

## **Tutorial for SPSS for Windows**

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This document provides a tutorial for beginners to SPSS for Windows using the basic SPSS skills discussed in “Getting Started with SPSS for Windows.” This tutorial will use the data from the General Social Survey to explore an example of a research hypothesis.

### **Section 1: Organizing and Using Data in SPSS**

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## **Section 1: Organizing and Using Data in SPSS**

### **1. Data set**

This tutorial uses a limited data set from the General Social Survey (GSS). The data set and its codebook are available through the homepage of the Geostat Center under Interactive Data Resources. The GSS is one of thousands of quantitative studies accessible through the University of Virginia's membership in the Inter-university Consortium for Political and Social Research (ICPSR) at <http://fisher.lib.virginia.edu/icpsr> .

The GSS is a cross-national survey conducted by the National Opinion Research Center (NORC) since 1972. The cumulative data set includes over 35,000 respondents with approximately 2,500 questions used in their surveys. In addition to a substantial core of questions, it includes modules for more detailed study into areas such as social networks, sociopolitical participation, mental health, and gender.

### **2. Research Hypothesis**

For this tutorial, we will use a hypothesis regarding gender to explore the different tools of SPSS. Our hypothesis states that gender affects one's political party affiliation. Men are more likely to identify with the Republican Party and women are more likely to identify with the Democratic Party in the 1996.

### **3. Opening the Data in SPSS**

To start SPSS in the **Geostat Lab**, go to the **Statistics Utilities** folder and double click on the SPSS icon. You can also start SPSS by double-clicking on any SPSS file.

To open data file:

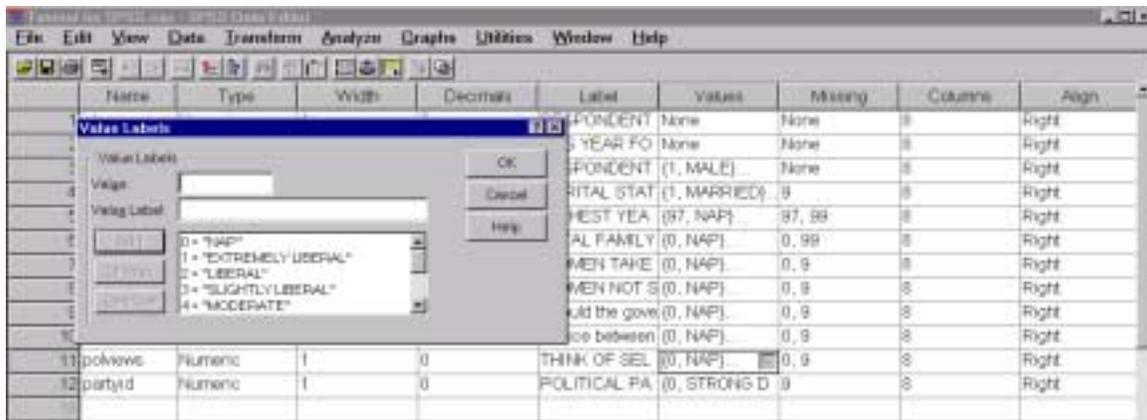
**File -> Open -> Data...**

The file name for this tutorial is found on J:\SPSS tutorial\Tutorial for SPSS.doc. This will bring your data into the Data Editor screen.

### **4. Learning More about Your Data**

It is always a good idea to begin by familiarizing yourself with your data set. As you can see, the data set for this tutorial contains only a limited GSS file, which includes 10 variables plus respondent identification numbers and the year of the study. For this section, we will use the variable for political ideology (POLVIEWS) for practice.

- At the bottom left-hand side of your screen, you will see *Data View* and *Variable View*. Switch from *Data View* with the spreadsheet of the data to *Variable View* by clicking *Variable View* using your mouse. You will see brief descriptions of the variables in the study.
- Or click **View -> Variables** using the top menu. SPSS will provide you with very brief descriptions of the variables.
- For more detailed information about each variable's values, click on the box under the column for *Values* that corresponds with the variable of interest. In our case, find the column *Values* and the row for POLVIEWS. Click on the box. This will highlight the box, which includes variable label {0,NAP}.
- Click the small gray box for the information. A screen labeled *Value Labels* will appear. For POLVIEWS, we find that 0="NAP," 1="Extremely Liberal," etc.



- You should also refer to the GSS codebook at <http://www.icpsr.umich.edu/GSS99/codebook.htm> or through the Geostat Center homepage for greater detail about the survey question and additional data available through the GSS.

**Practice:**

Using the information above, examine the coding for the variables: SEX, MARITAL, EDUC, INCOME91, POLVIEWS and PARTYID.

- What do 1 and 2 represent for the variable SEX?
- What categories does the GSS offer for their question about marital status (MARITAL)?
- How many categories does GSS offer for PARTYID?
- Which variables contain missing data in the form of "Don't Know," "NAP" or "Not Applicable," "NA" or "No Answer," "Refused," "Not Sure," or "Inappropriate"?

