

MSc in Migration Studies
 Research Methods
 Hilary Term 2015

1. In an opinion poll the day before the 2010 UK parliamentary elections, an [Ipsos/MORI survey](#) of 1,216 people, the proportion of votes for the Liberal-Democrats (Lib-Dems) was 27%
 - A. Calculate the 95% confidence interval of the poll result. What does this tell you?
 - B. Calculate the 99% confidence interval of the poll result
 - C. Which interval (1A or 1B) is wider? Why?
 - D. In the elections the Lib Dems only got 23.6% of the vote. Does this mean the poll was wrong? Why?

2. You are working for an iNGO in Somaliland. Your organization wants to do a project on remittances. Before starting the project, it would like to know what the average monthly remittances are. You have commissioned a survey. The survey report informs you that the 150 households in the sample on average receive \$250 with a standard deviation of \$120
 - A. Calculate the 95% Confidence Interval of the monthly remittances of Somaliland households. What does this tell you?
 - B. You are informed there is a mistake in the report. The agency didn't survey 150 households, but 51 households. Calculate the 95% confidence interval again.
 - C. You are a bit surprised by the small sample size and follow up with the field supervisor. You find out that the survey agency was in a rush and decided to only survey households in the quarter of Hargeisa surrounding its office. What does this imply for the confidence interval you calculated?

3. The iNGO you work for wants to know if there is interest in a special savings scheme it wants to set up and asks you to survey the population. Given your bad experience with the previous survey, you decide to commission surveys from two different agencies. The survey agencies used samples of different sizes. The results are displayed in the table below. Which of the two samples was larger? How can you tell?

Agency	Proportion interested in the savings scheme	95% Confidence Interval
A	.54	.50 , .58
B	.54	.52, .56

4. Indicate for each of these statements whether they are true or false. Explain
 - A. If you draw several samples of the same size from a population they will all have the same mean and the same standard deviation
 - B. You can use the normal distribution and z-scores to calculate the confidence interval for an estimate of the population mean, even if the sample distribution is not normal

5. You would like to learn more about how Europeans see migration. You are most interested in the share of people who want a complete stop to immigration.
 - A. Using variable B36, make a new variable named "immstop" that is '1' for respondents who want no more immigration, and '0' for respondents who want to allow many, some or a few.
 - B. What proportion of respondents wants to stop immigration altogether?
 - C. Using the information from variable C28 (were you born in [country]) make a new variable called 'immigrant' where a score of '1' is assigned to people who are immigrants and a score of '0' is assigned to people who are native-born. Make sure the missing values (refusal, don't know, no answer) are dealt with appropriately.
 - D. Look up the proportion of respondents who want a full stop to immigration among natives and among immigrants separately (HINT you can use an 'if' statement to do this).
 - E. Look up the 95% confidence interval for both proportions (this is also in the output of the mean command)
 - F. With help of the confidence intervals, can you say anything about the difference in attitudes towards immigration among natives and immigrants?

Optional extra exercises

1. The presidential elections in Fantastistan are promising to be a tight race. There are two candidates, Mr A and Ms B. The country's biggest newspaper commissioned a random sample poll of 300 members of the electorate. This poll showed a lead for Ms B of 53%. The editor decides to run a page-1 article with as headline "Fantastistan set to have first female president". But is this a sensible decision based on the polling results?
 - A. Calculate the probability of drawing a sample with a 53% lead for Ms B if the vote is actually split evenly (50-50, or 50% voting for Ms B).
 - B. Calculate the 95% Confidence Interval and the 99% Confidence Interval of the proportion found in the sample. What headline would you run if you were the newspaper editor?