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ANALYZING VOTER PARTICIPATION IN EL PASO COUNTY, TEXAS

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ANALYZING VOTER PARTICIPATION IN EL PASO COUNTY, TEXAS

by

SAMANTHA ROMERO

THESIS

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Abstract

This thesis seeks to analyze and understand voting patterns in El Paso County, Texas, based on a study of voter turnout in the November 2015 Uniform Election and three key research objectives. The first objective is to provide a systematic statistical evaluation of a local endeavor, the Student Voter Initiative (SVI), to increase voter turnout among youth, specifically 18-year-olds, in the November 2015 Uniform Election. The second objective is to estimate voter turnout by age group (generation) and investigate whether younger voters were underrepresented in the November 2015 Uniform Election compared to older generations, based on generational categories defined by the Pew Research Center. The third objective is to analyze the role of specific socio-demographic factors in explaining voter participation for all voters countywide, as well as for different voter age groups, using precinct level data. This research utilizes descriptive statistical measures, bivariate inferential tests, and precinct level maps based on geographic information system (GIS) software. The statistical evidence demonstrates that the SVI had a positive and significant impact on the student or 18-year-old voter turnout in this county. The turnout for 18-year-old voters who participated in the SVI was 3.5 times greater than the overall county turnout for voters aged 18 years. Further, contrary to the literature that states voter turnout increases with age, inferential tests indicate that turnout in El Paso County increased with age for only those aged 35 years or older. The significantly higher turnout of 18-year-olds compared to their youth peers (ages 19-21 years) and the Millennial generation (ages 20-35 years) are also indicative of the success of the SVI. The proportion of population age 65 or older in the precinct proved to be the most statistically significant and consistent predictor of overall voter turnout and turnout for every age group. Voting participation for ages higher than 52 years was also significantly higher in precincts which contain more economically affluent and

educated residents. Although this analysis provided important insights on how several precinct level socio-demographic factors influence voter turnout in El Paso County, future research needs to examine these statistical associations in more detail using individual voter level data on race/ethnicity, income, home ownership, and educational attainment.

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Chapter 1: Introduction

Recent trends indicate that voter participation in the U.S. has been on the decline since the 1960s. Voter turnout, measured as the percentage of registered voters who turned out to vote, in the 2014 U.S. midterm elections was only 36%--the lowest it had been in 72 years (DelReal, 2014). In an international context, the U.S. is currently ranked 26 out of 32 developed or democratic countries based on the most recent nationwide election voter turnout (DeSilver, 2018). The state of Texas ranks at the bottom of voter turnout compared to all other states in the U.S. When looking at the November 2016 Presidential Election, Texas was ranked at number 46 in the U.S. in voter turnout (Comen et al., 2016). Meanwhile, El Paso County, Texas, had a turnout of 33% in that same election. This places it second to last among Texas' top ten most populous voting age counties (Whyte and Daniel, 2016). Furthermore, most municipal elections in El Paso County have less than a ten percent turnout rate, a rate far below the state average (Texas Secretary of State, 2020).

Voting participation rates in the U.S. are consistently low among the Latinx population. (Michelson, 2005). Voter registration itself is a greater obstacle to voter turnout for the Latinx population as compared to Whites (Francia and Orr, 2014). This could partly explain the lower turnout for Latinxs in El Paso County, where 83% of the population is Hispanic (Census Bureau, 2020). Additionally, the youth, in particular, are and continue to be, underrepresented at the polls. Voters under the age of 29 years comprised 23.9% of the county's voting age population in 2012 but represented only 21.7% of registered voters and 14.6% of those who voted (Texas Secretary of State, 2020). In El Paso County, youth voter (ages 18-29 years) turnout in 2014 was the second lowest in Texas, despite being ranked the ninth most populous county in the state for that same age range, ranking El Paso County at number 253 (out of 254 total counties) statewide

in youth voter participation (High School Voter Registration Convening 2020). The literature on voting participation has consistently identified younger people and Latinos as two groups who are historically less likely to vote (Michelson, 2005, 2006).

The evidence presented above shows how El Paso County is at the very bottom of voter turnout, being placed at the bottom of voter participation internationally, nationally and statewide. There are multiple factors such as geography, political landscape, and socio-demographic characteristics (e.g., age, income, educational attainment, and race/ethnicity) which impact voter turnout rates (Michelson, 2005, 2006; Francia and Orr, 2014). However, El Paso youth voter turnout increased in 2016 and its rank improved from 253 to 239 at the state level. Then in 2018, El Paso youth voter turnout increased substantially and jumped to rank number 40. Thus, in a span of only four years, El Paso County's youth voter (ages 18-29 years) participation rates went from being in the bottom 20% of voter turnout to the top 20% in Texas (High School Voter Registration Convening 2020).

These changing trends in voting patterns in El Paso County could be a reflection of recent local efforts to increase youth voter participation. A county-wide initiative called the Student Voter Initiative (SVI) was introduced in the fall of 2015, with the objective of registering all high school students to vote. This project was organized by the Senate District 29 Youth Advisory Committee. The SVI was a 45-minute presentation aimed at fostering discussion with high school seniors about policy, its impact, and the role of voting. It sought to provide students with an opportunity to discuss their opinions and connect those opinions to the political process. The SVI had an ambitious goal of increasing youth voter registration and voter participation among high school seniors, in particular. The first research objective of this thesis project is to provide a systematic and statistical evaluation of this local endeavor (i.e., the SVI) to increase voter turnout

among youth, specifically 18-year-olds, in El Paso County during the November 2015 Uniform Election. Descriptive and inferential statistical measures are used to examine youth turnout (voters aged 18-21 years) and compare SVI turnout by age and independent school district to draw conclusions about its effectiveness.

The second research objective focuses on comparing voter turnout by age group (generation) and investigating whether younger voters were underrepresented in the El Paso November 2015 Uniform Election compared to older generations. This comparison of voter turnout rates is based on a set of precinct level maps that were designed using geographic information system (GIS) software, as well as bivariate inferential statistical tests to determine if voter turnout rate in each generational group differed significantly from the countywide turnout. My specific emphasis on age as the key variable which impacts voter turnout is justified by the underrepresentation consistently found for voters aged under 29 years at the polls and the growing interest in youth voter mobilization (Children's Defense Fund et al., 2019).

The third research objective is to examine the role of specific socio-demographic factors in explaining voter participation for all voters in the county, as well as for different voter age groups. For this analysis, I focused on variables such as older age, household income, home ownership, and educational attainment that are known to influence voter turnout in the U.S. (Akee, et al. 2019; Oliver, Ha and Callen, 2012). Since information on these socio-demographic characteristics were unavailable for individual voters in the November 2015 Uniform Election, this analysis is conducted using aggregate level data for voting precincts. Socio-demographic characteristics of voting precincts in El Paso County were estimated on the basis of census tract data on relevant variables from the 2016 American Community Survey five-year estimates. Previous studies have found neighborhood socio-demographics to be statistically related to voter

turnout (Barber and Imai, 2014), but the effects of these variables on voter turnout have not been examined for El Paso County before.

