##### *Public Opinion on Social Issues -- 1975-2017*

##### Edward Nelson

##### California State University, Fresno

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##### Preface

##### The purpose of this module is to introduce students to bivariate and multivariate data analysis using survey data. It uses two data sets that can be downloaded from the Social Science Research and Instructional Center’s [website](http://www.ssric.org/). Both use data from the General Social Survey. Analysis can be carried out using either SPSS or PSPP.

##### The module uses crosstabulation and a few statistics – percentages, Chi-Square, and measures of association. The chapters do not go into the computation of these statistics nor do they discuss the assumptions underlying them.

##### There are tutorials on both SPSS and PSPP available on the website. There are also a series of statistical exercises for both SPSS and PSPP on the website that discuss these statistics in considerably more detail.

##### You are free to use these materials for non-commercial use and to revise them as you think appropriate. More information is available in Appendix B – Notes on the Data Sets.

##### If you have any questions, please contact me. If you find errors, I would appreciate hearing from you. I’m also interested in hearing about how you use these materials.

##### Ed NelsonProfessor EmeritusDepartment of SociologyCalifornia State University, Fresnoednelson@csufresno.edu

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##### *Public Opinion on Social Issues -- 1975-2017*Edward Nelson, California State University, Fresno

## Chapter 1Introduction to the Social Issues Module

The goal of this module is to introduce students to the analysis of quantitative data on social issues. We’ll be using data from the General Social Survey (GSS) throughout the module. Two subsets of the GSS will be used. One of the data sets is a subset of the 2018 GSS and the other data set uses subsets from various years of the GSS. The data sets will be described in later chapters and are available on the Social Science Research and Instructional Council’s (SSRIC) [website](http://www.ssric.org/trd/modules/siss11).

Here’s a brief summary of the types of social issues covered in the data sets.

* Abortion
* Should aged live with their children
* Willingness to allow different groups to make public speeches in their community, have their books in public libraries, and teach in public colleges
* Confidence in various social institutions
* Courts and how they deal with criminals
* Role of government in reducing income differences
* Fear of being a victim of crime
* Roles of women
* Financial situation
* Religion
* Willingness to spend money for such things as controlling crime, national defense, and the environment
* Prayer in the public schools
* Suicide

In addition, information is also provided on individual background characteristics including age, class, education, occupational prestige, marital status, income, race, and sex.

This module uses IBM SPSS which is a statistical package that is available on many college and university campuses. If you don’t have access to SPSS, there is a free alternative available called PSPP that will process SPSS data files. There are tutorials available on the SSRIC’s website for both [SPSS](http://ssric.org/node/696) and [PSPP](http://ssric.org/node/699).

The only statistics that are used are percentages, Chi-Square, and measures of association – Cramer’s V, Gamma, Tau-c, Somer’s D. There are a series of statistical exercises that cover these statistics available on the SSRIC’s website for both [SPSS](http://ssric.org/node/492) and [PSPP](http://ssric.org/node/559). Recoding is used in some of the exercises and is described in these tutorials.

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## Chapter 2Survey Research Design and Quantitative Methods of Analysis for Cross-Sectional Data (Bivariate Analysis)

Almost everyone has experience with surveys. Market surveys ask respondents whether they recognize products and their feelings about them. Political polls ask questions about candidates for political office or opinions related to political and social issues. Needs assessments use surveys that identify the needs of groups. Evaluations often use surveys to assess the extent to which programs achieve their goals.

Survey research is a method of collecting information by asking questions. Sometimes interviews are done face-to-face with people at home, in school, or at work. Other times questions are sent in the mail for people to answer and mail back. Surveys are often conducted by telephone and over the internet.

**SAMPLE SURVEYS**

Although we want to have information on all people, it is usually too expensive and time consuming to question everyone. So, we select some of these individuals and question them. It is important to select these individuals in ways that make it likely that they represent the larger group.

The **population** is all the objects in which we are interested. Often populations consist of individuals. For example, a population might consist of all adults living in California. But it may also be geographical areas such as all cities with populations of 100,000 or more. Or we may be interested in all households in a particular area. A **sample** is a subset of the population. In other words, a sample is part of the population. The process of selecting the sample is called **sampling**. The idea of sampling is to select part of the population to represent the entire population.

Political polls are a good example of surveys. To find out how potential voters feel about a particular issue, pollsters select a sample of potential voters and use the sample data to make inferences about the population from which the sample was drawn.

The General Social Survey (GSS) is another example of surveys. The GSS is conducted every two years and selects a sample of a little over 2,000 individuals living in the United States. This module uses GSS data collected at a number of different points in time.

Since a survey can be no better than the quality of the sample, it is essential to understand the basic principles of sampling. There are two types of sampling – probability and nonprobability. A **probability sample** is one in which each individual in the population has a known, nonzero, chance of being selected in the sample. The most basic type of probability sample is the **simple random sample**. In a simple random sample, every individual (and every combination of individuals) has the same chance of being selected in the sample. This is the equivalent of writing each person's name on a piece of paper, putting them in plastic balls, putting all the balls in a big bowl, mixing the balls thoroughly, and selecting some predetermined number of balls from the bowl. This would produce a simple random sample.

The simple random sample assumes that we can list all the individuals in the population, but often this is impossible. If our population were all the households or residents of California, there would be no list of the households or residents available, and it would be very expensive and time consuming to construct one. In this type of situation, a **multistage cluster** **sample** could be used. The idea is very simple. If we wanted to draw a sample of all residents of California, we might start by dividing California into geographical areas and selecting a sample of these geographical areas. Our sample of geographical areas could then be divided into smaller geographical areas such as blocks and a sample of blocks would be selected. We could then construct a list of all households for only those blocks in the sample. Finally, we would go to these households and randomly select one member of each household for our sample. Once the household and the member of that household have been selected, substitution would not be allowed. This often means that we must call back many times, but this is the price we must pay for a good sample.

Telephone samples often use a technique called **random-digit dialing**. With random-digit dialing, phone numbers are dialed randomly within working exchanges. Numbers are selected in such a way that all areas have the proper proportional chance of being selected in the sample. Random-digit dialing makes it possible to include numbers that are not listed in the telephone directory and households that have moved into an area so recently that they are not included in the current telephone directory.

A **nonprobability sample** is one in which each individual in the population does not have a known chance of selection in the sample. There are several types of nonprobability samples. For example, magazines often include questionnaires for readers to fill out and return. This is a **volunteer sample** since respondents self-select themselves into the sample (i.e., they volunteer to be in the sample). Another type of nonprobability sample is a **quota sample**. Survey researchers may assign quotas to interviewers. For example, interviewers might be told that half of their respondents must be female and the other half male. This is a quota on sex. We could also have quotas on several variables (e.g., sex and race) simultaneously.

Probability samples are preferable to nonprobability samples. First, they avoid the dangers of what survey researchers call "systematic selection biases" which are inherent in nonprobability samples. For example, in a volunteer sample, particular types of persons might be more likely to volunteer. Perhaps highly educated individuals are more likely to volunteer to be in the sample and this would produce a systematic selection bias in favor of the highly educated. In a probability sample, the selection of the actual cases in the sample is left to chance. Second, in a probability sample we are able to estimate the amount of sampling error (our next concept to discuss).

We would like our sample to give us a perfectly accurate picture of the population. However, this is unrealistic. Assume that the population is all employees of a large corporation, and we want to estimate the percent of employees in the population that is satisfied with their jobs. We select a simple random sample of 500 employees and ask the individuals in the sample how satisfied they are with their jobs. We discover that 75 percent of the employees in our sample are satisfied. Can we assume that 75 percent of the population is satisfied? That would be asking too much. Why would we expect one sample of 500 to give us a perfect representation of the population? We could take several different samples of 500 employees and the percent satisfied from each sample would vary from sample to sample. There will be a certain amount of error as a result of selecting a sample from the population. We refer to this as **sampling error**. Sampling error can be estimated in a probability sample, but not in a nonprobability sample.

It would be wrong to assume that the only reason our sample estimate is different from the true population value is because of sampling error. There are many other sources of error called **nonsampling error**. Nonsampling error would include such things as the effects of biased questions, the tendency of respondents to systematically underestimate such things as age, the exclusion of certain types of people from the sample (e.g., those without phones, those without permanent addresses, those we are never able to contact, those who refuse to answer our questions), or the tendency of some respondents to systematically agree to statements regardless of the content of the statements. In some studies, the amount of nonsampling error might be far greater than the amount of sampling error. Notice that sampling error is random in nature, while nonsampling error may be nonrandom producing systematic biases. We can estimate the amount of sampling error (assuming probability sampling), but it is much more difficult to estimate nonsampling error. We can never eliminate sampling error entirely, and it is unrealistic to expect that we could ever eliminate nonsampling error. It is good research practice to be diligent in seeking out sources of nonsampling error and trying to minimize them.

**DATA ANALYSIS: Examining Variables One at a Time (Univariate Analysis)**

The rest of this chapter will deal with the analysis of **survey** **data**. Data analysis involves looking at variables or "things" that vary or change. A **variable** is a characteristic of the individual (assuming we are studying individuals). The answers to each question on the survey forms a variable. For example, sex is a variable -- some individuals in the sample are male and some are female. Age is a variable; individuals vary in their ages.

Looking at variables one at a time is called **univariate analysis**. This is the usual starting point in analyzing survey data. There are several reasons to look at variables one at a time. First, we want to describe the data. How many of our sample are men and how many are women? How many are African Americans and how many are white? What is the distribution by age? How many say they are going to vote for Candidate A and how many for Candidate B? How many respondents agree and how many disagree with a particular statement?

Another reason we might want to look at variables one at a time involves recoding. **Recoding** is the process of combining categories within a variable. Consider age, for example. In the data set used in this module, age varies from 18 to 89 (which stands for 89 and over) but we would want to use fewer categories in our analysis, so we might combine age into age 18 to 29, 30 to 49, and 50 and over. We might want to combine African Americans with other races to classify race into only two categories -- white and nonwhite. Recoding is used to reduce the number of categories in the variable (e.g., age) or to combine categories so that you can make particular types of comparisons (e.g., white versus nonwhite).

The frequency distribution is one of the basic tools for looking at variables one at a time. A **frequency distribution** is a set of categories and the number of cases in each category. **Percent distributions** show the percent in each category. Table 2.1 shows frequency and percent distributions for two hypothetical variables-one for sex and another for willingness to vote for a woman candidate. Begin by looking at the frequency distribution for sex. There are three columns in this table. The first column specifies the categories -- male and female. The second column tells us how many cases there are in each category, and the third column converts these frequencies into percents.

 **Table 2.1 -- Frequency and Percent Distributions for Sex (Hypothetical Data)**

|  |  |  |
| --- | --- | --- |
| Category | Frequency | Percent |
| Male | 380 | 40.0 |
| Female | 570 | 60.0 |
| Total | 950 | 100.0 |
|  |  |  |

**Table 2.2 -- Frequency and Percent Distributions for Voting Preference (Hypothetical Data)**

|  |  |  |  |
| --- | --- | --- | --- |
| Category | Frequency | Percent | Valid Percent |
| Willing to Vote for a Woman | 460 | 48.4 | 51.1 |
| Not Willing to Vote for a Woman | 449 | 46.3 | 48.9 |
| Refused | 50 | 5.3 | Missing |
| Total | 950 | 100.0 | 100.0 |

In this hypothetical example, there are 380 males and 570 females or 40 percent male and 60 percent female. There are a total of 950 cases. Since we know the sex for each case, there are no **missing data** (i.e., no cases where we do not know the proper category). Look at the frequency distribution for voting preference in Table 2.2. How many say they are willing to vote for a woman candidate and how many are unwilling? (Answer: 460 willing and 440 not willing) How many refused to answer the question? (Answer: 50) What percent say they are willing to vote for a woman, what percent are not, and what percent refused to answer? (Answer: 48.4 percent willing to vote for a woman, 46.3 percent not willing, and 5.3 percent refused to tell us.) The 50 respondents who didn't want to answer the question are called missing data because we don't know the category into which to place them, so we create a new category (i.e., refused) for them. Since we don't know where they should go, we would want a percentage distribution considering only the 900 respondents who answered the question. We can determine this easily by taking the 50 cases with missing information out of the base (i.e., the denominator of the fraction) and recomputing the percentages. The fourth column in the frequency distribution (labeled "valid percent") gives us this information. Approximately 51 percent of those who answered the question were willing to vote for a woman and approximately 49 percent were not.

We use frequency distributions to describe variables one at a time. This is often referred to as univariate analysis. There are other ways to describe single variables. The mean, median, and mode are averages that may be used to describe the central tendency of a distribution. The range and standard deviation are measures of the amount of variability or dispersion of a distribution. (We will not be using measures of central tendency or variability in this module.)

**Exploring the Relationship Between Two Variables (Bivariate Analysis)**

Usually we want to do more than simply describe variables one at a time. We may want to analyze the relationship between variables. Morris Rosenberg (1968:2) suggests that there are three types of relationships: "(1) neither variable may influence one another .... (2) both variables may influence one another ... (3) one of the variables may influence the other." We will focus on the third of these types which Rosenberg calls "asymmetrical relationships." In this type of relationship, one of the variables (the **independent variable**) is assumed to be the possible cause and the other variable (the **dependent variable**) is assumed to be the possible effect. In other words, the independent variable is the variable that influences the dependent variable.

For example, researchers think that smoking is one of the causes of lung cancer. The statement that specifies the relationship between two variables is called a **hypothesis** (see Hoover and Donovan, 2014, for a more extended discussion of hypotheses). In this hypothesis, the independent variable is smoking (or more precisely, the amount one smokes) and the dependent variable is lung cancer. Consider another example. Political analysts think that income influences voting decisions, that rich people vote differently than poor people. In this hypothesis, income would be the independent variable and voting would be the dependent variable.

