# Demographics of Democratic Underperformance in 2016

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## LITERATURE REVIEW

- In the 2016 US presidential election, Hillary Clinton underperfomed compared to Barak Obama in 2012 (Ball 2016).
- Lewis-Black and Quinlin (2019) examine evidence of a broad range of factors that have spatio-demographic components.
- However McCall and Orloff (2017) note the significance of identity politics in the outcome, which may not appear in spatio-demographic patterns.
- Goldman et al. (2019) associate deaths of despair as a proxy for a broader range of social challenges that may have been manifest in the results.
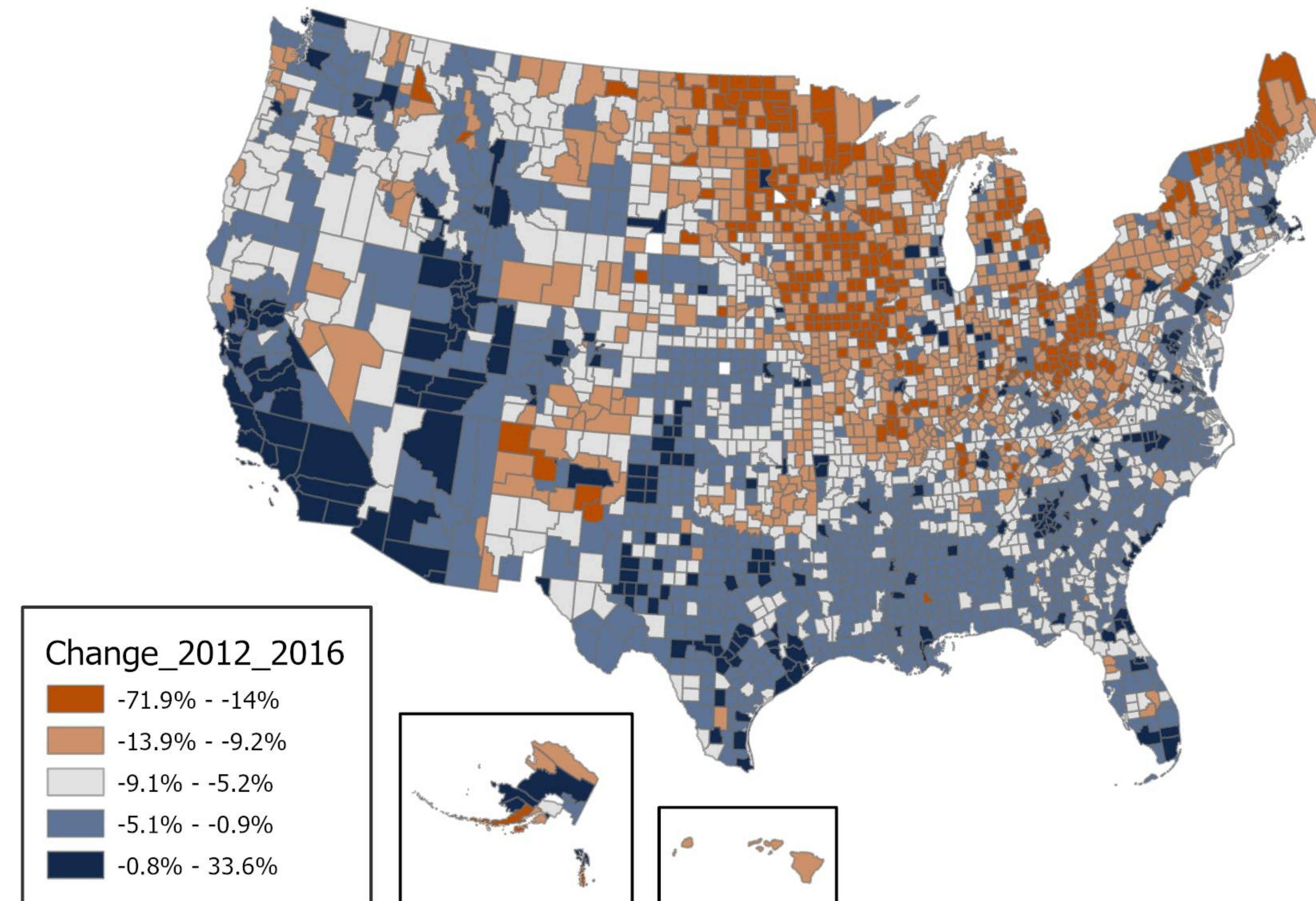
## RESEARCH QUESTION

- What demographic factors were associated with areas where Hillary Clinton underperformed in 2016 compared to Barack Obama in 2012

