Japan’s Super-Aged Society and Declining Fertility Rate
What is going on with the world population now?

Check out this video:
Population pyramids: Powerful predictors of the future - Kim Preshoff

How did the video explain the demography of each country?

Rwanda
Canada
Japan
Russia
U.S.A
China
What is going on with Japan’s population?

What can you learn about Japan’s population change from these population pyramids?

(Worldometers, Japan Demographics: Population Pyramid for Japan)
How will America’s population change in 30 years?
### U.S.A. Age Structure and Sex Ratio (2020)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Males</th>
<th>Male %</th>
<th>Females</th>
<th>Female %</th>
<th>Age Group Population</th>
<th>Age Group’s share of total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>10,055,063</td>
<td>51.10%</td>
<td>9,621,269</td>
<td>48.90%</td>
<td>19,676,322</td>
<td>5.94%</td>
</tr>
<tr>
<td>5-9</td>
<td>10,246,393</td>
<td>51.12%</td>
<td>9,798,759</td>
<td>48.88%</td>
<td>20,045,152</td>
<td>6.06%</td>
</tr>
<tr>
<td>10-14</td>
<td>10,777,513</td>
<td>51.10%</td>
<td>10,111,974</td>
<td>48.90%</td>
<td>20,889,487</td>
<td>6.37%</td>
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<tr>
<td>15-19</td>
<td>10,834,321</td>
<td>51.00%</td>
<td>10,408,587</td>
<td>49.00%</td>
<td>21,242,908</td>
<td>6.42%</td>
</tr>
<tr>
<td>20-24</td>
<td>11,322,732</td>
<td>50.87%</td>
<td>10,936,013</td>
<td>49.13%</td>
<td>22,258,745</td>
<td>6.72%</td>
</tr>
<tr>
<td>25-29</td>
<td>12,144,455</td>
<td>50.95%</td>
<td>11,690,875</td>
<td>49.05%</td>
<td>23,835,330</td>
<td>7.20%</td>
</tr>
<tr>
<td>30-34</td>
<td>11,702,514</td>
<td>50.76%</td>
<td>11,349,965</td>
<td>49.24%</td>
<td>23,052,479</td>
<td>6.96%</td>
</tr>
<tr>
<td>35-39</td>
<td>10,858,871</td>
<td>50.24%</td>
<td>10,756,920</td>
<td>49.76%</td>
<td>21,615,791</td>
<td>6.53%</td>
</tr>
<tr>
<td>40-44</td>
<td>10,118,582</td>
<td>49.86%</td>
<td>10,176,017</td>
<td>50.14%</td>
<td>20,294,599</td>
<td>6.13%</td>
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<tr>
<td>45-49</td>
<td>9,969,099</td>
<td>49.71%</td>
<td>10,084,699</td>
<td>50.29%</td>
<td>20,053,798</td>
<td>6.06%</td>
</tr>
<tr>
<td>50-54</td>
<td>10,319,535</td>
<td>50.15%</td>
<td>10,258,272</td>
<td>49.85%</td>
<td>20,577,807</td>
<td>6.22%</td>
</tr>
<tr>
<td>55-59</td>
<td>10,702,065</td>
<td>49.68%</td>
<td>10,840,205</td>
<td>50.32%</td>
<td>21,542,270</td>
<td>6.51%</td>
</tr>
<tr>
<td>60-64</td>
<td>10,049,886</td>
<td>48.62%</td>
<td>10,619,257</td>
<td>51.38%</td>
<td>20,669,143</td>
<td>6.24%</td>
</tr>
<tr>
<td>65-69</td>
<td>8,465,274</td>
<td>47.51%</td>
<td>9,353,753</td>
<td>52.49%</td>
<td>17,819,027</td>
<td>5.38%</td>
</tr>
<tr>
<td>70-74</td>
<td>6,645,519</td>
<td>46.29%</td>
<td>7,709,344</td>
<td>53.71%</td>
<td>14,354,863</td>
<td>4.34%</td>
</tr>
<tr>
<td>75-79</td>
<td>4,326,986</td>
<td>44.48%</td>
<td>5,400,748</td>
<td>55.52%</td>
<td>9,727,734</td>
<td>2.94%</td>
</tr>
<tr>
<td>80-84</td>
<td>2,805,623</td>
<td>43.42%</td>
<td>3,655,579</td>
<td>56.58%</td>
<td>6,461,202</td>
<td>1.95%</td>
</tr>
<tr>
<td>85-89</td>
<td>1,538,659</td>
<td>39.34%</td>
<td>2,372,445</td>
<td>60.66%</td>
<td>3,911,104</td>
<td>1.18%</td>
</tr>
<tr>
<td>90-94</td>
<td>703,131</td>
<td>34.28%</td>
<td>1,348,003</td>
<td>65.72%</td>
<td>2,051,136</td>
<td>0.62%</td>
</tr>
<tr>
<td>95-99</td>
<td>179,003</td>
<td>28.57%</td>
<td>447,633</td>
<td>71.43%</td>
<td>626,636</td>
<td>0.19%</td>
</tr>
<tr>
<td>100+</td>
<td>20,792</td>
<td>21.41%</td>
<td>76,312</td>
<td>78.59%</td>
<td>97,104</td>
<td>0.03%</td>
</tr>
</tbody>
</table>
Task:
Complete the population pyramid for the U.S.A (2020)

