

# AGING POPULATIONS

## *A Comparison between Japan and Germany*

By Jayson Evaniuck

When comparing population trends of Japan and Germany, numerous similarities stand out. Both countries have an identical total fertility rate (TFR) per woman of 1.4 with a population growth rate of -0.2 percent (Table 1). While both countries have high life expectancies, Japan's eighty-five-year life expectancy is among the world's longest, leading to a higher elderly dependency ratio in 2017 (Table 1). Similarities between the countries related to below-replacement-rate population growth, aging-related pension and health care challenges, and pronatal policies place the countries on a similar population trajectory. When analyzing historical, economic, and social/cultural factors behind demographic similarities, different paths toward population decline emerge. Additionally, the countries vary in their views of international migration as a population stimulus. The analysis provides classroom activities that directly align with the College Board AP Human Geography course description. The comparison and suggested classroom activities could also augment any course addressing current demographic issues at the high school or undergraduate levels.

### GERMANY

In 2005, Germany's population began to decline by 0.1 to 0.2 percent annually. With a TFR between 1.3 and 1.4 children per woman from 2005 to 2017, the country is significantly below replacement rate fertility of 2.1 children per woman. Like other developed countries, Germany saw a postwar baby boom in the 1950s and 1960s with a peak TFR of 2.66 from 1960 to 1965. The rate continued to decline during the 1970s through 1990s and became fixed in the early 2000s.<sup>1</sup> Coinciding with a declining TFR, life expectancy has increased as health care advances and food security demonstrate Germany's steady economic development. German population decline has prompted concerns related to elderly care, as well as promoted family policy geared toward increasing birth rates. International migration has also played a role in offsetting population decline in Germany.

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### CONCERNS, RELATED TO THE SOCIAL SYSTEM

Unlike Japan, Germany has demonstrated consistent economic growth in the wake of declining fertility rates. Germany has witnessed steady gains in gross domestic product (GDP) over the last forty years while also seeing declining fertility rates. Current government concerns related to population decline focus on increasing costs of elderly care and social security pensions. Germany has an extensive care system for the elderly, which includes state-funded long-term care. The system operates on a pay-as-you-go funding structure. So as the percentage of elderly increases in Germany, the burden on the tax structure is greater. Germany's aging population has even forced government efforts at subsidizing family care of the elderly.<sup>2</sup> Germany's elderly dependency ratio of 32.2 percent (Table 1) indicates that

Table 1: 2017 Country Comparisons

Country	Total Fertility Rate (TFR)	Life Expectancy (years)	Net # of Migrants (in thousands)	Growth Rate (%)	Elderly Dependency Ratio (2016)
Germany	1.4	81	120	-0.2	32.2
Japan	1.4	85	0	-0.2	43.3

Source: CIA World Factbook at <https://tinyurl.com/2h2e3k>.

the financial challenge of caring for the elderly will persist in the wake of declining birth rates.

### GERMANY'S PRONATAL POLICY

Germany has distanced itself from direct pronatal policies aimed at increasing birth rates due to similar approaches employed by the Nazi German government in the 1930s and 1940s. Instead, Germany has instituted pronatal policies enhancing parental work leave and child care provisions. In 2013, Germany initiated public child care for children beginning at age one. Additionally, the system guarantees children age three and up a place in school. An additional measure the German government has instituted to enhance fertility rates is parental leave. Germany's current system was established in 2007 and enables parents to take leave until the child's third birthday.<sup>3</sup> The government provides an earnings substitution for fourteen months. The supplement was designed to encourage fathers to take leave and has generated moderate success. The policies have had minimal to no impact on TFR, as indicated by a rate of 1.33 in 2006 and 1.4 in 2016, with a predicted TFR of 1.5 in 2025.<sup>4</sup>

### GERMAN PERSPECTIVES TOWARD MIGRATION

Germany has experienced significant immigration since the 1950s. Consequently, Germany has placed immigration and integration of immigrants on the political agenda since the 1960s. Though not historically considered a migrant state, nearly 20 percent of Germany's current population has a migrant background, primarily from other parts of Europe and the Mediterranean region. In 2000, Germany began enabling dual citizenship for foreign nationals born in Germany. Currently, most German political parties promote varying levels of support for immigration, with widespread support for integrating migrants into German society. Such supports include government-funded integration classes emphasizing German language and the German legal system. Educational opportunities for immigrant children have been a focal point of recent integration efforts. In spite of efforts at integration, poverty and unemployment rates are highest among populations with a migrant background.<sup>5</sup> Increasing immigration numbers have not alleviated a declining population in Germany. In the period from 2006 to 2017, Germany's population declined annually while maintaining consistent GDP growth. Though numerous factors drive GDP growth, Germany's migrant population helped stimulate a strong GDP growth in the country during the period while partially offsetting population decline.