In order to demonstrate that a **causal relationship** exists between two variables, we must meet three criteria: (1) there must be a statistical relationship between the two variables, (2) we must be able to demonstrate which one of the variables influences the other, and (3) we must be able to show that there is no other alternative explanation for the relationship. As you can imagine, it is impossible to prove that there is no other alternative explanation for a relationship. For this reason, we can show that one variable does not influence another variable, but we cannot prove that it does. We can only show that a causal relationship is plausible or credible. In this section, we will focus on the first two criteria and leave this third criterion to the next chapter.

In the previous section we looked at the frequency distributions for sex and voting preference. All we can say from these two distributions is that the sample is 40 percent men and 60 percent women and that slightly more than half of the respondents said they would be willing to vote for a woman, and slightly less than half are not willing to. We cannot say anything about the relationship between sex and voting preference. In order to determine if men or women are more likely to be willing to vote for a woman candidate, we must move from univariate to bivariate analysis.

A **crosstabulation** (or **contingency table**) is the basic tool used to explore the relationship between two variables. Table 2.3 is the crosstabulation of sex and voting preference. In the lower right-hand corner is the total number of cases in this table (900). Notice that this is not the number of cases in the sample. There were originally 950 cases in this sample, but any case that had missing information on either or both of the two variables in the table has been excluded from the table. Be sure to check how many cases have been excluded from your table and to indicate this figure in your report. Also be sure that you understand why these cases have been excluded. The figures in the lower margin and right-hand margin of the table are called the marginal distributions. They are simply the frequency distributions for the two variables in the table. Here, there are 360 males and 540 females (the marginal distribution for the column variable -- sex) and 460 people who are willing to vote for a woman candidate and 440 who are not (the marginal distribution for the row variable -- voting preference). The other figures in the table are the cell frequencies. Since there are two columns and two rows in this table (sometimes called a 2 x 2 table), there are four cells. The numbers in these cells tell us how many cases fall into each combination of categories of the two variables. This sounds complicated, but it isn't. For example, 158 males are willing to vote for a woman and 302 females are willing to vote for a woman.

**Table 2.3 – Voting Preference by Sex (Hypothetical Data – Frequencies)**

| **Voting Preference** | **Male** | **Female** | **Total** |
| --- | --- | --- | --- |
| Willing to Vote for a Woman | 158 | 302 | 360 |
| Not Willing to Vote for a Woman | 202 | 238 | 440 |
| Total Frequency | 360 | 540 | 900 |

We could make comparisons rather easily if we had an equal number of women and men. Since these numbers are not equal, we must use percentages to help us make the comparisons. Since percentages convert everything to a common base of 100, the percent distribution shows us what the table would look like if there were an equal number of men and women.

Before we percentage Table 2.3, we must decide which of these two variables is the independent and which is the dependent variable. Remember that the independent variable is the variable we think might be the influencing factor. The independent variable is hypothesized to be the cause, and the dependent variable is the effect. Another way to express this is to say that the dependent variable is the one we want to explain. Since we think that sex influences willingness to vote for a woman candidate, sex would be the independent variable.

Once we have decided which is the independent variable, we are ready to percentage the table. Notice that percentages can be computed in different ways. In Table 2.4, the percentages have been computed so that they sum down to 100. These are called **column percents**. If they sum across to 100, they are called **row** **percents**. If the independent variable is the column variable, then we want the percents to sum down to 100 (i.e., we want the column percents). If the independent variable is the row variable, we want the percents to sum across to 100 (i.e., we want the row percents). This is a simple, but very important, rule to remember. We'll call this our **rule for computing percents**. Since the independent variable is the column variable in this table, the percents should sum down to 100 percent. It really doesn't matter whether the independent variable is the column or the row variable. However, in this module, we will always put the independent variable as the column variable. Many others (but not everyone) use this convention. Please do this when you write your report.

**Table 2.4 – Voting Preference by Sex (Hypothetical Data – Percents)**

| **Voting Preference** | **Male** | **Female** | **Total** |
| --- | --- | --- | --- |
| Willing to Vote for a Woman | 43.9 | 55.9 | 51.1 |
| Not Willing to Vote for a Woman | 56.1 | 44.1 | 48.9 |
| Total Percent | 100.0 | 100.0 | 100.0 |
| (Total Frequency) | (360) | (540) | (900) |

Now we are ready to interpret this table. Interpreting a table means to explain what the table is saying about the relationship between the two variables. First, we can look at each category of the independent variable separately to describe the data and then compare them to each other. Since the percents sum down to 100 percent, we compare across. The **rule for interpreting percents** is to compare in the direction opposite to the way the percents sum to 100. So, if the percents sum down to 100, we compare across, and if the percents sum across to 100, compare down. If the independent variable is the column variable, the percents will always sum down to 100 and we will always compare across. We can look at each category of the independent variable and then compare them to each other. In Table 2.3, row one shows the percent of males and the percent of females who are willing to vote for a woman candidate -- 43.9 percent of males are willing to vote for a woman, while 55.9 percent of the females are. This is a difference of 12 percentage points. More females than males say they are willing to vote for a woman. The second row shows the percent of males and females who are not willing to vote for a woman. Since there are only two rows, the second row will be the complement (or the reverse) of the first row. It shows that males are more likely to be unwilling to vote for a woman candidate (a difference of 12 percentage points).

When we observe a difference, we must also decide whether it is significant. There are two different meanings for significance -- statistical significance and substantive significance. **Statistical significance** considers whether the difference is great enough that it is probably not due to chance factors. **Substantive significance** considers whether a difference is large enough to be important. With a very large sample, a small difference is often statistically significant, but that difference may be so small that we decide it isn't substantively significant (i.e., it's so small that we decide it doesn't mean very much). We're going to focus on statistical significance but remember that even if a difference is statistically significant, you must also decide if it is substantively significant.

Let's discuss this idea of statistical significance. If our population is all adults in the United States, we want to know if there is a relationship between sex and voting preference in this population. All we have is information about a sample from the population. We use the sample information to make an inference about the population. This is called **statistical inference**. We know that our sample is not a perfect representation of our population because of **sampling error**. Therefore, we would not expect the relationship we see in our sample to be exactly the same as the relationship in the population.

Suppose we want to know whether there is a relationship between sex and voting preference in the population. It is impossible to prove this directly, so we have to demonstrate it indirectly. We set up a hypothesis (called the **null hypothesis**) that says that sex and voting preference are not related to each other in the population. This basically says that any difference we see is likely to be the result of random variation. If the difference is large enough that it is not likely to be due to chance, we can reject this null hypothesis of only random differences. Then the hypothesis that they are related (called the **alternative or research hypothesis**) will be more credible. We’re going to use Chi-Square to test the null hypothesis.

**Table 2.5 – Computation of Chi-Square Statistic**

| **Column 1  fo** | **Column 2****fe** | **Column 3****(fo - fe)**  | **Column 4****(fo - fe)2** | **Column 5****(fo - fe)2/fe** |
| --- | --- | --- | --- | --- |
| 158   | 184   | -26   | 676   | 3.67   |
| 202   | 176   | 26   | 676   | 3.84   |
| 302   | 276   | 26   | 676   | 2.45   |
| 238   | 264   | -26   | 676   | 2.56   |

In the first column of Table 2.5, we have listed the four cell frequencies from the crosstabulation of sex and voting preference. We'll call these the **observed frequencies** (fo) because they are what we observe from our table. In the second column, we have listed the frequencies we would expect if, in fact, there is no relationship between sex and voting preference in the population. In other words, what we would expect if the null hypothesis was true. These are called the **expected frequencies** (fe). We'll briefly explain how these expected frequencies are obtained. Notice from Table 2.4 that 51.1 percent of the entire sample were willing to vote for a woman candidate, while 48.9 percent were not. If sex and voting preference are independent (i.e., not related to each other), we should find the same percentages for males and females. In other words, 48.9 percent (or 176) of the males and 48.9 percent (or 264) of the females would be unwilling to vote for a woman candidate. Now, we want to compare these two sets of frequencies to see if the observed frequencies are really like the expected frequencies. All we do is to subtract the expected from the observed frequencies (column three). We are interested in the sum of these differences for all cells in the table. Notice that they always sum to zero because the positive values always cancel out the negative values. Since they sum to zero, we square the differences (column four) to get positive numbers. Finally, we divide this squared difference by the expected frequency (column five). (Don't worry about why we do this. The reasons are technical and don't add to your understanding.) The sum of column five (12.52) is called the **Chi-Square statistic**. If the observed and expected frequencies are identical (no difference), Chi-Square will be zero. The greater the difference between the observed and expected frequencies, the larger the Chi-Square.

If we get a large enough Chi-Square, then we are willing to reject the null hypothesis. But how large does the Chi-Square have to be? We reject the null hypothesis of no relationship between the two variables when the probability of getting a Chi-Square this large or larger by chance is so small that the null hypothesis is very unlikely to be true. That is, if a Chi-Square this large would rarely occur by chance (usually less than once in a hundred or less than five times in a hundred). In this example, the probability of getting a Chi-Square as large as 12.52 or larger by chance is less than one in a thousand. This is so unlikely that we reject the null hypothesis, and conclude that the alternative hypothesis (i.e., there is a relationship between sex and voting preference) is credible (not that it is necessarily true, but that it is credible). There is always a small chance that the null hypothesis is true even when we decide to reject it. In other words, we can never be sure that it is definitely false. We can only conclude that there is little chance that it is true.

Just because we have concluded that there probably is a relationship between sex and voting preference does not mean that it is a strong relationship. It might be a moderate or even a weak relationship. There are many statistics that measure the strength of the relationship between two variables. Chi-Square is not a measure of the strength of the relationship. It just helps us decide if there is a basis for saying a relationship exists regardless of its strength. **Measures of association** estimate the strength of the relationship and are often used with Chi-Square.

**Cramer's V** is a measure of association appropriate when one or both of the variables consists of unordered categories. For example, race (white, African American, other) or religion (Protestant, Catholic, Jewish, other, none) are variables with unordered categories. Cramer's V is a measure based on Chi-Square. It ranges from zero to one. The closer to zero, the weaker the relationship; the closer to one, the stronger the relationship.

**Gamma, Tau-c, and Somer’s D** are measures of association that are appropriate when both of the variables consist of ordered categories. For example, if respondents answer that they strongly agree, agree, disagree, or strongly disagree with a statement, their responses are ordered. Similarly, if we group age into categories such as under 30, 30 to 49, and 50 and over, these categories would be ordered. Ordered categories can logically be arranged in only two ways -- low to high or high to low. These measures of association can be either positive or negative but the sign is arbitrary since it depends on the way the categories are arranged. So, it’s best to ignore the sign and focus on the numerical value. You can use the percentages to decide on the direction (i.e., positive or negative) of the relationship. Like V, the closer to zero, the weaker the relationship and the closer to one, the stronger the relationship.

Choosing whether to use Cramer's V, Gamma, Tau-c, or Somer’s D depends on whether the categories of the variable are ordered or unordered. However, dichotomies (variables consisting of only two categories) may be treated as if they are ordered. For example, sex is a **dichotomy** consisting of the category’s male and female. There are only two possible ways to order sex -- male, female and female, male. Or, race may be classified into two categories -- white and nonwhite. We can treat dichotomies as if they consisted of ordered categories because they can be ordered in only two ways. In other words, when a variable is a dichotomy, always treat this variable as if it were ordinal when choosing the appropriate measure of association.

In this chapter we have described how surveys are done and how we analyze the relationship between two variables. In the next chapter we will explore how to introduce additional variables into the analysis.

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## Chapter 3Introducing a Control Variable (Multivariate Analysis)

Human behavior is usually too complicated to be studied with only two variables. Often we want to consider sets of three or more variables (called **multivariate analysis**) in order to find out (1) if a relationship might be due to some other factor, (2) how or why these variables are related, or (3) if the relationship is the same for different types of individuals.

In each situation, we identify a third variable that we want to consider. This is called the **control** or the **test variable**. (Although it is possible to use several control variables simultaneously, we will limit ourselves to one control variable at a time in this module.) To introduce a third variable, we identify the control variable and separate the cases in our sample by the categories of the control variable. For example, if the control variable is age divided into two categories--younger and older, we would separate the cases into two groups. One group would consist of individuals who are younger and the other group would be those who are older. We would then obtain the crosstabulation of the independent and dependent variables for each of these age groups. Since there are two categories in this control variable, we obtain two **partial tables**, each containing part of the original sample. (If there were three categories in our control variable, for example, young, middle aged, and old, we would have three partial tables.)

The process of using a control variable in the analysis is called **elaboration** and was developed at Columbia University by Paul Lazarsfeld, Patricia Kendall, and their associates. There are several different types of outcomes to the elaboration process. We will discuss each briefly.

Table 2.4 in Chapter 2 showed that females were more likely than males to say they were willing to vote for a woman. Let's introduce a control variable and see what happens. In this example we are going to use age as the control variable.

Table 3.1 is the three-variable table with voting preference as the dependent variable, sex as the independent variable, and age as the control variable. When we look at the older respondents (the left-hand partial table), we discover that this partial table is very similar to the original two-variable table (Table 2.4). The same is true for the younger respondents (the right-hand partial table). Each partial table is very similar to the original two-variable table. This is often referred to as **replication** because the partial tables repeat the original two-variable table. It is not necessary that they be identical; just that each partial table display the same pattern as the original two-variable table. Our conclusion is that age is not affecting the relationship between sex and voting preference. In other words, the difference between males and females in voting preference is not due to age.

**Table 3.1 -- Voting Preference by Sex Controlling for Age (Hypothetical Data)**

| **Voting Preference** | **OlderMale  %**  | **Older Female  %**  | **Total  %**  | **Younger Male  %**  | **Younger Female  %**  | **Total  %**  |
| --- | --- | --- | --- | --- | --- | --- |
| Willing to Vote for a Woman | 43.8  | 56.1  | 49.0  | 44.2  | 55.8  | 52.9  |
| Not Willing to Vote for a Woman | 56.2  | 43.9  | 51.0  | 55.8  | 44.2  | 47.1 |
|   | 100.0   | 100.0   | 100.0   | 100.0   | 100.0   | 100.0   |
|   | (240)   | (180)   | (420)   | (120)   | (360)   | (480)   |

Since this is a hypothetical example, imagine a different outcome. Suppose we introduce age as a control variable and instead of getting Table 3.1, we get Table 3.2. How do these two tables differ? In Table 3.2, the percentage difference between males and females has disappeared in both of the partial tables. This is called **explanation** because the control variable, age, has explained away the original relationship between sex and voting preference. (We often say that the relationship between the two variables is **spurious**, not causal.) When age is held constant, the difference between males and females disappears. The difference in the relationship does not have to disappear entirely, only be reduced substantially in each of the partial tables. This can only occur when there is a relationship between the control variable (age) and each of the other two variables (sex and voting preference).

