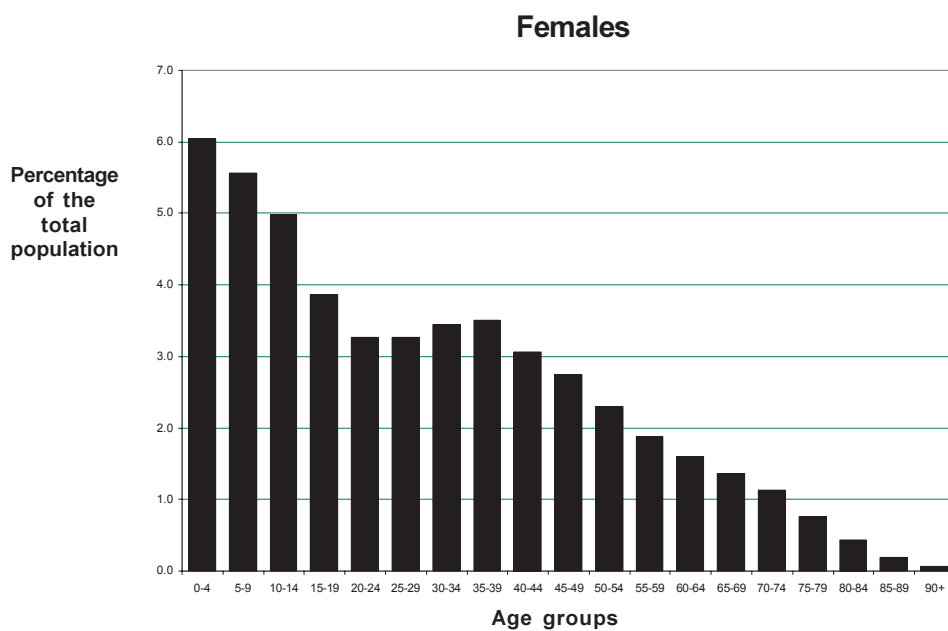
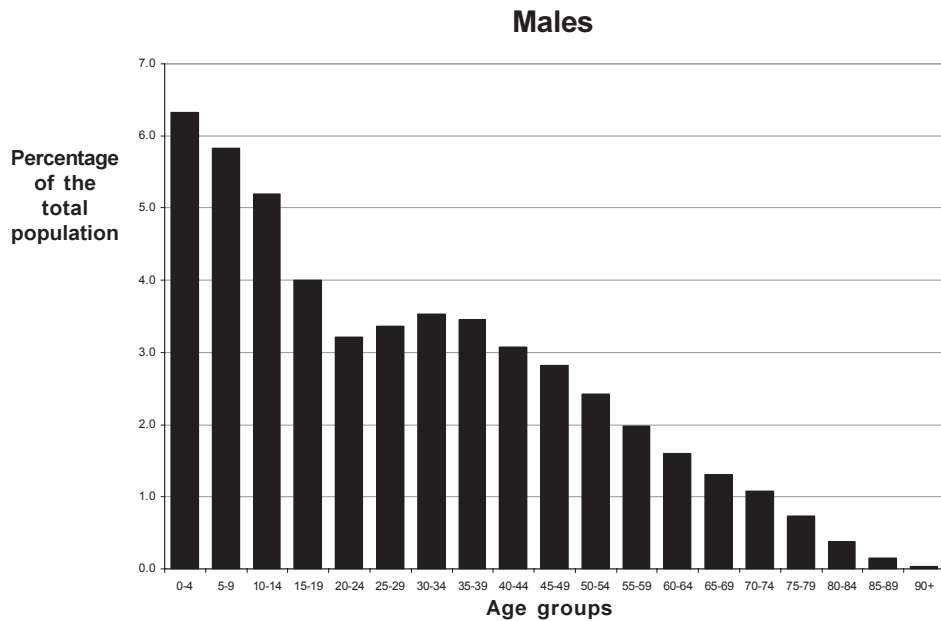
