

## **ECON 425 Final Project**

### **Abstract:**

This research project studies and hypothesizes the socio-economic factors behind the voting outcome of amendment 1, which was passed in the state of West Virginia in 2018. This is an important topic to study as it is a highly contested debate across all segments of American politics and has the potential to affect access to healthcare along with establishing the protection of life. The primary independent variables used in this study were: population size, percentage of population that was white, median home values, and percentage of the population that had a bachelor's degree or higher. While all variables except percentage of population that was white were significant in univariate logistic regression models, all multivariate regression models failed to have any significant coefficients. This could be attributed to the small sample size. Future works will need to look at both additional variables along with studying similar voting outcomes in other states.

### **Introduction:**

The ballot measure being studied for this project was amendment 1, which was put up to a vote in the state of West Virginia in 2018. The measure passed with 52% of residents in the state voting in favor of it. Upon passage of the measure, the state constitution was modified to say: "Nothing in this constitution secures or protects a right to abortion or requires the funding of abortion."

The history of this amendment goes back to 1993, in which the state Supreme Court ruled that medically-necessary abortions could not be denied to the poor, which meant that funds from Medicaid could have been used to fund abortions. This amendment provided the state legislature to deny any such coverage. And while this amendment only added 1 line to the state's constitution, it drastically changed how the state viewed abortions.

Those who believe in a woman's right to choice believe that every woman should have the autonomy to make decisions about her own body. They argue that access to safe and legal abortion is a fundamental human right and that restricting it would lead to dangerous and potentially life-threatening situations for women who would seek harmful ways to terminate unwanted pregnancies. Supporters of this side also emphasize the importance of reproductive rights in promoting gender equality and women's empowerment. They claim that women must have control over their reproductive choices to fully participate in society, pursue their careers, and maintain economic stability.

On the other hand, pro-life supporters believe that life begins at conception and that the unborn fetus has a right to life that must be protected. This side believes that abortion is morally wrong and equates to taking an innocent life, which should be protected at all costs on religious or ethical grounds. This argument stems from the contention that life is sacred and should be preserved at all costs. Pro-life proponents may advocate for alternative solutions, such as

adoption or support services for pregnant women, as a way to protect both the mother and the unborn child.

Overall, it is a

## **Literature Review:**

People in America have argued a lot about whether or not abortion should be allowed. Therefore, the government in some states has specifically asked citizens to vote on this topic to make decisions about what the law should be. In 2018, the state of West Virginia changed its laws to say that the constitution does not protect or support abortion or the spending of public money on it<sup>1</sup>. The change was made to give the state more control over who can get an abortion.

In 2020, Louisiana made a similar change to their state constitution (Amendment 1) that made it so the constitution did not protect the right to get an abortion or require the government to pay for abortions<sup>2</sup>. This change was meant to let the state have more control over access to getting an abortion.

In the opposite direction, in 2018, the people of Oregon decided not to agree with a proposal (Measure 106) to stop using state money for abortion<sup>3</sup>. Some people wanted to stop using government money to pay for something they believed was wrong, but others said this would hurt poor people who use Medicaid to access healthcare.

In 2019, the people of Colorado also voted for Proposition CC<sup>4</sup>. This law wasn't about abortion, but it meant that the state could keep money from taxes if they had more than they needed instead of giving it back to the people who paid the taxes. Money that was going to be saved would have been used for things like schools and transportation, which would have had an impact on people's ability to get reproductive health care. Colorado voters also voted against a law called Proposition 115 in 2020 that would have stopped people from having abortions after 22 weeks<sup>5</sup>. While some argued that the lives of babies before they are born should be protected, others disagreed and said that the law would unfairly affect poor people along with those who have difficult pregnancies.

As far as public determinants of voting in favor or against abortion are concerned, factors such as religion, political affiliation, gender, race, and socio-economic factors play a role in swaying public opinions. 84% of religiously unaffiliated Americans believe that abortion should be legal in most cases. 80% of democrats, or those leaning towards the democratic party, claim that abortion should be legal in all or most cases. Additionally, women are also somewhat more likely to support legal abortion. On the other hand, of all major races represented in the United States, white adults are the least likely to support abortion. Similarly, individuals with lower levels of education also tend to vote against abortion<sup>6</sup>.

Most recently, in 2022, the United States Supreme Court overturned Roe v Wade, which had declared that abortion was a constitutional right. Writing for the court majority, Justice Samuel Alito said that the 1973 Roe ruling and repeated subsequent high court decisions

reaffirming Roe "must be overruled" because they were "egregiously wrong," the arguments "exceptionally weak" and so "damaging" that they amounted to "an abuse of judicial authority<sup>7</sup>."

In conclusion, state-wide ballot votes related to abortion have varied in their scope and impact. Some have aimed to restrict access to abortion, while others have aimed to protect it. The results of these ballot initiatives reflect the diversity of opinions on this issue among American voters.

### **Model:**

This project used a logistic regression model with the dependent variable being whether or not a county voted in favor or against amendment 1. There were 55 counties represented in the model. There were 4 continuous independent variables utilized: population size, percentage of population that was white, median home values, and percentage of the population that had a bachelor's degree or higher.

The null hypothesis for all variables was that the coefficients would be zero, implying that they had no role in the voting outcome of a county. Additionally, the expected signs of the 4 variables (representing the alternative hypotheses) are as follows: population size (negative), percentage of population that was white (positive), median home values (negative), and percentage of the population that had a bachelor's degree or higher (negative). What this means is that I hypothesized that counties with a smaller population, higher percentage of residents who identified as white, lower median home values, and lower percentage of residents who had a bachelor's degree or higher would be more likely to vote in favor of the amendment, which would seek to limit abortion.