**Table 3.2 -- Voting Preference by Sex Controlling for Age (Hypothetical Data)**

| **Voting Preference** | **Older****Male %** | **Older****Female %** | **Total %** | **Younger Male %** | **Younger Female %** | **Total %** |
| --- | --- | --- | --- | --- | --- | --- |
| Willing to Vote for a Woman | 32.9 | 33.9 | 33.3 | 65.8 | 66.9 | 66.7 |
| Not Willing to Vote for a Woman | 67.1 | 66.1 | 66.7 | 34.2 | 33.1 | 33.3 |
|  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|  | (240) | (180) | (420) | (120) | (360) | (480) |

Next, we are interested in how or why the two variables are related. Suppose females are more likely than males to vote for a woman and that this difference cannot be explained away by age or by any other variable we have considered. We need to think about why there might be such a difference in the preferences of males and females. Perhaps females are more liberal than males, and liberals are more likely to say they would vote for a woman. So, we introduce liberalism/conservatism as a control variable in our analysis. If females are more likely to support a woman because they are more liberal, then the difference between the preferences of men and women should disappear or be substantially reduced when liberalism/conservatism is held constant. This process is called **interpretation** because we are interpreting how one variable is related to another variable. Table 3.3 shows what we would expect to find if females supported women because they were more liberal. Notice that in both partial tables, the differences in the percentages between men and women have disappeared. (It is not necessary that it disappears entirely, but only that it is substantially reduced in each of the partial tables.) The crucial difference between explanation and interpretation is that in interpretation the control variable is an intervening variable. The independent variable is causally prior to the control variable and the control variable is causally prior to the dependent variable. The control variable provides the link between the independent and dependent variables. It helps us interpret how the independent variable leads to the dependent variable.

**Table 3.3 -- Voting Preference by Sex Controlling for Liberalism/Conservatism** **(Hypothetical Data)**

| **Voting Preference** | **ConservativeMale %**  | **Conservative****Female %**  | **Total %**  | **LiberalMale %**  | **Liberal****Female %**  | **Total %**  |
| --- | --- | --- | --- | --- | --- | --- |
| Willing to Vote for a Woman | 32.9  | 33.9  | 33.3  | 65.8  | 66.9  | 66.7  |
| Not Willing to Vote for a Woman | 67.1  | 66.1  | 66.7  | 34.2  | 33.1  | 33.3  |
|   | 100.0  | 100.0  | 100.0  | 100.0  | 100.0  | 100.0  |
|   | (240)  | (180)  | (420)  | (120)  | (360)  | (480)  |

Finally, let's focus on the third of the situations outlined at the beginning of this chapter-whether the relationship is the same for different types of individuals. Perhaps the relationship between sex and voter preference varies with other characteristics of the individuals. Maybe among whites, females are more likely to prefer women candidates than males are, but among African Americans, there is little difference between males and females in terms of voter preference. This is the outcome shown in Table 3.4. This process is called **specification** because it specifies the conditions under which the relationship between sex and voter preference varies.

**Table 3.4 – Voting Preference by Sex Controlling for Race (Hypothetical Data)**

| **VotingPreference** | **White Male****%** | **White Female %** | **Total****%** | **African American Male****%** | **African American Female %** | **Total %** |
| --- | --- | --- | --- | --- | --- | --- |
| Willing to Vote for a Woman | 42.9 | 56.5 | 51.2 | 50.0 | 50.0 | 50.0 |
| Not Willing to Vote for a Woman | 57.1 | 43.5 | 48.8 | 50.0 | 50.0 | 50.0 |
|  | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
|  | (310) | (490) | (800) | (50) | (50) | (100) |

In the earlier section on bivariate analysis, we discussed the use of Chi- Square. Remember that Chi-Square is a test of significance used to determine if there is a relationship between two variables. Chi-Square is used in multivariate analysis the same way it is in bivariate analysis. There will be a separate value of Chi-Square for each partial table in the multivariate analysis. You should keep several warnings in mind. Chi-Square assumes that the expected frequencies for each cell are approximately five or larger. As long as 80% of these expected frequencies are approximately five or larger and no single expected frequency is very small, we don't have to worry. However, the expected frequencies often drop below five when the number of cases in a column or row gets too small. If this should occur, you will have to either **recode** (i.e., combine columns or rows) or eliminate a column or row from the table.

Another point to keep in mind is that Chi-Square is affected by the number of cases in the table. With a lot of cases it is easy to reject the null hypothesis of no relationship. With a few cases, it can be quite hard to reject the null hypothesis. Also, consider the percentages within the table. Look for patterns. Do not rely on any single piece of information. Look at the whole picture.

We have concentrated on crosstabulation and Chi-Square. Measures of association can also be used to measure the strength of a relationship. There are still other types of statistical analysis such as regression that might be appropriate to use.

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**Elaboration and Causal Analysis**

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##### *Public Opinion on Social Issues -- 1975-2017*Edward Nelson, California State University, Fresno

## Chapter 4Exercises Using the General Social Survey to Explore Relationships Among Variables

The data set used in these exercises is GSS\_2018.POR which consists of a subset of the 2018 General Social Survey. Some of the variables in the GSS have been recoded to make them easier to use and some new variables have been created. These exercises use RECODE and CROSSTABS in SPSS to explore relationships among variables. In CROSSTABS, you are asked to use percentages, Chi-Square, and an appropriate measure of association. A good reference on using IBM SPSS *is SPSS for Windows Version 26: A Basic Tutorial* by Edward Nelson and John Korey. This tutorial is available on the Social Sciences Research and Instructional Council’s [website](http://ssric.org/node/696).

If you don’t have access to SPSS, consider using PSPP which is a free alternative to SPSS. A tutorial on using PSPP is also available on the SSRIC’s [website](http://ssric.org/node/699).

There are many social issues that you can explore using the General Social Survey. In these exercises, we are going to focus on abortion, confidence in institutions, tolerance for various groups, and the types of things that people are willing to spend money on. You will need to use the codebook in Appendix A while working through these exercises.

1. Seven variables focus on people's feelings about abortion: ABANY, ABDEFECT, ABHLTH, ABNOMORE, ABPOOR, ABRAPE, ABSINGLE. Each question asks respondents if they think a woman ought to be able to obtain a legal abortion under varying circumstances. Choose one of these variables and use it as your dependent variable. Now choose one of the following variables as your independent variable: class (CLASS), political party preference (PARTYID), and religion (RELIG or RELITEN or ATTEND or PRAY). If you want to use age or education, then use one of the variables that have already been recoded (AGE1, AGE2, EDUC1). Get the crosstabulation of these two variables along with the appropriate percentages, Chi-Square, and an appropriate measure of association (Cramer’s V, Gamma, Tau-c, Somer’s D). Write a paragraph interpreting the relationship using the percentages and these statistics.

Rerun the table you just ran but this time add sex (SEX) as a control variable. How did sex affect the two-variable relationship?
2. Several variables measure the amount of confidence respondents have in the major institutions of our society. These include the military, big business, organized religion, education, the Executive Branch, Congress, and others. These variables all start with CON and there are thirteen of them.

	1. Run frequency distributions to see which institutions respondents have the most confidence in and which they have the least confidence in. Be sure to use the appropriate percentages to make these comparisons. (Do you want the percents or the valid percents? Why?) Write a brief paragraph summarizing your results.
	2. Some people have more confidence in these institutions than others. Let's use political party preference (PARTYID) to divide respondents into Democrats, independents, and Republicans. You will have to recode PARTYID into three groups to do this. Combine strong and not strong Democrats into one group, combine strong and not strong Republicans into a second group and combine independents (near Democrat, near Republican, and independents) into a third group. Exclude the “other” category by recoding it as a missing value.
	3. Now choose one of the social institutions that you think Democrats, Republicans and independents will have different levels of confidence in. Decide which is the independent and dependent variable and get the crosstabulation. Be sure to ask for the appropriate percents, Chi-Square, and an appropriate measure of association. Write a paragraph indicating which group has the most confidence in this institution and which group has the least confidence. Use the percents, Chi-Square, and an appropriate measure of association to help you explain the relationship between these two variables.
	4. Rerun the table you just ran but this time add sex (SEX) as a control variable. How did sex affect the two-variable relationship?
3. Three sets of questions ask respondents whether they are tolerant of various groups. One set of questions asks respondents if they would allow five different groups of people to teach in a college or university (COLATH, COLCOM, COLHOMO, COLMIL, COLRAC). Another set asks respondents if a book written by members of these groups should be allowed in the public library (LIBATH, LIBCOM, LIBHOMO, LIBMIL, LIBRAC). Still another set asks respondents if they should be allowed to make a public speech in their community (SPKATH, SPKCOM, SPKHOMO, SPKMIL, SPKRAC). The five groups of people are those who are against churches and religion, communists, homosexuals, people who advocate doing away with elections and letting the military run the country, and those who claim Blacks are genetically inferior.

These variables have been combined into five other variables that measure tolerance for atheists, communists, homosexuals, militarists, and racists. Each variable is the sum of the three variables from the larger set of variables. For example, tolerance for racists is the sum of COLRAC, LIBRAC, and SPKRAC. Since each variable is coded 1 and 2, where 1 is the tolerant response and 2 is the intolerant response, the new variable (called TOLRAC) will vary from 3 to 6. The value 3 means that the respondent would be tolerant of racists in all three scenarios, while the value 6 means that the respondent would not be tolerant of racists in any of the three scenarios. The values 4 and 5 would be intermediate values.

Get the frequency distributions for TOLATH, TOLCOM, TOLHOMO, TOLMIL, and TOLRAC to see if there is more tolerance for some of the groups than for others. Write a short paragraph explaining the results using the appropriate percents. (Be careful to decide whether you want the percents or the valid percents.)

Which groups of people would you expect to be more tolerant of homosexuals: men or women, Democrats or Republicans or independents, those living in the South or the Northeast or the Midwest or the West, working/lower class or middle/upper class? Choose one of these groupings and write a hypothesis that indicates your expectations. Write a short paragraph indicating why you think one group will be more tolerant of homosexuals than another.

Now find the variable in the list of variables that you want to use as the independent variable to test your hypothesis. Your dependent variable will be TOLHOMO. Get the crosstabulation to test your hypothesis. Be sure to get the appropriate percents, Chi-Square, and an appropriate measure of association. Write a short paragraph using the results to indicate whether the data support your hypothesis.

Choose one other tolerance variable (TOLATH, TOLCOM, TOLMIL, and TOLRAC) and repeat the analysis described above.

Rerun the tables you just ran but this time add sex (SEX) as a control variable. How did sex affect the two-variable relationships?

1. The General Social Survey includes a series of questions that ask respondents whether we are spending too much, too little, or about the right amount of money on a series of areas. These areas include foreign aid, the military, big cities, crime, drugs, education, the environment, welfare, health, mass transportation, parks and recreation, the conditions of African Americans, highways and bridges, social security, and space exploration.

The General Social Survey includes two versions of most of these questions. All the spending variables start with NAT. The alternative version of each question ends with Y. For example, the questions on welfare are NATFARE and NATFAREY. NATFARE asks whether respondents think we are spending too much, too little, or about the right amount of money on "welfare." NATFAREY substitutes "assistance to the poor" for "welfare" in the question. The form of the question was randomly assigned to respondents.

A few questions have only one version of the question (i.e., no version Y). For this exercise, we will be using the original version of each question (i.e., the one that does not end in Y).

Using the data, find out which areas respondents are the most likely to think we are spending too much money on and which areas respondents think we are spending too little on. Write a brief paragraph summarizing your findings.

Republicans, Democrats, and independents often differ in terms of the problems they think we should be spending money on. Crosstabulate political party preference (PARTYID) and the spending variables to find out which issues Democrats, Republicans and independents think we should be spending more on. You will need to recode PARTYID into a smaller number of categories. See question 2 above for one way of recoding PARTYID. Use the appropriate percents, Chi-Square, and an appropriate measure of association to help you in your analysis. Write a short paragraph describing your results.

Class is another variable that often divides people on spending priorities. Use the variable CLASS to see if different classes have different spending priorities. You will have to recode CLASS. Do this by combining lower and working class into one category and middle and upper class into another category. Write a paragraph summarizing your results.

Find one variable where there are significant class and party differences on spending priorities. Which is more important--class or party? Think about how you are going to decide this. You will have to run a three-variable table to see the effect of one of these variables holding the other constant. For example, crosstab one of the NAT variables with class holding party constant. Then crosstab the same NAT variable with party holding class constant. Were there larger differences for class or for party when the other variable was held constant? Or were the differences about the same? Be sure to use the appropriate percents, Chi-Square, and an appropriate measure of association to help you. Write a paragraph or two describing your findings.

Rerun one of the two-variable tables you just ran but this time add sex (SEX) as a control variable. How did sex affect the two-variable relationship?

1. We already described the two different versions of the NAT variables. Why do you think the researchers did this? (If you have studied experimental design, then you will recognize this as an experiment. Remember that the form of the question was randomly assigned to respondents.) Different forms of the same questions often produce different results. For example, studies have found that people are more likely to say they would not allow something than they are to say they would forbid the same activity. The NAT... and the NAT... Y variables allow us to study the effect of question wording on what respondents tell us.

Choose several pairs of NAT variables (e.g., NATFARE and NATFAREY, NATCRIME and NATCRIMY). Do a frequency distribution for both variables in the pair and see if the wording of the question makes any difference in the way respondents answered the questions. Keep looking at pairs of NAT variables until you find one pair where the question wording made more of a difference and one pair where it didn't much of a difference. Write a short paragraph summarizing your results.

