

Adult Income Dataset

Data storytelling

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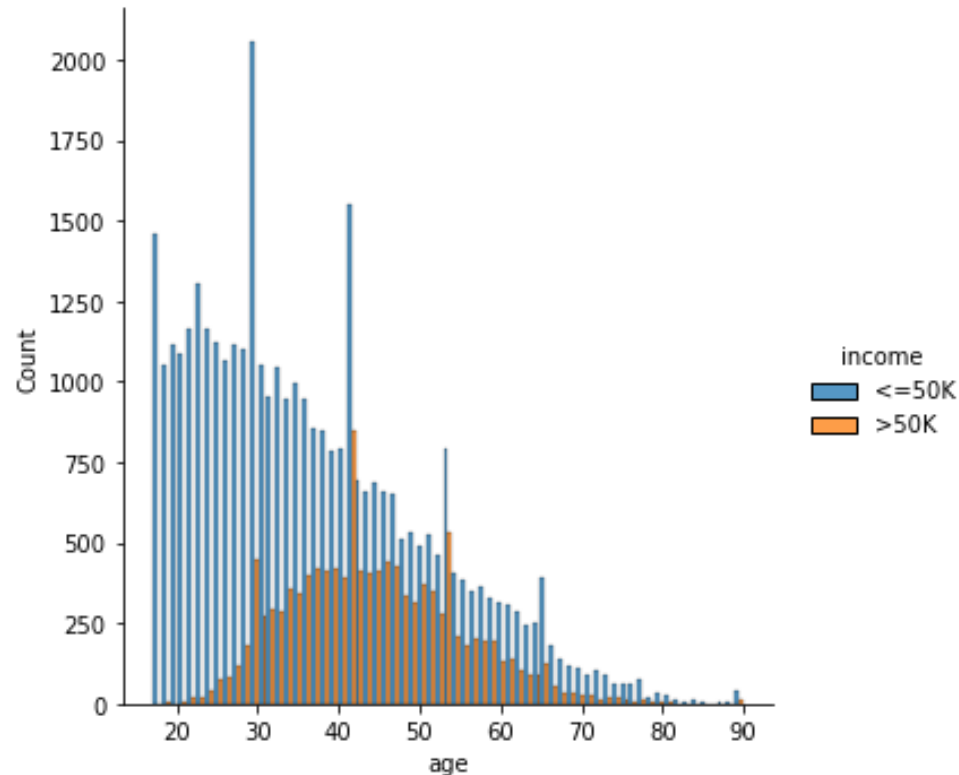


The Problem

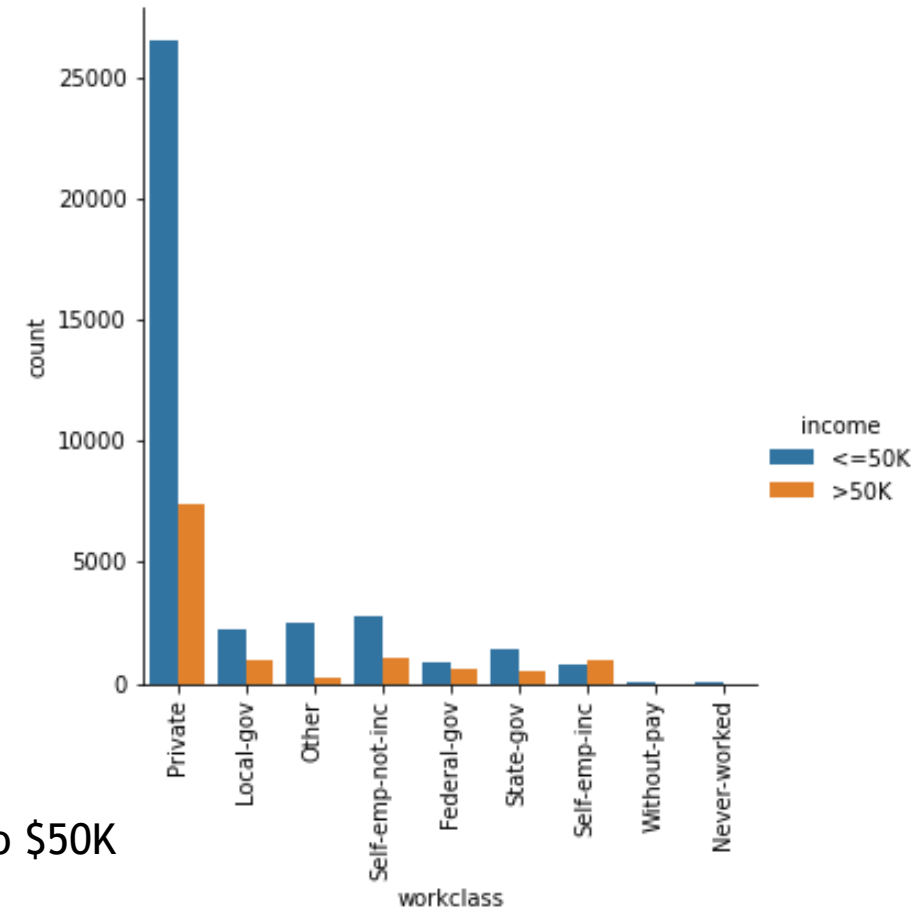
- An individual's annual income results from various factors
- What influences an adult's income?
 - Demographics
 - Age
 - Education
 - Gender
- Can we predict adults' income based on personal information?

