"Keep Your Government Hands Off My Medicare!": Analyzing Factors Which Predict Support for Publicly-Funded Healthcare Among American Voters

Alexander Adams

I. Research Question and Background

Research Question & Background

One of the most widely-debated issues in American politics is the federal government's role in providing healthcare. Liberals tend to favor greater government involvement, while conservatives believe the responsibility should lie more with the private sector.

Activists, particularly on the left, face the challenge of selling their policy position to voters. This analysis aims to assess which factors (demographic or attitudinal) are associated with support for government involvement in providing healthcare.

II. Data Source and Relevant Variables

Data Source

The data for this project comes from the 2018 National Survey of Health Attitudes (NSHA), conducted by the RAND corporation, accessible through the Inter-University Consortium for Political and Social Research (ICPSR).

The original data set consists of 7,187 responses. After filtering out missing data, 5,529 observations remain.

Dependent Variable: Q16-4

<u>Question Text:</u> Indicate who you think should play a bigger role in providing healthcare services, the government or the private sector (businesses and nonprofits)?

Responses: 0-100

0 = The government should be solely responsible for providing health care

100 = The private sector should be solely responsible for providing health care

Any value in between indicates a mixture of the two

Feature Variables of Interest: Q11A/B

Q11A Text: Which statement is closer to your views?

The biggest reason people in America become unhealthy is because they make poor choices that affect their health.

OR

The biggest reason people in America become unhealthy is because things outside of their control affect their health.

_____

Q11B Text: Which of the following is the biggest reason that people in America become unhealthy?

Personal Factors OR Environmental Factors

Feature Variables of Interest: Q15A

<u>Q15A Text:</u> In the United States today, people with lower incomes live on average 7.5 years less than people with higher incomes. What do you think are the top three reasons why this is the case? (Select three options)

Access to a Good Education	Access to Health Care	Access to Health Insurance
Community Environment	Discrimination	Economic Resources (How much money they have)
Genetics (someone's biological makeup	Health Information they have	Luck
Personal Choices and Behavior	Treatment by Society of those with Low Incomes	Other (Unspecified)

III. Methods

Parametric Technique: Least Absolute Shrinkage and Selection Operator (LASSO) Regression

- Effective for cases with lots of feature variables of varying levels of importance

- Can help identify which variables are most important

Non-Parametric Technique: Decision Tree Regressor

- Potentially high variance

- High interpretability

- Easy to visualize

Non-Parametric Technique: Random Forest Regressor

- May be more reliable in determining feature importance

- More robust to overfitting

- Potentially more accurate than decision trees

IV. Results and Performance

Results

- Completed: LASSO regression (α = 0.5)
- Not completed: Decision Tree, Random Forest, LASSO with other values of α

- R^2 for LASSO is 0.203

Selected Results from LASSO Regression

Variable	LASSO Coefficient
Q15A_AHC	-4.537
Q15A_AHI	-3.513
Q11	-2.869
HHIncome	0.880
Q15A_L	0.924
Q15A_PCB	3.317

V. Conclusions

Conclusions

- Too early to draw full conclusions...
- BUT!
- Initial results from LASSO regression match expected results

- Viewing luck and personal choices as most important in determining life expectancy is positively associated with believing the private sector should bear some (if not most or all) responsibility for providing health care.
- Having a higher household income is associated with favoring private-sector healthcare

Limitations

- Data is from 2018
  - Attitudes in America towards healthcare and government involvement are changing rapidly

- No record of partisanship
  - Increasing nationalization of American politics = partisan identity informs policy preferences