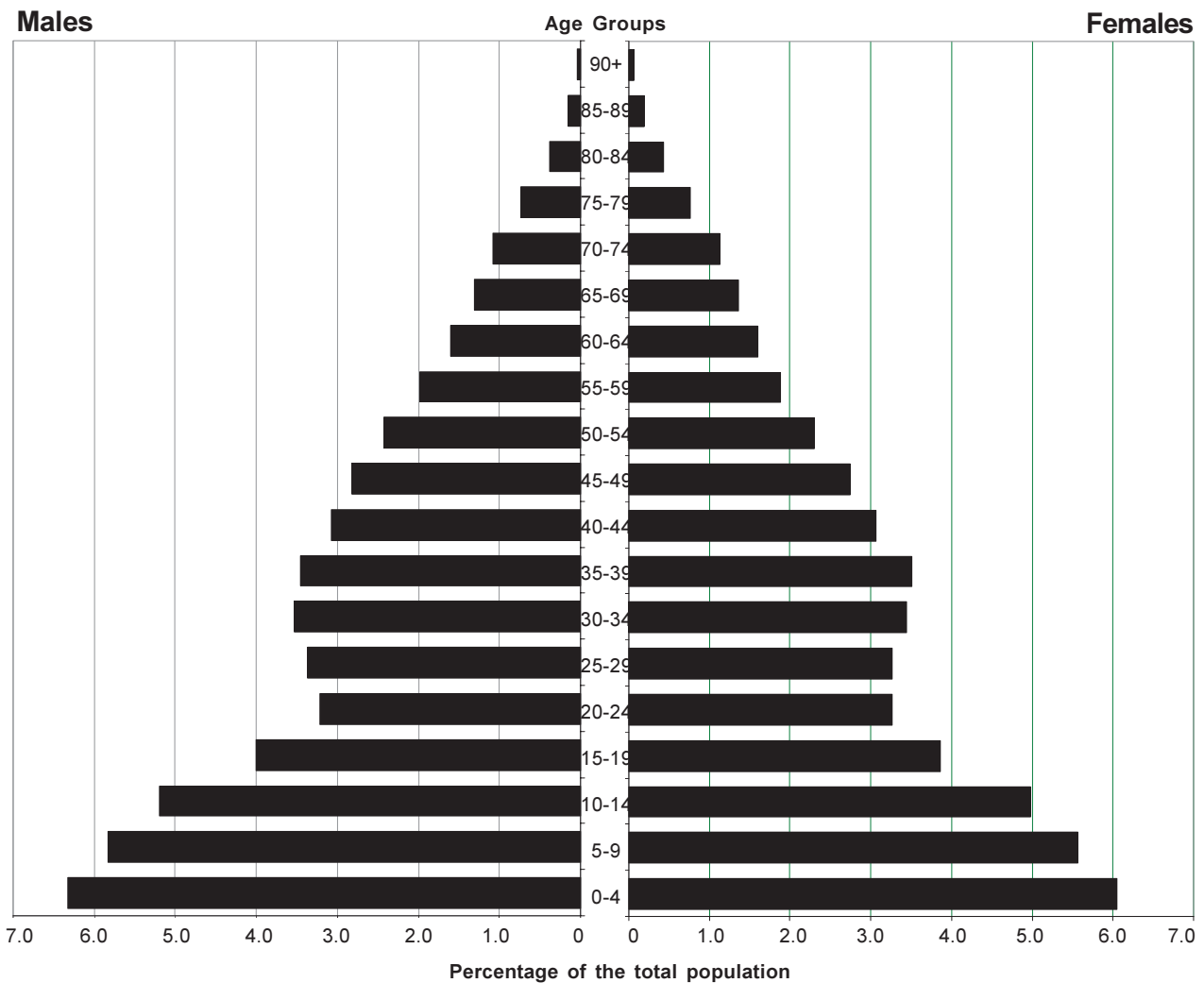