Exploratory Data Analysis - Age, Working class vs Income

Age vs Income comparison



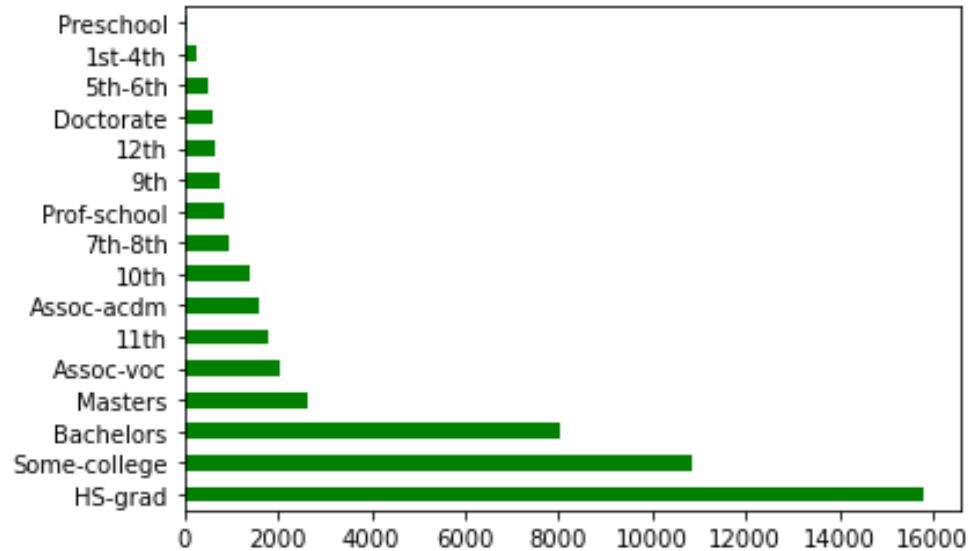
Working class vs Income



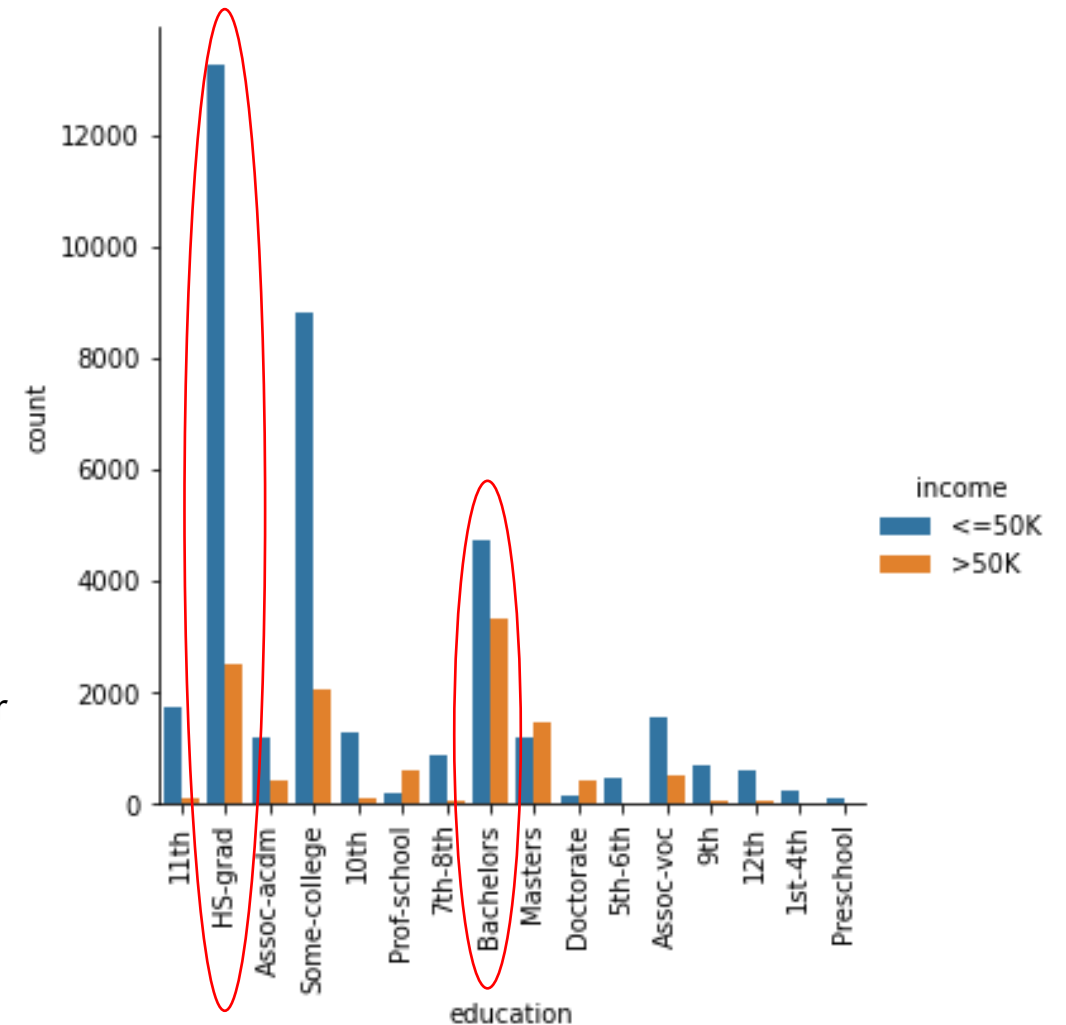
- Adults aged from 21 to 65 are received income above or equal to \$50K
- Most young aged adults received salary of below \$50K
- Private job holders earn most high salary regardless of income level when compared to other jobs