It's possible that question wording makes more of a difference for some respondents than for others. Choose the pair of NAT variables where question wording made more of a difference. Check to see if the wording of the questions made more of a difference for respondents with less education than for those with more education. How would you do this? You could choose DEGREE (highest degree) or EDUC (years of school completed) as your measure of education. If you choose EDUC, recode it into three or four categories or use EDUC1 which has already been recoded. Then crosstab the NAT variables with your measure of education. Now compare the way respondents answered the NAT questions for each level of education. Try to construct a graph showing the differences. One way to do this would be to construct two line graphs. Each line graph could show the percent who felt we should be spending less money along the vertical axis and level of education along the horizontal axis. You would need two graphs--one for each of the NAT questions. These two-line graphs could then be placed on the same graph. Write a brief paragraph summarizing your results.

1. Other variables in the data set focus on women's issues and on issues of race. Most of the variables that begin with FE (FECHLD, FEFAM, FEPOL, FEPRESCH) deal with women's issues and variables that start with RAC (RACLIVE, RACOPEN) focus on race. Decide which of these issues you want to study and then look in the codebook in Appendix A for those variables. Choose one variable that you would like to study. This will be your dependent variable. Now choose two independent variables that you think will be related to your dependent variable. For each variable, write a hypothesis that clearly states the relationship you expect to find between your independent and dependent variable. Indicate why you think this hypothesis will be true. Get the crosstabulation that you need to test this hypothesis. Be sure to ask for the appropriate percents, Chi-Square, and an appropriate measure of association. Write a short paper that includes the hypothesis, the rationale for the hypothesis, the crosstabulation to test the hypothesis, and your interpretation of the table. Be sure to indicate whether the data support your hypothesis.

##### *Public Opinion on Social Issues -- 1975-2017*Edward Nelson, California State University, Fresno

## Chapter 5Research Design and Methods of Analysis for Analyzing Change Over Time

Many of the issues that social scientists study are dynamic in character. A sociologist interested in the process of friendship formation would want to look at the way friendship dyads are formed over time. A political scientist interested in voting behavior would look at the ways in which people make up their minds for whom to vote. An economist studying consumer optimism might want to trace consumer sentiment over a period of years and see how that relates to other changes in the economy and the society.

A survey that looks at a cross-section of a group at one point in time (often called a cross-sectional survey) is not well suited to a study of dynamic processes. The political scientist interested in voting behavior might include questions that asked respondents who they had intended to vote for at the beginning of the campaign and who they plan to vote for now. This would allow an analysis of how voting decisions have changed over the campaign, but at a severe cost. The respondents' memory of who they preferred at the beginning of the campaign might be influenced by who they prefer later. We need some ways to adapt cross-sectional surveys to the study of dynamic issues in which the focus is on change over time.

**Cross-sectional studies** focus on a group at one point in time. The decennial Census is a good example of a cross-sectional study. The 2010 Census describes the U.S. population at one point in time. **Longitudinal studies** focus on the group at two or more points in time. There are three methods of approaching longitudinal studies – the trend study, the panel study, and the cohort study. We’re going to focus on trend studies in this module.

**TREND STUDIES**

**Trend studies** use cross-sections at two or more points in time to examine change over time. The Virginia Slims Opinion Poll asked various questions about women at six points in time. The first poll was conducted in 1970, and it was repeated in 1972, 1974, 1980, 1985, and 1990. The Virginia Slims polls were national probability samples of all adults living in the United States. These six cross-sectional surveys can be compared to trace changes in opinions and attitudes about women from 1970 to 1990.

Figure 5.1 shows the percent of women who favor efforts to strengthen and change women's status in society. The percent who favor such efforts increased steadily from 1970, while the percent who oppose decreased.

Figure 5.2 shows the same information for men. The pattern is the same for men as it is for women, but the percent of women favoring change in 1990 is slightly larger (77%) than the percent of men (74%).

In 1985, 1991, 1995, and 2000, the Field Poll asked virtually the same question of a sample of California residents age 18 and over. Figure 5.3 shows the percent of respondents who favor such efforts. In California, there was an increase from 1985 to 1991, but there was very little change between 1991 and 2000.

The Virginia Slims Polls showed the percentages separately for women and men. We can get this information for the Field Polls by crosstabulating the dependent variable by time and holding sex constant. This will give us two sets of figures, one for women and one for men. Figure 5.4 shows the percent of women who favor changes in women's roles, while Figure 5.5 shows the same for men. Notice that the percentages increased for women from 71.8% in 1985 to 83.3% in 1991 and then stayed fairly constant at 84.9% in 1995 and 84.4% in 2000, while the percentages for men increased from 74.9% in 1985 to 81.1% in 1991 and then decreased to 78.3% in 1995 but increased to 84.3% in 2000.

Let's look at the Field Polls for another example of change from 1985 to 2000. Figure 5.6 shows the percent who favor strengthening the status of women for three age groups--those under 30, those 30 to 49, and those 50 and over. We can learn several things from this table. First, the percent who favor such change increased in all age groups from 1985 to 1991 and then stayed about the same in the other time periods. Second, in all time periods, those 50 and over are least likely to favor such change.

You might have noticed one difference between the Virginia Slims example and the Field Poll example. The Virginia Slims data are based on six time periods, while the Field Poll data are based on four time periods. Does the number of time periods make any difference? Figure 5.3 shows the percent who favor efforts to strengthen the status of women in 1985 and 1991 in the Field Poll. Clearly the percent who favor increased from 1985 to 1991. What if these were the only time periods for which we have data? Let's imagine what the pattern might look like if we had data from four time periods prior to 1985. Figure 5.7 shows a long-term trend of increasing support. Figure 5.8 shows a long-term trend of little change with an increase from 1985 to 1991. Figure 5.9 shows a long-term trend of decreasing support with a reversal in this trend from 1985 to 1991. Without more time periods it is very difficult to determine what the long-term trend actually looks like. The 1995 and 2000 Field Polls indicate that there has been little change from 1991 to 2000. This example suggests that many time periods are better than few time periods. However, remember that every trend analysis must start with two points in time and build from that to a longer series.

Figure 5.3 indicates that there was an 8.6 percentage point increase from 1985 to 1991 in the percent of respondents who favor strengthening the status of women. Was this produced by the shift of some individuals who opposed such changes in 1985 (or had no opinion) to a position that favors these changes in 1991? While it might seem tempting to accept this interpretation, it is not necessarily true. Table 5.1 shows a hypothetical example that is consistent with this interpretation. All of the individuals who favored change in 1985 also favor change in 1991. However, some of those who opposed change in 1985 now favor change in 1991 (n = 26), while more have shifted to a position of don't know (n = 79). Table 5.2 shows another hypothetical example in which there has been a considerable shift in opinion in both directions -- from oppose to favor and from favor to oppose. A considerable number of those who favored change in 1985 oppose change in 1991 (n = 100), while many of those who opposed change in 1985 now favor change (n = 115) or say they don't know (n = 90). Unfortunately, in a trend study we cannot choose between these alternatives. The most we can do in a trend study is to describe net changes between time periods. If we want to describe shifts from favor to oppose or from oppose to favor, then we need a different type of data called panel data.

**PANEL STUDIES**

**Panel studies** describe information about the same cases at two or more points in time. In a trend study we compare sample surveys describing the same population at two or more points in time. These samples consist of different cases. In a panel study we compare the same cases over time. If the Field Poll had been able to reinterview the same individuals in 1991 that were interviewed in 1985, then it would have been a panel study. The advantage of panel studies is that we can choose between alternatives such as those presented in Tables 5.1 and 5.2. Panel data allow us to go beyond describing net changes between time periods. Panel data allow us to describe the types of shifts (e.g., from favor to oppose or from oppose to favor) that occur between time periods. We can also begin looking for factors that explain why some people change in one direction, while other individuals change in another direction, and still others do not change at all.

**Table 5.1 -- Hypothetical Example Showing Opinion Shifts from 1985 to 1991**

|  | Favor(1985) | Oppose (1985) | Don't Know (1985) | Total (1985) |
| --- | --- | --- | --- | --- |
| Favor (1991) | 684 | 26 | 25 | 735 |
| Oppose (1991) | 0 | 141 | 0 | 141 |
| Don't Know (1991) | 0 | 79 | 58 | 137 |
| Total (1991) | 684 | 246 | 83 | 1013 |

 **Table 5.2 -- Hypothetical Example Showing Opinion Shifts from 1985 to 1991**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Favor (1985) | Oppose (1985) | Don't Know (1985) | Total (1985) |
| Favor (1991) | 584 | 115 | 36 | 735 |
| Oppose (1991) | 100 | 41 | 0 | 141 |
| Don't Know (1991) | 0 | 90 | 47 | 137 |
| Total (1991) | 684 | 246 | 83 | 1013 |

However, there are also problems with panel data. It is rare that all the cases are available in later time periods. This is called **panel mortality**. When the case is the individual, this may be because some individuals are not alive at a later point in time. However, all panel mortality may not be due to the death of respondents. Some respondents who cooperated initially may choose not to cooperate later. If particular types of individuals choose not to cooperate at a later point in time, then bias is introduced. For example, if low income respondents choose not to cooperate at a later point in time and if low income respondents are less likely to favor efforts to change the status of women, then part of the shift in opinion might be due to panel mortality.

Another problem with panel data is **reactivity**. If we ask people questions about the status of women at two or more points in time, the questioning process itself might produce opinion shifts. Perhaps the act of asking people about the status of women makes them more sensitive to women's issues. This increased sensitivity might mean they are more likely to favor or oppose changes in the status of women during later surveys. We call this reactivity because the respondents are reacting to the initial questioning.

**COHORT STUDIES**

Table 5.3 shows the percent who disagree that "women should take care of running their homes and leave running the country to men" by age for three of the General Social Surveys (1975, 1983, 1991). This table can be analyzed in several ways.

**Table 5.3. Percent of Respondents Who Disagreed that "Women should take care of their homes and leave running the country up to men." \***

|  |  |  |  |
| --- | --- | --- | --- |
| **Age** | **1975 (n)** | **1983 (n)** | **1991 (n)** |
| **18-25** | 78.5 (251) | 87.2 (203) | 85.0 (120) |
| **26-33** | 75.6 (258) | 84.7 (360) | 90.1 (172) |
| **34-41** | 67.5 (194) | 83.0 (241) | 91.5 (201) |
| **42-49** | 68.3 (183) | 81.4 (177) | 86.5 (133) |
| **50-57** | 58.4 (173) | 76.3 (160) | 78.0 (82) |
| **58-65** | 56.1 (155) | 66.5 (167) | 80.2 (101) |
| **66-73** | 39.0 (136) | 57.6 (125) | 58.0 (81) |
| **74+** | 42.9 (91) | 47.5 (99) | 48.9 (90) |
| **Total** | 64.4 (1441) | 76.9 (1532) | 80.8 (980) |

\* The data are from the General Social Survey. The values inside the parentheses are the number of cases on which the percentages are based (i.e., the bases).

First, we can compare opinions in the three time periods. We could compare the percent who disagree for each time period. This would show that there has been growing disagreement with this statement (64.4% of the total sample disagreed in 1975, 76.9% in 1983, and 80.8% in 1991). We could also compare the percent who disagree within each age group. For example, we could compare those age 34 to 41 in each of the three time periods (67.5% of those 34 to 41 disagree in 1975, 83.0% in 1983, and 91.5% in 1991) and repeat this for each of the age categories. This would involve comparing percentages across each row and this would show that there has been increasing disagreement even when we hold age constant.

Second, we could compare age categories within each time period. This would involve comparing percentages down within columns. This would show that the older respondents are less likely to disagree in each time period. In each of the three time periods, those age 66 to 73 and those 74 and over are considerably less likely to disagree than the younger respondents. (Note: even they increase over time--42.9% in 1975, 47.5% in 1983, 48.9% in 1991 for those 74 and over.)

Third, we could compare birth cohorts. Groups of people born within the same time period are called **birth cohorts**. The time period can be defined in any way that is appropriate for your analysis. Here we are using eight-year periods--all the people born within an eight-year period belong to the same birth cohort. Those who are 18 to 25 in 1975 would be 26 to 33 in 1983 and 34 to 41 in 1991. We could look at each of the birth cohorts in this table separately. This would involve comparing percentages along the diagonals running from the upper left part of the table to the lower right part. For example, for the birth cohort who was 18 to 25 in 1975, the percentages would be 78.5 in 1975, 84.7 in 1983, and 91.5 in 1991. In general, the cohorts are more likely to disagree with the statement in each successive time period. We could also compare other birth cohorts. The pattern described above is particularly noticeable for the four younger cohorts (i.e., those 18 to 25, 26 to 33, 34 to 41, and 42 to 49 in 1975).

**Cohort studies** follow one or more cohorts over a period of time. Cohort studies are usually based on two or more cross-sectional studies. In the example above, we have used three cross-sectional surveys (1975, 1983, 1991) and arranged the data so that we can compare birth cohorts.

**SUMMARY**

The purpose of this chapter has been to start you thinking about questions related to change over time. The analysis of such questions requires longitudinal data. We have described three types of longitudinal studies -- the trend study, the panel study, and the cohort study. Chapter 6 will give you some practice in looking at data over time using GSS data. We’re going to limit ourselves to trend studies in these exercises.

For a more in-depth discussion of longitudinal analysis, refer to John Korey’s [series of exercises](http://www.ssric.org/node/614).

##### *Public Opinion on Social Issues -- 1975-2017*Edward Nelson, California State University, Fresno

## Chapter 6Exercises Using Subsets of the General Social Survey to Analyze Change Over Time

The data set (GSS\_17\_10\_03\_96\_89\_82\_75.SAV) used in these exercises is from the General Social Survey (GSS) and is available on the Social Science Research and Instructional Council’s [website](http://www.ssric.org/trd/modules/siss11). When this module was first written the GSS was conducted annually. The decision to start this module with the 1975 GSS was made because some of the questions we were interested in were first included in the 1975 GSS. We decided to look at change over seven-year intervals. In 1994 the GSS became a biannual survey. This meant that we were not able to keep strictly to seven-year intervals because it was no longer an annual survey. There was no 2003 survey. Nor was there a 2017 survey. For the purpose of this module it was decided to merge the 2002 and 2004 surveys and consider that the 2003 survey. The same decision was made for the 2016 and 2018 surveys which was considered the 2017 survey. Thus the seven time periods were 1975, 1982, 1989, 1996, 2003, 2010, and 2017.