Handout 1: The Population Pyramid—what it is and how it works

Bar graphs are a handy way to illustrate numbers. For example, if we were to graph the number of males and females in Canada for various age groups according to the 1961 Census, the result would be the illustrations below.



If we were to display these graphs horizontally, make a mirror image of the one for women, and then join them together, we would have a **population pyramid**—exactly as you see on the next page.

Population Pyramid, 1961



This population pyramid shows at a glance the distribution of the Canadian population in 1961.

You can see that the pyramid narrows toward the top. This is because the death rate is higher among older people than among younger people.

There are also a few bulges and narrower parts in the middle part of the pyramid. For example, there are not as many people in their 20s as in their 30s in Canada in 1961. The people in their 20s in 1961 were born during the Great Depression, a time of economic hardship in Canada when people were having fewer children.

In 1961 the pyramid had a wide base. In fact, when we add the percentages for the three lowest age groups, we find that 35% of the population was under 15. These are “baby boomers,” the large group of people born between 1947 and 1966 when the economy was growing and prospering.

By analyzing population pyramids and identifying trends, we can learn a lot about our society. These statistics give governments and others one of the tools they need to make informed decisions that will affect our lives today and in the future.

Handout 2: 2001 Population Pyramid

Now let's turn to the 2001 Census. Below are the data from the 2001 Census of Population giving the population by five-year age group and sex. Using these data, complete the 2001 population pyramid on the following page.

Canada's population by age group and sex, 2001 Census of Population *		
Age group	% men	% women
0-4	2.9	2.8
5-9	3.4	3.2
10-14	3.5	3.3
15-19	3.5	3.3
20-24	3.3	3.2
25-29	3.1	3.2
30-34	3.4	3.6
35-39	4.1	4.3
40-44	4.2	4.4
45-49	3.8	3.9
50-54	3.4	3.5
55-59	2.6	2.7
60-64	2.1	2.2
65-69	1.8	2.0
70-74	1.5	1.8
75-79	1.1	1.6
80-84	0.6	1.1
85-89	0.3	0.6
90+	0.1	0.3

* Percentages have been rounded to the nearest tenth of a decimal point and do not necessarily add up to 100.

Handout 2: 2001 Population Pyramid (continued)

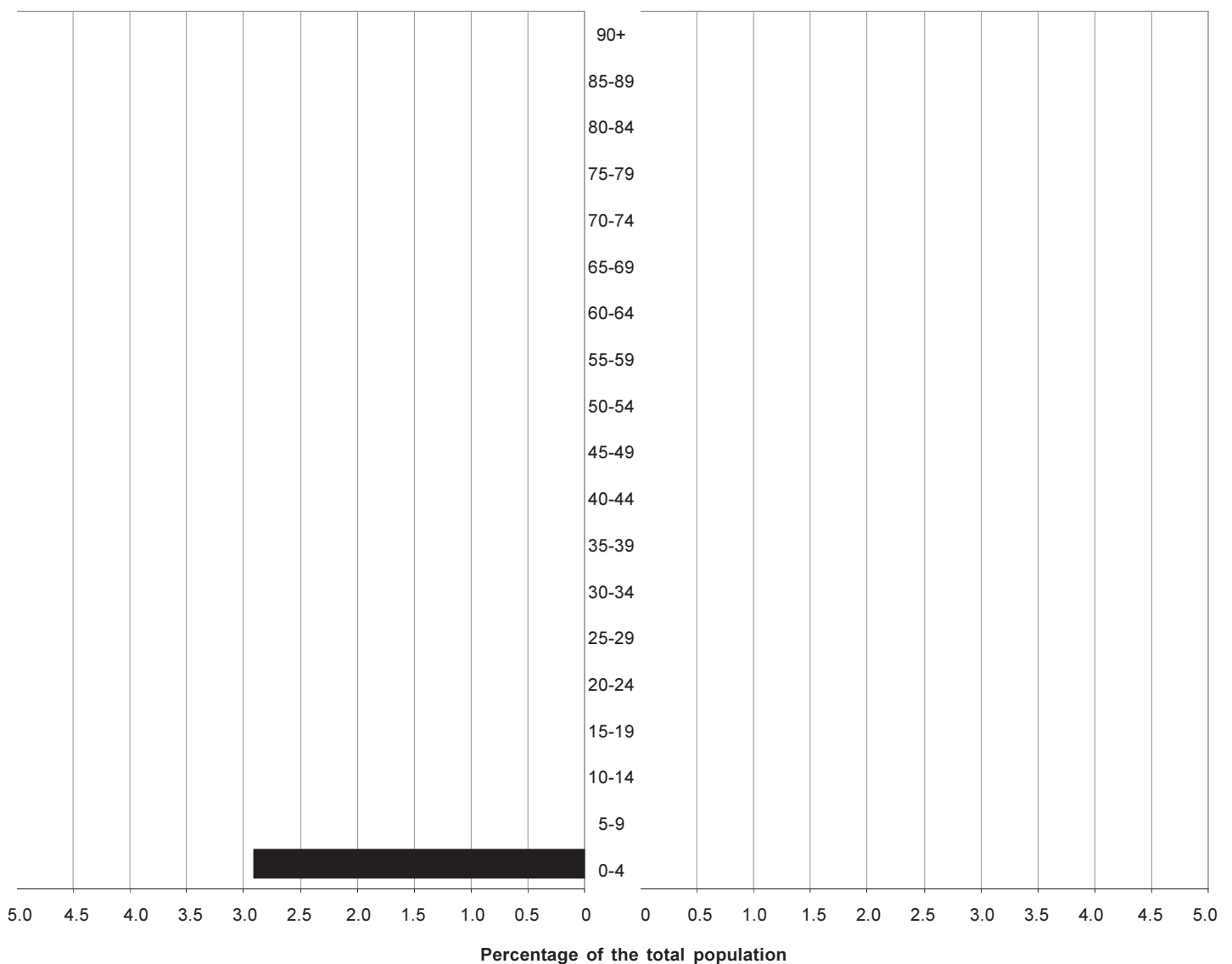
Use the structure below to create your pyramid. To get you started, the 0-4 category for males has already been drawn in. Highlight the bar that represents your age group and sex by shading it in a particular colour. Use different colours to shade in other bars that represent some of your relatives or friends.