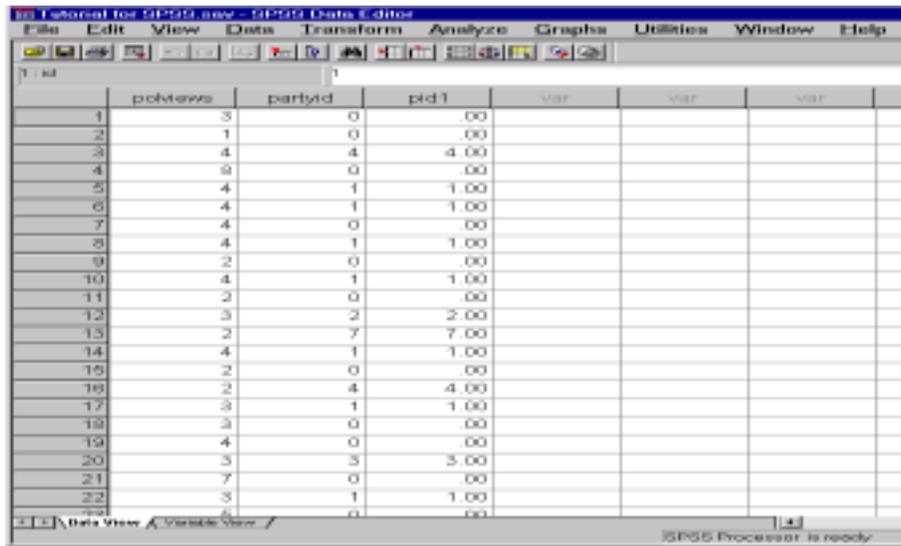
## 5. Creating New Variable From Old Variable

As you may have noticed for the PARTYID variable, party identification includes intensity of support for the respondent's party affiliation ("strong" or "not very strong"). Our hypothesis examines simple party identification. Therefore, we want to create a new variable called PID, which we will later recode to remove intensity of party affiliation while preserving our original variable PARTYID. The first step in the process is the creation of a new variable from the old variable.

Create new variable without conditional statement:

The new variable will contain exactly the same information as the old variable.

- Return to Data Editor screen in *Data View*.
- Using the top menu bar, click **Transform -> Compute**. This will take you to a screen labeled *Compute Variable*.
- In the box for *Target Variable*, type PID1 for the name of the new variable.
- Using the box below with the list of variables in the data set, highlight the variable for party identification then click on the run arrow (>). PARTYID will appear in the box for *Numeric Expression*.
- Click **OK** at the bottom of the *Compute Variable* screen.



The screenshot shows the SPSS Data Editor window with the following data:

	polviews	partyid	pid1	var1	var2	var3
1	3	0	.00			
2	1	0	.00			
3	4	4	4.00			
4	0	0	.00			
5	4	1	1.00			
6	4	1	1.00			
7	4	0	.00			
8	4	1	1.00			
9	2	0	.00			
10	4	1	1.00			
11	2	0	.00			
12	3	2	2.00			
13	2	7	7.00			
14	4	1	1.00			
15	2	0	.00			
16	2	4	4.00			
17	3	1	1.00			
18	3	0	.00			
19	4	0	.00			
20	3	3	3.00			
21	7	0	.00			
22	3	1	1.00			
23	3	0	.00			

Create a new variable with conditional statement:

The new variable will contain the same information as the old variable if it was specially selected using the conditional statements.

- Create a new variable named MWDS from MARITAL using steps b-d. Click on **If** instead of **OK**. This will bring up a screen for *Compute Variable: If Cases*. Make sure you delete the previous information from PID1.
- Click on **Include if Cases Satisfies Condition**.

- c. Highlight the variable for marital status then click on the run arrow. MARITAL will appear in the box. Using the symbols and numbers below, click <=5. This will create a new variable without the category for “9=Don’t Know.”
- d. Click **Continue**.

[**Option:** If you would like to save your recoding into syntax, click **Paste**. The syntax function allows you to save your work with coding and manipulating data as a reminder of your coding scheme and a time saver for later work on the data. To execute command in syntax, highlight commands that you wish to run. Then click the run command button on the top menu (>).]

- e. **OK** on the next screen.

**Practice:**

Create a new variable (INCOME) from the old variable (INCOME91) excluding all categories that might be considered missing values and skew our results.

[Hint: Use conditional statement in recreating new variable.]

**6. Recoding Same Variable**

Now that you have mastered the art of creating new variables, you need to recode them to address our research question about gender and party identification. For party identification, we will make the assumptions that independents who lean toward a political party are similar to weak party identifiers, and people who support other parties are independents.