Some of the variables in the GSS have been recoded to make them easier to use and some new variables have been created. This exercise uses RECODE and CROSSTABS to explore relationships among variables. In CROSSTABS, students are asked to use percentages and Chi-Square. A good reference on using IBM SPSS *is SPSS for Windows Version 26: A Basic Tutorial* by Edward Nelson and John Korey. This book is available on the Social Sciences Research and Instructional Council’s [website](http://ssric.org/node/696). If you are using PSPP, use this [link](http://ssric.org/node/699).

These exercises will compare the seven cross-sectional surveys described above to analyze trends over time. Not all variables are available at all points in time. The codebook in Appendix A indicates which variables are available in which years and the wording of the various questions. You should use GSS\_17\_10\_03\_96\_89\_82\_75.SAV for these exercises.

1. Seven variables focus on people's feelings about abortion: ABANY, ABDEFECT, ABHLTH, ABNOMORE, ABPOOR, ABRAPE, ABSINGLE. Each question asks respondents if they think a woman ought to be able to obtain a legal abortion under varying circumstances. Choose one of these variables to analyze change over time. (ABANY is not available for 1975.)

What percent favor and oppose abortion for your variable in each of the years? You'll need to use crosstabulation to get these percents. Crosstabulate your variable by YEAR to do this. Be sure to ask for the column percents and Chi-Square. What does Chi-Square tell you about the difference between these percentages?

We want to discover which types of people are more likely to change. Let's start by asking if men or women are more likely to change. You will have to crosstabulate the abortion variable by YEAR by sex, asking for the column percents and Chi-Square. Write a short paragraph describing changes for men and for women. Be sure to cite the appropriate percent differences and use Chi-Square in your analysis.

Now, find out if younger, middle-aged, or older respondents are more likely to change and if those with less education are more likely to change than those with more education. You'll need to recode age and education before running the crosstabs. Another option is to use the recodes included in the data set (AGE1, AGE2, ECUC1). You could also use DEGREE which does not have to be recoded. Write a short paragraph describing the results.

1. Several variables measure the amount of confidence the respondent has in the major institutions of our society. These include the military, big business, organized religion, education, the Executive Branch of the Federal Government, Congress, the press, and others. These variables all start with CON and there are thirteen of them.

Choose one of the variables that you want to analyze over time. Crosstabulate your variable by YEAR and describe the changes that have occurred over time. Be sure to use the column percents and Chi-Square in your analysis.

Some people have more confidence in these institutions than others. Let's use political party preference (PARTYID) to divide respondents into Democrats, independents, and Republicans. You will have to recode PARTYID into three groups to do this. Combine strong and not strong Democrats into one group, combine strong and not strong Republicans into a second group and combine independents (near Democrat, near Republican, and independents) into a third group. When you recode, use recoding into different variables and call your recoded variable PARTYID1.

Now let's analyze change over time for Democrats, independents, and Republicans separately. Crosstabulate your variable by YEAR by recoded political party preference and describe the changes separately for each group. Use the column percents and Chi-Square to help you in your analysis. Have there been greater changes for Democrats? for Republicans? for independents? Have the changes been in the same direction for all three groups?

1. One set of questions in the GSS asks respondents if they would allow five different groups of people to teach in a college or university (COLATH, COLCOM, COLHOMO, COLMIL, COLRAC). Another set asks respondents if a book written by these five different groups should be allowed in the public library (LIBATH, LIBCOM, LIBHOMO, LIBMIL, LIBRAC). Still another set asks respondents if they should be allowed to make a public speech in their community (SPKATH, SPKCOM, SPKHOMO, SPKMIL, SPKRAC). The five groups of people are those who are against churches and religion, communists, homosexuals, people who advocate doing away with elections and letting the military run the country, and those who claim African Americans are genetically inferior.

These variables have been combined into five other variables. Each variable is the sum of the three variables from the larger set of variables. For example, tolerance for racists is the sum of COLRAC, LIBRAC, and SPKRAC. Since each variable is coded 1 and 2, where 1 is the tolerant response and 2 is the intolerant response, the new variable (called TOLRAC) will vary from 3 to 6. The value 3 means that the respondent would be tolerant of racists in all three scenarios, while the value 6 means that the respondent would not be tolerant of racists in any of the three scenarios. The values 4 and 5 would be intermediate values.

Crosstabulate TOLATH, TOLCOM, TOLHOM, TOLMIL, and TOLRAC by YEAR to see the changes that have occurred over time for tolerance. (These variables are not available for 1975.) Use the column percents and Chi-Square in your analysis. Write a brief paragraph describing your results.

Who would you expect to be more tolerant – men or women? To find out, crosstabulate the tolerance variables by sex by YEAR. This will give you the percents you need to compare men and women for each of the years. Did you get the same results for each year? Were the differences between the figures for men and women about the same for each year or was there considerable variation from year to year?

1. The General Social Survey includes a series of questions that ask respondents whether we are spending too much, too little, or about the right amount of money on a series of problems. These problems include foreign aid, the military, big cities, crime, drugs, education, the environment, welfare, health, mass transportation, parks and recreation, the conditions of African Americans, highways and bridges, social security, and space exploration.

The General Social Survey includes two versions of most of these questions. All the spending variables start with NAT. The alternative version of each question ends with Y. For example, the questions on welfare are NATFARE and NATFAREY. NATFARE asks whether respondents think we are spending too much, too little, or about the right amount of money on "welfare." NATFAREY substitutes "assistance to the poor" for "welfare" in the question. A few questions have only one version of the question (i.e., no version Y). For this exercise, we will be using the original version of each question (i.e., the one that does not end in Y).

Select one of the NAT variables and analyze the changes in opinion over time. Notice that a few of the NAT variables were not available in 1975 and 1982. Choose one of the NAT variables that was available in all time periods. Look at both the overall changes for the entire sample and the changes for subgroups (e.g., men and women, younger and older). Use Chi-Square in your analysis. Write a brief report explaining what you did and describing the results. Include your tables in the report.

##### *Public Opinion on Social Issues -- 1975-2017*Edward Nelson, California State University, Fresno

## Appendix A:Codebook for the Social Issues Subsets of the General Social Survey

This codebook accompanies the two data sets used in this module. GSS\_2018.POR includes data from only the 2018 GSS. The other data set include data from a number of years. GSS\_17\_10\_03\_96\_89\_82\_75.POR combines the 2016 and 2018 data and labels this 2017. It also combines the 2002 and 2004 years and labels this 2003. That allows us to compare data across seven-year intervals. Some of the variables in the GSS have been recoded to make them easier to use and some new variables have been created. The variable YEAR indicates the year of the survey.

### List of Variables

| **Variable Name** | **Years** | **Variable Label** |
| --- | --- | --- |
| ABANY | 18 16 10 04 02 96 89 82  | ABORTION--FOR ANY REASON |
| ABDEFECT | 18 16 10 04 02 96 89 82 75 | ABORTION--STRONG CHANCE SERIOUS DEFECT |
| ABHLTH | 18 16 10 04 02 96 89 82 75 | ABORTION--WOMANS HEALTH ENDANGERED |
| ABNOMORE | 18 16 10 04 02 96 89 82 75 | ABORTION--MARRIED, NO MORE CHILDREN |
| ABPOOR | 18 16 10 04 02 96 89 82 75 | ABORTION--LOW INCOME, CAN’T AFFORD MORE |
| ABRAPE | 18 16 10 04 02 96 89 82 75 | ABORTION--PREGNANT AS RESULT OF RAPE |
| ABSINGLE | 18 16 10 04 02 96 89 82 75 | ABORTION--NOT MARRIED |
| ADULTS | 18 16 10 04 02 96 89 82 75 | NUMBER OF ADULTS IN HOUSEHOLD |
| AGE  | 18 16 10 04 02 96 89 82 75  | AGE OF RESPONDENT |
| AGE1 | 18 16 10 04 02 96 89 82 75 | AGE RECODED IN TEN YEAR INTERVALS |
| AGE2 | 18 16 10 04 02 96 89 82 75 | AGE RECODED IN THREE CATEGORIES |
| AGED | 18 16 10 04 02 96 89 75 | SHOULD AGED LIVE WITH THEIR CHILDREN |
| ATTEND | 18 16 10 04 02 96 89 82 75 | HOW OFTEN R ATTENDS RELIGIOUS SERVICES |
| CHILDS | 18 16 10 04 02 96 89 82 75 | NUMBER OF CHILDREN |
| CLASS | 18 16 10 04 02 96 89 82 75 | SUBJECTIVE CLASS IDENTIFICATION |
| COLATH | 18 16 10 04 02 96 89 82 | ALLOW ANTI-RELIGIONIST TO TEACH |
| COLCOM | 18 16 10 04 02 96 89 82 | ALLOW COMMUNIST TO TEACH |
| COLHOMO | 18 16 10 04 02 96 89 82 | ALLOW HOMOSEXUAL TO TEACH |
| COLMIL | 18 16 10 04 02 96 89 82 | ALLOW MILITARIST TO TEACH |
| COLRAC | 18 16 10 04 02 96 89 82 | ALLOW RACIST TO TEACH |
| CONARMY | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN MILITARY |
| CONBUS | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN MAJOR COMPANIES |
| CONCLERG | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN ORGANIZED RELIGION |
| CONEDUC | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN EDUCATION |
| CONFED | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN EXEC BRANCH OF FED GOVT |
| CONFINAN | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN BANKS & FINANCIAL INST |
| CONJUDGE | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN U.S. SUPREME COURT |
| CONLABOR | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN ORGANIZED LABOR |
| CONLEGIS  | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN CONGRESS |
| CONMEDIC | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN MEDICINE |
| CONPRESS | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN PRESS |
| CONSCI | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN SCIENTIFIC COMMUNITY |
| CONTV | 18 16 10 04 02 96 89 82 75 | CONFIDENCE IN TELEVISION |
| COURTS | 18 16 10 04 02 96 89 82 75 | COURTS DEALING WITH CRIMINALS |
| DEGREE | 18 16 10 04 02 96 89 82 75 | R'S HIGHEST DEGREE |
| EDUC | 18 16 10 04 02 96 89 82 75 | HIGHEST YEAR OF SCHOOL COMPLETED |
| EDUC1 | 18 16 10 04 02 96 89 82 75 | EDUCATION RECODED |
| EQWLTH | 18 16 10 04 02 96 89 | SHOULD GOVT REDUCE INCOME DIFFERENCES |
| FEAR | 18 16 10 04 02 96 89 82 | AFRAID TO WALK AT NIGHT IN NEIGHBORHOOD |
| FECHLD | 18 16 10 04 02 96 89 | MOTHER WORKING DOESNT HURT CHILDREN |
| FEFAM | 18 16 10 4 02 96 89 | BETTER FOR MAN TO WORK, WOMAN TEND HOME |
| FEPOL | 18 16 10 04 02 96 89 82 75 | WOMEN NOT SUITED FOR POLITICS |
| FEPRESCH | 18 16 10 04 02 96 89 | PRESCHOOL KIDS SUFFER IF MOTHER WORKS |
| FINALTER | 18 16 10 04 02 96 89 82 75 | CHANGE IN FINANCIAL SITUATION |
| FINRELA | 18 16 10 04 02 96 89 82 75 | OPINION OF FAMILY INCOME |
| FUND | 18 16 10 04 02 96 89 82 75 | HOW FUNDAMENTALIST IS R CURRENTLY |
| INCOME16 | 18 16 |  |
| INCOME06 | 10 | TOTAL FAMILY INCOME |
| INCOME98 | 04 02 | TOTAL FAMILY INCOME |
| INCOME91 | 96 | TOTAL FAMILY INCOME |
| INCOME86 | 89 | TOTAL FAMILY INCOME |
| INCOME82 | 82 | TOTAL FAMILY INCOME |
| INCOME | 75 | TOTAL FAMILY INCOME |
| LIBATH | 18 16 10 04 02 96 89 82 | ALLOW ANTI-RELIGIOUS BOOK IN LIBRARY |
| LIBCOM | 18 16 10 04 02 96 89 82 | ALLOW COMMUNISTS BOOK IN LIBRARY |
| LIBHOMO | 18 16 10 04 02 96 89 82 | ALLOW HOMOSEXUALS BOOK IN LIBRARY |
| LIBMIL | 18 16 10 04 02 96 89 82 | ALLOW MILITARISTS BOOK IN LIBRARY |
| LIBRAC | 18 16 10 04 02 96 89 82 | ALLOW RACISTS BOOK IN LIBRARY |
| MARITAL | 18 16 10 04 02 96 89 82 75 | MARITAL STATUS |
| NATAID | 18 16 10 04 02 96 89 82 75 | FOREIGN AID |
| NATAIDY | 18 16 10 04 02 96 89 | ASSISTANCE TO OTHER COUNTRIES -- VERSION Y |
| NATARMS | 18 16 10 04 02 96 89 82 75 | MILITARY, ARMAMENTS, AND DEFENSE |
| NATARMSY | 18 16 10 04 02 96 89 | NATIONAL DEFENSE -- VERSION Y |
| NATCITY | 18 16 10 04 02 96 89 82 75 | SOLVING PROBLEMS OF BIG CITIES |
| NATCITYY | 18 16 10 04 02 96 89 | ASSISTANCE TO BIG CITIES --VERSION Y |
| NATCRIME | 18 16 10 04 02 96 89 82 75 | HALTING RISING CRIME RATE |
| NATCRIMY | 18 16 10 04 02 96 89 | LAW ENFORCEMENT -- VERSION Y |
| NATDRUG | 18 16 10 04 02 96 89 82 75 | DEALING WITH DRUG ADDICTION |
| NATDRUGY | 18 16 10 04 02 96 89 | DRUG REHABILITATION -- VERSION Y |
| NATEDUC | 18 16 10 04 02 96 89 82 75 | IMPROVING NATIONS EDUCATION SYSTEM |
| NATEDUCY | 18 16 10 04 02 96 89 | EDUCATION -- VERSION Y |
| NATENVIR | 18 16 10 04 02 96 89 82 75 | IMPROVING&PROTECTING ENVIRONMENT |
| NATENVIY | 18 16 10 04 02 96 89 | THE ENVIRONMENT -- VERSION Y |
| NATFARE | 18 16 10 04 02 96 89 82 75 | WELFARE |
| NATFAREY | 18 16 10 04 02 96 89 | ASSISTANCE TO THE POOR -- VERSION Y |
| NATHEAL | 18 16 10 04 02 96 89 82 75 | IMPROVING&PROTECTING NATIONS HEALTH |
| NATHEALY | 18 16 10 04 02 96 89 | HEALTH -- VERSION Y |
| NATMASS | 18 16 10 04 02 96 89 | MASS TRANSPORTATION |
| NATPARK | 18 16 10 04 02 96 89 | PARKS AND RECREATION |
| NATRACE | 18 16 10 04 02 96 89 82 75 | IMPROVING THE CONDITIONS OF BLACKS |
| NATRACEY | 18 16 10 04 02 96 89 | ASSISTANCE TO BLACKS -- VERSION Y |
| NATROAD | 18 16 10 04 02 96 89 | HIGHWAYS AND BRIDGES |
| NATSOC | 18 16 10 04 02 96 89 | SOCIAL SECURITY |
| NATSPAC | 118 16 0 04 02 96 89 82 75 | SPACE EXPLORATION PROGRAM |
| NATSPACY | 18 16 10 04 02 96 89 | SPACE EXPLORATION -- VERSION Y |
| PARTYID | 18 16 10 04 02 96 89 82 75 | POLITICAL PARTY AFFILIATION |
| PRAY | 18 16 10 04 02 96 89 | HOW OFTEN DOES R PRAY |
| PRAYER | 18 16 10 04 02 96 89 82 75 | SUPPORT SUPREME COURT'S DECISION |
| PRESTG10 | 18 16 |  |
| PRESTG80 | 10 04 02 96 89 | R'S OCCUPATIONAL PRESTIGE SCORE (1980) |
| PRESTIGE | 82 75 | R'S OCCUPATIONAL PRESTIGE SCORE (1970) |
|  |  | RECODED OCCUPATIONAL PRESTIGE |
| RACE | 18 16 10 04 03 96 89 82 75 | RACE OF RESPONDENT |
| RACECEN1 | 18 16 10 04 02 | RACE OF RESPONDENT |
| RACECEN2 | 18 16 10 04 02 | RACE OF RESPONDENT |
| RACECEN3 | 18 16 10 04 02 | RACE OF RESPONDENT |
| RACLIVE | 18 16 10 04 02 96 89 82 75 | ANY OPPOSITE RACE IN NEIGHBORHOOD |
| RACOPEN | 18 16 10 04 96 89 75 | VOTE ON OPEN HOUSING LAW |
| REGION | 18 16 10 04 02 96 89 82 75 | REGION OF INTERVIEW |
| RELIG | 18 16 10 04 02 96 89 82 75 | R'S RELIGIOUS PREFERENCE |
| RELGOSA | 18 16 10 04 02 96 89 | RELIGIOSITY (BASED ON ATTEND, PRAY, RELITEN) |
| RELGOSB | 18 16 10 04 02 96 89 82 75 | RELIGIOSITY (BASED ON ATTEND, RELITEN) |
| RELITEN | 18 16 10 04 02 96 89 82 75 | STRENGTH OF AFFILIATION |
| RINCOM16 | 18 16 |  |
| RINCOM06 | 10 | RESPONDENT’S INCOME |
| RINCOM98 | 04 02 | RESPONDENT’S INCOME |
| RINCOM91 | 96 | RESPONDENT'S INCOME |
| RINCOM86 | 89 | RESPONDENT'S INCOME |
| RINCOM82 | 82 | RESPONDENT'S INCOME |
| RINCOME | 75 | RESPONDENT'S INCOME |
| SATFIN | 18 16 10 04 02 96 89 82 75 | SATISFACTION WITH FINANCIAL SITUATION |
| SEI10 | 18 16 |  |
| SEI | 18 16 10 04 02 96 89 | RESPONDENT SOCIOECONOMIC INDEX |
| SEX | 18 16 10 04 02 96 89 82 75 | RESPONDENT'S SEX |
| SPKATH | 18 16 10 04 02 96 89 82 | ALLOW ANTI-RELIGIONIST TO SPEAK |
| SPKCOM | 18 16 10 04 02 96 89 82 | ALLOW COMMUNIST TO SPEAK |
| SPKHOMO | 18 16 10 04 02 96 89 82 | ALLOW HOMOSEXUAL TO SPEAK |
| SPKMIL | 18 16 10 04 02 96 89 82 | ALLOW MILITARIST TO SPEAK |
| SPKRAC | 10 04 02 96 89 82 | ALLOW RACIST TO SPEAK |
| SUICIDE1 | 18 16 10 04 02 96 89 82 | SUICIDE IF INCURABLE DISEASE |
| SUICIDE2 | 18 16 10 04 02 96 89 82 | SUICIDE IF BANKRUPT |
| SUICIDE3 | 18 16 10 04 02 96 89 82 | SUICIDE IF DISHONORED FAMILY |
| SUICIDE4 | 18 16 10 04 02 96 89 82 | SUICIDE IF TIRED OF LIVING |
| TOLATH | 18 16 10 04 02 96 89 82 | TOLERANCE--ANTI RELIGIONIST |
| TOLCOM | 18 16 10 04 02 96 89 82 | TOLERANCE--COMMUNIST |
| TOLHOMO | 18 16 10 04 02 96 89 82 | TOLERANCE--HOMOSEXUAL |
| TOLMIL | 18 16 10 04 02 96 89 82 | TOLERANCE--MILITARIST |
| TOLRAC | 18 16 10 04 02 96 89 82 | TOLERANCE--RACIST |
| WEIGHT | 18 16 10 04 02 96 89 82 75 | WEIGHT VARIABLE |
| YEAR | 18 16 10 04 02 96 89 82 75 | YEAR OF SURVEY |

