This is an example of a perfect assignment 4. Pay attention to the operationalization, conceptualization, etc.

Education as an institution plays a role in an individual's life by deepening their understanding of life and the many possibilities available to humankind through research. In no other area is this belief more pertinent and at the same time, hotly contested, than in science. Many believe that science can aid in the advancement and improvement of human life, in all areas including health and the environment. The question is, however, does level of education play a significant role in the attitude one has toward the necessity of scientific research that is funded by government? I theorize that education does in fact play a crucial role in the choices an individual makes in determining in which areas he or she would prefer to see federal money spent. My hypothesis is that those who have had higher education will support government funding of scientific research, while those with little schooling would see government spending for scientific research as unnecessary. The dependent variable for this study takes the form of one's attitude toward government funding of scientific research and the independent variable the highest level of education completed.

The information used for this study will be extracted from the 2006 General Social Survey. In order to test the viability of this hypothesis, I have chosen the variables "DEGREE" and "ADVFRONT". The independent variable will be "DEGREE," which is understood to determine the level of education achieved by the respondent, the only possibilities being: less than high school, high school, junior college/associate, bachelor and graduate. The respondent is asked to mark their level of education, with 0

corresponding to less than high school, 1 to high school, 2 to junior college/associate, 3 to bachelor, and finally, 4 to graduate.

The dependent variable will be "ADVFRONT" as this is the measurement of attitude towards government spending for scientific research. The conceptualization of this variable understands the attitude towards government spending on scientific research only as: strongly agree, agree, disagree, and strongly disagree. Strongly agreeing means the individual supports government aid for scientific research completely, agreeing is meant as a statement of approval, disagreeing as disapproval, and strongly disagreeing as in no way necessary. The variable is operationalized by presenting the respondent with the following statement, "Even if it brings no immediate benefits, scientific research that advances the frontiers of knowledge is necessary and should be supported by the federal government," and requiring the respondent to record a 1 if they strongly agree, a 2 if they agree, 3 if they disagree, and a 4 if they strongly disagree.

The analysis of the data shown in Table 1., support the hypothesis, with support for federally funded scientific research shown to be positively associated with education. Of the respondents with little high school, 30% disagree with the funding of scientific research compared with 15% of those who have completed graduate education. To further demonstrate the effect of education, the percentage of respondents in Table 1 who disagree drops below 20% only when a bachelor degree or more is earned. The importance of this data show the significant effect of "higher education" on the attitude towards scientific research in general, and a belief in its worth in terms of federally allocated funding. While the data do appear to show the importance of education as a means toward greater sensitivity in the estimation of scientific research, it could likely be

that another variable, upon further analysis, would alter this relationship.

In further analysis, the factor of race may need to be introduced as a test variable as it may represent a crucial determinant for the strength of the original relationship. Again, the data will be taken from he 2006 General Social Survey and the test variable, "RACECEN1", will be used to represent the race of the respondent as determined by himself or herself. The operationalization of the test variable takes the form of asking, "What is your race? Indicate one or more races that you consider yourself to be." The race or races to be chosen by the respondent include: white, black or African American, American Indian or Alaska native, Asian Indian, Chinese, Filipino Japanese, Korean, Vietnamese, other Asian, Native Hawaiian, Guamanian or Chamorro, Samoan, other Pacific Islander, some other race, and Hispanic. These options correspond to a value ranging from 1-16, respectively, and are then recorded by the respondent. The choice(s) of the respondent is understood as deliberate and corresponding to the ethnic group with which they identify.

As demonstrated by the lengthy options available to the respondent for the test variable, race, it becomes necessary to collapse the tables for presentational purposes. While it is necessary to retain the choices of white, black or African American, Hispanic, and American Indian or Alaska native for their inability to be substantively grouped, other races may be reorganized into more coherent groupings. For example, those respondents identifying as Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian may be grouped into an "Asian" category. Likewise, Native Hawaiian, Guamanian or Chamorro, Samoan, or other Pacific Islander may be organized in terms of "Pacific Islander". The logic for both of the regroupings corresponds to the

need of the analysis, in so far as it is not necessary to understand the specific effect of individual ethnic groups but the specific effect of general racial groupings. In addition, the choice of "some other race" should be omitted given its uselessness in terms of understanding what races may or may not alter the original relationship. This option would not in any way contribute to the analysis. Finally, the independent variable "DEGREE" may need to be collapsed by combining less than high school with high school, maintaining the heading "High School," and combining junior college with bachelor's degree under the title "Undergraduate," thereby contrasting the two lowest levels of college degrees with the third group "Graduate". It is important to maintain the distinction between the levels of college education as it may indicate a more sophisticated critical thinking ability and appreciation for the use of research.

Race must be considered because of its influence on what programs should be federally funded. Minorities may have a negative opinion on scientific research, not because of education but social inequality. As a result minority groups may feel government money is better spent on housing, aid, and education. This would demonstrate the degree to which education is a factor in the attitude toward government funded scientific research. In other words, to what extent can the original relationship found in Table 1, be generalized to the greater population? The inclusion of race would help in determining at which level, if any, education is a predictor of the opinion toward federal spending on scientific research and the point at which race enters to alter that relationship.