

Part II

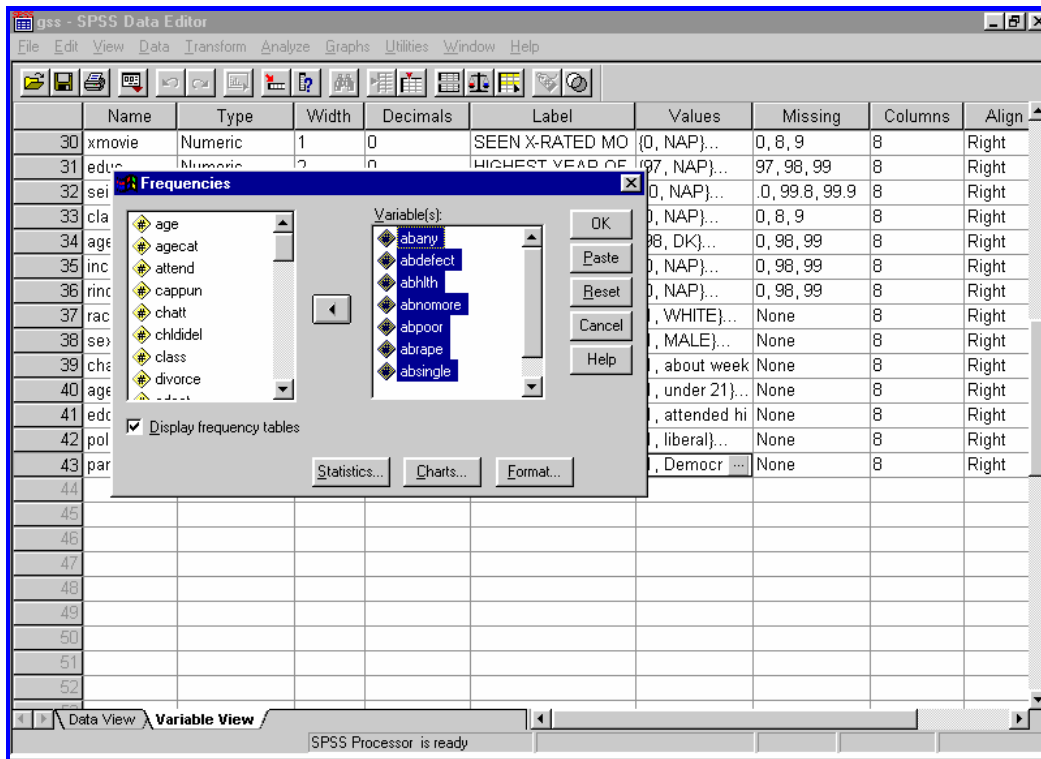
UNIVARIATE ANALYSIS

Supplemental Reading Material

When doing analysis in criminal justice research, it is crucial to examine very closely the variables that are of central importance in the research, such as the major independent and dependent variables. The researcher needs to become very well acquainted with how his or her respondents answered each of the major questions in the study. In this chapter, we will use univariate analysis to understand key variables, once again using as an illustration attitudes about abortion, one of the most controversial topics in our political, legal, and criminal justice systems.

When we examined the topic of abortion in Chapter 2, we discussed the different degrees of approval represented by the several questions and made some educated guesses as to which ones would receive the most and least support. Now that we have gained some proficiency in the use of SPSS to analyze data, let's check on how well we did in our predictions.

Because we want to see the frequency distribution for several variables at once, we can make one request for all of them. Click on the "Analyze" menu, then scroll down to "Descriptive statistics" and over to "Frequencies." Once in the Frequencies window, you can transfer all the abortion items into the "Variable(s)" field before clicking "OK." In fact, by holding down the "Shift" key when you click the name of variables, you can select more than one at once, then click the arrow to transfer them. Experiment with this. Ultimately you want to transfer all six abortion items to the "Variable(s)" field as shown here.



Click "OK" to launch the analysis, and you should get the results in your output window. You may have to expand the size of the window (using the up arrow) and then scroll up and down through the output to find a specific item. Let's do that now to check on the different levels of support for abortion under different circumstances.

Ila.1 Items with the Highest Level of Support

You should now be able to give SPSS the command that will result in the frequency distributions for the various abortion items. Once you've done that, you should get the following tables.