**ABANY** Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion the woman wants it for any reason?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**ABDEFECT** Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if there is a strong chance of serious defect in the baby?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**ABHLTH** Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if the woman's own health is seriously endangered by the pregnancy?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**ABNOMORE** Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if she is married and does not want any more children?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**ABPOOR** Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if the family has a very low income and cannot afford any more children?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**ABRAPE** Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if she became pregnant as a result of rape?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**ABSINGLE** Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if she is not married and does not want to marry the man?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**ADULTS** Household members 18 years and older

| **Code** | **Label** |
| --- | --- |
| 9 | NA |

**AGE** Age of respondent in years

| **Code** | **Label** |
| --- | --- |
| 89 | 89+ |
| 99 | NA |

**AGE1** Age recoded ten-year intervals

| **Code** | **Label** |
| --- | --- |
| 1 | UNDER 30 |
| 2 | 30 TO 39 |
| 3 | 40 TO 49 |
| 4 | 50 TO 59 |
| 5 | 60 TO 69 |
| 6 | 70 AND OVER |
| 9 | MISSING |

**AGE2** Age recoded in three categories

| **Code** | **Label** |
| --- | --- |
| 1 | UNDER 30 |
| 2 | 30 TO 49 |
| 3 | 50 AND OVER |
| 9 | MISSING |

**AGED** As you know, many older people share a home with their grown children. Do you think this is generally a good idea or a bad idea?

|  |  |
| --- | --- |
| **Code** | **Label** |
| 1 | A GOOD IDEA |
| 2 | DEPENDS |
| 3 | A BAD IDEA |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**ATTEND** How often do you attend religious services?

| **Code** | **Label** |
| --- | --- |
| 0 | NEVER |
| 1 | LT ONCE A YEAR |
| 2 | ONCE A YEAR |
| 3 | SEVERAL TIMES A YEAR |
| 4 | ONCE A MONTH |
| 5 | 2-3X A MONTH |
| 6 | NEARLY EVERY WEEK |
| 7 | EVERY WEEK |
| 8 | MORE THAN ONCE WEEK |
| 9 | DK, NA |

**CHILDS** How many children have you ever had? (Includes all that were born alive at any time and those from a previous marriage)

| **Code** | **Label** |
| --- | --- |
| 8 | EIGHT OR MORE |
| 9 | NA |

**CLASS** If you were asked to use one of four names for your social class, which would you say you belong in: the lower class, the working class, the middle class, or the upper class?

| **Code** | **Label** |
| --- | --- |
| 1 | LOWER CLASS |
| 2 | WORKING CLASS |
| 3 | MIDDLE CLASS |
| 4 | UPPER CLASS |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**COLATH** There are always some people whose ideas are considered bad or dangerous by other people. For instance, somebody who is against all churches and religion . . .
Should such a person be allowed to teach in a college or university, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | ALLOWED |
| 2 | NOT ALLOWED |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**COLCOM** Now, I should like to ask you some questions about a man who admits he is a Communist. Suppose he is teaching in a college. Should he be allowed to teach, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | ALLOWED |
| 2 | NOT ALLOWED |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**COLHOMO** And what about a man who admits that he is a homosexual? Should such a person be allowed to teach in a college or university, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | ALLOWED |
| 2 | NOT ALLOWED |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**COLMIL** Consider a person who advocates doing away with elections and letting the military run the country. Should such a person be allowed to teach in a college or university, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | ALLOWED |
| 2 | NOT ALLOWED |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**COLRAC** Or consider a person who believes that Blacks are genetically inferior. Should such a person be allowed to teach in a college or university, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | ALLOWED |
| 2 | NOT ALLOWED |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONARMY** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**Military**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONBUS** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**Major companies**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONCLERG** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**Organized religion**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONEDUC** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**Education**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONFED** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**Executive branch of the federal government**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONFINAN** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**Banks and financial institutions**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONJUDGE** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**U.S. Supreme Court**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONLABOR** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**Organized labor**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONLEGIS** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**Congress**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONMEDIC** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**Medicine**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONPRESS** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**Press**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONSCI** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**Scientific Community**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**CONTV** I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

**TV**

| **Code** | **Label** |
| --- | --- |
| 1 | A GREAT DEAL |
| 2 | ONLY SOME |
| 3 | HARDLY ANY |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**COURTS** In general, do you think the courts in this area deal too harshly or not harshly enough with criminals?

| **Code** | **Label** |
| --- | --- |
| 1 | TOO HARSH |
| 2 | ABOUT RIGHT |
| 3 | NOT HARSH ENOUGH |
| 8 | DK |
| 9 | NA |

**DEGREE** Respondent's highest degree

|  |  |
| --- | --- |
| Code | Label |
| 0 | LT HIGH SCHOOL |
| 1 | HIGH SCHOOL |
| 2 | JUNIOR COLLEGE |
| 3 | BACHELOR |
| 4 | GRADUATE |
| 7 | NAP |
| 8 | DK |
| 9 | NA |

**EDUC** What is the highest grade in elementary school or high school that you finished and got credit for?

| **Code** | **Label** |
| --- | --- |
| 8 | DK |
| 9 | NA |

**EDUC1** Education recoded

| **Code** | **Label** |
| --- | --- |
| 1 | 12 YEARS OR LESS |
| 2 | 13 TO 15 YEARS |
| 3 | 16 YEARS OR MORE |
| 9 | DK, NA |

**EQWLTH** Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor.

| **Code** | **Label** |
| --- | --- |
| 1 | GOVERNMENT REDUCE DIFFERENCES |
| 7 | NO GOVERNMENT ACTION |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**FEAR** Is there any area right around here--that is, within a mile--where you would be afraid to walk alone at night?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |

**FECHLD** A working mother can establish just as warm and secure a relationship with her children as a mother who does not work.

| **Code** | **Label** |
| --- | --- |
| 1 | STRONGLY AGREE |
| 2 | AGREE |
| 3 | DISAGREE |
| 4 | STRONGLY DISAGREE |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**FEFAM** It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.

| **Code** | **Label** |
| --- | --- |
| 1 | STRONGLY AGREE |
| 2 | AGREE |
| 3 | DISAGREE |
| 4 | STRONGLY DISAGREE |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**FEPOL** Most men are better suited emotionally for politics than are most women.

| **Code** | **Label** |
| --- | --- |
| 1 | AGREE |
| 2 | DISAGREE |
| 0 | NAP |
| 8 | NOT SURE |
| 9 | NA |

**FEPRESCH** A preschool child is likely to suffer if his or her mother works.

| **Code** | **Label** |
| --- | --- |
| 1 | STRONGLY AGREE |
| 2 | AGREE |
| 3 | DISAGREE |
| 4 | STRONGLY DISAGREE |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**FINALTER** During the last few years, has your financial situation been getting better, worse, or has it stayed the same?

| **Code** | **Label** |
| --- | --- |
| 1 | BETTER |
| 2 | STAYED SAME |
| 3 | WORSE |
| 8 | DK |
| 9 | NA |

**FINRELA** Compared with American families in general, would you say your family income is far below average, below average, average, above average, or far above average?

| **Code** | **Label** |
| --- | --- |
| 1 | FAR BELOW AVERAGE |
| 2 | BELOW AVERAGE |
| 3 | AVERAGE |
| 4 | ABOVE AVERAGE |
| 5 | FAR ABOVE AVERAGE |
| 8 | DK |
| 9 | NA |