Exploratory Data Analysis - Education level vs Income

Education level among adults



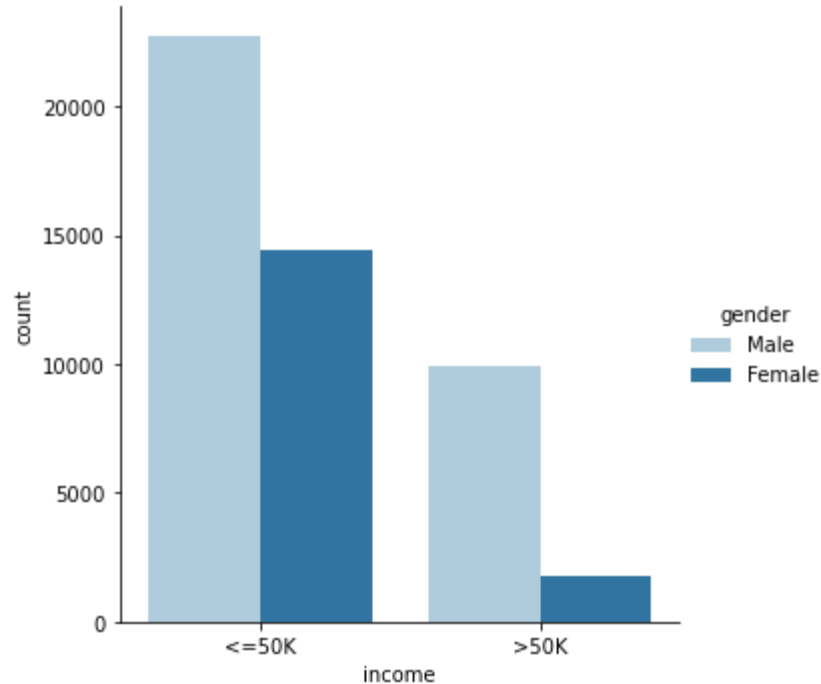
Income vs education level



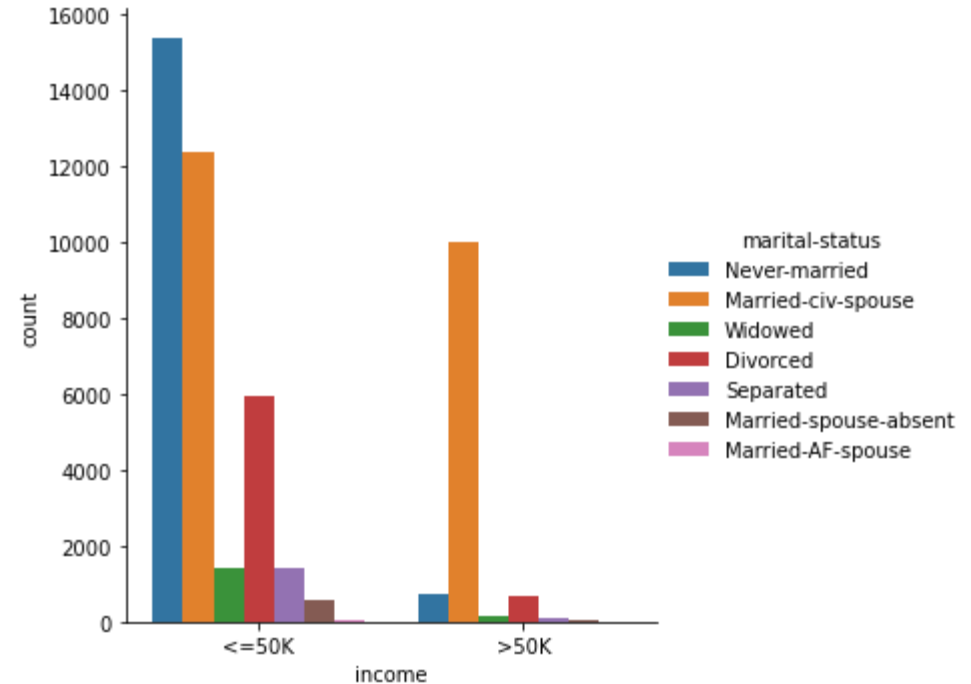
- Most of the working adults are educated with either high school, college or university degree
- Low earning population (<50K) just have HS-grad or some college degree
- High earning population (>50K) have bachelor or master degree