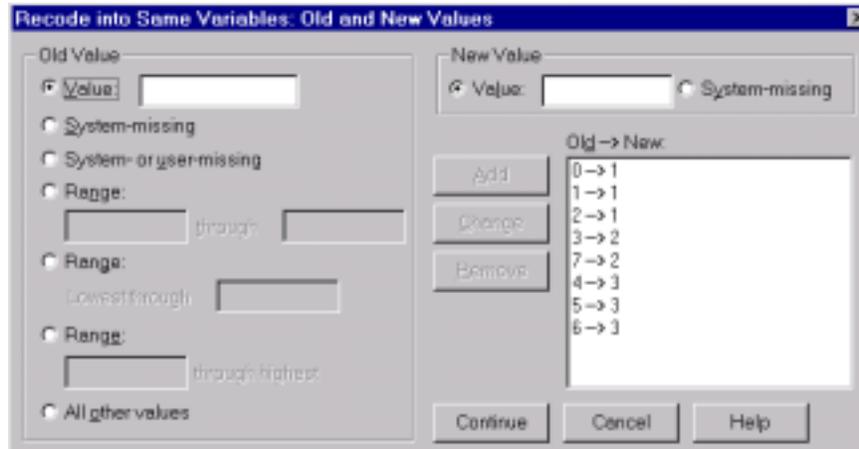
- a. Click **Transform -> Recode -> Into Same Variables...**
- b. Highlight the new party identification variable (PID1) then click on the run arrow. This will move PID1 into the box for *Numeric Variables*.
- c. Click **Old and New Values**. This will take you into the screen for *Recode into Same Variables: Old and New Values*.
- d. On the left side of the screen, the box is labeled *Old Value*. In the box labeled *Value*, type the number of the value you wish to change. In the box labeled *New Value*, type the new value you want to assign it. Click **Add** after each old value has been assigned a new value. The change will appear in the box *Old->New*.

Make the following changes:

- 0 -> 1
- 1 -> 1
- 2 -> 1
- 3 -> 2
- 7 -> 2
- 4 -> 3
- 5 -> 3

6 -> 3

- e. Once you have recoded the variable, click **Continue**. You will return to the previous screen. Then click **OK**.



### Practice:

Recode EDUC into fewer categories.

Recode the categories for “No formal schooling” (0) through “8<sup>th</sup> grade” (8) into 1.

Recode “9<sup>th</sup> grade” (9) through “11<sup>th</sup> grade” (11) into 2.

Recode “12<sup>th</sup> grade” (12) into 3.

Recode “1 year of college” (13) through “3 years” (15) into 4.

Recode “4 years” (16) into 5.

Recode “5 years” (17) through “8 years” (20) into 6.

[Hint: In screen for *Recode into Same Variables: Old and New Values*, highlight values in box for *Old -> New* then use the **Remove** to delete the values assigned for PID1.]

## 7. Recoding into Different Variable

There is one very useful shortcut to creating a new variable from an existing variable through recoding. We could simply omit the separate step of creating a variable. Let's use the example of party identification again to create PID2, which should be identical to PID1.

- Click **Transform -> Recode -> Into Different Variables...**
- Highlight the party identification variable (PARTYID) then click on the run arrow (>). This will move PARTYID into the box for *Input Variable -> Output Variable*.
- Under *Output Variable*, type PID2 in the box for name. For label, type Party Identification 2.
- Click **Change**.

- e. Click **Old and New Values**. This will take you into the screen for *Recode into Same Variables: Old and New Values*.
- f. On the left side of the screen, the box is labeled *Old Value*. In the box labeled *Value*, type the number of the value you wish to change. In the box labeled *New Value*, type the number of the value you want to be assigned for the response. Click **Add** after each old value has been assigned a new value.

Make the following changes:

0 -> 1  
1 -> 1  
2 -> 1  
3 -> 2  
7 -> 2  
4 -> 3  
5 -> 3  
6 -> 3

- g. Once you have recoded the variable, click **Continue**. You will return to the previous screen. Then click **OK**. PID1 and PID2 should have exactly the same values.

## 8. Missing Values

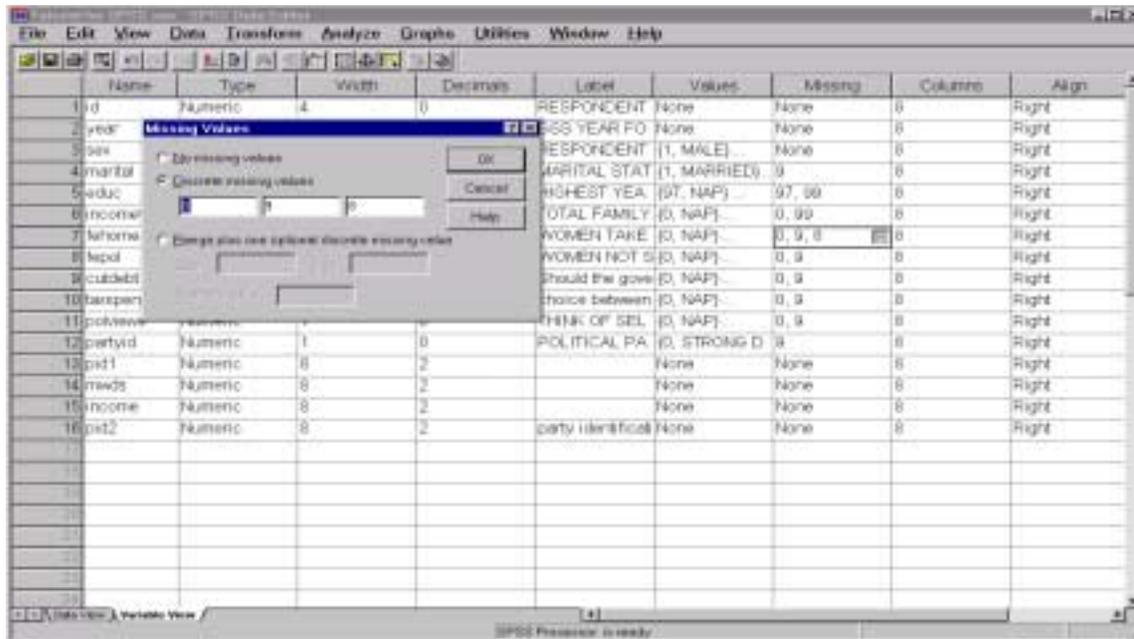
There remains another step for getting our data ready for analysis. As we saw in part 4 of the tutorial, some variables have missing data. To prevent these value labels from skewing our data analysis, it is necessary to purge the missing data. Let's use the variable for females staying home (FEHOME). This variable has five values assigned to responses:

