**PO3110: Research Methods for Political Science**

# HOMEWORK EXERCISES MT week 3 (due week 4)

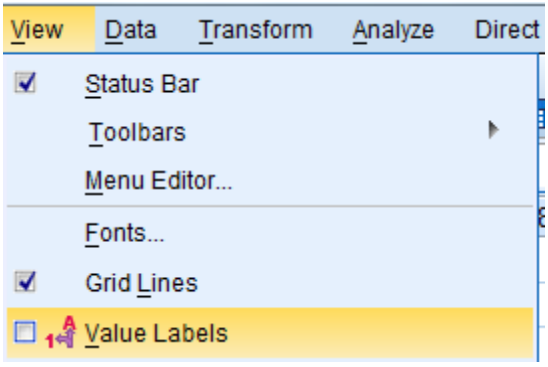
### Exercise 1 (44pts)

Make sure IBM SPSS Statistics is installed on your computer. You can obtain your own licence for free via IS Services. Download dataset 'Dataset HE MT03.sav' from Blackboard. This dataset contains a number of variables from the Irish National Election Study 2002-2007. Open this dataset in SPSS ('File .. Open').

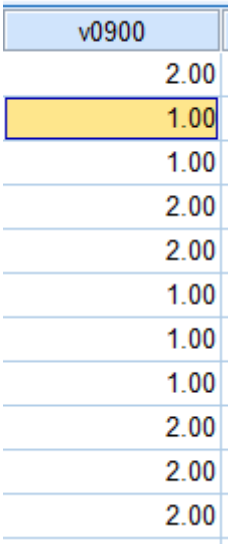
1. The main screen of SPSS has two tabs on the bottom: 'Data View' and 'Variable View'. What do these screens show? (3 pts)
2. In Data View, you'll see rows and columns. Each row represents the answer of one respondent in the survey. What do the columns represent? (3pts)
3. What does the value in the highlighted cell (in the picture below) represent? Explain in your own words. (3 pts)

| | id | ines | v0889 |
|---|---|---|---|
| 1 | 100101.00 | 2002.00 | . |
| 2 | 100103.00 | 2002.00 | . |
| 3 | 100104.00 | 2002.00 | . |
| 4 | 100105.00 | 2002.00 | . |
| 5 | 100106.00 | 2002.00 | . |
| 6 | 100107.00 | 2002.00 | . |
| 7 | 100108.00 | 2002.00 | . |
| 8 | 100109.00 | 2002.00 | . |
| 9 | 100110.00 | 2002.00 | . |

4. In the Data View, there are many cells with only a dot in them. Find out what this means, using Field (2013) or the SPSS help option. (3 pts)
5. In the Variable View, find the variable that states the gender of the respondent (use the option 'Edit … Find' if you need to). What is the variable **name** and what is the variable **label**? (3pts)
6. Look at menu option 'View … Value labels' and make sure that the check box is not selected:



The **values** on the **variable** v900 for each respondent can be found in the Data View (see picture below). What do 1.00 and 2.00 mean? Why doesn't SPSS simply show 'Male' or 'Female'? (3pts)



| v0900 |
|---|
| 2.00 |
| 1.00 |
| 1.00 |
| 2.00 |
| 2.00 |
| 1.00 |
| 1.00 |
| 1.00 |
| 2.00 |
| 2.00 |
| 2.00 |