1. Create groups of 4

2. Complete the population pyramid for the U.S. (2020) by referencing
   *U.S.A. Age Structure and Sex Ratio (2020)* table:
   Age range between 10 to 69

3. Discuss what you can learn from the pyramid 2020 and 2050
The challenges of rapid societal aging will confront mainly the developed world. By 2040, some 55 countries will be struggling to manage an older population, with the U.S., China, Singapore, Thailand, and Puerto Rico joining the ranks of the super-aged. (Miksa, B., 2015)

What are the pros and cons of the world’s population aging?
The most Rapidly aging nation in the world - Japan

Check out these videos:
• Why has Japan's population collapsed? | CNBC International
• Japan’s Demographic Time Bomb | Insight | Full Episode

What were some key takeaways?
Task:
Research the factors and consequences of Japan’s aging society and how the government is responding to it.

1. Create groups of 4

2. Research
   The factors and consequences of Japan’s aging society

3. Research
   How the Japanese government is responding to an aging society

<Helpful Resources>

- How Is Japan Dealing with Its Rapidly Ageing Population?
- The Japanese React to The Aging Population | ASIAN BOSS
- 2018 Profile of Older Americans
  (You can check changes of countries’ annual population and fertility rate)
- Life Expectancy of the World Population
- Japan's Population Dilemma
<table>
<thead>
<tr>
<th>Key factors</th>
<th>Key Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declining fertility rate</td>
<td>Impacts on Japan’s economic growth by reducing the labor force.</td>
</tr>
<tr>
<td>Increasing life expectancy:</td>
<td>Affects Japan’s economic performance by increasing the social security burden and benefits.</td>
</tr>
<tr>
<td>• Regular medical examinations</td>
<td></td>
</tr>
<tr>
<td>• Universal healthcare coverage</td>
<td></td>
</tr>
<tr>
<td>• A preference for Japan’s traditional low-fat diet</td>
<td></td>
</tr>
</tbody>
</table>

- **Declining working age population** - “Womenomics” is a policy that companies are pressured and given incentives to hire more women and give more leadership positions to female employees.
- **Demanding for younger and skilled workers to boost the Japanese economy** - allowing more foreign workers to emigrate to Japan in a controlled manner.
Fertility Rate refers to the average number of children born by women of childbearing age (women who are between 15-44 years old). A fertility rate below 2.1 will cause a population to decline.

(World Population Review, 2019)
Let’s calculate the fertility rate!

