ILLINOIS INCOME PREDICTOR

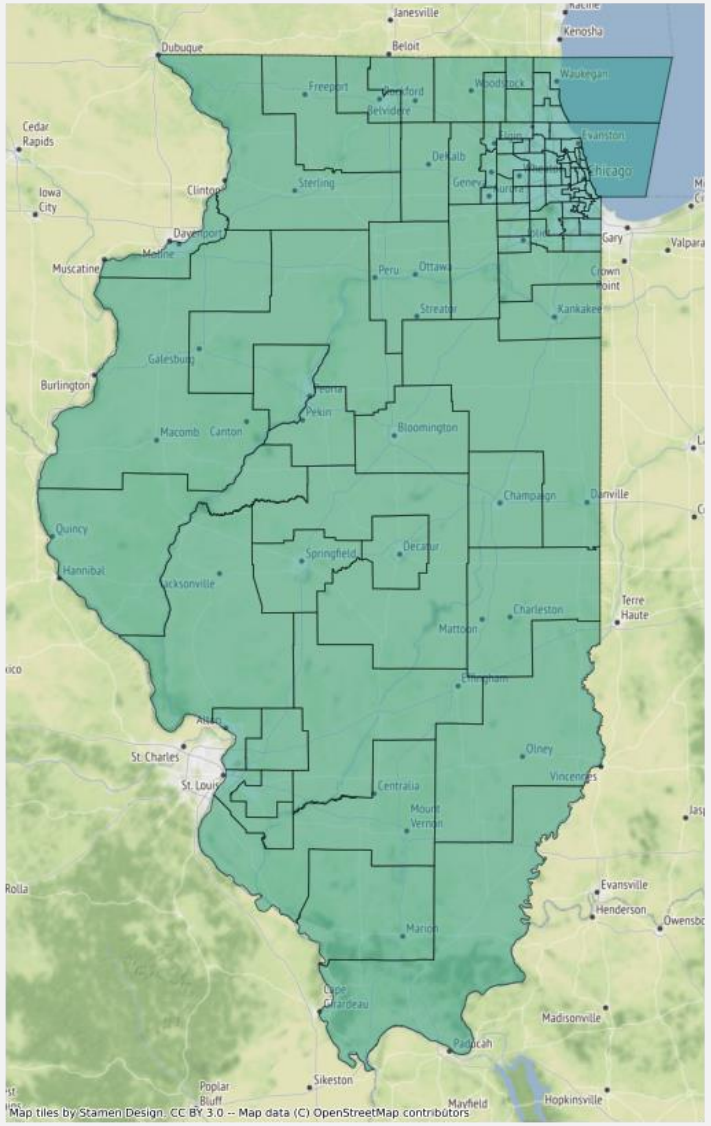
By: Johnhoy Stephens

INTRODUCTION/BUSINESS UNDERSTANDING

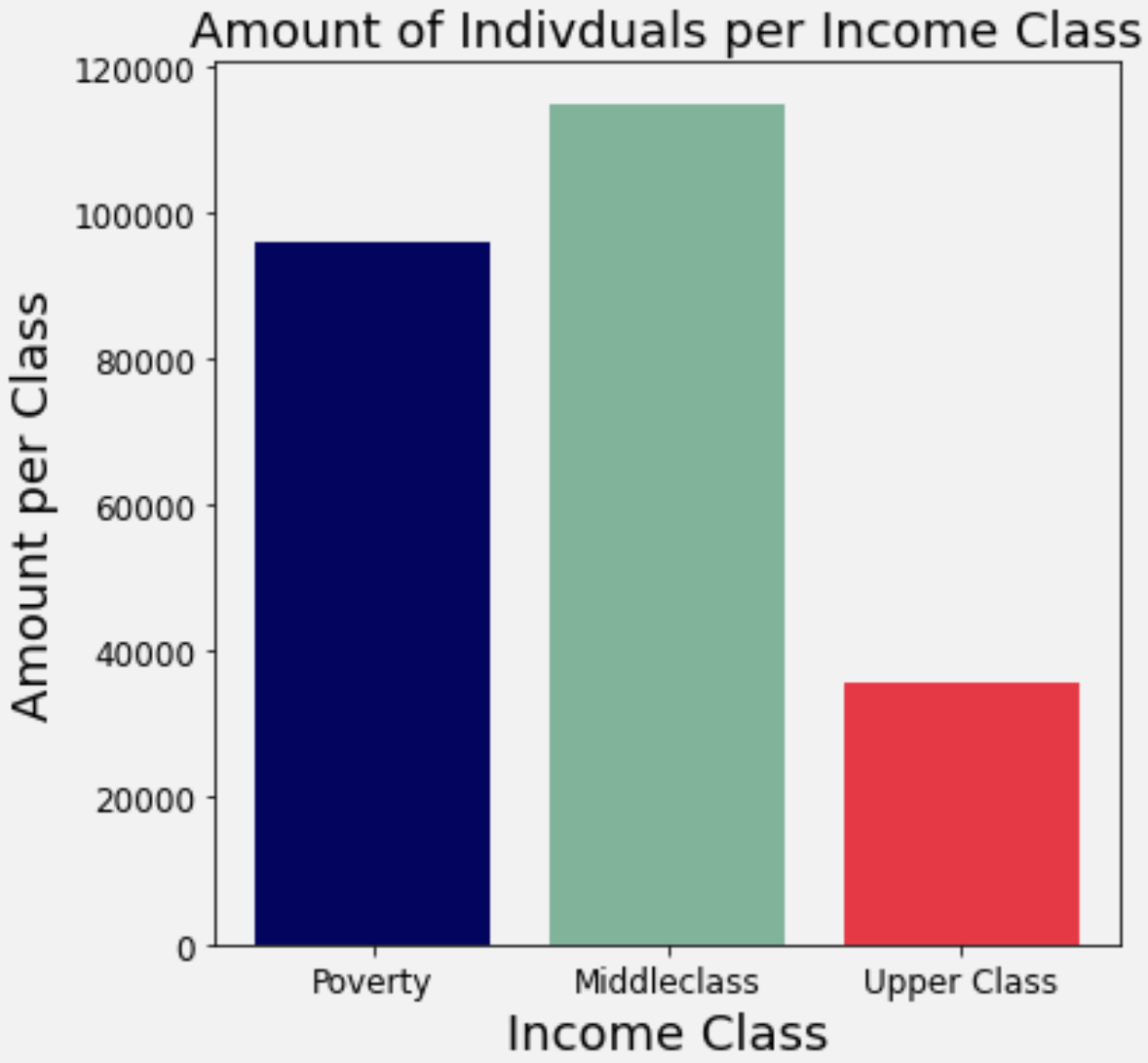
- Objective:
  - Create a better assessment for programs such as SNAP and unemployment.

DATA GATHERING & UNDERSTANDING

- Data:
  - 2018 American census survey
- Features:
  - Total people in house, Value of property, Number of vehicles



