

# Annual Income prediction

**Stakeholder: Individual**

**Showing the individual where their annual income might lie based on certain personal criteria.**

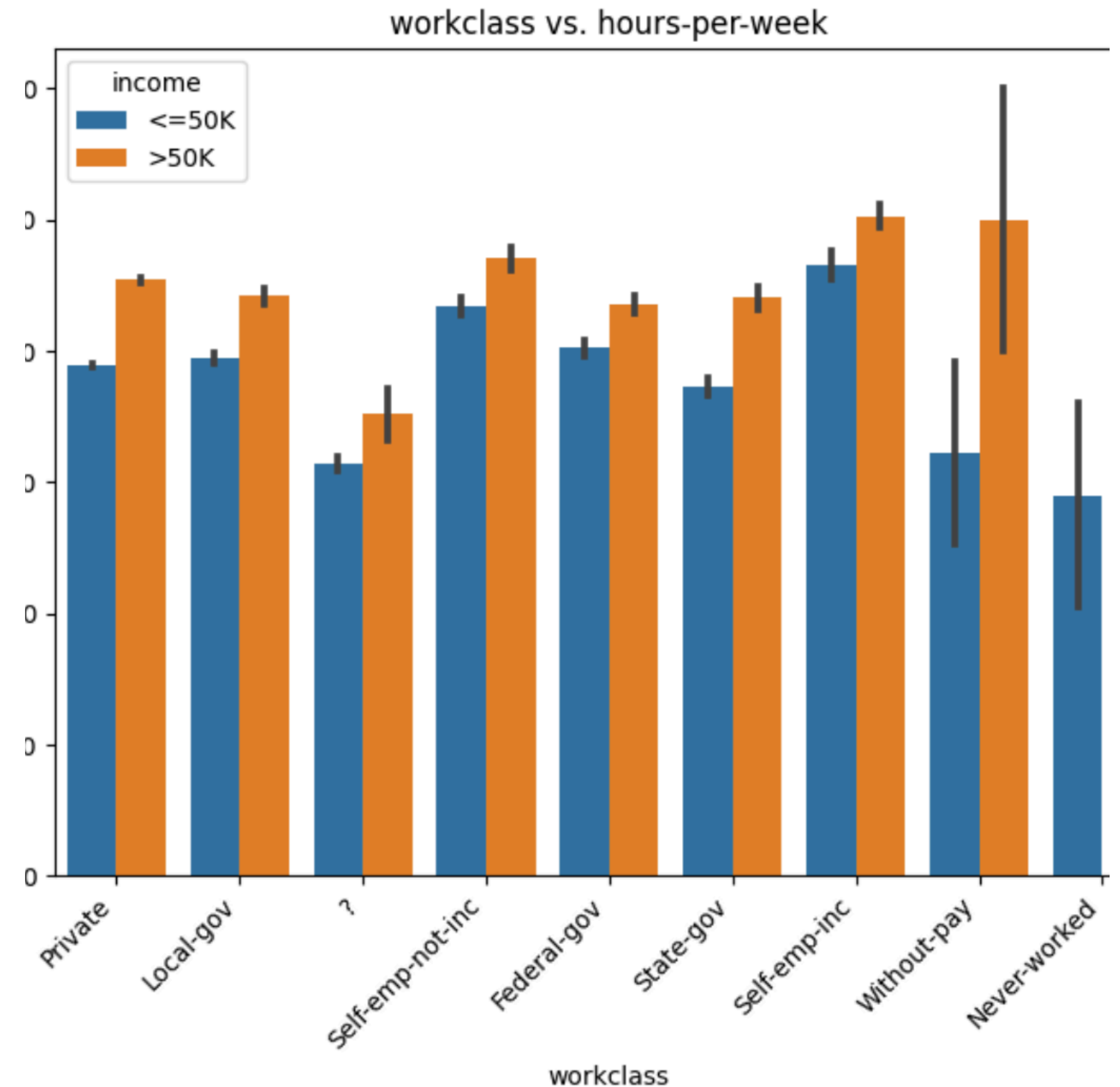
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# Chosen Criteria

Feature Name	Description
Age	The individual's age
Workclass	The working class of the individual
Fnlwgt	The number of people the census believes the entry represents.
Education	The level of education the individual attained
Education-num	The education number of the individual
Marital status	The current marital status that the individual's in
Occupation	Name of where the individual works
Relationship	What responsibility the individual holds in the family
Sex	The individual's gender
Race	The individual's race if they are at liberty to give it out
capital-gain	The gains in capital the individual makes while working
capital-loss	The loss in capital the individual makes while working
Hours-per-week	The number of hours the individual places into working
Native-country	The country of origin of the individual
Income	Whether the individual earns above 50k or below. This is the target variable to be predicted