The analyses associated with these thesis objectives are framed to answer the following three research questions associated with El Paso County voters in the November 2015 Uniform Election:

- Does participation in a nonpartisan voter education presentation (i.e., Student Voter Initiative) increase youth voter turnout rates?
- Are younger voters (aged 18-21 years) significantly underrepresented at the polls, when compared to older age groups and the overall county voter turnout?
- Are the socio-demographic characteristics of voting precinct residents such as age, household income, home ownership, and educational attainment, related to the rates of overall voter turnout and turnout for various age groups in El Paso County?

The answers to these questions will provide important insights on the effectiveness of the SVI program in increasing youth voter turnout, whether younger age groups are underrepresented at the polls, and role of specific socio-demographic factors in influencing voting patterns in El Paso County, a predominantly Latinx community where these issues have not been investigated in adequate detail. The rest of the thesis is organized into four chapters. This Introduction chapter is followed by a brief overview of the relevant literature on voting participation in Chapter 2. Chapter 3 includes the data and methodology used to analyze the research questions mentioned above. The quantitative analysis and results associated with the thesis objectives are summarized in Chapter 4. Finally, Chapter 5 provides a brief summary and discussion of key findings and limitations of this research.

Chapter 2: Literature Review

This chapter provides a brief review the literature related to factors that influence voting participation. The first part presents an overview of how age impacts voter turnout, covering the cultural narrative and the generational gap, a case study on a successful youth voter participation program in Kansas, and the role of youth programming and advocacy. The next part includes an overview of research related to the impact of income, home ownership, and education on voter turnout, including three long-terms studies which examine different factors influencing voter turnout. The chapter ends with a brief description of the gaps and limitations of both the literature and this research.

2.1 The Cultural Narrative and the Generational Gap

There is a narrative around the cultural and sociopolitical role of youth in the U.S. For example, members of Generation X (ages 38 to 53 years) were criticized in the media during the 1990s and described as self-centered freeloaders with limited interest in civic engagement. This was juxtaposed with images of the trends of the time, such as grunge music and baggy clothing. The media blamed young people for social problems at a time where there were extensive divestments in public policies, such as budget cuts in education and social welfare funding. At the same time, older generations of the 1960s and 1970s were recovering from past traumas, which left them absent and focusing on their own individual power. This all contributed to the anti-youth situation seen in the 1990s, as the narrative goes.

In 2000, there were high poverty rates (16%) for children in the U.S. and one-third of children came from low-income families. Poor youth are more likely to drop out of school, forced into the criminal justice system, and become trapped in a cycle of poverty than their economically affluent counterparts. This contributes to them being less likely to be civically and

politically engaged; these processes reinforce and perpetuate socioeconomic inequalities.

Because of this narrative, “youth” became a political identity, generating a youth-led movement in the 1990s (Youth Speak Out Coalition and Zimmerman, 2007, p.299).

For reference, generation Z includes people born between 1997 and 2012, the millennial generation includes people born between 1981 and 1996, and Generation X refers to people born between 1965 and 1980 (Dimock 2019). Out of these generational timeframes, only the Baby Boomer generation (people born between 1965 and 1980) is officially recognized by the U.S. Census Bureau. The generation older than baby boomers, the silent generation, comprises those who were born between 1928 to 1945 (Dimock 2019).

With regards to the electorate, millennials and baby boomers make up an almost equal share of eligible voters at 31%. Generation X make up 25% of the electorate and the Silent/Greatest Generation make up 12% of the electorate. While Millennials and Baby Boomers share equal political power at the polls, it is primarily the younger, millennial group who fail to turn out and vote. Millennials tend to have the lowest voter turnout rates as a generation, while the Baby Boomers tend to have a high voter turnout. This means the political power acquired in numbers goes unrealized for youth. As a generation that is one-third of the electorate, millennials fail to realize their potential power by not voting (Khalid, 2016).

As a general trend, voting habits increase as the generation gets older and voter turnout will start to resemble that of the older generation. For this reason, the turnout gap between millennials and Generation X is predicted to decline. This is significant to know because the younger generation tends to identify more with the Democratic Party than their older counterparts, especially regarding social issues like marijuana and same-sex marriage. This potential shift in voting power has implications for the political climate (Fry, 2017).

2.2 A Case Study on Youth Voter Participation

Kids Voting USA was a successful program implemented to increase youth voter participation (Linimon and Joslyn, 2002) that provided two main benefits. First, it was an informative program for young students to learn the electoral process. For example, the curriculum is centered on political affairs where students discuss candidates, issues, and voting. Second, Kids Voting USA identified parental involvement as a key function of the program to increase voter participation among adults. The program incorporates a mock election for students to vote on Election Day. On this day, students are asked to vote with their parents. This encourages parents to vote since they are taking their children to the polls and there is also a special ballot where the ineligible student may participate in a mock election. This creates the opportunity for parents and children to vote together and encourages adults whose students are participating in the Kids Voting USA program to vote.

Linimon and Joslyn (2002) found that first time voters in the Kids Voting counties had higher turnout rates than their counterparts in surrounding counties who did not implement the program. Additionally, there was a 2% increase in voter turnout, even when controlling for prior turnout and other independent variables such as age, race, and education. Its success was attributed to the community in terms of active participation and volunteer work. On Election Day, hundreds of community members participated in the program. A coalition between schools, businesses, parents and others were a main driver for the success of the program. This was found to have substantial secondary effects on the adults who participated. Therefore, schools were reported to be a "central socializing agent" (p. 28) which play a key role in influencing the values and beliefs about voting. It should be noted that this program was evaluated on the countywide participation of Kids Voting USA with respect to counties in Kansas who did not participate.

2.3 Youth Programming and Advocacy

As seen with Kids Voting USA, programs can be successful in increasing voter participation. When looking specifically at youth programs and youth advocacy organizations, the literature is overwhelmingly in agreement. There is a consensus when it comes to youth leadership development: having intentional mechanisms that ensure youth are involved in decision-making processes ensures the input and youth voice (Eubanks Owens, 2011). Youth must be involved at every step in the process to ensure a productive two-way understanding (Cooper and Hays, 2007). The best practice is having a relationship built around communication (Wright, 2007) and a process in which the responsibilities of young leaders grow over time. It is a timely process by which, as the leadership of a young person increases, the roles of adults decrease. Encouraging collective interests over individual interests fosters successful youth leadership (Cooper and Hays, 2007).

Younger people also tend to have more awareness on how different sociopolitical structures are impacting their daily lives (Wright, 2007). In fact, youth leadership development requires someone who can act as a cross between a teacher and narrative therapist because they must walk the line of relating new information and listening to how the youth want to move forward to make change. This person must know how to provide space for youth reflection and critical learning. On top of that, youth programming must be adaptable to meet the interests of the youth. Authentic opportunities for youth to grow and apply their critical and analytical skills are the core educational component. Successful programs make the youth feel like their work was valued and worthwhile (Cooper and Hays, 2007).

More broadly, there is a connection between democracy and power in the classroom, and students are likely to disengage when denied power in class. Most institutions operate using

hierarchical structures that prefer students who remain subordinate. For example, schools often use their power to socialize students into passive subordinates who may be subject to searches, censorship, and drug testing with or without reasonable cause. When schools listen to students, students in return are more inclined to take ownership over their own education. The result is education as democracy, or the active participation into a democratic and pluralistic community. However, there is a tendency for adults to view young people as the beneficiaries of change and to not recognize the role of young people in that process of change. For example, when it comes to education reform, younger people rarely occupy literature that addresses education and education reform. This is identified as a core necessity of a democratic society, currently lacking in education reform (McQuillan, 2005). While there is extensive research on the benefits of youth engagement, the literature fails to address the impact of youth engagement on policy. In fact, Cooper and Hays (2007) are critical of the lack of resources available to help youth get involved in local policy through advocacy and organizing.