**FUND** Fundamentalism/Liberalism of respondent's religion

| **Code** | **Label** |
| --- | --- |
| 1 | FUNDAMENTALIST |
| 2 | MODERATE |
| 3 | LIBERAL |
| 9 | NA |

**INCOME16** In which of these groups did your total family income, from all sources, fall last year before taxes? [[see footnote 1]](#foot1)

| **Code** | **Label** |
| --- | --- |
| 1 | Under $1000 |
| 2 | $1000-2999 |
| 3 | $3000-3999 |
| 4 | $4000-4999 |
| 5 | $5000-5999 |
| 6 | $6000-6999 |
| 7 | $7000-7999 |
| 8 | $8000-9999 |
| 9 | $10000-12499 |
| 10 | $12500-14999 |
| 11 | $15000-17490 |
| 12 | $17500-19999 |
| 13 | $20000-22499 |
| 14 | $22500-24999 |
| 15 | $25000-29999 |
| 16 | $30000-34999 |
| 17 | $35000-39999 |
| 18 | $40000-49999 |
| 19 | $50000-59999 |
| 20 | $60000-74999 |
| 21 | $75000-89999 |
| 22 | $90000-109999 |
| 23 | $110000-129999 |
| 24 | $130000-149999 |
| 25 | $150000-169999 |
| 26 | $170000+ |

**INCOME06** In which of these groups did your total family income, from all sources, fall last year before taxes? [[see footnote 1]](#foot1)

| **Code** | **Label** |
| --- | --- |
| 1 | Under $10000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000-34999 |
| 6 | $35000-49999 |
| 7 | $50000-59999 |
| 8 | $60000-74999 |
| 9 | $75000-89999 |
| 10 | $90000-109999 |
| 11 | $110000+ |

**INCOME98** In which of these groups did your total family income, from all sources, fall last year before taxes? [[see footnote 1]](#foot1)

| **Code** | **Label** |
| --- | --- |
| 1 | Under $10000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000-34999 |
| 6 | $35000-49999 |
| 7 | $50000-59999 |
| 8 | $60000-74999 |
| 9 | $75000-89999 |
| 10 | $90000-109999 |
| 11 | $110000+ |

**INCOME91** In which of these groups did your total family income, from all sources, fall last year before taxes? [[see footnote 1]](#foot1)

| **Code** | **Label** |
| --- | --- |
| 1 | Under $10000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000-34999 |
| 6 | $35000-49999 |
| 7 | $50000-59999 |
| 8 | $60000-74999 |
| 9 | $75000+ |

**INCOME86** [[see footnote 1]](#foot1)

| **Code** | **Label** |
| --- | --- |
| 1 | Under $10000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000-34999 |
| 6 | $35000-49999 |
| 7 | $50000-59999 |
| 8 | $60000+ |

**INCOME82** [[see footnote 1]](#foot1)

| **Code** | **Label** |
| --- | --- |
| 1 | Under $10000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000-34999 |
| 6 | $35000-49999 |
| 7 | $50000+ |

**INCOME** [[see footnote 1]](#foot1)

| **Code** | **Label** |
| --- | --- |
| 1 | Under $10000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000+ |

**LIBATH** There are always some people whose ideas are considered bad or dangerous by other people. For instance, somebody who is against all churches and religion . . . If some people in your community suggested that a book he wrote against churches and religion should be taken out of your public library, would you favor removing this book, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | NOT REMOVE |
| 2 | REMOVE |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**LIBCOM** Now, I should like to ask you some questions about a man who admits he is a Communist. Suppose he wrote a book which is in your public library. Somebody in your community suggests that the book should be removed from the library. Would you favor removing it, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | NOT REMOVE |
| 2 | REMOVE |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**LIBHOMO** And what about a man who admits that he is a homosexual? If some people in your community suggested that a book he wrote in favor of homosexuality should be taken out of your public library, would you favor removing this book, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | NOT REMOVE |
| 2 | REMOVE |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**LIBMIL** Consider a person who advocates doing away with elections and letting the military run the country. Suppose he wrote a book advocating doing away with elections and letting the military run the country. Somebody in your community suggests that the book be removed from the public library. Would you favor removing it, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | NOT REMOVE |
| 2 | REMOVE |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**LIBRAC** Or consider a person who believes that Blacks are genetically inferior. If some people in your community suggested that a book he wrote which said Blacks are inferior should be taken out of your public library, would you favor removing this book, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | NOT REMOVE |
| 2 | REMOVE |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**MARITAL** Are you currently--married, widowed, divorced, separated, or have you never been married?

| **Code** | **Label** |
| --- | --- |
| 1 | MARRIED |
| 2 | WIDOWED |
| 3 | DIVORCED |
| 4 | SEPARATED |
| 5 | NEVER MARRIED |
| 9 | NA |

**NATAID** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Foreign aid**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATAIDY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Assistance to other countries**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATARMS** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**The military, armaments and defense**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATARMSY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**National defense**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATCITY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Solving the problems of the big cities**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATCITYY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Assistance to big cities**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATCRIME** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Halting the rising crime rate**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATCRIMY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Law enforcement**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATDRUG** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Dealing with drug addiction**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATDRUGY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Drug rehabilitation**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATEDUC** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Improving the nation's education system**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATEDUCY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Education**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATENVIR** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Improving and protecting the environment**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATENVIY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**The environment**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATFARE** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Welfare**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATFAREY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Assistance to the poor**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATHEAL** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Improving and protecting the nation's health**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATHEALY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Health**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATMASS** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Mass Transportation**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATPARK** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Parks and recreation**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATRACE** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Improving the conditions of Blacks**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATRACEY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Assistance to blacks**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATROAD** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Highways and bridges**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATSOC** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much money, too little money, or about the right amount on...

**Social Security**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATSPAC** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First (READ ITEM A) . . . are we spending too much, too little, or about the right amount on (ITEM)?

**Space exploration program**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**NATSPACY** We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First (READ ITEM A) . . . are we spending too much, too little, or about the right amount on (ITEM)?

**Space exploration**

| **Code** | **Label** |
| --- | --- |
| 1 | TOO LITTLE |
| 2 | ABOUT RIGHT |
| 3 | TOO MUCH |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**PARTYID** Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what?

| **Code** | **Label** |
| --- | --- |
| 0 | STRONG DEMOCRAT |
| 1 | NOT STRONG DEMOCRAT |
| 2 | INDEPENDENT, NEAR DEMOCRAT |
| 3 | INDEPENDENT |
| 4 | INDEPENDENT, NEAR REPUBLICAN |
| 5 | NOT STRONG REPUBLICAN |
| 6 | STRONG REPUBLICAN |
| 7 | OTHER PARTY |
| 9 | NA |

**PRAY** About how often do you pray?

| **Code** | **Label** |
| --- | --- |
| 1 | SEVERAL TIMES A DAY |
| 2 | ONCE A DAY |
| 3 | SEVERAL TIMES A WEEK |
| 4 | ONCE A WEEK |
| 5 | LESS THAN ONCE A WEEK |
| 6 | NEVER |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**PRAYER** The United States Supreme Court has ruled that no state or local government may require the reading of the Lord's Prayer or Bible verses in public schools. What are your views on this--do you approve or disapprove of the court ruling?

| **Code** | **Label** |
| --- | --- |
| 1 | APPROVE |
| 2 | DISAPPROVE |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**PRESTG10** Prestige of respondent's occupation (2010) Measure of respondent's occupational prestige which is a replication and extension of the Hodge-Siegel-Rossi ratings of occupational prestige. Low scores indicate low prestige and high scores indicate high prestige. See the appendices in the Cumulative Codebook for the General Social Surveys for more information.

| **Code** | **Label** |
| --- | --- |
| 0 | DK, NA, NAP |

**PRESTG80** Prestige of respondent's occupation (1980) Measure of respondent's occupational prestige which is a replication and extension of the Hodge-Siegel-Rossi ratings of occupational prestige. Low scores indicate low prestige and high scores indicate high prestige. See the appendices in the Cumulative Codebook for the General Social Surveys for more information.

| **Code** | **Label** |
| --- | --- |
| 0 | DK, NA, NAP |

**PRESTIGE** Prestige of respondent's occupation (1970) Measure of respondent's occupational prestige which is a replication and extension of the Hodge-Siegel-Rossi ratings of occupational prestige. Low scores indicate low prestige and high scores indicate high prestige. See the appendices in the Cumulative Codebook for the General Social Surveys for more information.

| **Code** | **Label** |
| --- | --- |
| 0 | DK, NA, NAP |

**RACE** What race do you consider yourself? [see footnote 2]

| **Code** | **Label** |
| --- | --- |
| 1 | WHITE |
| 2 | BLACK |
| 3 | OTHER |

**RACECEN1 RACECEN2 RACECEN3** What race do you consider yourself? Respondent’s first, second, and third mention. [see footnote 2]

| **Code** | **Label** |
| --- | --- |
| **1** | **WHITE** |
| 2 | BLACK OR AFRICAN AMERICAN |
| 3 | AMERICAN INDIAN OR ALASKA NATIVE |
| 4 | ASIAN INDIAN |
| 5 | CHINESE |
| 6 | FILIPINO |
| 7 | JAPANESE |
| 8 | KOREAN |
| 9 | VIETNAMESE |
| 10 | OTHER ASIAN |
| 11 | NATIVE HAWAIIAN |
| 12 | GUAMANIAN OR CHAMORRO |
| 13 | SAMOAN |
| 14 | OTHER PACIFIC ISLANDER |
| 15 | SOME OTHER RACE |
| 16 | HISPANIC |
| 98  | DK |
| 99 | NA |

**RACLIVE** Are there any (Negroes/Blacks/African Americans) living in this neighborhood now? [see footnote 3]

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**RACOPEN** Suppose there is a community-wide vote on the general housing issue. There are two possible laws to vote on. Which law would you vote for? [see footnote 3]

| **Code** | **Label** |
| --- | --- |
| 1 | OWNER DECIDES |
| 2 | CAN'T DISCRIMINATE |
| 3 | NEITHER (USED IN 2010 ONLY) |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**REGION** Region of interview

| **Code** | **Label** |
| --- | --- |
| 1 | NEW ENGLAND |
| 2 | MIDDLE ATLANTIC |
| 3 | EAST NORTH CENTRAL |
| 4 | WEST NORTH CENTRAL |
| 5 | SOUTH ATLANTIC |
| 6 | EAST SOUTH CENTRAL |
| 7 | WEST SOUTH CENTRAL |
| 8 | MOUNTAIN |
| 9 | PACIFIC |

**RELIG** What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion?

| **Code** | **Label** |
| --- | --- |
| 1 | PROTESTANT |
| 2 | CATHOLIC |
| 3 | JEWISH |
| 4 | NONE |
| 5 | OTHER |
| 98 | DK |
| 99 | NA |

**RELGOSA** Religiosity. Religiosity is the strength of an individual's attachment to his or her religious affiliation. It was created by combining three other variables-RELITEN (attachment to religious preference), PRAY (frequency of prayer), and ATTEND (frequency of church attendance). If an individual says he has a strong attachment to his religious affiliation, attends church often, and prays often, then he or she is highly religious. If an individual says he doesn't have a strong attachment to his religious affiliation, attends church infrequently, and prays infrequently, then he or she is not religious. Everyone else will be somewhere between highly religious and not religious. (Not available for 1982 and 1975 since PRAY was not asked in 1982 and 1975.)

| **Code** | **Label** |
| --- | --- |
| 1 | HIGH IN RELIGIOSITY |
| 2 | MEDIUM IN RELIGIOSITY |
| 3 | LOW IN RELIGIOSITY |
| 9 | MISSING |

**RELGOSB** Religiosity. Religiosity is the strength of an individual's attachment to his or her religious affiliation. It was created by combining three other variables-RELITEN (attachment to religious preference) and ATTEND (frequency of church attendance). Note that PRAY was not used in this index. If an individual says he has a strong attachment to his religious affiliation and attends church often, then he or she is highly religious. If an individual says he doesn't have a strong attachment to his religious affiliation and attends church infrequently, then he or she is not religious. Everyone else will be somewhere between highly religious and not religious. (Available for all years since RELITEN and ATTEND were asked in all years.)

| **Code** | **Label** |
| --- | --- |
| 1 | HIGH IN RELIGIOSITY |
| 2 | MEDIUM IN RELIGIOSITY |
| 3 | LOW IN RELIGIOSITY |
| 9 | MISSING |

**RELITEN** Would you call yourself a strong (Protestant, Catholic, Jew, Other-specify) or a not very strong (Protestant, Catholic, Jew, Other-specify)?

| **Code** | **Label** |
| --- | --- |
| 1 | STRONG |
|  2 | SOMEWHAT STRONG |
| 3 | NOT VERY STRONG |
| 4 | NO RELIGION |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**RINCOM16** Respondent's income. In which of these groups did your earnings for last year fall? That is, before taxes or other deductions [[see footnote 4]](#foot2).

| **Code** | **Label** |
| --- | --- |
| 1 | Under $1000 |
| 2 | $1000-2999 |
| 3 | $3000-3999 |
| 4 | $4000-4999 |
| 5 | $5000-5999 |
| 6 | $6000-6999 |
| 7 | $7000-7999 |
| 8 | $8000-9999 |
| 9 | $10000-12499 |
| 10 | $12500-14999 |
| 11 | $15000-17490 |
| 12 | $17500-19999 |
| 13 | $20000-22499 |
| 14 | $22500-24999 |
| 15 | $25000-29999 |
| 16 | $30000-34999 |
| 17 | $35000-39999 |
| 18 | $40000-49999 |
| 19 | $50000-59999 |
| 20 | $60000-74999 |
| 21 | $75000-89999 |
| 22 | $90000-109999 |
| 23 | $110000-129999 |
| 24 | $130000-149999 |
| 25 | $150000-169999 |
| 26 | $170000+ |

**RINCOM06** Respondent's income. In which of these groups did your earnings for last year fall? That is, before taxes or other deductions [[see footnote 4]](#foot2).

| **Code** | **Label** |
| --- | --- |
| 1 | Under $10000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000-34999 |
| 6 | $35000-49999 |
| 7 | $50000-59999 |
| 8 | $60000-74999 |
| 9 | $75000-89999 |
| 10 | $90000-109999 |
| 11 | $110000+ |

