We can use multivariate regression analysis as a method to control the effect of the independent variable on the dependent variable. We will use the variable age (“AGE”) as a control variable by calculating a bivariate regression analysis. We cannot calculate separate regression analyses; we need the model to examine the interaction of all the IVs. Use the following table provides the data and the SPSS tables are provided for your analysis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Dependent Variable is Hours Worked (hrs1) | | | |
|  | Model 1 | | Model 2 | |
| Education (educ) | Unstandardized Coefficient | 1.256 | Unstandardized Coefficient | .954 |
|  | Significance Level | .000 | Significance Level | .000 |
| Age (age) |  | | Unstandardized Coefficient | -.439 |
|  |  | | Significance Level | .000 |
|  | R-Square = .024 | | Adjusted R-Square = .118 | |

Provide your findings of this analysis as you would in a research report.

Be specific in your analysis – start from the larger portion of the analysis and move to specifics. Restate the RQ; provide descriptive analysis (not needed unless you consider there is a key point here); ANOVA (fit); correlation analysis (could variables co-vary excessively); R-Square; coefficients – the key is to answer the question: is age a spurious variable and influence the relationship between education and hours worked?

Using SPSS software, the following charts are generated and provided for your use:

**Descriptive Statistics**

26.97

23.572

1485

13.70

2.897

1485

46.22

16.697

1485

NUMBER OF HOURS

WORKED LAST WEEK

HIGHEST YEAR OF

SCHOOL COMPLETED

AGE OF RESPONDENT

Mean

Std. Deviation

N

**ANOVA**

**b**

98126.831

2

49063.415

100.094

.000

a

726434.2

1482

490.172

824561.0

1484

Regression

Residual

Total

Model

1

Sum of

Squares

df

Mean Square

F

Sig.

Predictors: (Constant), AGE OF RESPONDENT, HIGHEST YEAR OF SCHOOL

COMPLETED

a.

Dependent Variable: NUMBER OF HOURS WORKED LAST WEEK

b.

**Correlations**

1.000

.153

-.325

.153

1.000

-.115

-.325

-.115

1.000

.

.000

.000

.000

.

.000

.000

.000

.

1485

1485

1485

1485

1485

1485

1485

1485

1485

NUMBER OF HOURS

WORKED LAST WEEK

HIGHEST YEAR OF

SCHOOL COMPLETED

AGE OF RESPONDENT

NUMBER OF HOURS

WORKED LAST WEEK

HIGHEST YEAR OF

SCHOOL COMPLETED

AGE OF RESPONDENT

NUMBER OF HOURS

WORKED LAST WEEK

HIGHEST YEAR OF

SCHOOL COMPLETED

AGE OF RESPONDENT

Pearson Correlation

Sig. (1-tailed)

N

NUMBER OF

HOURS

WORKED

LAST WEEK

HIGHEST

YEAR OF

SCHOOL

COMPLETED

AGE OF

RESPON

DENT

**Model Summary**

.345

a

.119

.118

22.140

Model

1

R

R Square

Adjusted

R Square

Std. Error of

the Estimate

Predictors: (Constant), AGE OF RESPONDENT,

HIGHEST YEAR OF SCHOOL COMPLETED

a.

**Coefficients**

**a**

34.216

3.374

10.141

.000

.954

.200

.117

4.777

.000

-.439

.035

-.311

-12.680

.000

(Constant)

HIGHEST YEAR OF

SCHOOL COMPLETED

AGE OF RESPONDENT

Model

1

B

Std. Error

Unstandardized

Coefficients

Beta

Standardized

Coefficients

t

Sig.

Dependent Variable: NUMBER OF HOURS WORKED LAST WEEK

a.