2001 Population Pyramid

Males

Age groups

Females



Handout 3: The 2001 Population Pyramid Speaks

1. Write the details of your age group and sex within the Canadian population.

Age group _____ Sex _____ Percentage _____

2. What single age group and sex represents the largest percentage of Canada's population?

Age group _____ Sex _____ Percentage _____

3. Circle the 10-year age group that contains the largest percentage of the population.

0-9 10-19 20-29 30-39 40-49

4. What percentage of Canada's population is male and what percentage is female? (Add the percentages for each sex.)

Males _____ Females _____

5. Write in the percentage for males and females age 65 and over.

Males _____ Females _____

Comments _____

6. Explain why the 2001 population pyramid has a narrower base than that of the 1961 pyramid.

7. a) Populations are frequently divided into two categories: people who are of working-age (15-64) and people who are not of working age (under 15; 65 and over). Using the data on page 4, give the percentage for each category in 2001:

Working age _____
Not of working age _____

b) List ways the working-age population contributes to Canada's economic growth.

c) Do you think the proportion of the population who are not of working age will change in the future? If so, which part (under 15, or 65 and over)? Explain.

Handout 4: Discussion — Population Aging

Canada's population is growing older. What does this really mean and what significance does it have for Canada in the future? Use the points below to help guide a discussion with your class and your teacher about population aging.

The boom times

Canadians born in Canada between the years 1947 and 1966 are referred to as the baby boom generation. Suggest reasons why so many people were born during this time.

Fewer children

Since the baby boom years, the fertility rate (the number of babies a woman has in her lifetime) in Canada has dropped from 3.9 in 1959 to 1.52 in 1999. The result is fewer people in the younger age categories. Suggest some reasons for the drop in the fertility rate.

The population grows older

In 1966, when the last of the baby boomers were born, Canada had a young population. In fact, the median age of Canadians (the age at which half of the population is older and half is younger) was 25.4. The median age of Canadians has risen since then and in 2001 was 37.6. This indicates that our population is aging.

Do you think this trend will continue into the future? Refer to the population pyramids of 1961 and 2001 to support your prediction.

What does it all mean?

These days, demographics has become one of the hot topics. Demographers study population statistics and trends as you are doing in this activity. Among other things, organizations depend on the work of demographers to help plan the location of businesses; the number of schools, hospitals and retirement homes; the building of houses, condominiums, and apartments; and the designing and marketing of products. As a novice demographer, prepare a set of predictions on the effect of population aging using each of these six headings:

- consumer patterns
- health care
- shelter needs
- size of the work force compared to those over 65
- job opportunities for younger Canadians
- pension plans

How old will you be in 10 years when the baby boom generation begins to retire? How do you think population aging will affect you? To get more information, look in a library for books and articles on population aging.