### JAPAN

Similar to Germany, Japan experienced a postwar baby boom in the 1950s. Unlike Germany and resembling the United States, a smaller baby boom occurred in the 1970s, with TFR reaching 2.5 in 1974. The second baby boom represents the children of the postwar baby boom. Total fertility

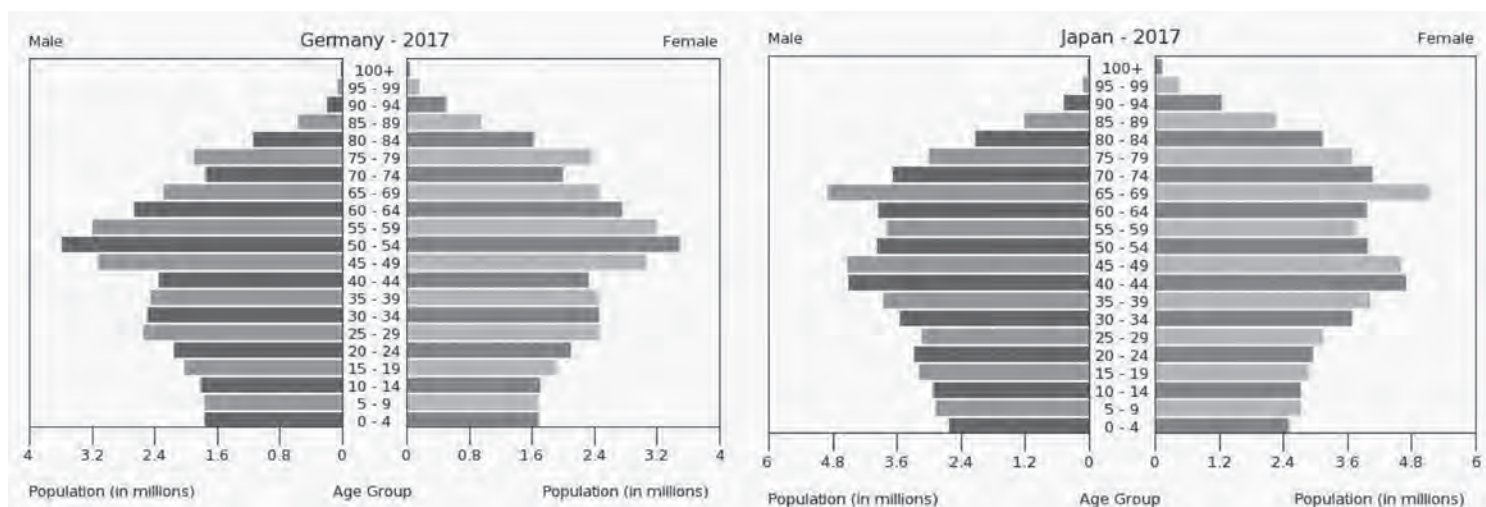


Figure 1: 2017 Population Pyramids for Germany and Japan. Source: The United States Census Bureau International Data Base at <https://tinyurl.com/y9b5389q>.