Task:
Calculate the fertility rate of the U.S. in 2018

1. Pair Up
2. Check and organize the 2018 data into a table
3. Calculate the Total Fertility Rate
Calculate the U.S. Total Fertility Rate (TFR) for 2018

<table>
<thead>
<tr>
<th>Age of Women</th>
<th>Number of Women</th>
<th>Births to Women in Age Group</th>
<th>Age-specific Birth Rate (Column2/Column1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>10322313</td>
<td>179871</td>
<td>0.017</td>
</tr>
<tr>
<td>20-24</td>
<td>10672032</td>
<td>726175</td>
<td>0.068</td>
</tr>
<tr>
<td>25-29</td>
<td>11542918</td>
<td>1099491</td>
<td>0.095</td>
</tr>
<tr>
<td>30-34</td>
<td>10944147</td>
<td>1090697</td>
<td>0.100</td>
</tr>
<tr>
<td>35-39</td>
<td>10773397</td>
<td>566786</td>
<td>0.053</td>
</tr>
<tr>
<td>40-44</td>
<td>9916891</td>
<td>117381</td>
<td>0.012</td>
</tr>
</tbody>
</table>

Sum= 0.345

TFR=Sum × 5 = 1.724

• Number of Women: “The 2018 Natality User Guide” p. 93 Table 2. Estimated total population, female population aged 15-44 years, and age-specific female population: United States, each state, and territory: July 1, 2018

• Births to Women in Age Group: “National Vital Statistics Reports” p. 15 Table 3. Births, by age (years) of mother, live-birth order, and race and Hispanic origin of mother: United States, 2018
Task:
Research the causes of Japan’s declining fertility rate and how the Japanese government is responding to the declining fertility rate

1. Create groups of 4
2. Research:
   - The causes/reasons of Japan’s declining fertility rate
3. How the Japanese government is responding to the declining fertility rate

(OECD Data, 2019)
<table>
<thead>
<tr>
<th>Key factors</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>A shrinking pool of women of childbearing age</td>
<td>Childbirth rapidly fell. Facilitate society aging.</td>
</tr>
<tr>
<td>More women delay having children or decide not to have them as more of them enter the workforce</td>
<td></td>
</tr>
<tr>
<td>The fall in marriage rates</td>
<td></td>
</tr>
</tbody>
</table>

(© Zaugg, J. & Kobayashi, C., 2019)

Are Japanese women **NOT willing** to have children?
Or
They **cannot** have children?

<Helpful Resources>
- Why Japan's Women Problem Is So Hard to Fix
- Immigrants could be the answer to Japan's population crisis
- Japan's Births Decline To Lowest Number On Record
- Government response to low fertility in Japan
- Policy Response to Declining Birth Rate in Japan: Formation of a “Gender-Equal” Society
- Socioeconomic Factors and Policies Regarding Declining Birth Rates in Japan
- How can Japan raise its fertility rate?
France's total fertility rate (TFR) has increased to 1.98, the highest in the European Union as of 2007, while Japan's was 1.29 in 2004.
Task:
Research why France were able to increase their fertility rate?

1  Create groups of 4

2  Research
How the French government responded to the declining fertility rate

Chirac’s three principles:
(1) a woman should not suffer any additional economic burden from giving birth
(2) day care services for babies and young children will be provided free of charge (with nobody on waiting lists for nurseries and kindergartens)
(3) childcare leave must be treated as continuation of work and there must be no demotion for women coming back to work after giving birth and raising children.

Check these resources:
• France’s baby boom secret: get women into work and ditch rigid family norms
• Demographic Research Volume 19, Article 16, France: High and stable fertility
FINAL Task: Discussion

- Is aging society/declining fertility rate bad or good?
- Should Japan increase their fertility rate? How? Is France’s initiative (e.g., Chirac’s three principles) applicable?

1. Divide the class into 2 (create more groups if necessary)
2. Discuss the topics
3. Get back to class and share what you learned from the topic
Lesson plan created by Aika Okishige,
Curriculum Developer at East Asia National Resource Center
The George Washington University

With special thanks and acknowledgements to Dr. Hiromi
Ishizhawa for her invaluable contributions to the lesson content.