- Clearly, education levels play important role in adult income prediction

Does gender or marital status affect adults' income?

Income distribution by gender



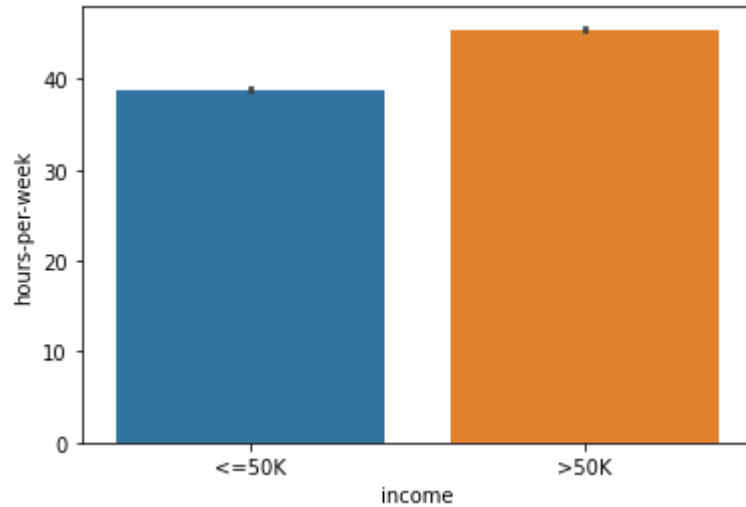
Income distribution by marital status



- Higher number of male population receive far more high salary than female population
- In less than \$50k income level, **never married** adults received more salary
- But, in above \$50k income level, **married** individuals received more salary