EXPLORATORY DATA ANALYSIS(EDA)/DATA UNDERSTANDING

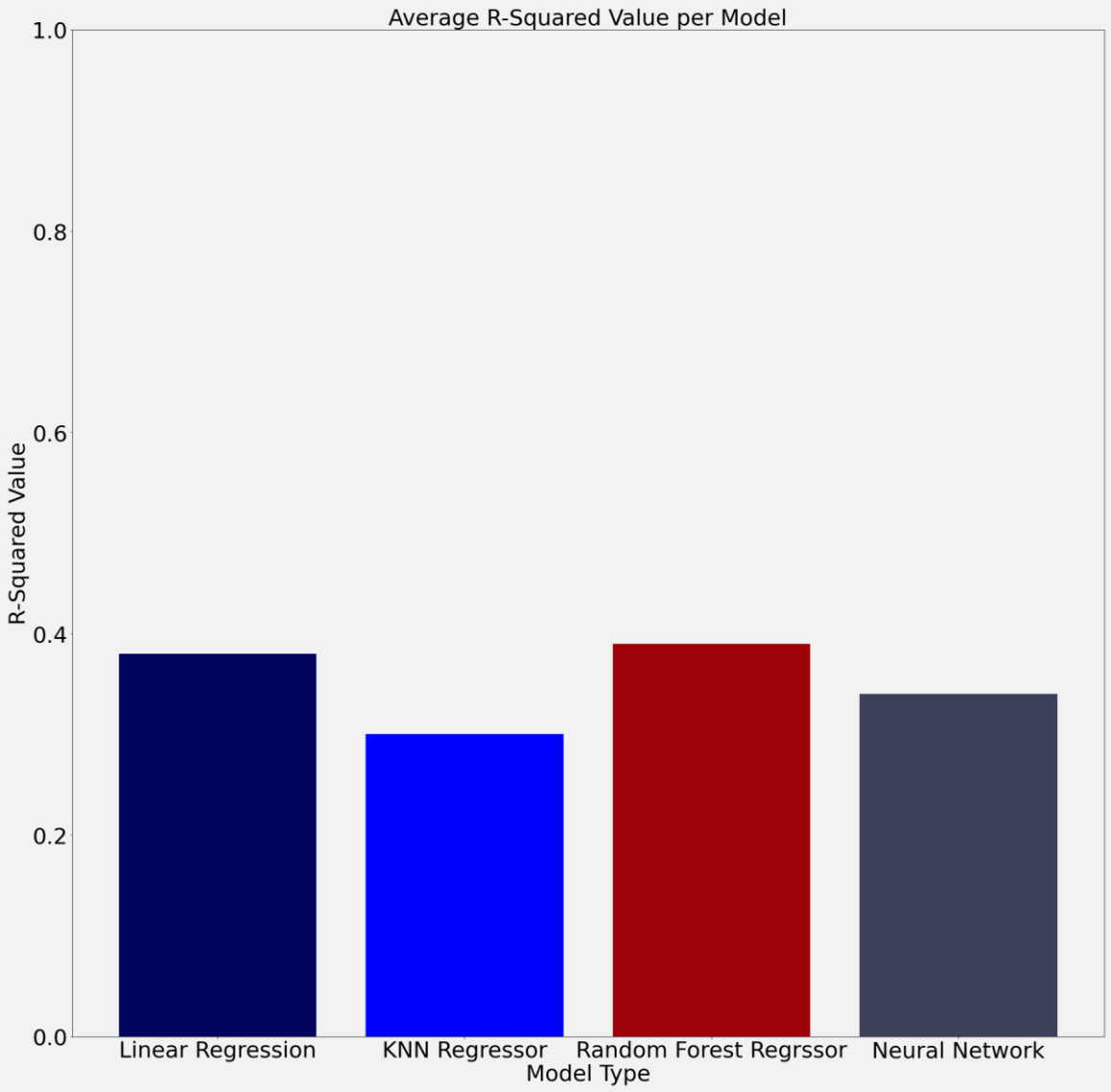


DATA PREPARATION

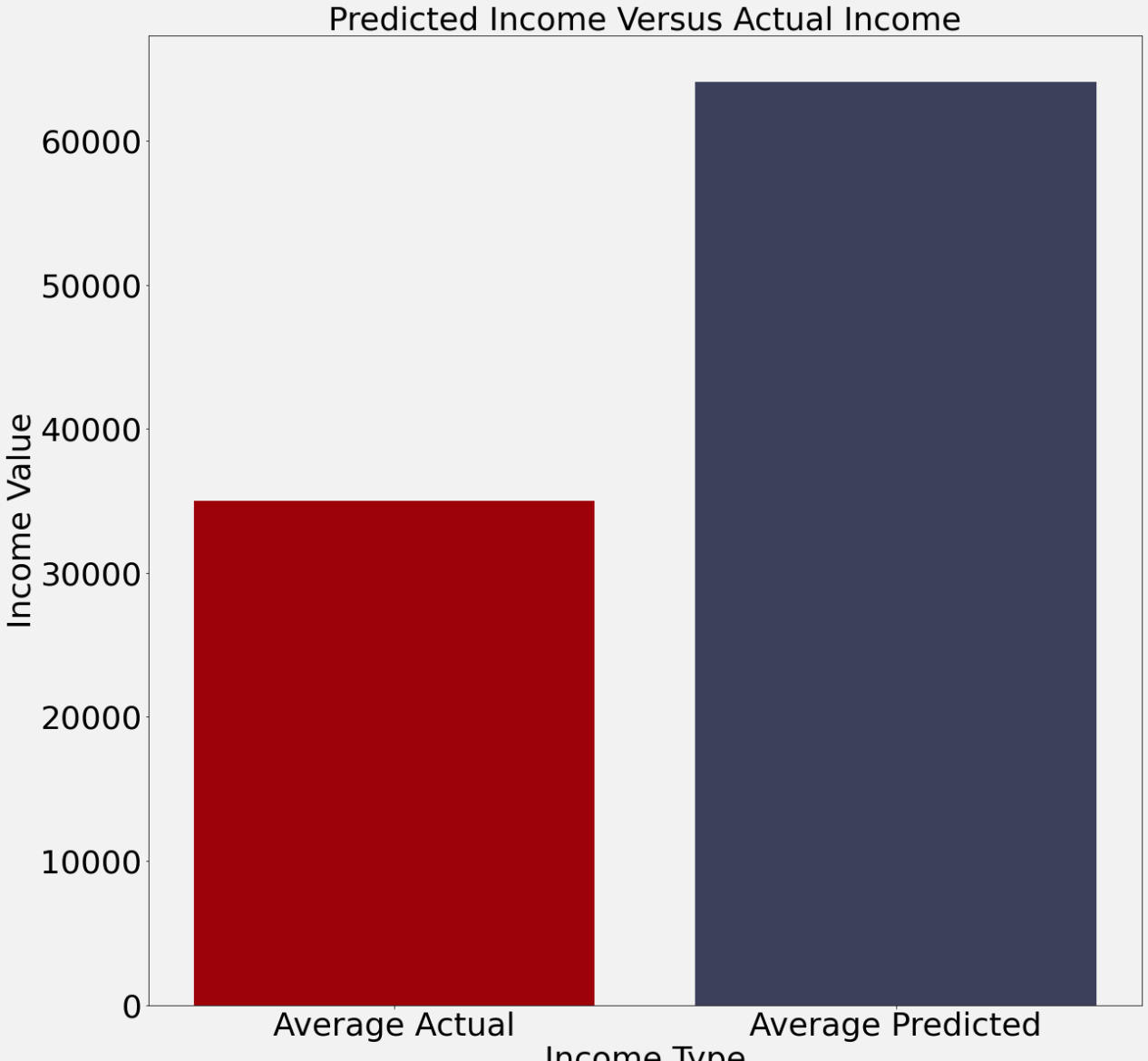
- Cleaning:
  - Removed all NAN and zero values of for the target variable
  - Processing:
    - Columns with a Pearson correlation coefficient of .1 or higher with the target column were used

MODEL EVALUATION

- Linear Regression: .38
- KNN Regressor: .30
- Random Forest Regressor: .39
- Neural Network: .34