Output1 [Document1] - SPSS Viewer

File Edit View Data Transform Insert Format Analyze Graphs Utilities Add-ons Window Help

	NO	179	14.9	51.7	100.0
	Total	346	28.8	100.0	
Missing	DK	17	1.4		
	NA	6	.5		
	System	831	69.3		
	Total	854	71.2		
Total		1200	100.0		

STRONG CHANCE OF SERIOUS DEFECT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	270	22.5	78.0	78.0
	NO	76	6.3	22.0	100.0
	Total	346	28.8	100.0	
Missing	DK	19	1.6		
	NA	4	.3		
	System	831	69.3		
	Total	854	71.2		
Total		1200	100.0		

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	Total	1200	100.0		
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WOMANS HEALTH SERIOUSLY ENDANGERED

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	312	26.0	89.4	89.4
	NO	37	3.1	10.6	100.0
	Total	349	29.1	100.0	
Missing	DK	14	1.2		
	NA	6	.5		
	System	831	69.3		
	Total	851	70.9		
Total		1200	100.0		

The screenshot displays two frequency tables from an SPSS analysis. The top table is a summary of data with the following values:

NA	7	.6		
System	831	69.3		
Total	850	70.8		
Total	1200	100.0		

The bottom table is titled "PREGNANT AS RESULT OF RAPE" and provides a detailed breakdown of responses:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid YES	280	23.3	80.0	80.0
Valid NO	70	5.8	20.0	100.0
Valid Total	350	29.2	100.0	
Missing DK	11	.9		
Missing NA	8	.7		
Missing System	831	69.3		
Missing Total	850	70.8		
Total	1200	100.0		

Although we don't have any basis for comparison yet, it would seem at first glance that very high percentages of the general public support a woman's right to an abortion in cases of the danger of birth defects (81 %), threats to the woman's health (90%), and rape (82%). Now let's see how these compare with other reasons.

Ila.2 Items with Less Support

Now let's look at the three items we identified as probably enjoying less support. Here's what you should get in return.

The screenshot shows the SPSS Viewer interface with three frequency tables. The first table is for 'MARRIED--WANTS NO MORE CHILDREN', the second for 'LOW INCOME--CANT AFFORD MORE CHILDREN', and the third for 'PREGNANT AS RESULT OF RAPE'. Each table displays counts and percentages for valid and missing responses.

		Frequency	Percent	Valid Percent	Cumulative Percent
Total		1200	100.0		
MARRIED--WANTS NO MORE CHILDREN					
Valid	YES	178	14.8	51.0	51.0
	NO	171	14.3	49.0	100.0
	Total	349	29.1	100.0	
Missing	DK	18	1.5		
	NA	2	.2		
	System	831	69.3		
	Total	851	70.9		
Total		1200	100.0		
LOW INCOME--CANT AFFORD MORE CHILDREN					
Valid	YES	179	14.9	51.1	51.1
	NO	171	14.3	48.9	100.0
	Total	350	29.2	100.0	
Missing	DK	12	1.0		
	NA	7	.6		
	System	831	69.3		
	Total	850	70.8		
Total		1200	100.0		
PREGNANT AS RESULT OF RAPE					

The screenshot shows the SPSS Output2 - SPSS Viewer window. The left pane displays a tree view of the output, including 'Output', 'Frequencies', 'Title', 'Notes', 'Statistics', 'Frequency Tab', 'Title', 'ABORTION', 'STRONG C', 'WOMANS H', 'MARRIED--', 'LOW INCOM', 'PREGNANT', and 'NOT MARR'. The main window displays two frequency tables.

Table 1: Summary Statistics

System	516	34.4		
Total	550	36.7		
Total	1500	100.0		

Table 2: MARRIED--WANTS NO MORE CHILDREN

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid YES	408	27.2	43.6	43.6
Valid NO	528	35.2	56.4	100.0
Total	936	62.4	100.0	
Missing DK	44	2.9		
Missing NA	4	.3		
System	516	34.4		
Total	564	37.6		
Total	1500	100.0		

Table 3: LOW INCOME--CANT AFFORD MORE CHILDREN

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid YES	420	28.0	45.4	45.4
Valid NO	520	34.7	56.4	100.0
Total	940	62.7	100.0	
Missing DK	40	2.7		
Missing NA	4	.3		
System	516	34.4		
Total	564	37.6		
Total	1500	100.0		

The assumption that these reasons would garner less support proves accurate. It is also interesting that virtually the same proportions of respondents-42% to 45% - support this second set of reasons.