0 = "NAP"  
1 = "Agree"  
2 = "Disagree"  
8 = "Not Sure"  
9 = "NA."

As you will see below, GSS has already coded 0 and 9 as missing values. However, the value for "Not Sure" (8) remains in your data. If we do not assign "Not Sure" as a missing value, our mean for FEHOME will be 2.05 with a standard deviation of 1.19. After assigning it as a missing value, the mean will be 1.84 with a standard deviation of .37. This represents a sizable difference, particularly for our standard deviations.

- a. At the bottom left-hand side of the page, click on **Variable View**.
- b. Find the column for *Missing*. Move down the column until you find the box for FEHOME. Click on the box.

- c. Click on the small gray box to the right in the box. This will bring up the *Missing Values* screen where you will see two numbers in the boxes for *Discrete missing values*. You will the numbers 0 and 9 already appear in the boxes for *Discrete missing values*.
- d. In the empty box, type 8 to add the value as a missing value.
- e. Click **OK** to save the change.



### Practice:

- a. Assign the same change in missing values to the variable FEPOL.
- b. Assign 98 as a missing value for EDUC.
- c. Assign 8 as a missing value for POLVIEWS.

## 9. Sorting Cases

Once we have manipulated your data for analysis, it is sometimes necessary to organize and sort it. Sorting cases allows us to organize our data in ascending or descending order on the basis of one or more variables. For our research, we want to sort SEX in ascending order with males (1) first.

- a. Return to the *Data View* screen for the Data Editor.
- b. Click **Data -> Sort Cases...**
- c. Highlight SEX then click on run arrow (>) to move variable into the box for *Sort by...* Below you will notice that it is already set for ascending order in the box for *Sort Order*.
- d. Click **OK**.

If you examine your data now, you will find that the ID order is no longer perfect ascending order. Rather the data is organized by SEX with all the 1's listed first.

**Practice:**

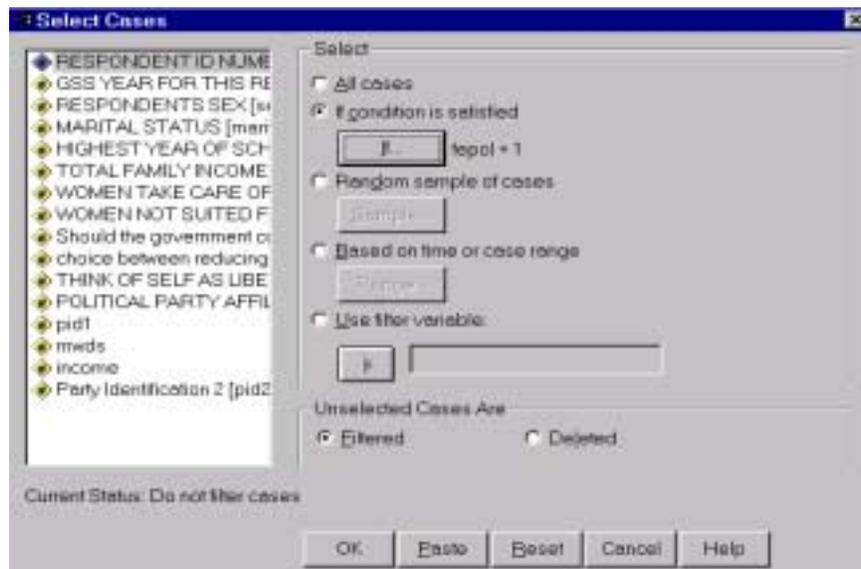
Change the sorting for SEX to descending order with the female (2) respondents appearing first.

[Hint: You will need to click **Reset** in the screen for *Sort Cases*.]

## 10. Selecting Cases

Selecting cases is a useful feature if we are interested in a specific subset of your data. In exploring our hypothesis about gender and party identification, we may want to more closely examine respondents who agreed with the statement, “Most men are better suited emotionally for politics than are most women.”

- Click **Data -> Select Cases**.
- In the box labeled *Select*, click **If condition is satisfied** then **If**. This will bring you to another screen for *Select Cases: If*.
- Highlight the variable FEPOL, then click on the run arrow (>) to move FEPOL into the empty box.
- Type or click =1 after FEPOL to indicate that you wish to select all respondents who agreed that women were not emotionally suited from politics compared to men.
- Click **Continue** to return to the previous screen.