The literature on youth leadership development and youth advocacy are consistent. Positive youth advocacy has intentional mechanisms that ensure that youth are involved in decision-making processes to ensure their input. Additionally, programs like Kids Voting USA can positively impact voter turnout, particularly for youth and first-time voters. Therefore, there may be a parallel in the ways in which state and local policies influence voter turnout, particularly for young people, given that the political process explicitly excludes all youth under the age of 18 years (Staff, 2010).

2.4 An Overview: Income, Home Ownership, Education, and Voting

The Civic Voluntarism Model evaluates the availability of resources by linking socioeconomic status (SES) and rational choice models. The Civic Voluntarism Model

recognizes the value of resources, such as money, time and civic skills. It maintains that resource-rich people are more likely to be politically active than people who are not resource-rich. Therefore, it explains why organizations and voluntary associations are instrumental in developing civic skills. Together, the organizations and skills expose people to political stimuli which fosters political action. The Civic Voluntarism Model argues that SES impacts resources and people with less resources have more resource restraints with a higher cost of being politically active (Francia and Orr, 2014). According to this model, SES, along with educational attainment, strongly affects voting and political behavior. Research shows people in the top income quintile are about five times more likely to vote than people in the bottom income quintile. Additionally, there was evidence that during the 2008 and 2010 recession, voter participation diminished among lower-income households. This means there is the potential for government to be representative of people with greater resources, especially as levels of income inequality increase (Levin-Waldman, 2012).

Income is a stronger indicator of voting choice today than it was 30 years ago (Gelman et al 2010). In the U.S., income is a consistent predictor of conservative voting as compared to most European countries. There is a strong connection in the U.S. between the income inequality and the rich-poor gap in partisan voting. The U.S. two-party system is divided by different economic policies. While the inequality gap in the U.S. has been growing, the two parties have progressed farther away from each other on economic issues. As the income inequality gap in the U.S. grows nationally, so too does the inequality gap between states. For example, a low-income home in Connecticut may have the same income as a household in Mississippi with a relatively high-income. Income is more strongly connected with Republican voting in poor states than before and consequently, a new geographic pattern has been formed. It has been identified that

Democratic candidates are most favored by richer states, while Republican candidates are most favored by richer people. Well-educated voters with an income less than \$75,000 tend to strongly support democratic candidates. This group is comprised of mostly of “teachers, social workers, nurses, and skilled technicians, not of Hollywood stars, bestselling authors, or television producers, let alone corporate executives” (Gelman et al., 2010; p. 1204).

2.5 Three Different Studies over a Period of Time

Oliver, Ha, and Callen (2012) used the 1990 American Citizen Participation Study to evaluate the characteristics of voters who participate in municipal elections. The study followed up with the 1990 data to ask voters (2,517 respondents) about their local election participation and was not specific to locality. They looked at differences in voter turnout between homeowners and renters by length of residence, education, and age and found that education was the strongest factor influencing renters to vote in local elections at rates comparable to homeowners. This means that level of education does not impact voter turnout if the voter is a homeowner. At the same time, a renter without a higher degree is less likely to vote than a homeowner with a higher degree, identifying how different factors like education and homeownership can work together to impact turnout.

It has been argued that homeowners are often key stakeholders in particularly local election with a strong incentive to vote. This is because home ownership signifies property value and thus, motive to be informed on matters of zoning, services, and development. Homeowners are also more likely to know the process and locations for voting. Similarly, it is believed that higher educational attainment is correlated to increased turnout because of the skills and understanding required to complete tasks like registering to vote and knowing election dates and polling locations. Higher educational levels also suggest a higher interest in politics. In brief, the

study found that homeowners, more educated persons, and long-term residents vote more regularly in local elections (Oliver, Ha and Callen, 2012). In a separate study focusing on voter participation within neighborhoods across different ethnicities, it was reaffirmed that SES was a crucial contributor to voter turnout. The researchers argue that political information is developed over time through socialization and the context of specific locations help shape these attitudes, including the choice to vote (Cho, Gimpel, and Dyck, 2006).

In a recent study, the relationship between an external change in household income and household voter participation was investigated (Akee et al., 2019). This was possible because of a casino opening on the Eastern Cherokee reservation in 1996. The casino indiscriminately dispersed bi-annual cash transfers from casino revenues to all adult enrolled tribal members. Thanks to the casino revenue, the households of tribal members, regardless of if they lived on the reservation or not, saw an average increase of household income between 20% to 25% or about \$4,700 annually in year 2000 dollar values. This research uses data from the Great Smoky Mountain Study which began in 1993 with 1,420 children and their parents. The information was cross referenced with North Dakota voter registration information and was kept updated up to 2015. This analysis indicated that the cash transfers, or the external increase in household income, did not impact parents' voter behavior. However, the children, particularly of lower income households, saw an increase in voter turnout once they were eligible more so than their peers in higher income households (Akee et al., 2019). One potential explanation for this trend is that families would be unlikely to move due to the additional income and consequently develop an increase in community engagement and civic participation. Akee et al. (2019) conclude that because resources seem to be more advantageous for children than their parents, policies that target closing gaps in income inequality would increase voter turnout in the next generation.

This research is similar to the argument of Oren Levin-Waldman (2012) who contends that not only would a wage policy grow the middle class, but it would increase civic engagement. Additionally, much like homeowners who act as stakeholders in local elections because of the investment in property and therefore higher incentive to turnout to vote (Oliver, Ha and Callen, 2012), children in the households who benefit the most from the casino revenue cash transfers are also stakeholders who vote at higher rates than their more economically affluent peers (Akee, et al., 2019).

Barber and Imai (2014) conducted a study using over 50 million voter registration records across three different states: California, Florida, and North Carolina. Their goal was to evaluate the effect of neighborhood on voter turnout and to see how the turnout rate changes as neighborhood characteristics change over time. They argue that using census block level data is comparable to electoral precinct and can thus be used to describe individualized neighborhood trends, since people living in the same precincts are frequently part of the same independent school district with similar socio-demographic characteristics. They found that a voters' own demographics is as much a factor in influencing turnout as that of their neighbor's. This indicates that the neighborhood in which a person lives is an important factor impacting turnout that often goes unaccounted for in research. They explained this through the psychological theory of voter empowerment prediction, which predicts that voter turnout increases when residents feel trust or connectedness with their neighbors. Further, it is imperative to be critical of surveys that study respondents living in a variety of neighborhoods, as the neighborhood itself may have an effect on turnout. A vast majority of research on political participation is based on surveys of a relatively small number of respondents who live in a variety of neighborhoods, and yet do not take into account neighborhood effects. They also suggest that aggregate income is not as

strongly correlated with voter choice as race and that further research into the effects of neighborhood characteristics on turnout is needed.

The literature review indicates that in the absence of socio-demographic data on individual voters, characteristics of precinct residents can be used to document and understand the ways in which variables such as age, income, home ownership, and education affect the rates of overall voter turnout and turnout for various age groups. One of the objectives of this thesis research is to contribute new empirical knowledge on the relationship between neighborhood socio-demographic characteristics and voter turnout in El Paso County, a study area where such associations have not been examined previously.

