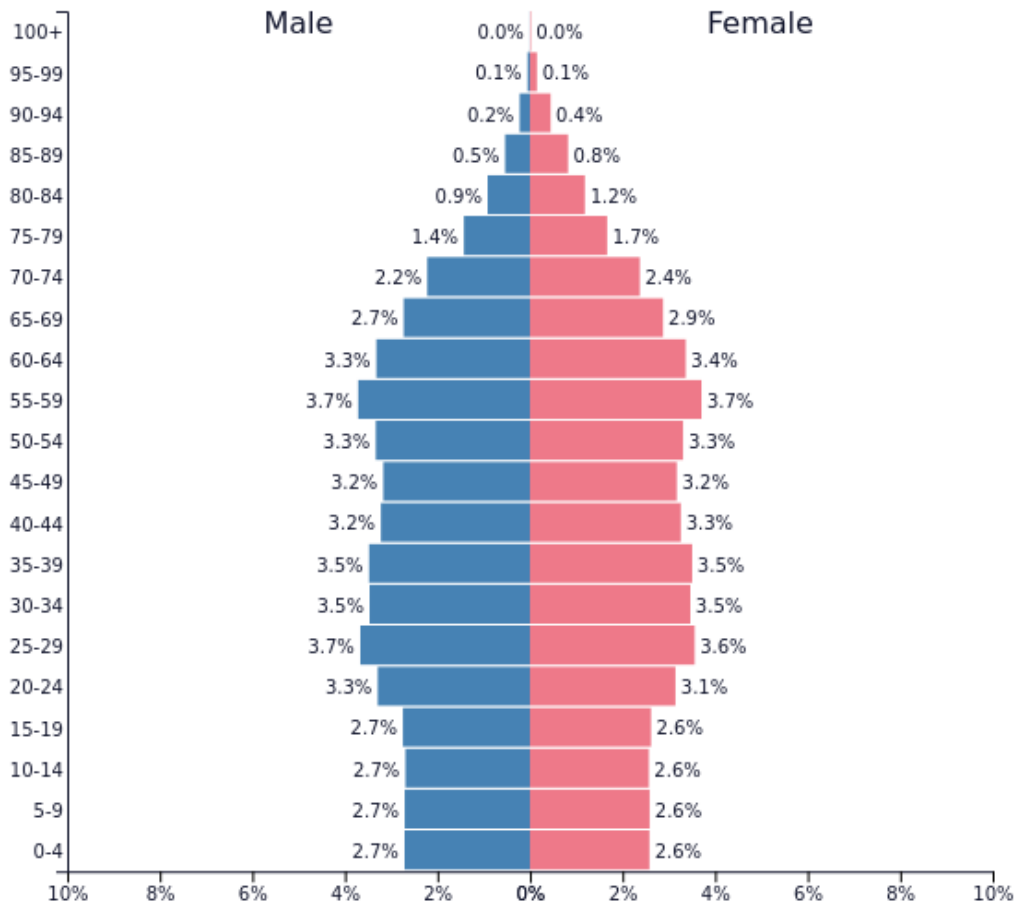


Population Pyramid Assignment Student Guide

Population pyramids are a method to represent the breakdown of a population based on gender (Male/Female) and age group. This is done by making a split graph (Male on the left, Female on the right) with the list of age groups going up the vertical axis.

Below is the population pyramid for Canada in 2019. Notice, all of the horizontal bars on the graph are measured as percentages. To interpret this graph we first choose an age group, for example 20-24 along the vertical axis on the left side of the graph. If we look at the bars for this age group we see that for Male the percentage is 3.3% and Female is 3.1%. This means that 3.3% of the population in Canada last year were Males between the ages of 20 and 24; while 3.1% of the population were Females in this age group.



For this assignment you are required to take the data in the table on page 1 and create 4 population pyramids (Germany 1950 & 2000, Russia 1950 & 2000). In order to do this there are a few preliminary steps you should take to set up the graph before doing any plotting.

1. In the middle of each graph, shade a bold vertical line to represent the separation between the Male and Female plots as seen in the population pyramid above.
 - a. If you choose one horizontal row on your graph there should be 10 blocks on each side of your vertical line.
2. At the bottom of the graph, directly below your bold line, write 0% as is done in the population pyramid above.
 - a. Under the next vertical line to both the right and left of your bold line you should write 1%. In the pyramid above the % increases by 2. I suggest increasing 1% for each line you move to the right and left of the center line as it will make it easier to plot the pyramid.
3. For each block going up the left side of the graph write in the age groups in increasing order. This is the same as what is done in the population pyramid above, the grid lines just aren't included.
4. Repeat steps 1-3 for each of the 4 grid sheets provided.

Now you are ready to plot the data one page 1 of the assignment. The first population pyramid you will be making is for Germany in 1950, so you will only need to use the 2 columns (labelled M & F) under the year 1950 in the table. Each other population pyramid will use the same set up. (For example: When creating the Russia 2000 pyramid you should look for USSR/Russian Federation, then look for the year 1950 and use the 2 columns labelled M & F below the year 1950).

You now simply need to work your way through the data. Start with the age group 0-4, it should say the percentages are 3.4% for Male and 3.2% for Female. You simply need to draw a bar from your center line out to approximately 3.4% on the Male side of your graph, then draw a bar from the center line out to approximately 3.2% on the Female side. Once this is complete you will do the same thing for each subsequent age group until the whole population pyramid is completed.

IMPORTANT: If you are having difficulty keeping track of where you are on the table or you wish to check if your population pyramid looks correct I suggest visiting the website below and searching the country and year you are making the population pyramid for. All of the country's population pyramids back to 1950 are available here.

<https://www.populationpyramid.net/>

For the question section of the assignment I have an outline below to help with answering the questions. The questions for both Germany and Russia are down very similar since both countries went through the same major world event that the questions are designed to focus on.

Germany

1. How has the % of the population aged 0-14 changed from 1950 to 2000?

- a. % of population aged 0-14 that were Male in 1950 was _____
% of population aged 0-14 that were Female in 1950 was _____
% of population aged 0-14, either Male/Female in 1950 was _____

This is question 1a on the assignment. For this question you simply add up all of the percentages in each age group from the table. So for Germany in 1950, the Male population between 0-14 includes the age groups 0-4, 5-9, & 10-14. Therefore,

$$3.4 + 3.8 + 4.7 = 11.9\%$$

For females in Germany in 1950 for the same age groups we would have:

$$3.2 + 3.6 + 4.5 = 11.3\%$$

The total percentage of the population in this age group (Male/Female) for Germany in 1950 would then be:

$$11.9 + 11.3 = 23.2\%$$

The rest of the questions focus on why the population pyramid looks the way it does. This is a little bit more tricky as you need to consider what would have been happening in the world when a particular age group was born (this is not the same as the year the population pyramid is representing). Let's use question #2 as an example:

2. What might have caused the bulge in population for the 2000 pyramid between the ages of 30-50 year olds?

Since we are considering the age group 30-50 we need to consider what would have been happening in the world 30 to 50 years before the year 2000. This means we are looking at the years 1950 to 1970.

This would be the decades directly following World War II. This time is often referred to as the Baby Boom era for most countries in Europe and North America as it

was the first time in 40 years these areas were not having significant economic struggles or were at war on a global scale.

NOTE: For all of the questions, for both Germany and Russia, the responses should be focused around World War II and the consequences it would have on the population. You may want to consider the difference in roles Males and Females had in the military during this time.