- f. Notice that there are two options under *Unselected Cases Are – Filtered and Deleted*. Make sure that *Filtered* is marked. The delete function will remove all cases that do not satisfy your conditions. The filter function will mark all non-selected cases without deleting them.
- g. Click **OK**. Notice how the filtered cases are now marked.
- h. To restore data, click **Data -> Select Cases**. Click **All Cases** under *Select* then click **OK**.

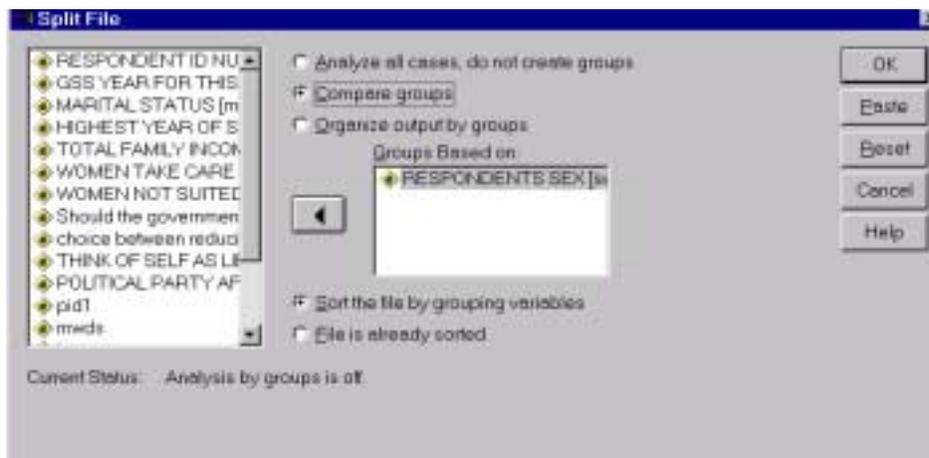
**Practice:**

Filter out (not delete) all respondents who disagreed (2) with the statement: “Women should take care of running their homes and leave running the country up to men” (FEHOME). Then restore filtered data.

### 11. Splitting Data Files

Using the commands for selecting cases, we were able to examine particular subsets. Splitting data files permits us to retain distinct subsets while examining each separately. In the case of our research design, we want to examine the genders separately for the same types of information.

- a. Click **Data ->Split File...**
- b. A screen will appear for *Split File*. The default setting for this screen is *Analyze all cases, do not create separate groups*. Either of the two options below – *Compare groups* and *Organize output by groups* – will split the data into groups. The difference between the functions is limited to presentation in data output.
- c. Click **Compare groups**.
- d. Highlight the variable SEX then click on the run arrow to move the variable into the box for *Groups Based on*.
- e. Click **OK**.



If we were to look at the descriptive information for income, the data output would split the data for men and women as shown below. The mean income for men is more than the mean income for women.

## Descriptives

RESPONDENTS SEX		N	Minimum	Maximum	Mean	Std. Deviation
MALE	INCOME	1154	1.00	21.00	15.8917	4.6327
	Valid N (listwise)	1154				
FEMALE	INCOME	1407	1.00	21.00	14.2516	5.2326
	Valid N (listwise)	1407				

Restore default:

- Click **Data -> Split File...**
- Click **Analyze all cases, do not create groups** then click **OK**.

## Section 2: Summary Statistics

### 1. Descriptives

Great job manipulating and organizing your data! Now we come to data analysis where all the previous work begins to pay off. The descriptive function will provide us with an overview of particular variables in our data set such as sample size, mean, and standard deviation.

- Click **Analyze -> Descriptive Statistics -> Descriptives...**
- Highlight the following variables: SEX, EDUC, FEHOME, FEPOL, PID1, and INCOME. This will move the variables into the box labeled *Variables*.
- Click **Options** to view all potential statistical information available through Descriptives. Notice that Mean, Std. Deviation, Minimum, and Maximum are all marked.



- d. Click **Continue** on the screen for *Descriptives Options*, then click **OK**.
- e. The descriptive analysis will appear on the *Output* screen.
- f. Minimize or click the *Data Editor* screen to return to your data.

## Descriptives

	N	Minimum	Maximum	Mean	Std. Deviation
RESPONDENTS SEX	2904	1	2	1.56	.50
HIGHEST YEAR OF SCHOOL COMPLETED	2895	1	6	3.71	1.34
WOMEN TAKE CARE OF HOME NOT COUNTRY	1884	1	2	1.84	.37
WOMEN NOT SUITED FOR POLITICS	1866	1	2	1.78	.41
PID1	2898	1.00	3.00	1.9075	.9051
INCOME	2561	1.00	21.00	14.9906	5.0369
Valid N (listwise)	1601				

### Practice:

In our descriptive analysis, we did not examine political ideologies (POLVIEWS). Analyze the descriptive information for POLVIEWS alone.

[Hint: Remove the previous variables for analysis from the box labeled *Variables* by highlighting the variables then click the run arrow (<) for this assignment.]

## 2. Frequencies

Whereas the descriptive data provides us with an excellent overview of particular variables, frequencies provide us with detailed information about each value assigned to particular variables. This function allows us to get a better idea about the distribution of the values for each variable. For example, your descriptive analysis provided us with a mean for political ideology (4.19). Frequencies will provide us with the percentage of respondents who describe themselves as extremely liberal or extremely conservative.

