Reminder on Reading Tables
Read the title carefully. (A good title tells exactly what is in the table.)
- Look for headnotes or other explanations of the title.
- Look for any footnotes. Do they apply to the whole table? If not, to what part?
- Evaluate the source of the data. Is it likely to be reliable? Is it up to date?
- Study the column and row headings. What do they mean?
- Look for any overall average or total for the whole table. If the data are percentages, understand how they add to 100 percent.
- Describe some of the numbers in words. (For example, [Number] percent of [100%] are [row or column heading].) Sometimes population numbers are given in thousands, so you need to remember that that means millions.
- Look for patterns. What is the range? (For example, what are the largest and smallest numbers or percents?) Are most cases concentrated in one category or are they more evenly spread out?
- Summarize the main points of the table in words, using figures from the table as examples.

Table C.1 – 2009 Marital Status by Sex, (Persons age 18 and over)

Marital Status	Women	Men
Married	65.5	64.8
Widowed	11.4	2.8
Divorced	13.3	9.9
Never Married	25.7	32.4
Total (in thousands)	116.9	110.0

Source: Bureau of the Census. 2011. *Statistical Abstract of the United States*. Table 56
http://www.census.gov/compendia/statab/2011/tables/11s0056.pdf

Sometimes it is not obvious how a table adds to 100%. (See Table C2.) A quick examination shows that it does not add to 100% down or across. (In 1960, 83% male + 38% female would be more than

100%.) To save space, this chart omits the percent of people who are not in the labor force. (In 1960, the 83% of the males who were in the labor force plus the 16% of the males who were not in the labor force equaled 100%. Similarly, 38% of the females were in the labor force and the rest of them were not in the labor force in 1960.)

Table C.2 -- Labor Force Participation Rate by Sex: 1970-2009 (Percent of the noninstitutionalized population age 16 and over who are employed or unemployed and have looked for work in the last four weeks.)

Year	Male	Female
1960	83.3	37.7
1970	79.7	43.3
1980	77.4	51.5
1990	76.4	57.5
2000	74.8	59.9
2009	72.0	59.2

Source: U.S. Bureau of the Census. 2011 *Statistical Abstract of the United States*. Table 586
http://www.census.gov/compendia/statab/2011/tables/11s0056.pdf

Data Analysis Example with Frequency and Percent Distribution, Dummy Table, and Crosstab

This example uses data from a study of the opinions and behavior of California State University Students gathered in 1994. This question related to the students' knowledge of pregnancy facts.

Table C.3 -- Frequency and Percent Distribution of CSU Students' Responses to "At What Time in Her Monthly Cycle is a Woman Most Likely to become Pregnant?"

	Number	Percent
Beginning	545	27.0
Middle	1,113	55.1
End	361	17.9
Total	2,019	100.0

The percentages show that over half (55%) of the CSU students answered the question correctly. (A woman is most fertile in the middle of the monthly cycle.)

Analysis with Crosstabulation

To **analyze** means to break something down into its component parts and study them in order to gain a better understanding of the whole. We can look at these responses in more detail to gain a better understanding of students' knowledge of this rather important part of human life. **Crosstabulation** uses tables showing the number and percentage of cases in each combination of categories of the data. We usually start with a hypothesis stating what we might expect given our knowledge of people. We might think that people would have better understanding of health information related to their own bodies, so female students might be more likely than the male students to answer correctly. So, we hypothesize that females would be more likely to answer "middle." We can make a dummy table showing what we would expect if the hypothesis were supported by the data.

Dummy Table C.4 -- Frequency and Percent Distribution of CSU Students' Responses to "At What Time in Her Monthly Cycle is a Woman Most Likely to Become Pregnant?"

	Male		Female
Beginning	a	>	b
Middle	c	<	d
End	e	>	f

The next table is a crosstabulation from IBMSPSS of the responses by sex, so we can look at similarities and differences in the responses of males and females. To crosstabulate by sex, construct separate frequency and percent distributions for each sex, calculating the percentages down so we can compare across. Interpreting the results, we summarize the main point of the comparison as it relates to our hypothesis.

Table C.5 -- Frequency and Percent Distribution of CSU Students' Responses to "At What Time in Her Monthly Cycle is a Woman Most Likely to Become Pregnant?" by Sex						
	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Beginning	279	30.8	266	23.9	545	27.0
Middle	448	49.4	665	59.7	1,113	55.1
End	179	19.8	182	16.4	361	17.9
Total	906	100.0	1,113	100.0	2,019	100.0
Source: Survey of California State University students conducted by James Ross (1994)						

Interpretation: Women students were more likely than male students to answer correctly (60% of the women compared to 50% of the men answered that a woman is most likely to become pregnant in the middle of her monthly cycle). Our hypothesis is supported.