### **Results:**

The results I obtained, although in agreement with my initial hypotheses regarding the signs of the coefficients, were interesting due to the low R squared values and lack of significance within all of the multivariate regression models.

Since this project used a logistic regression, the coefficients had to be interpreted in a slightly different way. Rather than interpreting a coefficient term of 3.5 as "an increase in the independent variable by a factor of 1 will increase the dependent variable by a factor of 3.5," a coefficient term of 3.5 had to be interpreted as "an increase in the independent variable by 1 unit will multiply the odds of voting in favor of amendment 1 by a factor of  $e^{3.5}$ "

Regressions 1,3, and 4 had significant results, suggesting that population size, median home value, and percentage of residents with a bachelor's degree or higher were able to independently predict voting outcomes. However, regressions 5,6, and 7, in which the variables were sequentially added into multivariate models, failed to prove a significant relationship between any of the 4 independent variables to voting outcomes, although these models had relatively higher R squared values. Regression 2, which was a univariate model with percentage

of residents who identified as white, was also not significantly related to voting outcomes, going against findings obtained from the literature review.

**Table 1. Determinants of County Level Voting on Amendment 1**

	Sample	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Population	32,276	-0.00000397** (0.00000158)				-0.00000376 (0.00000202)	-0.00000308 (0.00000207)	-0.00000217 (0.00000234)
Race White (%)	95		0.0276 (0.017)			0.00348 (0.021)	0.0000227 (0.0211)	-0.00365 (0.0216)
Median Home Value (\$)	120,142			-0.00000301** (0.00000139)			-0.00000194 (0.00000152)	-0.00000104 (0.00000186)
Bachelors Degree or Higher (%)	17				-0.0209** (0.00749)			-0.01096 (0.01298)
Constant		0.928** (0.0727)	-1.824 (1.617)	1.162** (0.176)	1.164** (0.1403)	0.5904 (2.042)	1.13 (2.073)	1.533 (2.133)
R-Squared		0.1068	0.0474	0.0809	0.1278	0.1072	0.135	0.1472

Note: Dependent variable is a binary variable "yes" or "no" on Amendment 1 by county. N=55

## Conclusion:

These results are meaningful because they show that 3 of the 4 independent variables, using univariate regression models, were able to determine voting outcomes for counties within the state of West Virginia. However, the same could not be concluded for the multivariate regression models. These results, in conjunction with data studied in the literature review, can allow for understanding important socio-economic factors that may influence residents in a particular state to vote either for or against abortion, having important policy implications around the entire state.

## Citations:

<sup>1</sup>West Virginia Secretary of State. (2018). West Virginia Amendment 1 [Ballot measure]. <https://sos.wv.gov/elections/Documents/Constitutional%20Amendments/Proposed%20Amendments%20General%20Election%20November%206,%202018.pdf>

Ballotpedia. (2020).

<sup>2</sup>Louisiana Amendment 1, No Right to Abortion in Constitution Amendment (2020). [https://ballotpedia.org/Louisiana\\_Amendment\\_1,\\_No\\_Right\\_to\\_Abortion\\_in\\_Constitution\\_Amendment\\_\(2020\)](https://ballotpedia.org/Louisiana_Amendment_1,_No_Right_to_Abortion_in_Constitution_Amendment_(2020))

Ballotpedia. (2018).

<sup>3</sup>Oregon Measure 106, Prohibit State Funding for Abortions Amendment (2018). [https://ballotpedia.org/Oregon\\_Measure\\_106,\\_Prohibit\\_State\\_Funding\\_for\\_Abortions\\_Amendment\\_\(2018\)](https://ballotpedia.org/Oregon_Measure_106,_Prohibit_State_Funding_for_Abortions_Amendment_(2018))

Ballotpedia. (2020).

<sup>4</sup>Colorado Proposition CC, Allow State to Retain Excess Revenue for Transportation and Education Measure (2019).

[https://ballotpedia.org/Colorado\\_Proposition\\_CC,\\_Allow\\_State\\_to\\_Retain\\_Excess\\_Revenue\\_for\\_Transportation\\_and\\_Education\\_Measure\\_\(2019\)](https://ballotpedia.org/Colorado_Proposition_CC,_Allow_State_to_Retain_Excess_Revenue_for_Transportation_and_Education_Measure_(2019))

Ballotpedia. (2020).

<sup>5</sup>Colorado Proposition 115, Ban Late-Term Abortions Measure (2020).

[https://ballotpedia.org/Colorado\\_Proposition\\_115,\\_Ban\\_Late-Term\\_Abortions\\_Measure\\_\(2020\)](https://ballotpedia.org/Colorado_Proposition_115,_Ban_Late-Term_Abortions_Measure_(2020))

<sup>6</sup>“Public Opinion on Abortion.” *Pew Research Center's Religion & Public Life Project*, Pew Research Center, 5 Apr. 2023,

<https://www.pewresearch.org/religion/fact-sheet/public-opinion-on-abortion/>

<sup>7</sup>Totenberg, Nina, and Sarah McCammon. “Supreme Court Overturns Roe v. Wade, Ending Right to Abortion Upheld for Decades.” *NPR*, NPR, 24 June 2022,

<https://www.npr.org/2022/06/24/1102305878/supreme-court-abortion-roe-v-wade-decision-overturn#:~:text=Press-,Supreme%20Court%20overturns%20Roe%20v.%20Wade%2C%20ending%20right%20to%20abortion,right%20to%20obtain%20an%20abortion.>