



US Adult Income Data Analysis By Evelyn

Overview

This data was extracted from the U.S Census bureau database by Ronny Kohavi and Barry Becker (Data Mining and Visualization, Silicon Graphics). The goal of this project is to show some feature table and distribution graphs in the dataset.

Table

Show

10

 entries

Search:

	Age	Workclass	Fnlwgt	Education	Education Num	Marital Status	Occupation	Relationship	Race	Sex	Capital Gain	Capital Loss	Hours Per Week	Native Country
0	90	?	77053	HS-grad	9	Widowed	?	Not-in-family	White	Female	0	4356	40	United-States
1	82	Private	132870	HS-grad	9	Widowed	Exec-managerial	Not-in-family	White	Female	0	4356	18	United-States
2	66	?	186061	Some-college	10	Widowed	?	Unmarried	Black	Female	0	4356	40	United-States
3	54	Private	140359	7th-8th	4	Divorced	Machine-op-inspct	Unmarried	White	Female	0	3900	40	United-States
4	41	Private	264663	Some-college	10	Separated	Prof-specialty	Own-child	White	Female	0	3900	40	United-States
5	34	Private	216864	HS-grad	9	Divorced	Other-service	Unmarried	White	Female	0	3770	45	United-States
6	38	Private	150601	10th	6	Separated	Adm-clerical	Unmarried	White	Male	0	3770	40	United-States
7	74	State-gov	88638	Doctorate	16	Never-married	Prof-specialty	Other-relative	White	Female	0	3683	20	United-States
8	68	Federal-gov	422013	HS-grad	9	Divorced	Prof-specialty	Not-in-family	White	Female	0	3683	40	United-States
9	41	Private	70037	Some-college	10	Never-married	Craft-repair	Unmarried	White	Male	0	3004	60	?

Showing 1 to 10 of 32,561 entries

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Distribution

Figure 1 shows the histogram distribution of education in the dataset, the observation appears the most density peak appears at the 9, which is high school graduation. The second peak appears at 10. The last rise seems at 13, which means after high school graduation, most working people decided to go to college and have some years of college education or a bachelor's degree.

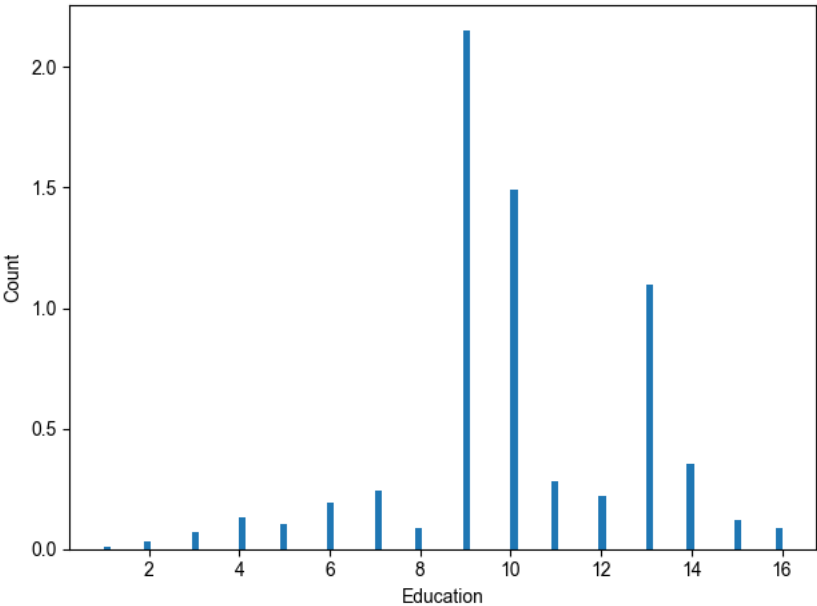


Figure 1. Education Distribution

Advanced

Figure 2 shows different age group income level, the observation appears people aged between 41 and 50 have the most count for income, more than 50k. It also seems to have the most percentage compared with less than 50k, which means most higher-income people have reached their peak for their career around mid 40 years old, and the chances people will get their higher-income age is around middle 40 years old. People usually start their career around the late 20s and early 30s, and some people might get a higher pay job so that they will have more than 50k at an earlier age, but the percentage for those in that age group was low. Later on, we will analyze what occupation will lead to higher income at an earlier age.