Without charts:

- a. Click **Analyze -> Descriptive Statistics -> Frequencies...**
- b. Once in the screen for *Frequencies*, highlight the variable POLVIEWS then click the run arrow.
- c. If we click **OK**, our frequencies will appear for this variable.

## Frequencies

### Statistics

THINK OF SELF AS LIBERAL OR CONSERVATIVE

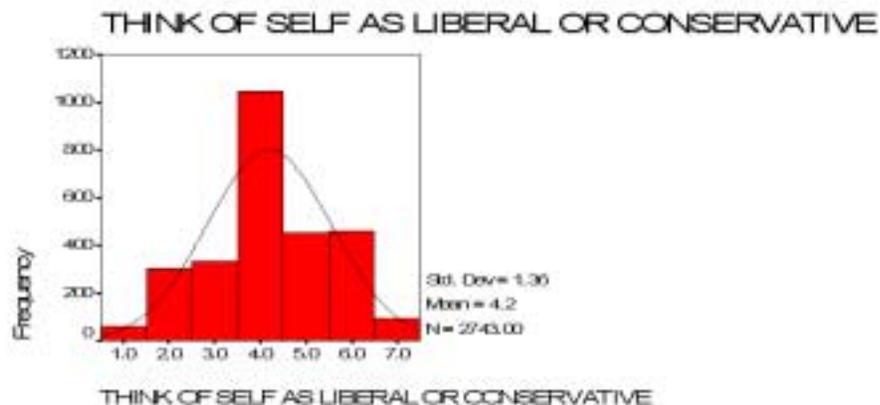
N	Valid	2743
	Missing	161

### THINK OF SELF AS LIBERAL OR CONSERVATIVE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	EXTREMELY LIBERAL	59	2.0	2.2	2.2
	LIBERAL	303	10.4	11.0	13.2
	SLIGHTLY LIBERAL	334	11.5	12.2	25.4
	MODERATE	1045	36.0	38.1	63.5
	SLIGHTLY CONSERVATIVE	451	15.5	16.4	79.9
	CONSERVATIVE	458	15.8	16.7	96.6
	EXTRMLY CONSERVATIVE	93	3.2	3.4	100.0
	Total	2743	94.5	100.0	
	Missing	DK	155	5.3	
NA		6	.2		
Total		161	5.5		
Total		2904	100.0		

With charts:

- Click **Analyze -> Descriptive Statistics -> Frequencies...**
- POLVIEWS already appears in the box for *Variables*.
- Click **Charts**, a button at the bottom of the screen for *Frequencies: Charts*.
- In the box for *Chart Type*, click **Histograms** then click on the box by **With normal curves**.
- Click **Continue** to return to the previous screen.
- Click **OK**. In addition to the frequency information seen above, your output will include a histogram with a normal curve for the data.



**Practice:**

Analyze the frequency for SEX. Include a pie chart.

**4. Crosstabulation**

Crosstabulation takes us to the next step in our analysis. It permits us to compare frequency information for the intersection between two variables. Thus, we can now compare the frequencies of men's party identification to women's party identification.

- a. Click **Analyze -> Descriptive Statistics -> Crosstabs...**
- b. A screen for *Crosstabs* will appear. Highlight the independent variable (SEX) then click on the run arrow for *Row(s)*. Highlight the dependent variable (PID1) then click on the run arrow for *Column(s)*.
- c. Click **Cells...** at the bottom center of the screen. This will take you to the screen *Crosstabs: Cell Display*.
- d. Under *Percentages*, click on **Row** then click **Continue** to return to the previous screen.
- e. Click **OK**.

**Crosstabs**

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
RESPONDENTS SEX * PID1	2898	99.8%	6	.2%	2904	100.0%

RESPONDENTS SEX \* PID1 Crosstabulation

			PID1			Total
			1.00	2.00	3.00	
RESPONDENTS SEX	MALE	Count	511	222	550	1283
		% within RESPONDENTS SEX	39.8%	17.3%	42.9%	100.0%
	FEMALE	Count	822	278	515	1615
		% within RESPONDENTS SEX	50.9%	17.2%	31.9%	100.0%
Total		Count	1333	500	1065	2898
		% within RESPONDENTS SEX	46.0%	17.3%	36.7%	100.0%

Our hypothesis stated that gender affects one's political party affiliation. Men are more likely to identify with the Republican Party and women are more likely to identify with the Democratic Party in the 1996. Our crosstabulation results suggest that our hypothesis may be correct. We find that the percent of women identifying with the Democratic Party (50.9 %) is over ten percentage points higher than the percentage of men (39.8%) who identified with the Democratic Party. For Republican Party identification, we find that men identify with the party (42.9%) more than women (31.0%). Men and women identify with independent parties to virtually the same degree.

Congratulations! You have completed the tutorial.

