

Poverty and Young Adults

LEARNING OBJECTIVES

After completing this exercise, you will be able to:

Skill

- Diagram a causal relationship between an independent variable and a dependant variable.
- Diagram a causal relationship between four independent variables and a dependant variable.
- Construct a crosstabulation to investigate the relationship between an independent variable and a dependant variable.

Substance

- Explain the relationship between gender, race/ethnicity, educational level, type of geographic area and poverty among young adults.

DESCRIPTION:

This exercise focuses on the effects of various social characteristics on poverty. It is based on the sociological assumption that patterns exist in relation to poverty in society. There is a wide range of sociological research and media coverage on poverty. It is generally accepted that women are more likely to be poor than men, the better educated are less likely to be poor than the poorly educated, and blacks are more likely to be poor than others. The stereotypical media image of poverty is the inner-city ghetto. Thus there is the widespread assumption that urban people are more likely to be poor than those who live in other types of places.

This exercise allows you to look more closely at these relationships and to investigate for yourself. We will look at the effects of gender, race/ethnicity, educational level, and the type of geographic area in which one resides. We have already implemented a control variable because we are only looking at people who are between 18 and 24 years of age.

CONCEPTUAL WORK

Causal Relationships:

As social scientists, we are interested in relationships between social characteristics or variables. A variable is a characteristic with two or more possible values, i.e., individuals within the group being studied will vary in regard to the given characteristic. The following diagram illustrates the presumed

relationship between gender and poverty. This is a “causal” diagram that illustrates the idea that one’s gender affects his or her likelihood of being poor.

GENDER & POVERTY

The characteristic that is expected to “cause” or have an effect is always on the left and the characteristic that is expected to be affected by the other is always on the right. The arrow in the middle can be read as “has an effect on” We also refer to these as the independent variable (X) and the dependent variable (Y). The independent variable is the one we believe to exist independently (regardless of the value of the other variable) while the dependent variable is the one we think changes based on the value of the other variable. The independent variable may also be referred to as the explanatory variable (e.g., gender helps to “explain” why some people are poor and others aren’t).

Direction of Effect:

In the example above, we might expect to find that women are more likely to be poor than men. It makes sense to think that being female might “cause” you to be poor or that you are more likely to be poor if you are a female. However, it doesn’t make sense for the direction to go the other way. If that were the case, we would be saying that being poor “causes” you to be female. In such a situation, your gender would change because you became poor—that doesn’t make sense. Thus the direction of effect is from the independent variable to the dependent variable. By specifying one variable as independent and the other as dependent, you are specifying the direction of effect (X à Y).

Hypothesis testing:

Ultimately, we seek to test hypotheses. The purpose of the hypothesis test ([Stockburger1, 1996](#)) is to make a rational decision between the hypotheses of real effects and chance explanations. One is never able to entirely eliminate the chance explanation but if the difference is large enough, it makes the chance explanation unlikely ([Stockburger2, 1996](#)).

Writing testable hypotheses is an important (and not necessarily easy) element of social scientific research. A testable hypothesis must include both the direction of effect between variables and a predicted direction of the values (see below) of the variables. Using the “causal” diagram makes it easier to conceptualize the problem in that it clearly specifies what variables will be included in the analysis and illustrates the direction of effect between them. The direction of effect between the variables is illustrated by their placement in the diagram, i.e., the independent variable is on the left and the dependent variable is on the right. The direction is reflected in the statement “X causes Y” and not the other way around.

The hypothesis goes a step further than the diagram and makes specific predictions about the relationship between variables in terms of the expected values, i.e., hypotheses state whether X has a positive or negative effect on Y.

For example:

The diagram below illustrates our expectation that the type of geographic area in which people live ("geo") will have an effect on their poverty status ("pov"). In the diagram, we name the characteristic (or variable) itself (not a value of the variable) with a variable on each side of the arrow. Individuals are classified as living in one of the three types of geographic area. Thus the variable "geo" has three values: "urban," "suburban," or "nonmetro" (rural). The "pov" variable has two values: "poverty" and "nonpoverty." The diagram would look like this.

TYPE OF GEOGRAPHIC AREA POVERTY

H1: Urban people are more likely to be poor than people who live in the suburbs.

H2: Rural people are more likely to be poor than people who live in the suburbs.

Important Note:

Hypotheses and causal diagrams, while conceptually similar, are different in application. While both include information about the direction of effect between the variables, the causal diagram does not provide information about the value of the variables included while the hypothesis must include this information.

Create your own diagrams.

1. Diagram the expected relationship between race and poverty.

2. Diagram the expected relationship between education and poverty.

3. Diagram the expected relationship between type of geographic area in which one lives and the likelihood that they would live in poverty.

4. Diagram the expected relationship between race and education.
5. Diagram the expected relationship between race, gender, and poverty.
6. Write Hypotheses:
7. Write a hypothesis about the expected relationship between race and poverty.
8. Write a hypothesis about the expected relationship between education and poverty.
9. Write a hypothesis about the expected relationship between type of geographic area in which one lives and the likelihood that they would live in poverty.
10. Write a hypothesis about the expected relationship between race and education.

11. Write a hypothesis about the expected relationship between race, gender, and poverty.

DATA ANALYSIS

Please Note:

Go to WebCHIP (link below). Follow the instructions below about using the data analysis software. As you complete the crosstab for each problem, write the correct answer on your printout of the exercise.

Load a Dataset:

- Go to <http://www.ssdan.net/datacounts/data/>
- From there, click "Browse" on the left sidebar. Find "acs2008" in the drop-down box and select it.
- Scroll down through the list of data sets until you find "ChildPov". Highlight and click "submit." You should now be in a window that shows a description of the dataset.

Dataset: acs2008/ChildPov

Dataset Description: 2008 Children by race/ethnicity, poverty, household type, family size, and immigration status, wgted 2006-08 ACS

Begin with uni-variate analysis:

- Always begin a data analysis by using the Marginals function to look at the dataset's frequency tables.
- This will show you how each variable is divided into categories and give you the percentages for each category of each variable.

Note: You may find it helpful to hit the "Clear" button to clear the screen before you do another analysis.

CONDUCT BI-VARIATE ANALYSES:

To compare males and females on poverty status, create a Percent Down Crosstab with "Pov" as the row variable and "Gender" as the column variable.

Thus the first bi-variate analysis will look like this:

Male		Female	
Poverty	16.5%	21.9%	19.2%
	(1,939,686)	(2,572,418)	
NonPov	83.5%	78.1%	80.8%
	(9,791,153)	(9,168,216)	
All	11,730,839	11,740,634	N = 23,471,468

DISCUSSION:

Looking at these results, we see that the rate of poverty in 1990 for males and females combined was 19.2%. However, there were more females in poverty than males. Almost 22% of females were poor while only 16.5% of males were poor.

More Bi-variate Analyses:

- Run bi-variate analyses for diagrams 1 – 4 above and answer questions in exercise.

Conduct multi-variate analyses:

- To look at the relationship between education and poverty by creating a Percent Down Crosstab while controlling for gender, first look at the relationship between education (row variable) and poverty (column variable).
 - Look at the relationship. You will see that the lower the education, the higher the poverty.
- Now, control for gender.
 - Look at the relationships. What conclusions can you draw?

More Multi-variate Analyses:

- Run a multi-variate analysis for Diagram 5 above and answer questions in exercise.