**RINCOM98** Respondent's income. In which of these groups did your earnings for last year fall? That is, before taxes or other deductions [[see footnote 4]](#foot2).

| **Code** | **Label** |
| --- | --- |
| 1 | Under $10000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000-34999 |
| 6 | $35000-49999 |
| 7 | $50000-59999 |
| 8 | $60000-74999 |
| 9 | $75000-89999 |
| 10 | $90000-109999 |
| 11 | $110000+ |

**RINCOM91** Respondent's income. In which of these groups did your earnings for last year fall? That is, before taxes or other deductions [[see footnote 4]](#foot2).

|  |  |
| --- | --- |
| 1 | UNDER $1000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000-34999 |
| 6 | $35000-49999 |
| 7 | $50000-59999 |
| 8 | $60000-74999 |
| 9 | $75000+ |

**RINCOM86** Respondent's income. In which of these groups did your earnings for last year fall? That is, before taxes or other deductions [[see footnote 4]](#foot2)

|  |  |
| --- | --- |
| 1 | UNDER $1000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000-34999 |
| 6 | $35000-49999 |
| 7 | $50000-59999 |
| 8 | $60000+ |

**RINCOM82** Respondent's income. In which of these groups did your earnings for last year fall? That is, before taxes or other deductions [[see footnote 4]](#foot2)

|  |  |
| --- | --- |
| 1 | UNDER $1000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000-34999 |
| 6 | $35000-49999 |
| 7 | $50000+ |

**RINCOME** Respondent's income. In which of these groups did your earnings for last year fall? That is, before taxes or other deductions [[see footnote 4]](#foot2)

| **Code** | **label** |
| --- | --- |
| 1 | UNDER $1000 |
| 2 | $10000-14999 |
| 3 | $15000-19999 |
| 4 | $20000-24999 |
| 5 | $25000+ |

**SATFIN** We are interested in how people are getting along financially these days. So far as you and your family are concerned, would you say that you are pretty well satisfied with your present financial situation, more or less satisfied, or not satisfied at all?

| **Code** | **Label** |
| --- | --- |
| 1 | SATISFIED |
| 2 | MORE OR LESS |
| 3 | NOT AT ALL SATISFIED |
| 8 | DK |
| 9 | NA |

**SEI10** Respondent's socioeconomic index. Measure of occupational prestige which is based on the work of Otis Dudley Duncan. Low scores indicate low prestige and high scores indicate high prestige. See the appendices in the Cumulative Codebook for the General Social Surveys for more information.

| **Code** | **Label** |
| --- | --- |
| 0 | NAP |

**SEI** Respondent's socioeconomic index. Measure of occupational prestige which is based on the work of Otis Dudley Duncan. Low scores indicate low prestige and high scores indicate high prestige. See the appendices in the Cumulative Codebook for the General Social Surveys for more information.

| **Code** | **Label** |
| --- | --- |
| 0 | NAP |

**SEX** Respondent's sex

| **Code** | **Label** |
| --- | --- |
| 1 | MALE |
| 2 | FEMALE |

**SPKATH** There are always some people whose ideas are considered bad or dangerous by other people. For instance, somebody who is against all churches and religion. If such a person wanted to make a speech in your (city/town/community) against churches and religion, should he be allowed to speak, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | ALLOWED |
| 2 | NOT ALLOWED |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**SPKCOM** Now, I should like to ask you some questions about a man who admits he is a Communist. Suppose this admitted Communist wanted to make a speech in your community. Should he be allowed to speak, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | ALLOWED |
| 2 | NOT ALLOWED |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**SPKHOMO** And what about a man who admits that he is a homosexual? Suppose this admitted homosexual wanted to make a speech in your community. Should he be allowed to speak, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | ALLOWED |
| 2 | NOT ALLOWED |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**SPKMIL** Consider a person who advocates doing away with elections and letting the military run the country. If such a person wanted to make a speech in your community, should he be allowed to speak, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | ALLOWED |
| 2 | NOT ALLOWED |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**SPKRAC** Or consider a person who believes that Blacks are genetically inferior. If such a person wanted to make a speech in your community claiming that Blacks are inferior, should he be allowed to speak, or not?

| **Code** | **Label** |
| --- | --- |
| 1 | ALLOWED |
| 2 | NOT ALLOWED |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**SUICIDE1** Do you think a person has the right to end his or her own life if this person has an incurable disease?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**SUICIDE2** Do you think a person has the right to end his or her own life if this person if this person has gone bankrupt?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**SUICIDE3** Do you think a person has the right to end his or her own life if this person has dishonored his or her family?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**SUICIDE4** Do you think a person has the right to end his or her own life if this person is tired of living and ready to die?

| **Code** | **Label** |
| --- | --- |
| 1 | YES |
| 2 | NO |
| 0 | NAP |
| 8 | DK |
| 9 | NA |

**TOLATH** Tolerance-anti-religionist. This is a measure of tolerance created by combining COLATH, LIBATH, and SPKATH. These questions ask if a person who is an atheist should be allowed to teach in a college or university, to have a book in the public library, and to give a public speech. A person is high in tolerance if they would allow all three and low if they would not allow any. All others are medium in tolerance. (Not available for 1975.)

| **Code** | **label** |
| --- | --- |
| 3 | HIGH |
| 4 | MEDIUM HIGH |
| 5 | MEDIUM LOW |
| 6 | LOW |
| 9 | MISSING |

**TOLCOM** Tolerance-communist. This is a measure of tolerance created by combining COLCOM, LIBCOM, and SPKCOM. These questions ask if a person who is a Communist should be allowed to teach in a college or university, to have a book in the public library, and to give a public speech. A person is high in tolerance if they would allow all three and low if they would not allow any. All others are medium in tolerance. (Not available for 1975.)

| **Code** | **Label** |
| --- | --- |
| 3 | HIGH |
| 4 | MEDIUM HIGH |
| 5 | MEDIUM LOW |
| 6 | LOW |
| 9 | MISSING |

**TOLHOMO** Tolerance-homosexual. This is a measure of tolerance created by combining COLHOMO, LIBHOMO, and SPKHOMO. These questions ask if a person who is a homosexual should be allowed to teach in a college or university, to have a book in the public library, and to give a public speech. A person is high in tolerance if they would allow all three and low if they would not allow any. All others are medium in tolerance. (Not available for 1975.)

| **Code** | **Label** |
| --- | --- |
| 3 | HIGH |
| 4 | MEDIUM HIGH |
| 5 | MEDIUM LOW |
| 6 | LOW |
| 9 | MISSING |

**TOLMIL** Tolerance-militarist. This is a measure of tolerance created by combining COLMIL, LIBMIL, and SPKMIL. These questions ask if a person who is a militarist should be allowed to teach in a college or university, to have a book in the public library, and to give a public speech. A person is high in tolerance if they would allow all three and low if they would not allow any. All others are medium in tolerance. (Not available for 1975.)

| **Code** | **Label** |
| --- | --- |
| 3 | HIGH |
| 4 | MEDIUM HIGH |
| 5 | MEDIUM LOW |
| 6 | LOW |
| 9 | MISSING |

**TOLRAC** Tolerance-racist. This is a measure of tolerance created by combining COLRAC, LIBRAC, and SPKRAC. These questions ask if a person who is a racist should be allowed to teach in a college or university, to have a book in the public library, and to give a public speech. A person is high in tolerance if they would allow all three and low if they would not allow any. All others are medium in tolerance. (Not available for 1975.)

| **Code** | **Label** |
| --- | --- |
| 3 | HIGH |
| 4 | MEDIUM HIGH |
| 5 | MEDIUM LOW |
| 6 | LOW |
| 9 | MISSING |

**WEIGHT** See Appendix B for a discussion of the weight variable.

**YEAR** Year of survey

Footnote 1 – INCOME16 was used for 2016 and 2018. INCOME06 was used for 2010, INCOME98 was used for 2004 and 2002, INCOME91 was used for 1996, INCOME86 was used for 1989, INCOME82 was used for 1982, and INCOME was used for 1975. While the categories are different, they can be recoded to allow comparisons over time.

Footnote 2 – Starting in 2002 and continuing thereafter, RACECEN1, RACECEN2 and RACECEN3 were added to the survey.

Footnote 3 -- In 1975, this question was asked of whites only. Thereafter, this question was asked of all races. This must be kept in mind when comparing data over time.

Footnote 4 – RINCOM16 was used for 2016 and 2018. RINCOM06 was used in 2010, RINCOM98 was used for 2004 and 2002, RINCOM91 was used for 1996, RINCOM86 was used for 1989, RINCOM82 was used for 1982, and RINCOME was used for 1975. While the categories are different, they can be recoded to allow comparisons over time.

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## Appendix B:Notes on the Data Sets

**DATA**

The two data files for this module are available as SPSS Portable (.POR) files. There is one file containing only the 2018 sample data (called GSS\_2018.POR). This data file is used in the chapter 4 exercises.

There is another data file containing the variables in the seven time periods. When this module was first written the General Social Survey (GSS) was conducted annually. It was first conducted in 1972. The decision to start this module with the 1975 GSS was made because some of the questions we were interested in were first included in the 1975 GSS. We decided to look at change over seven-year intervals. In 1994 the GSS became a biannual survey. This meant that we were no longer able to keep strictly to seven-year intervals because it was no longer an annual survey. There was no 2003 survey. Nor was there a 2017 survey. For the purpose of this module it was decided to merge the 2002 and 2004 surveys and consider that the 2003 survey. The same decision was made for the 2016 and 2018 surveys which was considered the 2017 survey. The name of this file is GSS\_17\_10\_03\_96\_89\_82\_75.POR. Both data sets are available on the Social Science Research and Instructional Council’s (SSRIC) [website](http://www.ssric.org/trd/modules/siss11).

**SPSS**

There is an introduction to the basics of SPSS available for your use – IBM *SPSS for Windows Version 26: A Basic Tutorial* (Edward Nelson and John Korey). It is available on the SSRIC [website](http://ssric.org/node/696).

**PSPP**

We realize that not everyone will have access to SPSS. There is a free alternative to SPSS called PSPP. There is an introduction to PSPP that is also available on the SSRIC’s [website](http://ssric.org/node/699).

**CODEBOOK**

The codebook is included in this module as [Appendix A](file:///C%3A%5CPROFESSIONAL%5CSSRIC%5CExercises%20%26%20Modules%5CExercises%20for%20SISS%202019%5Csiss%202019%20module%20with%20data%20-%20November%202019%5Csisscb.htm). A list of all the variables for use is at the beginning of the codebook. A variable (YEAR) was created specifying the year of the survey. Keep in mind that the year 2003 refers to the merged 2002 and 2004 surveys and the year 2017 refers to the merged 2016 and 2018 surveys. Several of the variables have been recoded to make them easier to use. AGE was recoded into AGE1 and AGE2 to reduce the number of categories. EDUC was also recoded into EDUC1 for the same reason.

There are seven total family income variables. INCOME was used in the 1975 survey. INCOME82 is based on a code introduced in 1982 and was used in the 1982 survey. INCOME86 is based on a code introduced in 1986 and was used in the 1989 survey. INCOME91 is based on a code introduced in 1991 and was used in the 1996 survey. INCOME98 is based on a code introduced in 1998 and was used in the 2002 and 2004 surveys. INCOME06 is based on a code introduced in 2006 and was used in the 2010 survey. INCOME16 is based on a code introduced in 2016 and was used in the 2016 and 2018 surveys. We didn’t attempt to combine these variables into a single variable.

Respondent’s income also has seven variables (RINCOME, RINCOM82, RINCOM86, RINCOM91, RINCOM98, RINCOM06, RINCOM16) and follows the same pattern as total family income.

There are three occupational prestige variables. That’s because the categories used in the GSS also changed over time. PRESTIGE is based on a code that was used in the 1975 and 1982 surveys. PRESTG80 is based on a code introduced in 1980 and used in the 1989, 1996, 2002, and 2004 surveys. PRESTG10 was introduced in 2010 and was used in the 2010, 2016, and 2018 surveys. We didn’t attempt to combine these variables into a single variable.

There is also a socioeconomic status index and there are two such variables. SEI was used in the 1975, 1982, 1989, 1996, 2002, and 2004 surveys. SEI10 was used in the 2010, 2016, and 2018 surveys. We didn’t attempt to combine these variables into a single variable.

Race in all the surveys consists of three categories (White, Black, Other). In 2002, 2004, 2010, 2016, and 2018 the GSS included three additional race variables (RACECEN1, RACECEN2, RACECEN3). These variables are the respondent’s first three answers to the question “What race do you consider yourself to be?”

We also created two new variables to measure religiosity (RELIGOSA, RELIGOSB) and five new variables to measure tolerance (TOLATH, TOLCOM, TOLHOMO, TOLMIL, TOLRAC). See the codebook in Appendix A for a description of these new variables.

**WEIGHTING**

There is a weight variable (WEIGHT) in the data set that can be used. In 2004 and subsequent years, the General Social Survey modified their sampling design and included two weight variables that they hadn’t included in previous surveys. For 2004 and 2010, we used one of their weight variables in the data set. For 2016 and 2018 a third weight variable was added. For a more complete description of the weight variables, see Appendix A in the *General Social Survey 1972-2018 Cumulative Codebook.* The weight variables are not turned on in the data sets you can download. You will have to turn them on in SPSS by going to Data/Weight Cases.

**CUSTOMIZING THE MODULE**

The module can be integrated into your classes in many ways. One approach is to assign the introductory chapters to be read by the students and then work through the simpler exercises in class. Ideally students should be given the opportunity to use SPSS themselves and not just watch you do it. Later, exercises can be assigned as homework and then reviewed in class.

A second approach is for instructors to develop their own exercises to accompany the module. There is no reason that you should limit yourself to the exercises we developed. If you do develop your own exercises, be sure to test them before assigning them.

A third approach is for instructors to use the data set accompanying the module but not use the module itself. You would have to develop your own exercises to make it relevant for your particular class.

The only statistics used in the module are percentages, Chi-Square, Cramer's V, Gamma, Tau-c, and Somer’s D. You could skip over all these statistics except percentages or you could introduce other statistical techniques.