Ila.3 Support for Unrestricted Choice of Abortion

Finally, let's see what proportion of the population would support a woman's having unrestricted freedom to choose an abortion for any reason.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid YES	167	13.9	48.3	48.3
Valid NO	179	14.9	51.7	100.0
Valid Total	346	28.8	100.0	
Missing DK	17	1.4		
Missing NA	6	.5		
Missing System	831	69.3		
Missing Total	854	71.2		
Total	1200	100.0		

Notice that about the same proportion (43%) supports a woman's unrestricted freedom to choose abortion as supported the specific situations described in ABNOMORE, ABPOOR, and ABSINGLE.

Ila.4 Support for Abortion in Overview

Let's construct a table that summarizes those we've just examined. It is often useful to bring related tables such as these together in an abbreviated format by creating a new table using paper and pencil. In the lefthand column of numbers are the percentage of respondents who support abortion given certain circumstances, and in the next column are the number of valid cases used in computing that percentage. Notice that the valid cases are roughly identical across the items. We will place the abortion items in order from highest to lowest level of agreement.

Percentage of respondents who support a woman's right to choose abortion under various circumstances:

<i>Circumstance</i>	<i>%</i>
The woman's health would be seriously endangered	90
The pregnancy resulted from rape	82
There is a strong chance of a serious defect	81
The family is too poor to afford more children	46
The family wants no more children	44
The woman wants it, for any reason	43
The woman is unmarried	42

The tables we've just examined suggest that attitudes toward abortion fall into three basic groups. There is a small minority of no more than 10% who are opposed to abortion under any abortion circumstances. We conclude this because 90% would support abortion if the woman's life were seriously endangered. Another group, just under half the population, would support a woman's free choice of abortion for any reason. The remainder of the population would support abortion in only a few circumstances involving medical danger and/or rape,

In a later chapter, we will return to these three groups and see how we might identify them through recoding our data.

Ila.5 Summary

In this initial analysis of abortion attitudes, we have had an opportunity to explore the structure of attitudes on this controversial topic. Like many topics in contemporary legal and criminal justice debates, abortion is complex. Although abortion is generally discussed as an all or nothing proposition, we've seen that relatively few Americans reject completely. A sizable minority appear to have reservations about abortion but are willing to make exceptions in certain circumstances.

We explore this structuring of attitudes further in Chapter 9, where you will learn how to create a new variable in the data set, one that captures the variations of attitudes about abortion.

Part II Supplemental Material B

Exploring Crime and Deviance: Suggestions for Further Univariate Analyses

In the preceding chapters, we've given you a number of research possibilities to begin exploring, focused on the topics of abortion, serious crime, the criminal justice system, and binge drinking. In the event that you've exhausted those possibilities and want to look beyond them, here are some additional possibilities for you to consider.

We want to invite you to begin exploring crime and deviance using the various data sets on your disk. You'll find a fascinating set of variables from several data sets. You'll want to generate both univariate statistics (like the mean, median, and mode) and frequency distributions. You'll also want to use the great graphics capabilities of SPSS to generate powerful summaries of these data.

Eventually, you will probably want to gather your own data, either by creating your own questionnaire or by adding data from published criminal justice sources. Either way, you'll find that SPSS allows you to explore the entire world of criminal justice.

IIb.1 Attitudes About Sexual Behavior

As with most other things, Americans differ in their feelings about sexual behavior. We thought you might be interested in this area of public opinion, so we've included two GSS variables in the "GSS.SAV" file dealing with different kinds of sexual behavior.

HOMOSEX asks about homosexual relations, and PREMARSX focuses on premarital sex. Notice that these measure respondents' attitudes toward the behavior of others. Either might be taken as an indication of overall orientation, but it is important always to remember exactly what each variable represents.

We realize that you may very well have strong opinions about each of these issues. Your job as a social science researcher, however, is to find out what Americans as a whole think and do.

Which do you think people tolerate more, premarital sex or homosexuality? Give these matters some thought, and then check them out.

It's not too early to begin asking yourself what would cause people to be more tolerant or less so in such matters. When we turn to bivariate analysis in Part III, you'll have a chance to test some of your expectations in that regard.

Here's an idea that could take you deeper into this general topic. See if you can use the Transform -* Count command to create a composite measure of sexual permissiveness, combining the two items.

IIb.2 Prejudice

Prejudice is a topic that has concerned social scientists for a long time, and the persistence of the problem keeps it a topic of interest and research. The "GSS.SAV" file on the disk includes three items from the GSS that deal with three aspects of antiblack prejudice, one political and the others more social.

