

Integrated Data Analysis (IDA) Assignment

**GENDER, MARITAL STATUS, AND EARNINGS**  
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Introduction

**Learning Objectives:**

*Skill*

- Read a cross-tabulation to identify and describe the relationship between two variables.
- Develop hypotheses and identify independent and dependent variables.
- Describe the conditions necessary for causation and evaluate relationships based on the criteria for causation.
- Be familiar with how controls are used to identify spurious relationships.

*Substance*

- To discuss the topic of marital status and earnings among women.

Discussion and Preparation

Before you begin the exercise, discuss the following questions:

1. Is there a relationship between marital status and earnings among women? What do you predict that the data will show? Will married women, in your opinion, earn more or less than never married, separated, divorced, or widowed women? Why?

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2. Do you think the relationship between marital status and earnings, if it exists, is causal? Why or why not?

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3. If you answered “yes” to number 2, write a hypothesis about the relationship between marital status and earnings. Specify the independent and the dependent variable.

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Exercise

**Step 1: Describing the Data Set**

The data set that we will use for this exercise is called [EARNWN2K.DAT](#).

1. Go to <http://www.ssdan.net/datacounts>
2. Click on the "Data" in the menu bar
3. From there, click "Browse" on the left sidebar. Find "cen2000" in the drop-down box and select it.
4. Scroll down through the list of data sets until you find "earnwn2k.dat" Highlight and click "submit."
5. You can also click [here](#) to launch the dataset in WebCHIP.

1. Who is included in this data set? Is it limited to a particular social group? Describe the data set in your own words.

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**Step 2: Describing the Variables in the Data Set.**

This data set includes information about 6 concepts or variables: Race, Children, Earnings, Marital Status, Employment Status, and Age.

To view the information available for each of these concepts, look at the marginals output.

2. What categories of racial/ethnic groupings are available?

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3. What percent of women aged 25-64 are married? \_\_\_\_\_

4. What percent of women aged 25-64 have children? \_\_\_\_\_

**Step 3: Comparing the Earnings of Women by their Marital Status.** Cross tab Earnings by Marital Status to identify the percent of married, divorced, separated, widowed, and never married women who earn different levels of income. A cross-tabulation lets you investigate the relationship between the two variables: 1) earnings, and 2) marital status.

5. Which do you want to examine: a) the percent of married, never married, etc. women who earn a particular salary, or b) the percent of women who earn a particular salary who are married, never married, etc.? (Hint: Notice that most of the women in the 1990 Census are married).

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Create a Percent Down Table, with Earnings as the Row Variable and Martial State as the column variable.

Earnings	Currently Married	Divorced	Separated	Widowed	Never Married
50K +					
35-50K					
25-35K					
15-25K					
< 15K					
Total					
% Earning less than 25K?					
% Earning more than 35K?					

6. What differences, if any, do you see?

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7. Why do you think these differences exist?

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**Step 4: Comparing the Earnings of Women by their Marital Status, Controlling for Age.**

With the rise of separate-spheres ideology in the 19th century, married women were discouraged from entering the labor force. This historical pattern began to change in the second half of the 20th century.

8. Perhaps the patterns identified in Step 3 differ for women of different ages. For this step, we will examine the same table of earnings by marital status separately for women of different ages. Do you think the patterns will differ for younger and older women? Why or why not?

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To investigate this question, we will control, or hold constant, age. We will determine whether the relationship between marital status and earnings is the same, or different, for women in different age groups.

Create a Percent Down Table with Earnings as the Row Variable, Marital Status as the column variable, and Age as the control variable.

9. What do you find? Focus in particular on the earnings of married versus never married women. Does the pattern vary by age?

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**Step 5: Comparing the Earnings of Women by their Marital Status, Controlling for Children and Age.**

First, you must release the control for age. In the next part of the analysis, we will consider whether the relationship between marital status and earnings varies for mothers and women who do not have children. Because we learned in STEP 3 that the difference in earnings between married and never married women is greater among younger women, we will omit the two oldest age groups for the next part of the analysis.

From the Age variable, omit “45-54” and “55-64”. Then create a Percent Down Table with Earnings as the Row Variable, Marital Status as the column variable, and Age and Kid as the control variables. Use the output to fill in the tables below:

**Group 1: Women without Children.**

Earnings	Currently Married	Divorced	Separated	Widowed	Never Married
% Earning less than 25K?					
% Earning more than 35K?					

**Group 2: Women with Children Under the Age of 6.**

Earnings	Currently Married	Divorced	Separated	Widowed	Never Married
% Earning less than 25K?					
% Earning more than 35K?					

**Group 3: Women with Children of other ages.**

Earnings	Currently Married	Divorced	Separated	Widowed	Never Married
% Earning less than 25K?					
% Earning more than 35K?					

10. What do you find? Does the relationship between marital status and earnings for women aged 25-44 vary by parental status?

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11. Write a summary of what you learned in this analysis. Why do married women earn less than never married women? Do you believe that these relationships are causal? Why or why not?

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Reference:

Berk, Sarah Fenstermaker. 1985. *The gender factory: The apportionment of work in American households*. New York: Plenum Press.