## Tutorial for SPSS for Windows - Answers

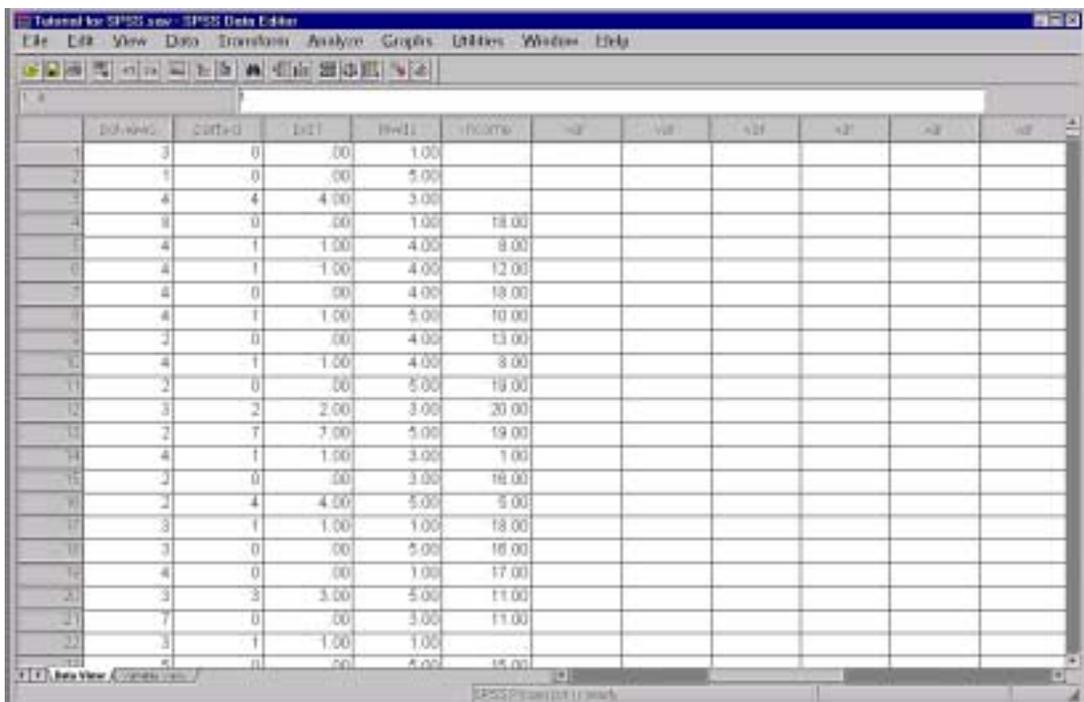
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### Section 1: Organizing and Using Data in SPSS

#### 4. Learning More about Your Data

- a. 1=Male and 2=Female
- b. 6 categories: 1=Married, 2=Widowed, 3=Divorced, 4=Separated, 5=Never married, and 9=No answer
- c. 10 categories: 0=Strong Democrat, 1=Not very strong Democrat, 2=Independent close to Democrat, 3=Independent (Neither, No response), 4=Independent close to Republican, 5=Not very strong Republican, 6=Strong Republican, 7=Other party refused to say, 8=Don't know, 9=No answer
- d. All of the variables except ID, YEAR, and SEX.

5.



ID	SEX	MAR	DIV	INCOME	POL
1	3	0	.00	1.00	
2	1	0	.00	5.00	
3	4	4	4.00	3.00	
4	9	0	.00	1.00	18.00
5	4	1	1.00	4.00	8.00
6	4	1	1.00	4.00	12.00
7	4	0	.00	4.00	18.00
8	4	1	1.00	5.00	10.00
9	2	0	.00	4.00	13.00
10	4	1	1.00	4.00	8.00
11	2	0	.00	5.00	19.00
12	3	2	2.00	3.00	20.00
13	2	7	7.00	5.00	19.00
14	4	1	1.00	3.00	1.00
15	2	0	.00	3.00	18.00
16	2	4	4.00	5.00	5.00
17	3	1	1.00	1.00	18.00
18	3	0	.00	5.00	18.00
19	4	0	.00	1.00	17.00
20	3	3	3.00	5.00	11.00
21	7	0	.00	3.00	11.00
22	3	1	1.00	1.00	
23	8	0	.00	5.00	15.00

The dot (.) in place of the data indicates missing values.

6. Your data should now look like this:

	id	year	sex	marital	educ	income91	lshome	fepol	cutdebt	taxspend	polnews
1	1	1996	1	1	3	22	0	0	0	0	3
2	2	1996	1	5	8	22	2	2	8	8	1
3	3	1996	1	5	8	22	2	2	0	0	4
4	4	1996	2	1	1	18	2	2	1	2	8
5	5	1996	2	4	1	8	2	2	1	8	4
6	6	1996	2	4	6	12	2	2	8	8	4
7	7	1996	1	4	3	18	0	0	1	2	4
8	8	1996	2	5	4	10	1	2	0	0	4
9	9	1996	2	4	4	13	2	2	0	0	2
10	10	1996	2	4	4	8	0	0	0	0	4
11	11	1996	2	5	6	18	0	0	0	0	2
12	12	1996	2	3	5	20	1	2	1	2	3
13	13	1996	2	5	5	19	0	0	0	0	2
14	14	1996	1	3	4	1	2	2	1	2	4
15	15	1996	2	3	5	16	2	2	0	0	2
16	16	1996	1	5	5	5	2	2	0	0	2
17	17	1996	1	1	4	18	0	0	1	2	3
18	18	1996	1	5	6	16	2	2	0	0	3
19	19	1996	1	1	4	17	2	2	0	0	4
20	20	1996	2	5	3	11	2	2	1	1	3
21	21	1996	1	3	3	11	1	1	1	2	7
22	22	1996	2	1	1	88	2	2	0	0	3
23	23	1996	1	5	4	14	1	1	0	0	2

