Group No. 7 Names of group members: Aravind Kumar Gardas Manoj Kumar Madireddy

The Impact of Education on Income in Adulthood

The role of education in enhancing individuals' socioeconomic status has been widely acknowledged in the literature. Although it is commonly accepted that education increases income, the precise nature of this relationship and the elements that influence it are still not fully understood. The goal of this study is to examine the relationship between income and education across a range of demographic variables, to pinpoint the major variables that influence this relationship, and to ascertain whether factors such as gender, race, and occupation significantly affect the relationship between income and education. The main research question is: What is the effect of education on income, and what factors contribute to this effect? Additionally, this research proposal also addresses how do different levels of education impact income? Are there any gender differences in the effect of education on income? What other factors besides education impact income?

The dataset used for this research will be 1994 US Census Database extracted from Kaggle. The dataset consists of a nationally representative sample of people who were between the ages of 18 and 25 in 1994. The sample size is approximately **3000** individuals. Each row in the dataset represents a single individual and includes information on their education level, Age, income, gender, race, and other demographic factors. We are using **Linear regression** which is a statistical technique that helps to establish a relationship between one or more **independent variables** (like education level, gender, race, and other demographic factors) and a **dependent variable** (in this case, **income**). The aim is to create a linear function that models how changes in the independent variables can affect the dependent variable (income). The independent variables will be encoded as continuous or dummy variables, depending on the nature of the data. By analyzing the regression equation coefficients, it will be possible to determine the effect of each independent variable on income, while keeping all other variables constant.

The outcomes of this research will contribute to our understanding of the relationship between education and income, and the factors that contribute to this relationship. The findings may have repercussions for educational policy as well as for people choosing their educational and employment pathways. The study may also clarify any potential effects of racial and gender differences on the link between income and education.

**References**:

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