RACPRES asks respondents if they would vote for an AfricanAmerican candidate for president. RACDIF4 asks respondents if they believe a lack of motivation explains why African-Americans remain in poverty. RACSEG asks whether whites should have the right to live in segregated neighborhoods, one of the issues of the civil rights movement that has resulted in legislation. You may want to look back at Chapter 4 for the exact wording of the questions. Remember, it's always important to know exactly how survey questions were asked in order to understand what the responses really mean.

As you would no doubt guess, general support for racial segregation has been decreasing in the United States over the years, and support for African-American political candidates has increased. How many people believe more African-Americans live in poverty? Before you look at these variables, however, take a minute to think about the three items and take a guess at the level of public support for each. Then see how well you've been able to anticipate American racial opinions.

If this variable really interests you, you might consider the possibility of creating a composite measure of prejudice from these three items. Once you start with the Transform - Compute command, you should be able to construct the IF statements and other commands that will result in a measure wherein a score of 3 means a person was prejudiced on all three items, 2 means a person was prejudiced on both items, 1 means prejudiced on only one item, and 0 means unprejudiced on both.

IIb.3 Drug Use on Campus

So far we've suggested that you explore the data about college student binge drinking. But alcohol is not the only drug in use on campus today. How many students use marijuana? How many use tobacco? Is it true that a large minority of college students use these two drugs, one illegal and the other legal? How many students are regular users of alcohol or tobacco or marijuana alone? How many students use any two of these drugs? What proportion of today's students use all three?

To answer these questions, open "BINGE.SAV" and begin to explore each of the relevant variables individually. Next, create an index of drug use that combines the information you have about the various kinds of legal and illegal drugs on campus. Would your results look different if you specify that alcohol is illegal to those under 21; marijuana is illegal to everyone regardless of age; and tobacco is legal to virtually all college students?

Where might these explorations lead? Some people think that marijuana should be legalized. Others think that tobacco should be treated as an extremely harmful drug, perhaps restricting its use to those over 21. Others think that making one of these drugs illegal pushes people to use the others, with use of one substituting for the others.

What do you think? In your exploration of these questions, you already have powerful SPSS tools, and you'll soon add a few even more powerful ones to your arsenal.

IIb.4 Date Rape and Sexual Assault on Campus

Date rape and sexual assault are among the most difficult issues to deal with on today's campuses. How many students experience this form of crime victimization? The "BINGE.SAV" data set has a number of questions that will help you explore this issue. Use univariate analysis and bar charts to help understand the amount of alcohol-related date rape and sexual assault as well as the prevalence of unwanted sexual advances. Next, begin to explore patterns of alcohol and drug use on campus. How many students use drugs and alcohol? How important to students are the kinds of social situations that have been associated with date rape and sexual assault? How many students say parties are very important to them? What proportion of students are members of fraternities and sororities?

Let's anticipate the kinds of variables you will begin to connect together **in** later explorations of these issues. Do the very things many women value about college life—involvement in Greek life, athletics, parties—put them at higher risk of unwanted sexual advances or even of date rape and sexual assault? Do students who use or abuse drugs and alcohol run even greater risks? These are urgent questions that you can begin to explore with SPSS and this national data set.

IIb.5 Crime and Justice Across the States

How different are the American states **in** the amount of crime known to the police? The "JUSTICE.SAV" data set can help you answer that question. You could examine (using both statistics and graphics) how the 50 states vary in the treatment of serious crimes. Do the states vary as much in terms of forcible rape as they do **in** terms of robbery? What about manslaughter? Do the other serious crimes vary as well

Some of the states have huge populations-California, Texas, and New York are as big as medium-sized independent nations, while others like Rhode Island are closer to being medium-sized metropolitan areas. Taking population size into account by calculating rates of crime is an important criminological task. Use your new SPSS skills to assess how much difference there really is across the huge expanse that is the United States. And think ahead to what might explain the variation you find when you compare the states.

Some states have many prisoners awaiting execution on death row but many states don't even allow execution. How could you explore whether the death penalty is associated with violent crime, shedding some light on one of the burning issues in the American criminal justice system?

IIb.6 Summary

Several other variables appear in the data sets on your disk. As you no doubt recall, you can get an overview of the whole thing by the command Utilities -> Variables. Once you see the list of variables on the left side of the window, you can click on any of the variable names to get short descriptions and the codes used for categorical responses.

By the time you finish this chapter, you should be feeling fairly comfortable with SPSS and with the several data sets available on your disk. Now you can add more strength to the facility you are developing. In Part III, you are going to try your hand at bivariate analysis, which lets you start to search for the reasons people are the way they are.