average retirement age for men is 69.5 while for women it is 66.5 years. [30]

This leads to the next best option which is offering better economic incentives. This will come in the form of discounts or monetary incentives such as subsidies and tax credit for all families with children under eighteen as well government-run services/programs. This will specifically branch over families that fall within certain tax brackets and the number of children present per household. The lower the tax bracket and/or the more children per household, the higher the discount rate or monthly check for making basic goods such as food and clothing, with food, transportation, and clothing more affordable as these are considered one of the highest expenditures under monthly expenses[29]. The government offering free or affordable services such as childcare, social care for the elderly and affordable education into post-secondary will give the working Japanese individual and family units more freedom and won't make

them have to choose and sacrifice between simply having a job over having a family. This incentive is meant to increase family planning and make having children more affordable.

Due to the already expensive standards of living and high dependency ratio, being able to offer discounts and additional money that children or the elderly would have taken up will help ease the burden of the working class while also incentivizing starting a family and raising children more affordable. The possible cons of this solution are that people may exploit this system and may not increase the population as intended as well as will only add to the nation's growing national debt.

The final solution would be to implement robots into everyday household chores. Robots could help offset a declining population because women often feel burdened by work and often choose between having children or prioritizing work. Once women get home from work, they are often burdened with household chores and don't simply have the time to look after children while juggling long hours of work. Robots are meant to ease this burden by implementing household tasks that often take time, such as cooking, cleaning, looking after children, and more[31].

This effort is currently being promoted and implemented in Japan right now as the government hopes to have a typical family consisting of a husband, a wife, one son, one daughter, the parents of the husband, and one robot[32]. This is to promote not only Japanese citizens to have a companion at home to help out with everyday household tasks but also can be seen as a useful way to divide up housework for women. The robot is described as forming the closest bond with the wife, as the robot is meant to assist her the most[32] and allow her to focus on other things such as taking care of her children's parents or other complex tasks a robot is not able to perform yet. However, this solution is not viable option in low-income families (roughly made up by 15.4% of the population [49]) where automation costs exceed human labor costs [50].

Robots can also be optimal in rural settings and automate many of the tasks farmers in the nation take to run a successful farming business in order to make a living. Automated farming makes the use of still developing technologies including harvest automation, seeding, and weeding using computer vision, using drones for imagery analysis and diagnosing issues early and autonomous tractors. By automating the farming process, Japan can reap the benefits by increasing domestic harvests reducing costs and benefitting consumers, increasing labor efficiency as well as reducing the environmental footprint. [47] However, the introduction of robots also brings the factored in increase in costs, but due to the high ROI [48], increases the eventual risk of complete automation, bringing more people in urban areas.

Another proposal could simply be that instead of increasing immigration to increase people in the social care industry, further implementing robots in the care of the elderly can help free up time for the working-class Japanese citizen and allow them to focus on work and starting a family. There are currently already a number of robots that help provide both physical and mental aid to the elderly and can be a realistic solution for substituting the time and effort the working class put into taking care of their elders by something more automated such as robots[37].

These solutions hope to tackle the multi-faceted factors that have led to declining populations– a higher standard of living and the culture of a joint family system which has led to long working hours and resistance from the working class to not kids due to increased added costs to the already added effort in taking care of the elderly at home thus to have kids later in life which decreases the fertility rate.

The best course of action to implement these ideas would be through enacting governmental policies as well as marketing the idea of having more children indirectly through media– displaying advertisements where a typical Japanese family would consist not only of the parents, the couple and robot, but also multiple children. The idea behind having a family has declined with time and the only way to change

one's viewpoint is to romanticize the lifestyle and make it more appealing to have more children than to not have any children at all as the Japanese work culture has emphasized and adopted.

The one managing the projects will be the government as they need to implement the policies to do so. The idea would be proposed in the house of councilors and representatives, which would later be passed and signed by the Prime Minister. This project would be funded through Japan's social development fund (JSDF) which is a partnership with the World bank & the government of Japan to provide assistance to people in the lower income brackets. JSDF is known for funding initiatives in support of community-driven development including providing programs of social poverty alleviation. The government would play the most important role in implementing the role of moderating these solutions and making them a reality.

In conclusion, the factors leading to Japan's population crisis are many. This leads to taking multiple solutions to the various factors that contribute to the issue. For one, because nearly a third of the population is above 65 years, the population is said to drop to 106 million people from 125.7 million. At the current TFR of 1.36 children per woman, this number is not enough to replace both parents, thus we need to dig deeper and understand the crux of the problem. Japan has a very high standard of living[35] with a purchasing power of 69.1. Japanese families live in joint families which increases the cost of living. Even with the late retirement, both couples need to work to get by and afford an acceptable standard of living. This delays life goals and leads to couples having children late in life, with the average age of a mother being 31.54 years[36]. The solutions proposed are increasing immigration options and opening more opportunities for immigrants, incentivizing through monetary options, and finally implementing robots and other such technologies to ease the housework burden so women can have a work-life balance and focus on their children. These solutions coupled with government promotion will deem having more children affordable and desirable. These solutions are most definitely not a one size fits all solution, taking generations to implement to effectively see change in the Japanese society, but hopefully, this will ease the burden on the working class and return the reverse pyramid back to normalcy.

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