## METHODS AND DATA SOURCES

- ArcGIS Pro 3.3.1
- OLS, spatial lag, and spatial regression
- Global Moran's I

- County level electoral results from state secretaries of state offices
- Demographic data from the US Census Bureau's 2015-2019 American Community Survey five-year estimates (median age, percent bachelor's degree, percent single mothers)
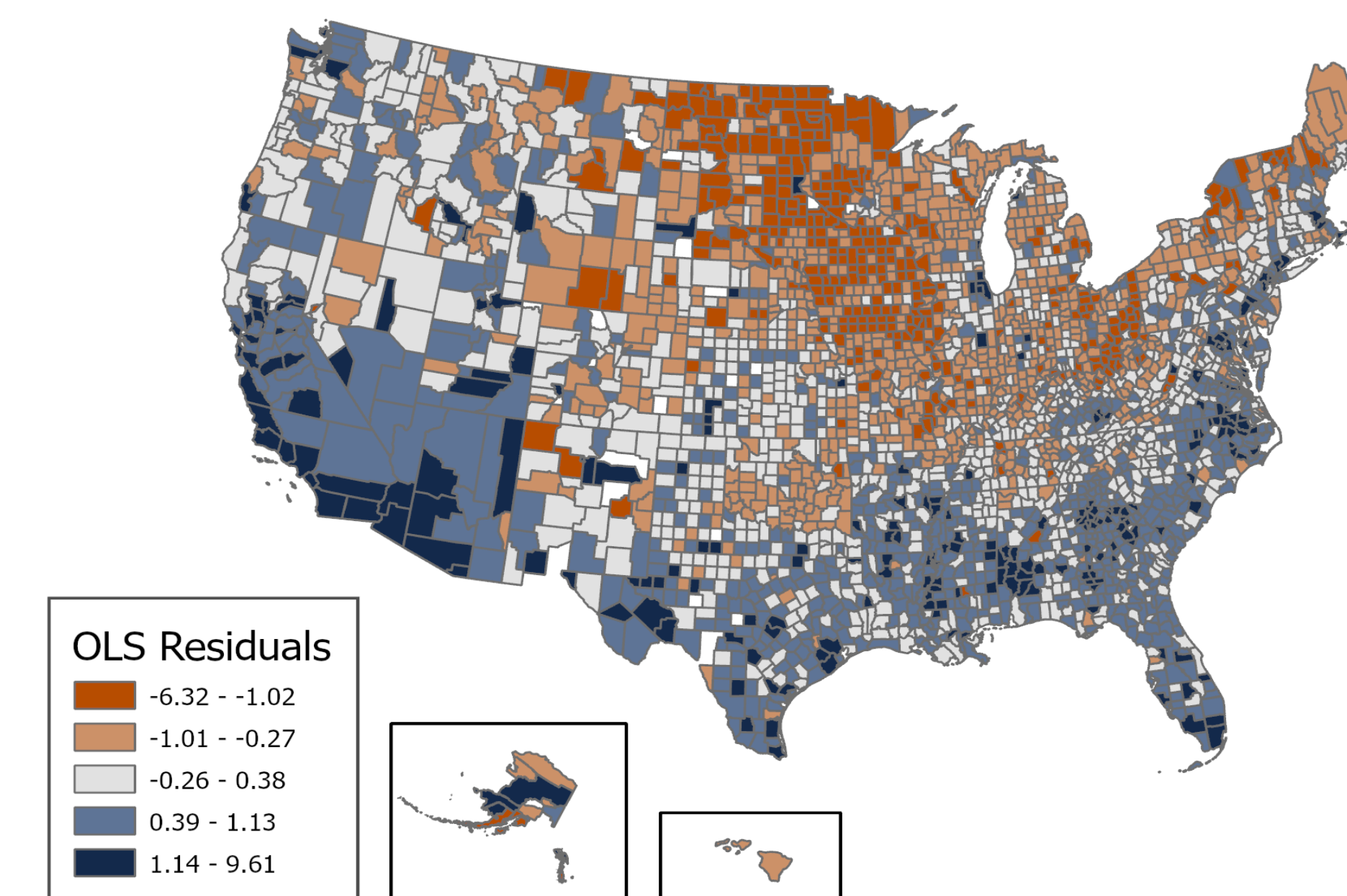
## DEMOCRATIC UNDERPERFORMANCE IN THE 2016 vs. 2012 ELECTION



Change_2012_2016
- -71.9% - -14%
- -13.9% - -9.2%
- -9.1% - -5.2%
- -5.1% - -0.9%
- -0.8% - 33.6%

## SPATIAL ERROR REGRESSION

|  | coef | std err | t | P>\|t\| |
|---|---|---|---|---|
| Intercept | 0.001 | 0.010 | 0.140 | 0.8888 |
| Percent_Dem_2012 | -0.400 | 0.013 | -29.904 | 0.0000 |
| Median_Age | -0.053 | 0.012 | -4.415 | 0.0000 |
| Percent_Bachelors_Degree | 0.381 | 0.012 | 31.462 | 0.0000 |
| Percent_Married | -0.245 | 0.015 | -16.385 | 0.0000 |
| Population_Density | 0.175 | 0.012 | 14.256 | 0.0000 |

AIC:     5405.809
Lambda: 0.9726
OLS Adj R-squared: 0.355



OLS Residuals
- -6.32 - -1.02
- -1.01 - -0.27
- -0.26 - 0.38
- 0.39 - 1.13
- 1.14 - 9.61

## CONCLUSIONS

- The OLS regression model had an R-squared of 0.34, indicating about one third of the variation in the change variable was explained by the model.

- A spatial error model was used because the global Moran's I z-score of 170 indicated strong autocorrelation in the residuals.

- Heavily Democratic counties and counties which high percentages of married adults were most strongly associated with negative change in 2016 percentage.

- The model also highlighted the increasing polarization between college-educated urban voters and non-college-educated rural voters.

- These results highlight the probable importance of missing non-demographic factors, like campaign strategy and tactics, the influence of media, structural biases, and the unique strengths and weaknesses of the
- candidates.

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