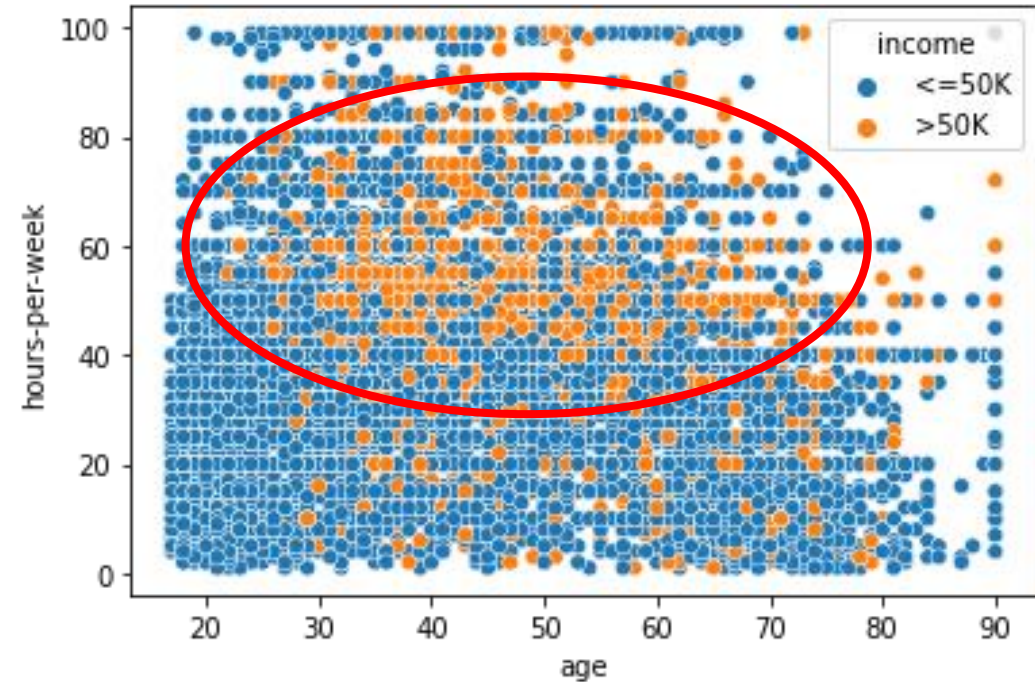
Does working more hours earn more salary?

Working hours vs income



- Both high and low salary category adults worked very similar hours per week
- Interestingly, high income generating adults comparatively worked more hours than rest of all
- All age groups worked similar hours per week

Relationship of age, work hours and income

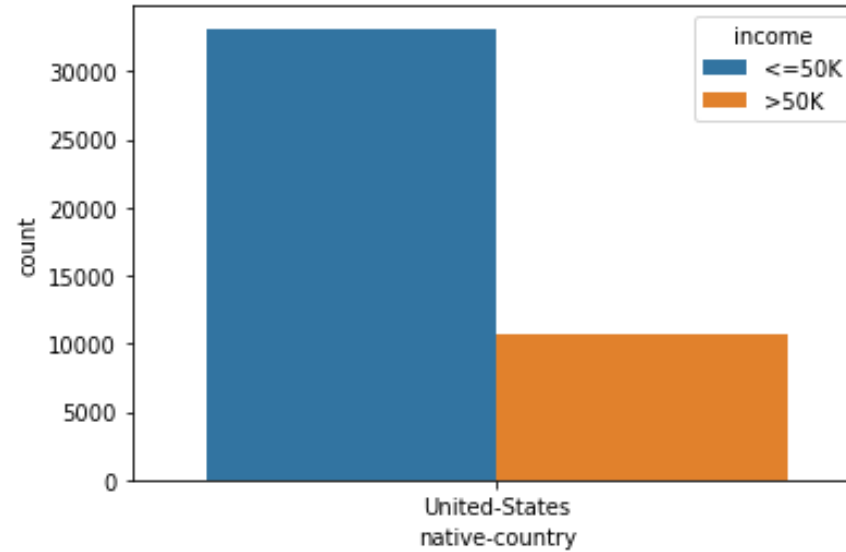


Average working hours by income:

- Above \$50k - 45 hours
- Below \$ 50k - 38 hours

Native country and income level

native-country	
United-States	89.742435
Mexico	1.947095
Other	1.754637
Philippines	0.603988
Germany	0.421768
Puerto-Rico	0.376725
Canada	0.372630
El-Salvador	0.317350
India	0.309160
Cuba	0.282544



- Around 90% adults in this dataset are from United States
- Other countries has less than 2% of adults
- In United States, significant number of adults are earning below \$50k
- Less than 10000 adults are earning above equal to \$50k annual income

Summary

- An individual's annual income are greatly influenced by several factors
- Important features for adult income prediction:
 - Age
 - Working class
 - Educational level
 - Gender
 - Marital status
 - Native country



- All these variables can have greater impact on an individual's income status