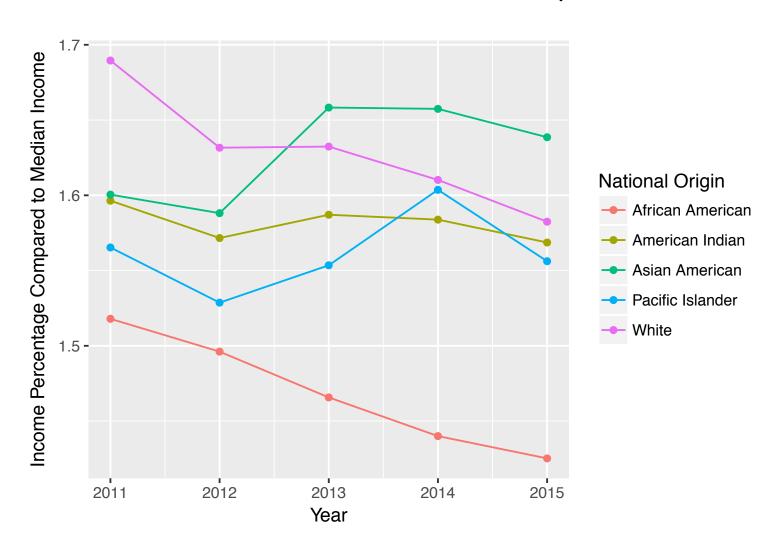
# Background: Home Purchase Patterns by Race

Homes are Americans' largest source of wealth.

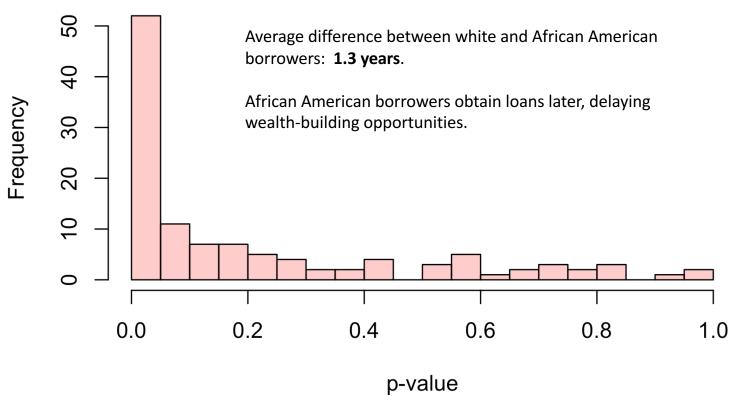
 Inequity in home purchasing directly influences lifetime wealth-building opportunities.

 Are there patterns in data that show systemic inequity in home loans?

### Borrower income ratio by race

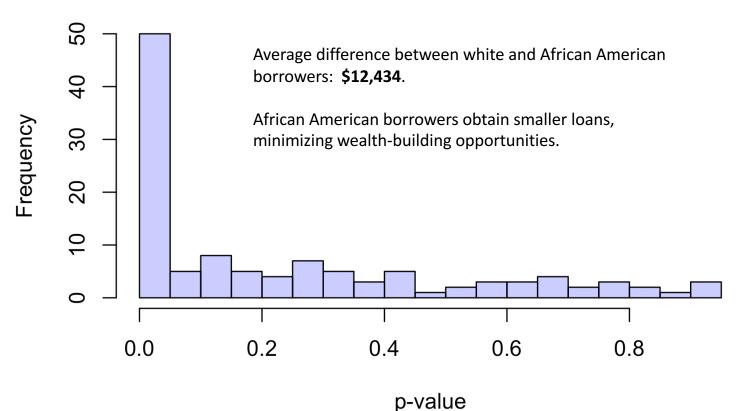


#### t-test p-values by age of borrower and race



116 Metropolitian statistical areas for white or African American borrowers

#### t-test p-values by mortgage balance and race



116 Metropolitian statistical areas for white or African American borrowers

## Classification Analysis

- Classifying using 4.2 million observations.
- Linear Discriminant Analysis:

	African American	White
African American	71012	63951
White	1519124	2619832

- 63% accuracy using 6 variables:
  - Borrower gender, age, income, unpaid balance, income ratio and median family income.
- Neural network accuracy 44%.

### Implications and Future Directions

 Patterns exist showing racial inequities, provide opportunities to equalize home loan access and wealth accumulation across race.

- Work to further understand local dynamics:
  - Currently aggregated at metropolitan area
  - Addition of housing price and tax base information
  - Identify opportunities to make opportunity more equitable for people