2.6 Gaps and Limitations

Voting trends and patterns have many different implications for our democracy. Other factors that compound the issue of low voter turnout is that campaign or get out the vote efforts tend to exclude Latinxs, the youth, and nonhabitual voters (Michelson, 2006). This only perpetuates a system of low voter participation for these groups. The success of mobilization efforts is also inconsistent. A considerable amount of research has been completed to explore the relationship between election timing, type of election, past voting behavior, and district characteristics (Gong and Rogers, 2014); the voters in the household and strength of partisanship in the household (Fieldhouse and Cutts, 2012); home political environment, political competitiveness among states (Pacheco, 2008), length of residence (Oliver, Ha and Callen, 2012) among citizens and non-citizens; residential concentration (Cho, Gimpel and Dyck, 2006); and mobilization efforts, handouts and messaging (Michelson, 2005). Although numerous variables can impact voter turnout, the information is often imperfect and based on aggregate data using quasi-experimental methods.

Additionally, much literature tends to focus on the relationship between voter socio-demographic characteristics and vote choice or party affiliation. Research tends to be based on aggregate data, with a focus on bigger presidential elections when turnout tends to be higher (Oliver, Ha and Callen, 2012). There are few data sources regarding voting in local elections. In fact, their 2012 study used data from the 1990 American Citizen Participation Study because “they remain the best data source on the participatory behaviors of the American population.” (p. 70). It can be established that longer-term studies are required to have a better understanding of voter turnout patterns and trends. This is especially true, given that it has been shown that the impact of factors such as external change in household income on voter participation cannot be evaluated until the children in the household become eligible to vote (Akee, 2019). While this research is only focused on the 2015 election, it can still be used to gain a broader understanding of El Paso County voters during a smaller state and local election.

Given the mixed results from previous studies and the wide range of variables that impact voter turnout, more systematic research on El Paso County voters is necessary. Each setting, state, location, and political context is different and unique, with respect to voting behavior and related trends. Although the evidence suggests that El Paso County continues to have a low voter turnout, youth voter participation has been on the rise for the last six years. My thesis project attempts to investigate the reasons influencing this increase and improve our overall understanding of voting patterns in El Paso County by focusing on the November 2015 Uniform Election in order to: (1) examine the effectiveness of the SVI program in increasing youth voter turnout, (2) determine whether specific age groups are underrepresented at the polls, and (3) explore the role of neighborhood (precinct) level socio-demographic factors in influencing voter turnout for various age groups.

Chapter 3: Data and Methods

This chapter describes the data sources, variables, and methodologies that are used to analyze the three research questions that focus on investigating: (1) the effectiveness of the Student Voter Initiative program in increasing youth voter turnout; (2) whether younger voters are underrepresented at the polls compared to other age groups; and (3) if specific socio-demographic characteristics of precinct residents are related to the rates of overall voter turnout and turnout for various age groups. El Paso County represents the study area for this research and the analysis focuses specifically on the November 2015 Uniform Election. The data sources and variables are first introduced and described in section 3.1, followed by a discussion of the methods utilized for the analysis in section 3.2.

3.1 Data and Operationalization of Variables

This section describes the data sources and how all variables were defined and operationalized for this study. Information was obtained from the following sources: Student Voter Initiative data from the Office of Texas State Senator Jose Rodriguez, voter information from the El Paso County Elections Office and website, precinct boundaries in Geographic Information Systems (GIS) format from the Harvard Dataverse Voting and Election Science Team (2020), and census tract level socio-demographic variables from 2016 American Community Survey (ACS) five-year estimates.

3.1.1 Student Voter Initiative Data

The Student Voter Initiative (SVI) was a project organized by the Senate District 29 Youth Advisory Committee. This initiative is a nonpartisan voter education presentation for high school seniors. The SVI launched in the fall of 2015 and presentations would take place 30 days in advance of an election so that newly registered students would be eligible to vote in the

upcoming election. People who register within 30 days of an election are ineligible to vote in that election, per the Texas Election Code.

Volunteers would present during a Government or Economics class. All volunteers were trained and became Volunteer Deputy Registrars to legally register people to vote in the state of Texas. At least 40 community members were trained and learned the Texas Election Code, best practices for engaging youth, and how to remain nonpartisan in the classroom. Presentations were conducted in four counties, including El Paso. Volunteers would take voter registration forms, receipts, a school schedule, sign-in sheets for students, and a small flyer with election dates. All the sign-in sheets were optional and students were informed they would receive nonpartisan voter information via email and/or mail. Ultimately, SVI volunteers presented to over 7,000 students at 36 schools in Senate District 29 from the fall 2015 to the spring of 2016.

This research focuses on the November 2015 Uniform Election to evaluate SVI effectiveness because the data available for this smaller election is more accurate and reliable than those for large elections such as the 2016 Primary Election. Further, all Ysleta Independent School District (YISD) high schools opted to participate in the SVI in the month before the election, making its impact visible via the number of 18-year-old voters in the November 2015 election. Additionally, data collection was more systematic since an entire school district participated in SVI presentations right before a Uniform Election, and the overall county turnout of 25,498 voters made it more manageable and suitable for this study. For these reasons, the impact of the SVI on students (more specifically defined as 18-year-olds) is evaluated using the November 2015 Uniform Election turnout.

SVI participants are high school students in YISD who are 18 years or older. YISD administration permitted SVI presentations in their high schools, with high school principals

having the discretion to opt in or out. The principals of ten high schools in YISD opted in. The SVI took place during all government or economics classes. When schools signed up, no government or economics teacher declined to participate in the presentation. Therefore, the SVI presentations occurred during one full class period. The participants were not vulnerable to coercion or undue influence, nor did they receive any educational reward for their participation.

The data available regarding the SVI was information on sign-in sheets at the schools during the presentations and information on the total number of voter registration numbers per high schools which took place in ten YISD high schools during the last week of October 2015. The sign-in sheets contain name, email, and address information for approximately 662 students. Information from these sign-in sheets were cleaned and verified, creating a full list of students who participated and/or registered to vote in the month prior to the November 2015 Uniform Election. While ten YISD high school participated in the SVI, data was available for only seven of the schools. The average number of voter registrations for the seven high schools was 73. Therefore, to estimate the number of students that may have been registered at the remaining three high schools, I multiplied the average of 73 by 3. This led to an estimation of approximately 731 students who registered to vote during SVI presentations at their YISD high school in the month leading to the November 2015 Uniform Election. It should be noted that the unavailable information includes students who participated in the SVI but did not fill out the sign-in sheet, and students who participated in the SVI but registered to vote at another time prior to the deadline for the November election.

SVI data was made available from the Office of Senator Rodriguez and I assisted in the data collection process. Data was collected so that follow up correspondence could be sent via mail and/or email to the students. Since research was not the basis for data collection, data was

not collected systematically and some information was not collected due to capacity of the volunteers. Additionally, I volunteered to be a presenter of the SVI and ultimately helped present at 23 high schools in the county.

3.1.2 El Paso County Election's Office Data

The second data source is voter information available from the El Paso County Election's Office. I used three different data sets from this election's office: (1) a \$5 CD I purchased containing the full list of voters in the November 2015 Uniform Election; (2) a second \$5 CD I purchased containing the full list of registered voters in the county; and (3) election results available on the election's office website, epcountyvotes.com, free of charge.

