# ILLINOIS INCOME PREDICTOR

By: Johnhoy Stephens

### INTRODUCTION

### Problem:

 Citizen not being approved for state or government benefits/programs due to inaccurate income calculations or not having the necessary documents.

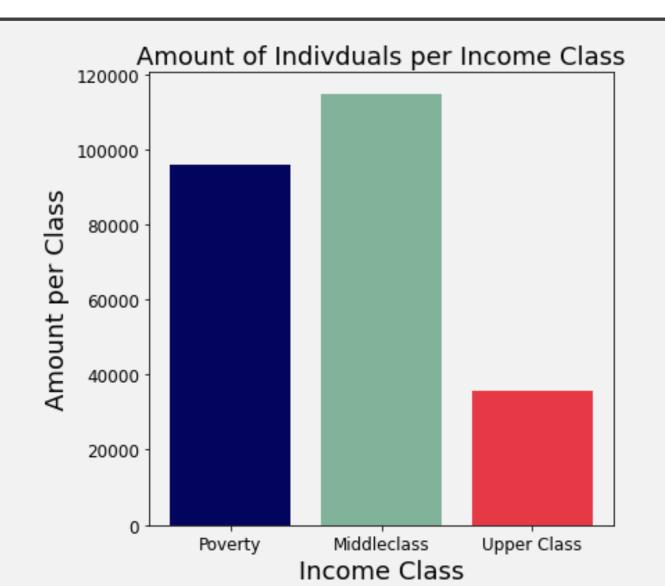
#### Solution:

• Utilize a neural network that will predict an individual's income given certain parameters.

#### Data:

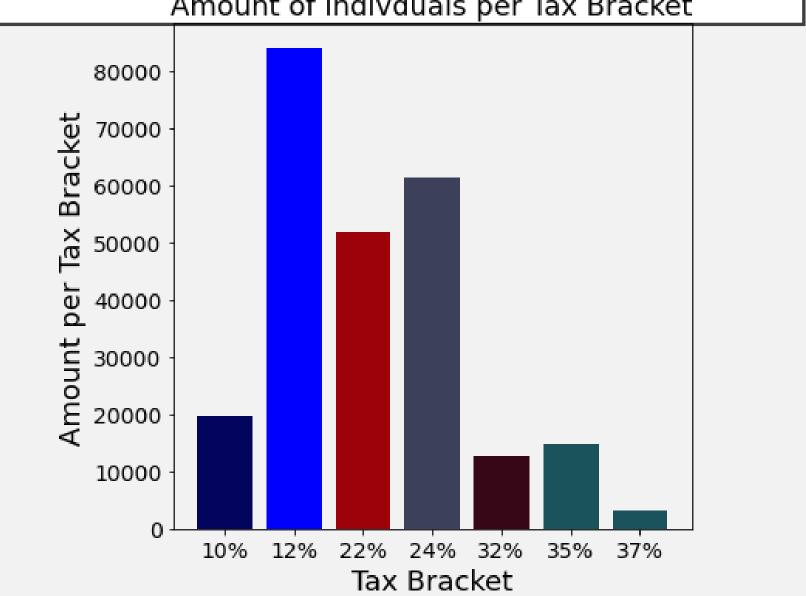
- 2018 American census survey
  - Solely Illinois

## EXPLORATORY DATA ANALYSIS(EDA)

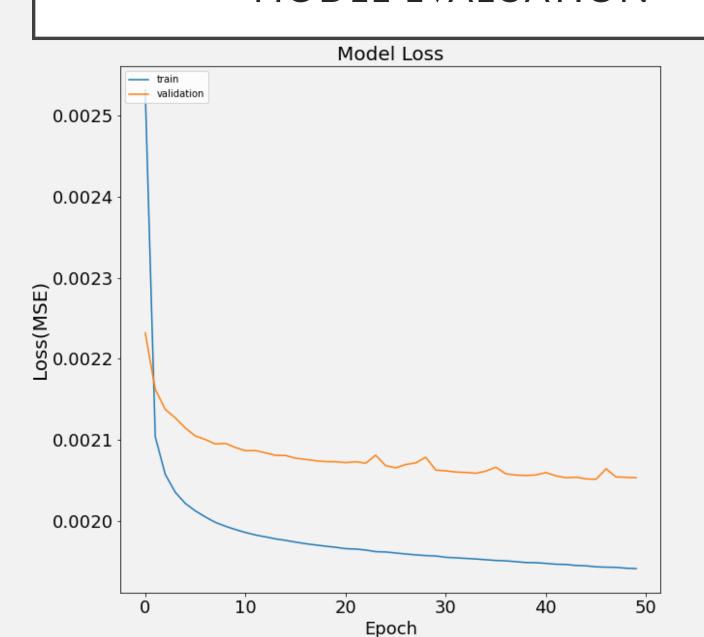


EDA CONT.

Amount of Indivduals per Tax Bracket



## MODEL EVALUATION



### PROOF OF CONCEPT

**SMOCP** -Selected monthly owner costs.

**PUMA** -Public use microdata area code (PUMA) based on 2010 Census definition

**NP** -Numeric 2Number of persons associated with this housing record.

**BDSP** -Number of bedrooms.

**INSP** -Numeric 5Fire/hazard/flood insurance yearly amount.

RMSP-Number of rooms.

**VALP** -Property value.

**TAXAMT** -Property taxes.

X inputs=[2.600e+02 3.529e+03 2.000e+00 2.000e+00 2.600e+02 4.000e+00 2.600e+02
2.600e+02] ,Actual=[35000.], Predictied=[51608.098]

[65]: X\_test

[65]: SMOCP PUMA NP BDSP INSP RMSP VALP TAXAMT 238940 260.0 3529 2 2.0 260.0 4.0 260.0 260.0

## **NEXT STEPS**

- Determine area of interest and create a visual of that area
- Maximize Model efficiency.
- Create models per puma code
- Create flask/Dash Appl for online application

## **CONTACT INFORMATION**

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