

# A.S.A Lab Assignment 10

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**Q .o run linear regressions and to interpret the output Using the preexisting PASW Statistics data file Census.csv.**

## CODE:

```
# Load the required library for data visualization
# Load the required library library(readr)

# Load the dataset
data <- read_csv(file.choose())
View(data)# Use read_csv from the readr package

# Perform linear regression
model <- lm(age ~ education + income, data = data)
# Replace "Variable1," "Variable2," and "Variable3" with your specific
variable names.

# Print a summary of the linear regression model

summary(model)
```

## output:

```

Call:
lm(formula = age ~ education + income, data = data)

Residuals:
    Min       1Q   Median       3Q      Max
-36.151 -10.397  -1.941   8.166  58.009

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    36.9548    0.4249   86.972 < 2e-16 ***
education11th  -4.9641    0.5689  -8.726 < 2e-16 ***
education12th  -5.4996    0.7544  -7.290 3.17e-13 ***
education1st-4th  8.9328    1.0873   8.215 < 2e-16 ***
education5th-6th  5.5876    0.8282   6.747 1.53e-11 ***
education7th-8th 11.0484    0.6640  16.638 < 2e-16 ***
education9th     3.7300    0.7126   5.234 1.67e-07 ***
educationAssoc-acdm -1.3485    0.5824  -2.315 0.02060 *
educationAssoc-voc -0.2683    0.5508  -0.487 0.62621
educationBachelors -1.0143    0.4645  -2.183 0.02901 *
educationDoctorate  5.4517    0.7764   7.022 2.24e-12 ***
educationHS-grad   0.8796    0.4435   1.983 0.04736 *
educationMasters   3.1169    0.5347   5.829 5.63e-09 ***
educationPreschool  5.8099    1.8657   3.114 0.00185 **
educationProf-school 2.5428    0.6980   3.643 0.00027 ***
educationSome-college -2.5582    0.4516  -5.664 1.49e-08 ***
income>50K        7.1474    0.1809  39.509 < 2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 12.97 on 32544 degrees of freedom
Multiple R-squared:  0.09584,    Adjusted R-squared:  0.0954
F-statistic: 215.6 on 16 and 32544 DF,  p-value: < 2.2e-16

```