The CD containing the November 2015 Uniform Election data included individual information, such as Secretary of State voter identification number, state identification number, voter registration status, full name, full residence and mailing address, sex, birthday, election date, eligible date, effective date, precinct, districts at the local, state and federal levels, registration date, party affiliation, and vote history for each voter. This CD allowed me to estimate overall trends and patterns in voter turnout in the November 2015 Uniform Election, such as distinguishing how many 18-year-olds came out to vote and the average age of El Paso County voters using IBM SPSS statistics software (version 26). I used descriptive and inferential statistical measures for the analysis associated with my first research question on the impact of the SVI.

To further investigate the role of the SVI, I identified which participants of the SVI turned out to vote by combining the election CD with the SVI data of names listed on the sign-in sheets. This allowed me to find duplicates. If a name appeared twice, it was because they participated in the SVI and voted in the November 2015 Uniform Election. I verified SVI

participation by comparing the address and age on the election data to the sign-in sheets. This process indicated that 65 voters had participated in the SVI. This included 61 18-year-olds and 4 19-year-olds. By pinpointing which 18-year-old voters participated in the SVI, I could draw more detailed conclusions for the first research question on SVI effectiveness by comparing the turnout rates for all 18-year-olds in the entire county, 18-year-olds who are registered to vote in YISD, and 18-year-olds who registered to vote through the SVI. I additionally conducted two sample z-tests of proportions to determine if the turnout rates for 18-year-old voters were significantly different in the county and the school district compared to the SVI. Information which could be missing include students who participated in the SVI but did not fill out the sign-in sheets, and students who participated in the SVI and registered to vote at another time prior to the deadline for the November election. Unknown information includes the total number of students who participated in SVI presentations and the number of students who were eligible to vote at the time of SVI presentations.

To investigate my second research question, I imported the election CD data into IBM SPSS statistics software and calculated the number of SVI participants per precinct. I then recategorized voters into different groups based on their age. The Pew Research Center (Fry, 2018) often compares voting patterns by generation based on five categories. Using this approach, I created the following age groups: generation Z (people born between 1997 and 1998); millennials (people born between 1981 and 1996); generation X (people born between 1965 and 1980); baby boomers (people born between 1946 and 1964); and silent generation (people born between 1928 and 1945). Once these age groups were created, I completed a cross tabulation to calculate the generational turnout numbers for each precinct. Therefore, with the election CD, I obtained SVI voters and the number of voters per generation for all 191 precincts

in El Paso County. This allowed me to begin assembling precinct level information to answer my second research question on the comparison of voter turnout by age group.

It is important to note that generations were established by birth year and age in my study is used to describe the age of the voter(s) at the time of the November 2015 Uniform Election. For example, generation Z or people born between 1997 and 1998 are represented as voters aged 18 and 19 years, respectively. Similarly, millennials are adults aged 20 to 35 years; generation X are people aged 36 to 51 years; baby boomers are those aged 52 to 70 years; and the silent generation are people aged 71 to 88 years; at the time of the 2015 election. Voters older than 88 years of age were not used in my analysis. Since the generation older than 88 years are not covered in Pew Research Center trends, they are not included in this research. This resulted in the exclusion of 249 voters, who were between the ages 89 to 114 years, from the analysis. Lastly, according to the CD data, there were eight precincts in which zero voters voted.

The second CD from the election's office contained a list of registered voters in El Paso County. It listed the same individual information as the first CD, except for birthday. The CD with voter registrants only listed birthyear. This creates a discrepancy in the data, as the exact age of people who voted in the 2015 Uniform Election is known. Therefore, individual voter information is the most accurate. However, determining the number of people registered to vote in the election based in the second CD required me to address two key challenges. First, according to the CD, there were zero people in the entire county registered to vote in five out of nine total independent school districts. Similarly, the CD had no people in the county registered to vote in 33 precincts. This implied that precinct level analysis using generational information could be conducted using this dataset for 158 precincts out of the 191 total. Second, without a date of birth, it was impossible to calculate the exact age for people registered at the time of the

election, or on November 3, 2015. I had to estimate age by subtracting the year of birth from 2016, since the election took place at the end of 2015. This is how age was calculated to draw comparisons for younger voters aged 18 to 21 years at the time of the election. Additionally, according to this data, birth year information ranged from 1884 to 2000, or people aged 16 to 132 years at the time of the election. Because of this, I excluded individuals from the CD of registered voters who had a birthday before 1928 (older than 88 years in 2016) and after 1998 (younger than 18 years in 2016). This resulted in the exclusion of 15,396 registered voters. With the remaining information on 364,635 registered voters' birth year information, I calculated the age generation information by reclassifying the birth year of registered voters into new groups based on the five Pew Research Center generational groups (Fry, 2018).

After identifying the number of people registered per generation, I completed a cross tabulation of registered voters in each age group per precinct. The five groups are the same categories created for the voters: generation Z, millennials, generation X, baby boomers, and silent generation. Using the two CDs (election data and registered voter data), I determined the turnout rate per age group in each precinct to create choropleth maps using Geographic Information Systems (GIS) software, which are described in greater detail later in this chapter. For this precinct level analysis, registered voters, number of people who voted, and turnout rates are again described by generation and/or their approximate age at the time of the 2015 election.

The final dataset used from the election's office is the website information. It contains information on overall and precinct level turnout rates. The data available includes the total number of people registered, total voters, and the turnout rate overall for the county, and for each individual precinct. Combining the three datasets from the election's office allowed me to create a new table listing all 191 precincts in El Paso, and record the following information for each

precinct: overall voter turnout, the turnout of all five generations, the turnout of only 18-year-olds, and SVI voter turnout. This set the framework for my second and third research questions to analyze voter turnout data by generation and the statistical associations with socio-demographic characteristics of precinct residents. Again, because of missing data, the overall county turnout is known based on a total of 191 precincts, while the turnout for other groups is based on the information available for only 158 precincts.

It is important to note the advantages and limitations of the election's office data. First, the online data is the most reliable because it matches the official election results. The two CDs from the elections office did not have information which fully matched the official election results on the website. In the state of Texas, any person may request and access election and voter registration lists. However, Address Confidentiality Program (ACP) participants; victims of family violence, sexual assault or abuse, stalking or trafficking; federal or state judge; and the spouse of a peace officer are kept confidential (National Conference of State Legislatures, 2020). In the case of the CD with the voters of the November 2015 election, there were only two precincts with no voters listed, however only had one voter based off the official election results. While there could be a minor difference in actual voters in absolute terms, patterns can be analyzed to identify trends and proportions should be similar.

Further, the CD with the list of registered voters seemed to be the least reliable of the two CDs used in the analysis because of two reasons. First, age approximations were made based on the year of birth, while exact age was available on the election CD and some of the birth years could be incorrect, given that there were 15,396 registered voters older than 88 years and younger than 18 years. Second, many precincts had no people registered for certain age groups, when in fact, those precincts did have people who voted, based on the official election results on

the website. Reasoning for the incongruency was attributed to human error by the El Paso County Election's Office. Therefore, 33 of the 191 precincts without registered voter information were not used in analysis that assessed turnout by generation.

