



Hands-on Exercise – Age and Sex Structure

1. Population Pyramids

Using the population data by sex and single year from the last two censuses of your country:

- a. Construct a population pyramid in Excel (eventually using the template 'SINGAGEPYR.xls');
- b. Analyse the pyramid's main features and note any potential errors in the data.

2. Graphical cohort analysis

Using the population data by 5-year age group and sex from the last two censuses of your country:

- a. Organize the data in order to compare the same birth cohorts in the two censuses;
- b. Plot in a figure the birth cohorts from the two censuses;
- c. What can you tell about the quality of the population data by age and sex in each census? What do you notice?

3. Age (mis)reporting

Using the population data by 5-year age group and sex from the last two censuses of your country:

- a. Calculate and plot the age ratios by 5-year age group (eventually using the USCB template 'AGESEX.xls');
- b. From the population pyramids (see point 1 above), identify terminal digits that seem to be preferred in the plot for males or females and calculate the Whipple's Index (for one sex) (using the USCB template 'SINGAGE.xls');
- c. Calculate Myer's Blended Index for the same sex as the Whipple's index (using the USCB template 'SINGAGE.xls');
- d. Summarize your conclusions about the quality of age reporting in the census (consider age heaping, age exaggeration and/or under-enumeration of certain age groups).

4. Sex ratios

Using the population data by 5-year age group and sex from the last two censuses of your country:

- a. Calculate and plot the sex ratio by 5-year age group (eventually using the USCB template 'AGESEX.xls');
- b. Analyse your results and note any potential errors in the data.