MODEL EVALUATION



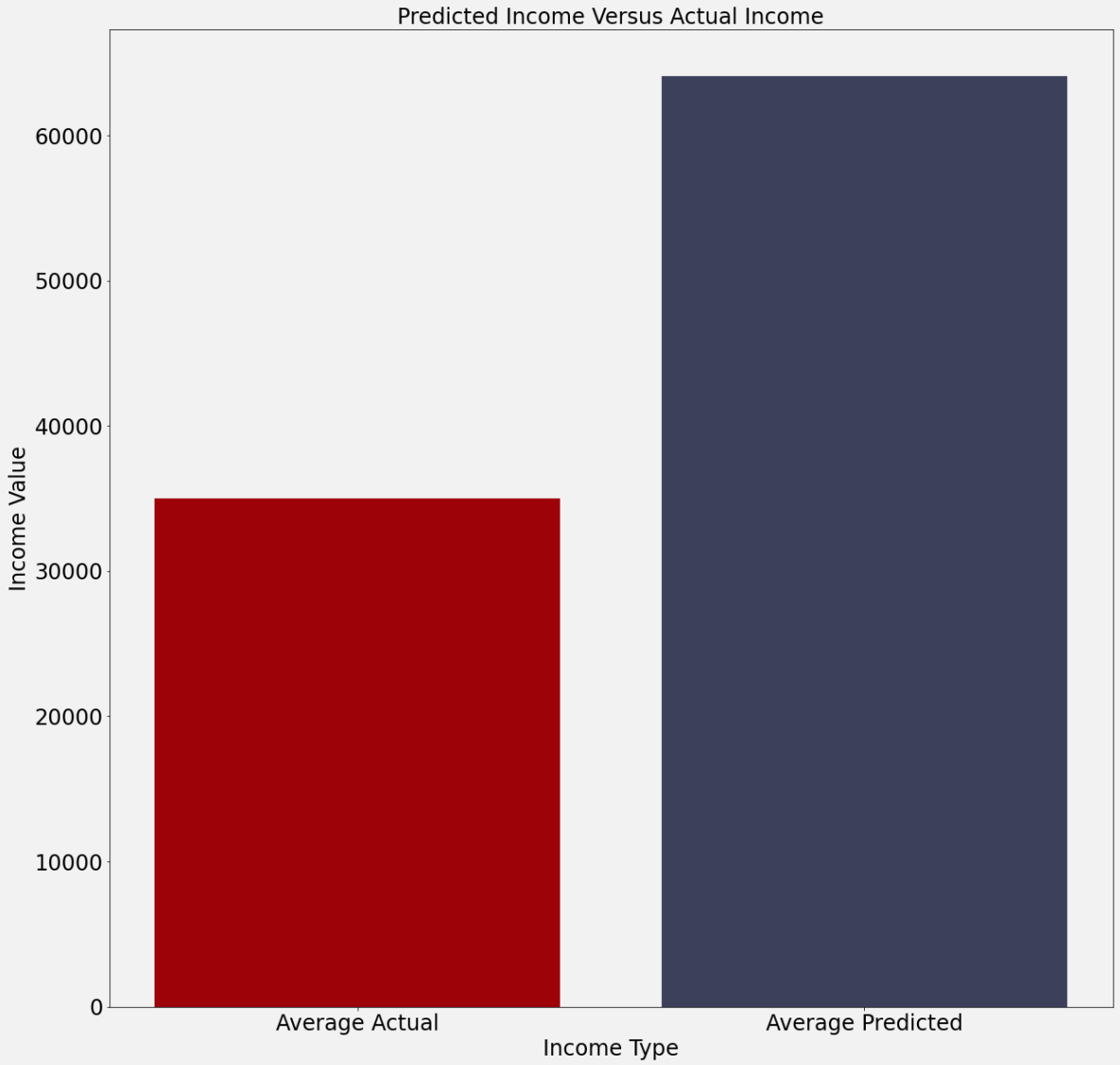
Model=Random Forest Regressor

R^2=.41

APP

NEXT STEPS

- Explore different algorithms
- Create models per county
- Acquire more recent Income data



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