3.1.3 Precinct Boundaries for El Paso County

Precinct boundary files for the year 2016 for El Paso County were obtained from the Harvard Dataverse Voting and Election Science Team (2020) in ArcGIS shapefile format. This allowed me to create various precinct level maps for cartographic visualization of November 2015 Uniform Election turnout patterns using ArcGIS 10.7.1 software and the ArcMap program, in particular. These maps illustrate El Paso County voter turnout for different age groups by classifying each precincts' voter turnout into five quintiles based the percentage of registered voters who voted in the November 2015 Uniform Election.

3.1.4 American Community Survey Data

I accessed census tract level data for El Paso County from the Census.data.gov website (2020), utilizing the 2016 ACS five-year estimates on selected socio-demographic variables. I downloaded variables focusing specifically on older age, household income, home ownership, and educational attainment, based on the ACS (2016) closest to November 2015. These variables were chosen because previous research indicated that voters tend to be older people and homeowners, with higher levels of income and education (e.g., Oliver et al., 2012). Further, when researching who regularly turns out to vote in local elections, Oliver et al. had used the following variables: college degree, high school degree, age over 65 years, and home ownership, noting that the incentive of property values makes homeowners, in particular, a key local election demographic.

Since census tract boundaries (n=161) do not exactly match or coincide spatially with the precinct boundaries (n=191) for El Paso County, GIS-based areal interpolation was used to transfer variable counts and totals from tract boundaries to the precinct boundaries. The specific interpolation technique used is known as areal weighting or polygon containment (Chakraborty and Maantay, 2011), where variable totals were assigned to precincts based on the proportion of each census tract area falling inside precinct boundaries. For example, if 80% of a particular tract is enclosed by a precinct, 80% of the tract population or households (depending on the ACS variable) are assumed to be located inside that precinct.

The ACS variables estimated for all precincts can be classified into the following categories: older age, household income, home ownership, and educational attainment. Older age is represented by the proportion of the population aged 65 years or more, calculated by dividing number of people age 65+ by total population of the precinct.

There are 16 categories in the ACS for annual household income in the past 12 months, which includes the income of the householder and all other people 15 years and older in the household, regardless of whether or not they are related to the householder. I regrouped the 16 ACS household income categories into five categories to make it more convenient for comparison: (1) households with an annual household income less than \$20,000; (2) households with an annual household income between \$20,000 to \$39,999; (3) households with an annual household income between \$40,000 to \$59,999; (4) households with an annual household income between \$60,000 to \$99,999; and (5) households with an annual household income \$100,000 or more. For each of these income categories, the proportion of households in each precinct was calculated by dividing the corresponding number of households by the total number of households in the precinct.

For home ownership, I downloaded and used two variables from the 2016 ACS: the number of owner-occupied housing units and total number of occupied housing units. Home ownership rate per precinct was estimated as the proportion of occupied housing units that are owner-occupied, calculated by dividing the number of owner-occupied housing units by the total number of occupied housing units.

There were seven categories in the ACS for educational attainment, and I regrouped them into two commonly used categories to make it more useful for comparison. These categories comprise the population aged 25 or more years who are: (1) high school graduates or higher; (2) bachelor's degree or higher. For each of these two categories, I calculated the proportion of people by dividing the corresponding numbers in each precinct by total the number of people aged 25 or more years in each precinct.

3.2 Operationalization of Variables

3.2.1 Dependent Variables

The dependent variables are the reported level of voter turnout for El Paso County November 2015 Uniform Election, expressed as a percentage. This includes the El Paso County turnout rate and the turnout rate for each age group:

- Overall County Voter Turnout
- Generation Z (18-21 years) Turnout
- Millennial (22-37 years) Turnout
- Generation X (38-53 years) Turnout
- Baby Boomers (54-72 years) Turnout
- Silent Generation (73 years and up) Turnout
- 18-Year Turnout

- SVI Turnout

The overall county and individual precinct turnout rates are available from the El Paso County Elections Office website. To establish the turnout rate for each generation, I used: (1) the cross tabulation of the number of registered voters in each age group by precinct; and (2) the cross tabulation of the number voters in the November 2015 Uniform Election in each age group by precinct. This information was obtained from the two election office CDs. I then divided the number of voters by the number of registered voters for each generation in each precinct. These turnout rates are expressed as a percentage on the GIS maps for each age group. Additionally, 31 precincts without registered voter information were not used in analysis that assessed turnout by age group or generation. This data was the basis in determining if younger voters (18 to 21 years) are underrepresented in the El Paso November 2015 Uniform Election and how specific socio-demographic characteristics of precinct residents are related to the rates of overall voter turnout and turnout for various age groups or generations.

3.2.2 Independent Variables

The independent variables used to investigate precinct level socio-demographic characteristics for the third research question focus on older age, household income, home ownership, and educational attainment. These variable definitions are listed below. Each variable is precinct specific, with a total of 191 precincts in El Paso County. The variables are:

- Proportion of people aged 65 or older
- Proportion of households with an annual household income less than \$20,000
- Proportion of households with an annual household income between \$20,000 to \$39,999
- Proportion of households with an annual household income between \$40,000 to \$59,999
- Proportion of households with an annual household income between \$60,000 to \$99,999

- Proportion of households with an annual household income \$100,000 or more
- Proportion of owner-occupied homes
- Proportion of population age 25 years or more with a high school diploma or higher
- Proportion of population age 25 years or more with a bachelor's degree or higher

3.3 Statistical Methodology

First research question: To evaluate my first research question evaluating if the Student Voter Initiative impacts a student's likelihood to vote, I first relied on descriptive statistical measures to acquire a comprehensive understanding of the November 2015 Uniform Election. The use of descriptive statistics is helpful to gain a broader understanding of El Paso County voters. Recognizing key patterns is crucial for interpreting and conducting inferential statistical analysis. Inferential statistical tests (two-sample z -test of proportions) were then used to compare voter turnout for SVI to the overall 18-year turnout and compare the turnout rates of voters aged 18 to 21 years.

Second research question: This question focused on comparing voter turnout by age group (generation) and investigating whether younger voters are underrepresented in the El Paso November 2015 Uniform Election. To determine if voter turnout rate in each group differed significantly from the countywide turnout, two-sample z -tests of proportions were implemented. Another set of two-sample z -tests of proportions were used to determine specifically if turnout rate for younger voters (18-21 years) was significantly smaller compared to those in the other four age groups.

Third research question: The third and final phase focused on analyzing whether and how specific socio-demographic characteristics of precinct residents are related to the rates of overall voter turnout and turnout for various age groups (generations) in El Paso County. To

examine statistical associations between each dependent variable and independent variables describing precinct characteristics (i.e., older age, household income, home ownership, and educational attainment), I conducted bivariate correlation analysis using Pearson's correlation coefficients (parametric).

Chapter 4: Results

This chapter focuses on analyzing the three research questions and presenting the results of this analysis. The first section covers the effectiveness of the Student Voter Initiative, including related statistical comparisons and voter turnout maps. The second section summarizes the statistical results comparing voter turnout of younger voters in the El Paso County November 2015 Uniform Election to those in other age groups and with the overall county turnout. Maps are also used to compare the spatial distribution voter turnout for the different age groups at the precinct level in El Paso County. The last and final section provides the bivariate correlation analysis results that focuses on determining if specific socio-demographic characteristics of precinct residents are related to the rates of overall voter turnout and turnout for various age groups in El Paso County in the same 2015 election.