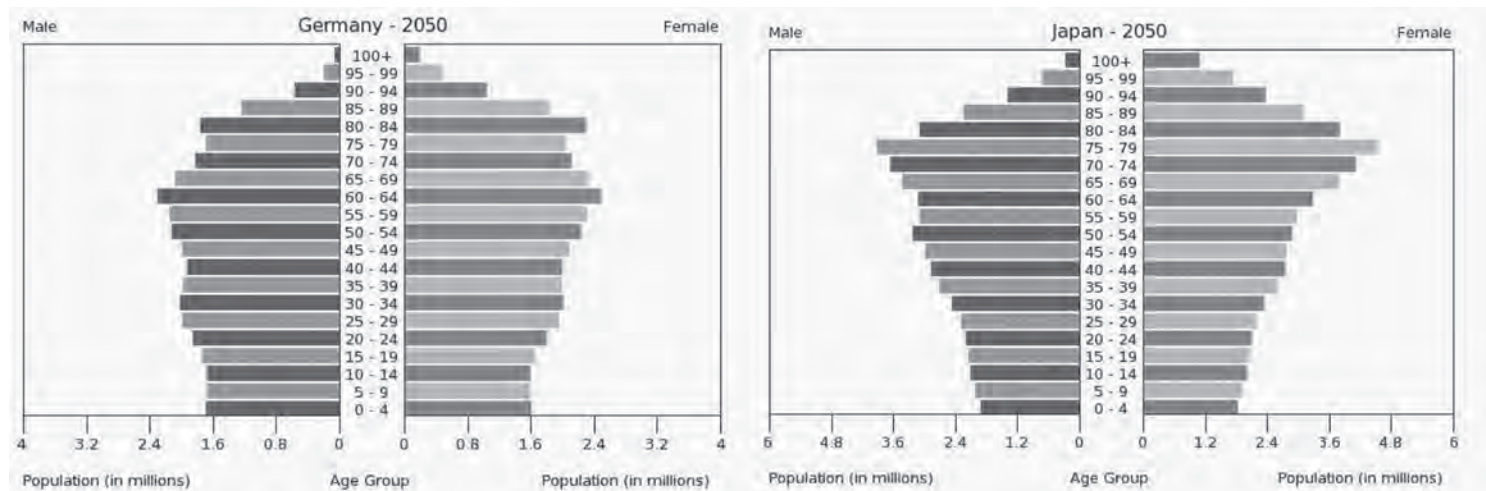


Figure 2: Projected 2050 Population Pyramids for Germany and Japan. Source: The United States Census Bureau International Data Base at <https://tinyurl.com/y9b5389q>.

rates declined after 1974 and leveled out to 1.3 and 1.4 by 2000. Since 2006, Japan's population has declined annually. With low TFR combined with the world's highest life expectancy, Japan now has the oldest population in the world (Table 1). Concerns over the population related to economic decline and elderly care expenses have reached the highest levels of Japanese government. While Japan and Germany had nearly identical demographic characteristics in 2016, factors driving the differences were notably different.

#### ECONOMIC AND SOCIAL FACTORS BEHIND DECLINE

Declining birth rates are typical of economically developed countries. However, several social and economic factors have led to more pronounced population decline in Japan than most developed countries. The recession of the 1990s created uncertainty among male workers due to lower rates of savings, declining lifetime employment offers among corporations, and shifts in the labor force. Such economic uncertainty has delayed marriage and family decisions in Japan.<sup>6</sup> Also, Japan's economy has seen significant growth in the services sector of the economy since the economic recession of the 1990s. The shift toward a consumer economy has meant a larger service employment sector, which has higher rates of female participation than the manufacturing sector.

Japan differs from Germany in the level of gender-related traditions among changing gender roles in society. Societal changes have transpired

concurrently with economic changes. Higher employment rates among women have encouraged increases in later marriages and unmarried women.<sup>7</sup> The traditional viewpoint of Japanese women's vocation as home-based has declined among Japanese women. Increasingly, Japanese women now see their primary jobs as outside the home.<sup>8</sup> Japanese corporate society often discourages working women from having children. Among such shifting trends, Japanese society still maintains several traditional gender views. On average, Japanese wives spend twenty-seven hours per week on household tasks, compared to three hours for men. Women are also primarily responsible for looking after children's well-being, as well as keeping up with children's educational demands in a highly competitive school culture.<sup>9</sup> Resultantly, the rates of later marriages and women choosing not to marry have increased substantially. Overall, the difficulty of balancing family demands and work requirements underscores the low total fertility rate among women.

#### IMPACTS OF POPULATION DECLINE

Rising life expectancy rates and declining fertility rates have significantly increased health care costs. The trend has created the world's highest elderly dependency ratio, leading to widespread concerns related to health care and pension costs. Similar to Germany, Japan operates under a pay-as-you-go elderly health care system where employee contributions are used immediately to fund the social security system. With high elderly

## In 2003, Japan enacted the Basic Law for Measures to Cope with a Low Fertility Society. The law required companies to submit action plans to improve support to families with children.

dependency ratios, the share of workers to those dependent on health care and social security benefits is declining. This development means a declining workforce will be faced with increasing taxes, increasing insurance premiums, or a combination of both.