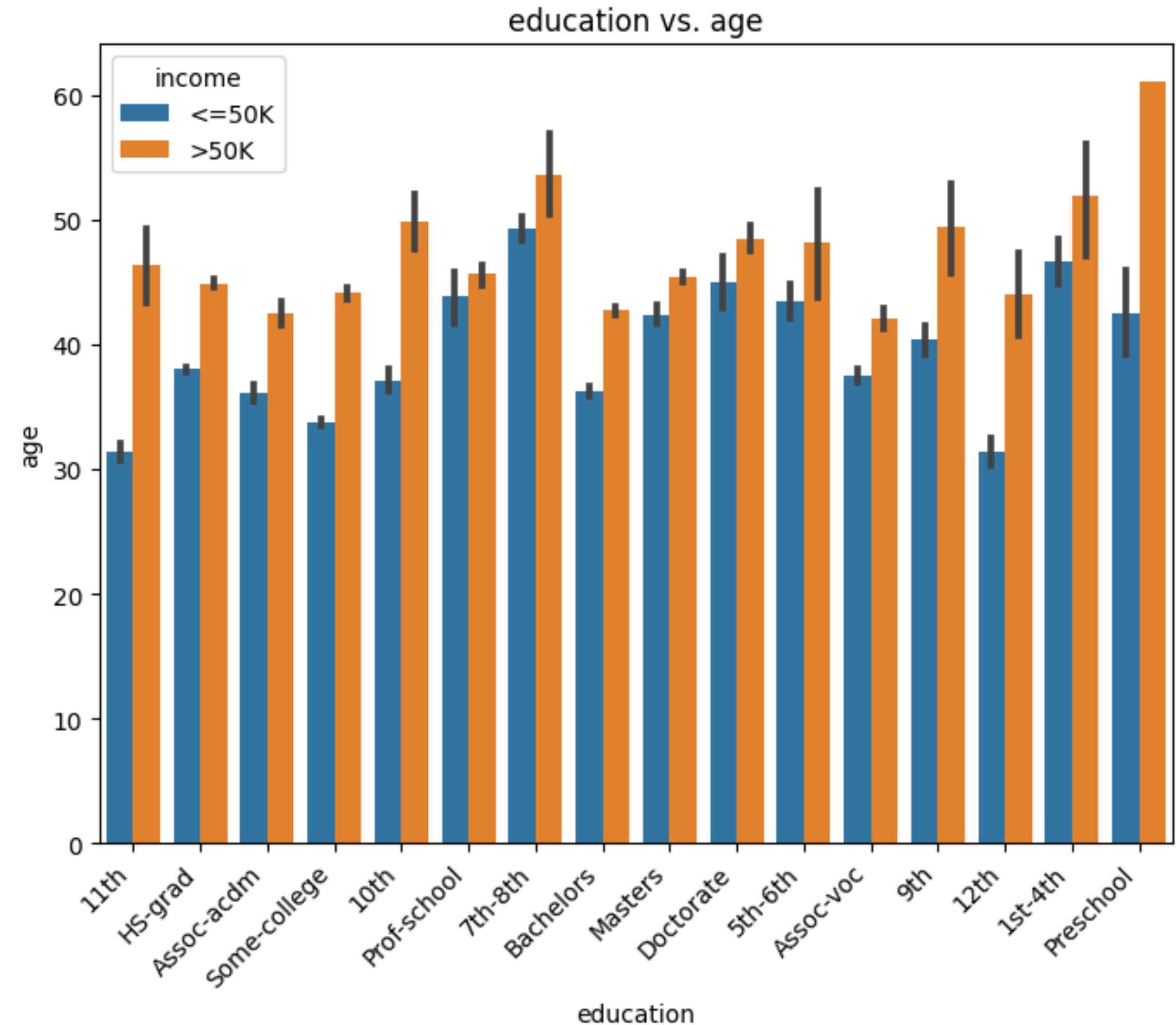
# Visual 1

- In all the working classes, those who work for more hours per week earn above 50k compared to those who don't with the exception of those who've never worked.
- It seems that they all receive below 50k. That might be the default amount or something.