4.1 Impact of the Student Voter Initiative

To evaluate the Student Voter Initiative (SVI), an overview of the November 2015 Uniform Election is presented using descriptive and inferential statistical approaches. Descriptive statistics measures summarize the overall election turnout and provide a general understanding of El Paso County voters. Then, an overview of the SVI presentations, student participation, voter registrations, and turnout is presented. Finally, voter turnout for students who participated in the SVI and those who attended YISD high schools are compared to their 18-year-old peers in all other school districts using inferential statistical measures.

The Uniform Election in El Paso County on November 3, 2015, consisted of city propositions, state constitutional amendments, municipality elections in Clint, Horizon and Vinton, and an Ysleta Independent School District Bond Election. This was a broad election with many items on the ballot. As such, El Paso voters had different ballots, determined by address.

For example, not all county voters were eligible to vote in the Clint mayoral election; only people registered to vote in Clint were eligible to vote in the Clint mayoral elections. Therefore, turnout can vary for different measures on a ballot based on the address of where a person is registered to vote.

The November 2015 Uniform Election consisted of a total of 25,498 voters. At the time, there were 394,083 registered voters in El Paso County, which means that the overall voter turnout for this election was 6.47%. Most of the 191 precincts in the county had low voter turnouts; 103 precincts had a voter turnout below 6%. Only one precinct, precinct 170 in Clint, had a voter turnout over 30%. This can be attributed to their mayoral election. Of the top ten precincts with the highest voter turnout percentage, nine were located in Ysleta Independent School District (YISD).

Figure 4.1 shows the spatial distribution of voter turnout at the precinct level in El Paso County. On this choropleth map, precincts are classified into five quintiles based the percentage of registered voters who voted in the November 2015 Uniform Election. The lightest shading is used to display precincts in the lowest quintile (bottom 20%) voter turnout and darkest shading is used for precincts in highest quintile (top 20%) of voter turnout. Precincts in the highest quintile are located mainly in central and west El Paso. Precinct 170 in Clint indicated the highest voter turnout of 31.07% and is the darkest precinct near the southern tip of the county. Precincts in the lowest quintile are located in the more rural parts of east El Paso, along the US-Mexico border.

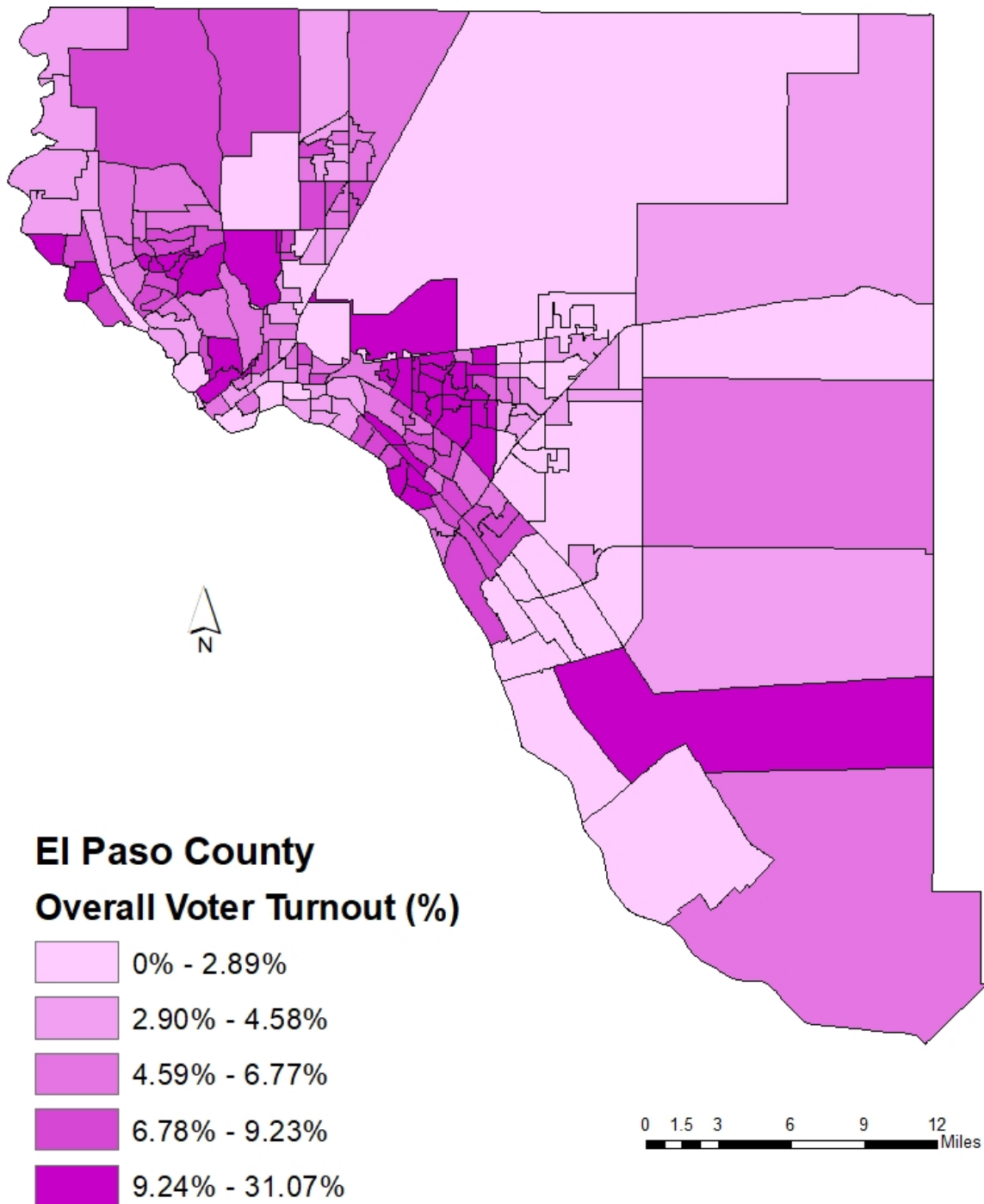


Figure 4.1. November 2015 Uniform Election Voter Turnout in El Paso County

The average age for the Uniform Election voters was 59 years old. Figure 4.2 is a line graph that demonstrates the election voter turnout by age. It shows a peak age for voters at around 60 years old. The highest peak is at 68 years old, after which, voter turnout generally begins to decline with the increase in age.