The relationship between economic growth and demographic decline is a complex one. Macroeconomic factors of a multifaceted Japanese economy cannot be quickly reduced to determine effects of demographics. In 2017, economists Yihan Liu and Niklas Westelius attempted to isolate the demographic effect on total factor productivity (TFP).<sup>10</sup> Their recent study suggested the demographic decline in Japan negatively impacted economic growth. The study reported that declining population helped explain the minimal TFP growth between 1990 and 2007. The study also pointed to aging and population decline as factors in deflation over the period. The authors postulated that increasing female workforce productivity, as well as encouraging the inflow of foreign workers, could stimulate TFP growth in Japan.

### JAPAN'S PRONATAL POLICY

In 2003, Japan enacted the Basic Law for Measures to Cope with a Low Fertility Society. The law required companies to submit action plans

to improve support to families with children. Similar to Germany, Japan has instituted programs that subsidize family leave for childbirth as well as child care. The programs embrace the idea of a dual-earner family rather than the traditional breadwinner-homemaker tradition. Despite such measures, the total fertility rate continues to remain static in Japan.

Policies have been ineffective at addressing the declining total fertility rate for numerous reasons. Population researcher Makoto Atoh identified three factors for failed pronatal policies in Japan: (1) the work culture of Japanese companies, which demands long hours from Japanese workers; (2) increases in underemployment and part-time work related to globalization and the tightening of personnel preceding the economic crisis of the 1990s; and (3) the persistence of Japanese traditional norms, which prevent women from working after childbirth.<sup>11</sup> Consequently, many families choose not to have children.

### JAPAN AND MIGRATION

Japan differs from Germany in its approach to international immigration. Historically, Japan is a closed society with restrictive immigration policies. The homogenous ethnicity (98.5 percent Japanese) of Japan reflects restrictive immigration policies. Most immigration has been employment-based immigration in health care, manufacturing, and other specialized employment sectors. The topic of international immigration did not receive debate at the national level until the early 2000s. The ongoing debate has yet to garner significant legislative changes; however, Japan is now considering broadening immigration policy to offset population decline.<sup>12</sup>

### CLASSROOM USE

A demographic comparison between Germany and Japan aligns directly with the College Board AP Human Geography high school curriculum.<sup>13</sup> Additionally, high school contemporary issues courses could benefit from an exploration of population decline in developed countries, as well as overpopulation challenges in less developed countries. The material is also relevant for undergraduate world, regional, and human geography courses.

### DISCUSSION QUESTIONS


1. In 2017, both Germany and Japan had very similar population characteristics. Why does Japan have a higher elderly dependency ratio? Students should make connections between Japan's higher life expectancy and elderly dependency ratio.
2. What are some historical and cultural factors that might help explain Germany's and Japan's different approaches to foreign migration? Answers may vary. Students could discuss Japan's island geography and limited migration history. Germany's strong relationship within the Eurozone encourages migration within Europe, as well as opportunities from outside of the Eurozone (Turkey). Due to past history, Germany distances itself from ethno-nationalist policy.
3. When examining the 2050 population pyramid (Figure 2), which country should be more concerned about population decline and an aging population? Why? The answer is Japan. While both countries are similar in 2017, 2050 projections indicate Japan continues to age while Germany levels off and becomes a middle-older-age country.
4. What might be some reasons behind Japan's more significant projected aging pattern? Answers may vary. Students could discuss Japan's longer life expectancies. The migration rate in Germany also offsets aging, as migrants are typically younger families.

### AP HUMAN GEOGRAPHY FAQs OR ESSAY QUESTIONS

1. Traditional demographic transition theory states that industrialized societies will reach replacement rate once fully industrialized.

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- a. Identify the stage of the demographic transition model that Germany and Japan fit in.
  - b. Evaluate the advantages of utilizing the demographic transition model to understand population in Germany and Japan.
  - c. Evaluate the disadvantages of utilizing the demographic transition model to understand population in Germany and Japan.
- 2. According to the 2017 population pyramid (Figure 1) and 2050 projected population pyramid (Figure 2), both Germany and Japan exhibit characteristics of aging countries. Discuss differences between the two countries relating to the following concepts:
    - Baby boom
    - Dependency ratio
    - Total fertility rates ■

## NOTES

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