8. The box for missing values should now read 0,9,8.

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align
1	id	Numeric	4	0	RESPONDENT	None	None	8	Right
2	year	Numeric	4	0	GSS YEAR FD	None	None	8	Right
3	sex	Numeric	1	0	RESPONDENT (1, MALE)	None	None	8	Right
4	marital	Numeric	1	0	MARITAL STAT (1, MARRIED)	8	8	8	Right
5	educ	Numeric	2	0	HIGHEST YEA (97, NAP)	97, 98, 99	0	8	Right
6	income91	Numeric	2	0	TOTAL FAMILY (0, NAP)	0, 99	0	8	Right
7	lshome	Numeric	1	0	WOMEN TAKE (0, NAP)	0, 9, 8	8	8	Right
8	fepol	Numeric	1	0	WOMEN NOT S (0, NAP)	0, 9, 8	8	8	Right
9	cutdebt	Numeric	1	0	Should the govt (0, NAP)	0, 9	8	8	Right
10	taxspend	Numeric	1	0	choice between (0, NAP)	0, 9	8	8	Right
11	polnews	Numeric	1	0	THINK OF SEL (0, NAP)	0, 9, 8	8	8	Right
12	partyid	Numeric	1	0	POLITICAL PA (0, STRONG D	8	8	8	Right
13	pid1	Numeric	8	2		None	None	8	Right
14	mvdb	Numeric	8	2		None	None	8	Right
15	income	Numeric	8	2		None	None	8	Right
16	pid2	Numeric	8	2	Party Identical	None	None	8	Right

9. All the female respondents should now appear first.

	id	year	sex	marital	educ	income91	fehome
1	4	1996	2	1	1	18	2
2	5	1996	2	4	1	8	2
3	6	1996	2	4	6	12	2
4	8	1996	2	5	4	10	1
5	9	1996	2	4	4	13	2
6	10	1996	2	4	4	8	0
7	11	1996	2	5	6	19	0
8	12	1996	2	3	5	20	1
9	13	1996	2	5	5	19	0
10	15	1996	2	3	5	16	2
11	20	1996	2	5	3	11	2
12	22	1996	2	1	1	98	2
13	24	1996	2	1	3	17	2
14	25	1996	2	5	2	10	2
15	26	1996	2	5	5	16	0
16	27	1996	2	1	6	21	2
17	29	1996	2	5	5	13	2
18	30	1996	2	5	5	19	0
19	31	1996	2	1	6	22	2
20	34	1996	2	5	5	20	2
21	36	1996	2	3	4	11	6
22	38	1996	2	4	6	22	2
23	39	1996	1	1	2	7	0

10. Your data should now have slash marks on the far left-hand side indicating filter cases.

	id	year	sex	marital	educ	income91	fehome	total	cutdelt	taxspend	pothow	
1	4	1996	2	1	1	18	2	2	1	2	0	
2	5	1996	2	4	1	8	2	2	1	0	4	
3	6	1996	2	4	6	12	2	2	8	8	4	
4	8	1996	2	5	4	10	1	2	0	0	4	
5	9	1996	2	4	4	13	2	2	0	0	2	
6	10	1996	2	4	4	8	0	0	0	0	4	
7	11	1996	2	5	6	19	0	0	0	0	2	
8	12	1996	2	3	5	20	1	2	1	2	3	
9	13	1996	2	5	5	19	0	0	0	0	2	
10	15	1996	2	3	5	16	2	2	0	0	2	
11	20	1996	2	5	3	11	2	2	1	1	3	
12	22	1996	2	1	1	98	2	2	0	0	3	
13	24	1996	2	1	3	17	2	2	0	0	6	
14	25	1996	2	5	2	10	2	2	8	2	1	2
15	26	1996	2	5	5	16	0	0	2	1	3	
16	27	1996	2	1	6	21	2	2	1	8	3	
17	29	1996	2	5	5	13	2	2	0	0	4	
18	30	1996	2	5	5	19	0	0	0	0	5	
19	31	1996	2	1	6	22	2	2	0	0	2	
20	34	1996	2	5	5	20	2	2	0	0	2	
21	36	1996	2	3	4	11	8	2	0	0	4	
22	38	1996	2	4	6	22	2	2	0	0	2	
23	39	1996	1	1	2	7	0	0	0	0	0	

## Section 2: Summary Statistics

1. This table should appear in your output file.

### Descriptives

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
THINK OF SELF AS LIBERAL OR CONSERVATIVE	2743	1	7	4.19	1.36
Valid N (listwise)	2743				

2. Frequencies for SEX with pie chart.

### Frequencies

**Statistics**

RESPONDENTS SEX

N	Valid	Missing
2904	2904	0

RESPONDENTS SEX

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid MALE	1285	44.2	44.2	44.2
FEMALE	1619	55.8	55.8	100.0
Total	2904	100.0	100.0	