# Visual 2

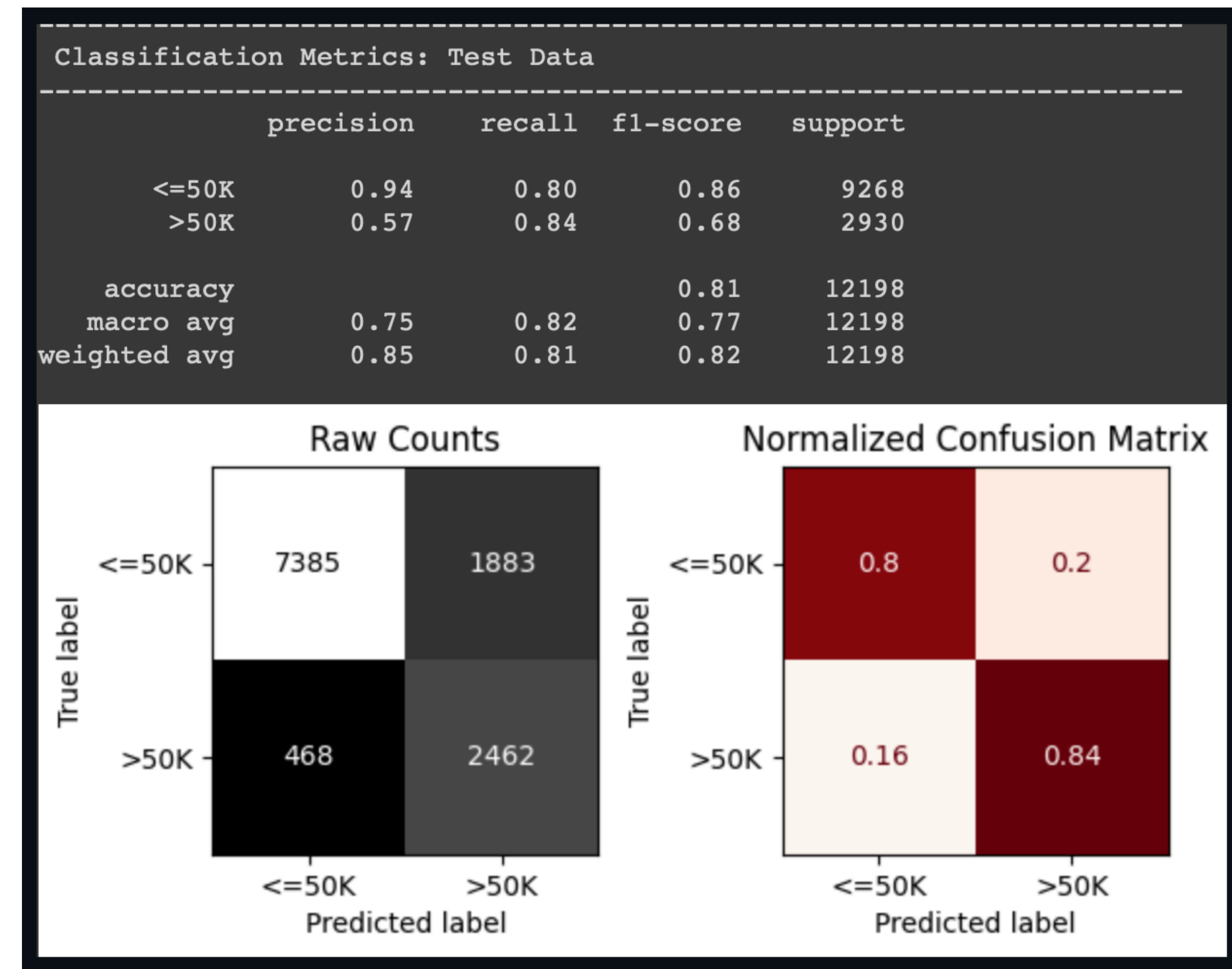
- The older someone is irrespective of their education level, they earn above 50k. Its most likely an advantage of being more experienced or holding more responsibilities.



# Model strengths and limitations

- Much as it learned how to balance that range, the number of values for each category were biased toward the less than 50k range

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- The model was made with a low false positive rate i.e left bottom values to relate to the gravity of false hope.
  - The false negative rates i.e upper right may be whatever they wish, its better to fall into this category than to be wrongfully given false hope



0 -> minimum  
1 -> maximum

# Recommendations

- I'd advise the stake holders to keep a keen eye on their incomes and avoid assumptions, it would be alarming to make more losses than initially anticipated.
- To secure their place in the greater than 50k income category, i'd advise the stakeholders to keep on upgrading their features for such things are also considered.