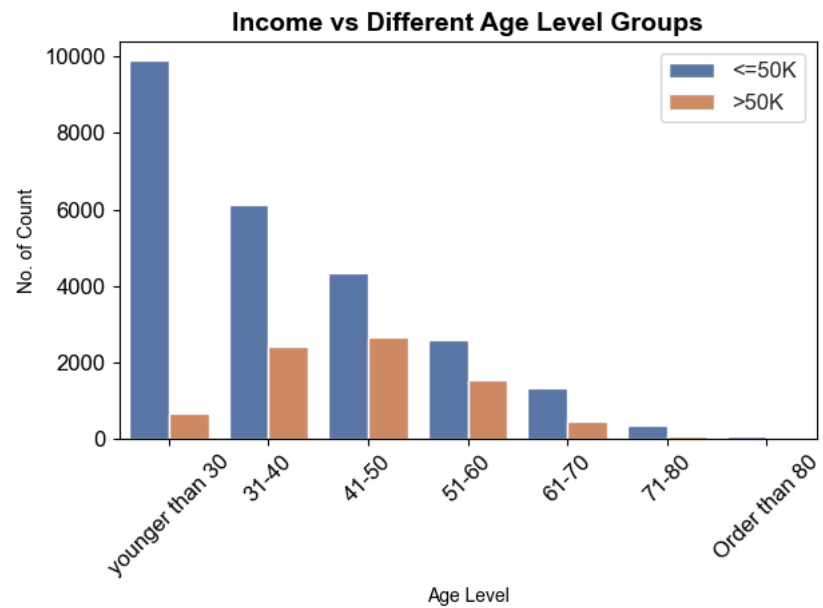


Figure 2. Income vs Different Age Level Groups

Figure 3 shows the boxenplot for hours per week on different income levels. People also thought there is a direct connection between working hours and income, and the more hours one works, the more revenue one should earn. However, this hypothesis only works for hourly employees. The boxplot above shows people making more than 50k work mean hours per week greater than those earning less than 50k. At the same time, there is an extensive range of working hours for people making more than 50k, so there isn't solid evidence to prove there is a direct connection between working hours and income for higher-income people.

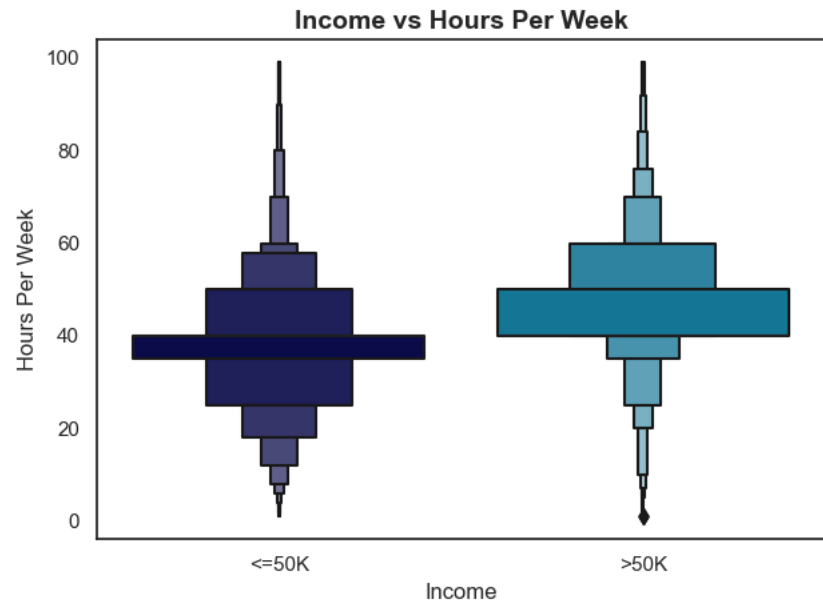


Figure 3. Boxenplot On Work Hours For Different Income Levels

Figure 4 shows the mean age for different groups of education with different gender.

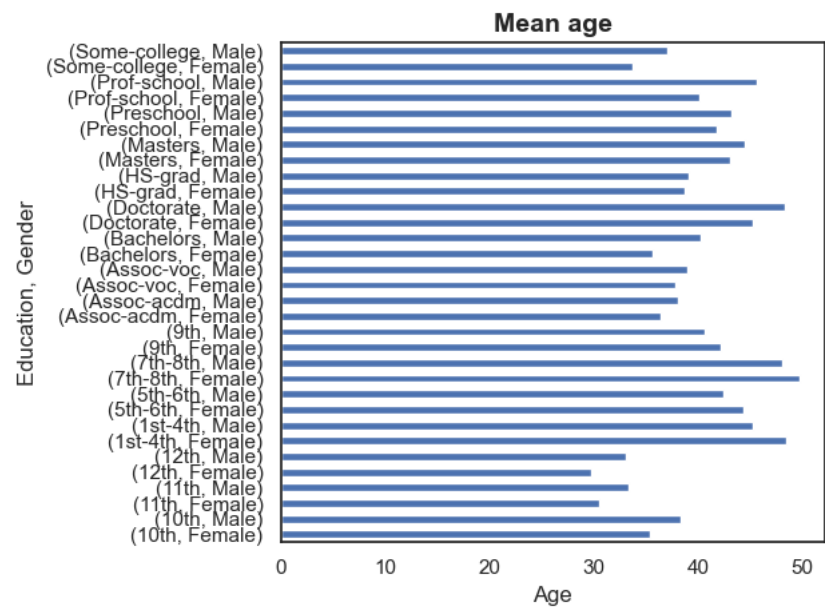


Figure 4. Mean Age For Education Gender Group

Interactive Graph

Age By Hours Of Work For Income Level