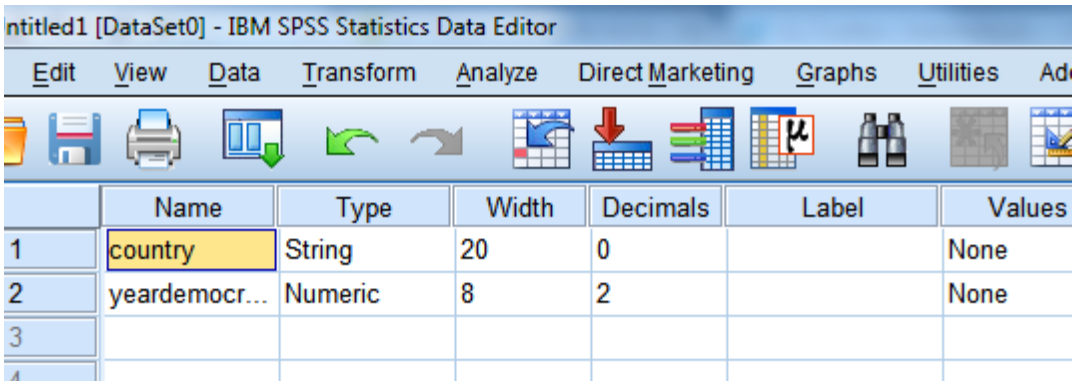
7. Now go to 'View … Value labels' and select the check box. How does the Data View change? (3pts)
8. Find the variable(s) for the age of the respondent. How is/are the variable(s) coded? (3pts)
9. The year of birth of the respondents is currently displayed with two decimals, which is unnecessary. Find out how you can change this. (3pts)
10. Find out how you can use the COMPUTE option (Menu: 'Transform … Compute variable') to calculate the difference in years between the year of the survey (2002) and the year of birth of each respondent. (9 pts)
11. Find out how you can use the COMPUTE option (Menu: 'Transform … Compute variable') to calculate the age of the respondent on the 1st of January 2002. *(Hint: browse the 'Function group' on the right-hand side of the 'Compute Variable' Dialog to find functions that will format values as dates, and functions that calculate the difference between two dates). (8pts)*

**Exercise 2 (18 pts)**

John wants to calculate the average age of democracy in the original 6 EC countries. He established that democracy has been present uninterrupted since the following years in these countries (start date = the introduction of universal suffrage):

Belgium, 1948
France, 1946
Germany, 1946
Italy, 1945
Luxembourg, 1919
Netherlands, 1919

1. Enter these data into a dataset in SPSS. Create two variables: **country** and **yeardemocratic**. Make sure to set country a string variable (go to the 'Variable view' tab at the bottom of the screen and click in the ' Type' column. Select ' String' in the Dialog that pops up and Click OK. Set the 'Width' of this variable to 20). The Variable View Tab should look somewhat like this:




| | Name | Type | Width | Decimals | Label | Values |
|---|---|---|---|---|---|---|
| 1 | country | String | 20 | 0 | | None |
| 2 | yeardemocr... | Numeric | 8 | 2 | | None |
| 3 | | | | | | |

2. Make a Frequency table of the values of yeardemocratic. (4pts)
3. Let SPSS calculate the mode, median, mean, and standard deviation for you. Check if these values are accurate by calculating these by hand as well. (7pts)
4. Let SPSS calculate the standard error of the mean for you. Check the results by hand. (7pts)

**Exercise 3 (10pts)**

The relationship between two variables (an independent and a dependent one) is displayed for five cases below. Think of a hypothesis that could link these variables. (2 pts each)

a. Amount of foreign development aid → Civil war
b. Number of preference votes → Becoming a minister after the election
c. Type of electoral system → Number of political parties
d. Democracy → Freedom of speech
e. Gender → Vote for Sinn Feín

**Exercise 4 (20pts)**

The Scottish referendum on independence gained a lot of media attention in September 2014. The Scottish nationalists were disappointed at the outcome and would want to know more about the reasons people voted yes or no in the referendum. They invite research proposals on the topic.

a. Propose an explanatory research question relating to socio-economic explanations of voting behavior in the Scottish referendum. Provide a short explanation. (6pt)
b. Identify the dependent and independent variable in your research question. (4pt)

c. State a hypothesis relating to your research question. Cite at least one academic publication that provides theoretical support for your hypothesis. Explain how this publication supports your hypothesis. (10pt)

**Exercise 5 (8 points)**

Ciara produces the following frequency table in SPSS, based on Norris' dataset of cross-national democracy indicators (2009):

**Six-fold classification of regimes Cheibub 2000**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Parliamentary democracy | 56 | 29.3 | 29.6 | 29.6 |
| | Mixed democracy | 21 | 11.0 | 11.1 | 40.7 |
| | Presidential democracy | 37 | 19.4 | 19.6 | 60.3 |
| | Civilian dictatorship | 38 | 19.9 | 20.1 | 80.4 |
| | Military dictatorship | 24 | 12.6 | 12.7 | 93.1 |
| | Monarchic dictatorship | 13 | 6.8 | 6.9 | 100.0 |
| | Total | 189 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 191 | 100.0 | | |

a. What is the measurement level of this variable? Provide a short explanation. (3pt)
b. Provide a measure of central tendency related to the measurement level. (2pt)
c. Explain the difference between the columns 'Percent', 'Valid Percent' and 'Cumulative Percent'. (3pt)