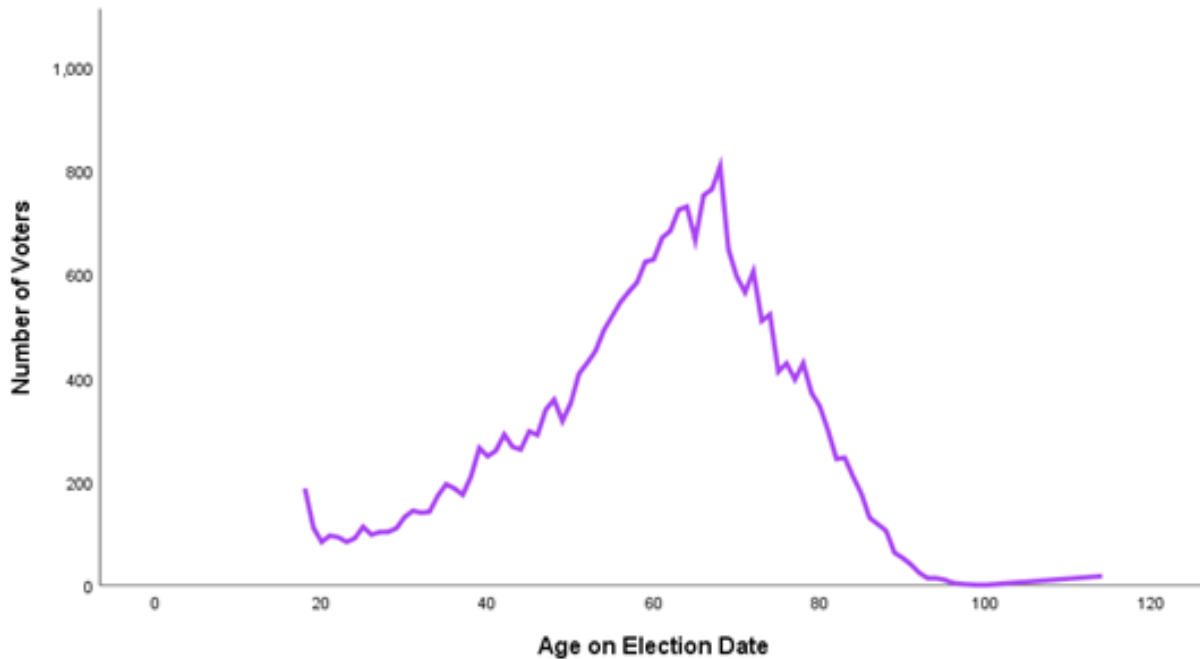


Figure 4.2. November 2015 Uniform Election Overall Voter Turnout by Age

According to Figure 4.2, there is a drop between the numbers of 18-year-old voters and 20-year-old voters. To further investigate this decline, table 4.1 shows the voter turnout for the November 2015 Uniform Election for people aged 19 to 21-years-old at the time of the election. The turnout rate for voters aged 18 years is 2.46%, with only 187 voters out of 7,603 registered in the county. Table 4.1 compares the turnout of voters aged 18 years (2.46%) to the turnout rates of those aged 19, 20, and 21 years, respectively, using two-sample *z*-tests of proportions. All these *z*-tests are statistically significant ($p < 0.00001$) and indicate that 18-year-old voters had a turnout rate that was larger than those of their young peers (ages 19 to 21 years). In fact, the next

highest voter turnout of this group is that of 19-year-olds, with a rate of 1.45%, or 112 voters out of 7,749 registered in the county. The percent disparity between 18-year-old turnout and 19-year-old turnout was 1.01%. The turnout rate for 20-year-olds was the lowest at only 84 voters out of 8,107 registered in the entire county. The turnout for 21-year-olds was 1.24%, or 96 voters out of 7,741 registered. The largest disparity among the young voters is 1.42%, which is the difference between 18-year and 20-year-old voters. This difference matches what was seen in figure 4.2, or the drop shown on the line graph between voters who are aged 18 and 20 years.

Table 4.1 Comparison of November 2015 Uniform Election Turnout between Voters Aged 18 Years and Voters Aged 19-21 Years in El Paso County

Age at Election Date	Registered Voters	Voters	Turnout	Difference*	Z statistic	Sig.
19	7749	112	1.45%	1.01%	4.546	< 0.00001
20	8107	84	1.04%	1.42%	6.847	< 0.00001
21	7741	96	1.24%	1.22%	5.612	< 0.00001

* Indicates difference from voter turnout rate for voters aged 18 years (2.46%)

Table 4.2 summarizes the turnout of people aged 18 to 21 years based on independent school district (ISD). The table compares the turnout of 18 to 21-year-olds, highlighting the three biggest ISDs in El Paso County (Ysleta, El Paso, and Socorro), and Clint. Clint was included because it had the highest overall voter turnout in the county (31.07%). The table indicates the turnout was much higher for the 18-year-olds in YISD. For reference, there were 187 18-year-old voters in the entire November 2015 Uniform Election. Of those 187 voters, 117 or 63% were registered to vote in the YISD boundary. Socorro Independent School District (SISD) had the next highest number of 18-year-old voters at 31 and El Paso ISD had 28 18-year-old voters. There were only three 18-year-old voters in Clint. This leaves eight 18-year-old voters to

represent the remaining five independent school districts (ISDs) in El Paso County. Additionally, YISD had the largest share of voters aged 19-21 years in the county. EPISD had the second largest share of 18, 19, 20, and 21-year-old voters and SISD had the third largest. Again, EPISD and SISD are ranked as the largest and second largest ISDs in El Paso County (Texas School Explorer, 2020). YISD is the third largest ISD in the county but has the largest number and share of voters in each age category for voters aged between 18 and 21 years.

Table 4.2 November 2015 Uniform Election Voter Turnout for People Ages 18-21

Age at Election Date	# of Voters Overall	# of YISD Voters	# of EPISD Voters	# of SISD Voters	# of Clint Voters	# of voters in remaining 5 ISDs
18	187	117	28	31	3	8
19	112	42	36	14	5	15
20	84	31	28	8	5	12
21	96	43	28	9	7	9

Table 4.3 examines only 18-year-old voters and includes the number of voters that were registered to vote in the SVI per independent school district and the proportion of SVI registrants for each of the four districts. According to the table, of all the people registered to vote in YISD, half were registered to vote during the Student Voter Initiative. While Precinct 170 (Clint) had the highest overall voter turnout in the county, it had three 18-year-old voters and two of them were registered to vote through the SVI. This indicates that the two SVI voters in precinct 170 are registered to vote in Clint and attend school in YISD. Similarly, EPISD had one SVI voter who is registered to vote in EPISD and attends a YISD high school.

Table 4.3 SVI Participation among 18-Year-Old Voters

Independent School District	18-year-old voters	18-year-old SVI participants	Proportion of SVI participants
YISD	117	58	0.50
EPISD	28	1	0.04
SISD	31	0	0.00
Clint	3	2	0.67

Figure 4.3 is a map of November 2015 Uniform Election voter turnout for those aged 18 years. Note again that there were 31 precincts with missing data. While the overall county turnout is known per precinct, the number of registered voters by age group were unavailable. These 31 precincts are represented by the color white on the map. As the previous map, the remaining precincts are classified into five quintiles based the percentage of registered voters who voted in the November 2015 Uniform Election. The lightest shading is again used to display precincts in the lowest quintile (bottom 20%) voter turnout and darkest shading is used for precincts in highest quintile (top 20%) of voter turnout. The precinct with the highest turnout for 18-year-olds is precinct 98, or near Eastwood Heights Elementary in YISD. Precincts in the highest quintile are located mainly in central El Paso and YISD boundaries.

The overall turnout for voters aged 18 years in the November 2015 Uniform Election is 2.46%. For the 158 precincts with data availability, 18-year-old voters came out to vote in 76 or 48% of 158 precincts. The turnout rate for 18-year-olds in each precinct ranges from 0% to 22.22%; this is substantially higher than the overall county turnout for 18-year-olds (2.46%). In absolute terms, the highest number of 18-year-old voters in a precinct was 7, in precincts 156 (Pavo Real Recreation Center in YISD) and 96 (near Eastpoint Elementary in YISD).

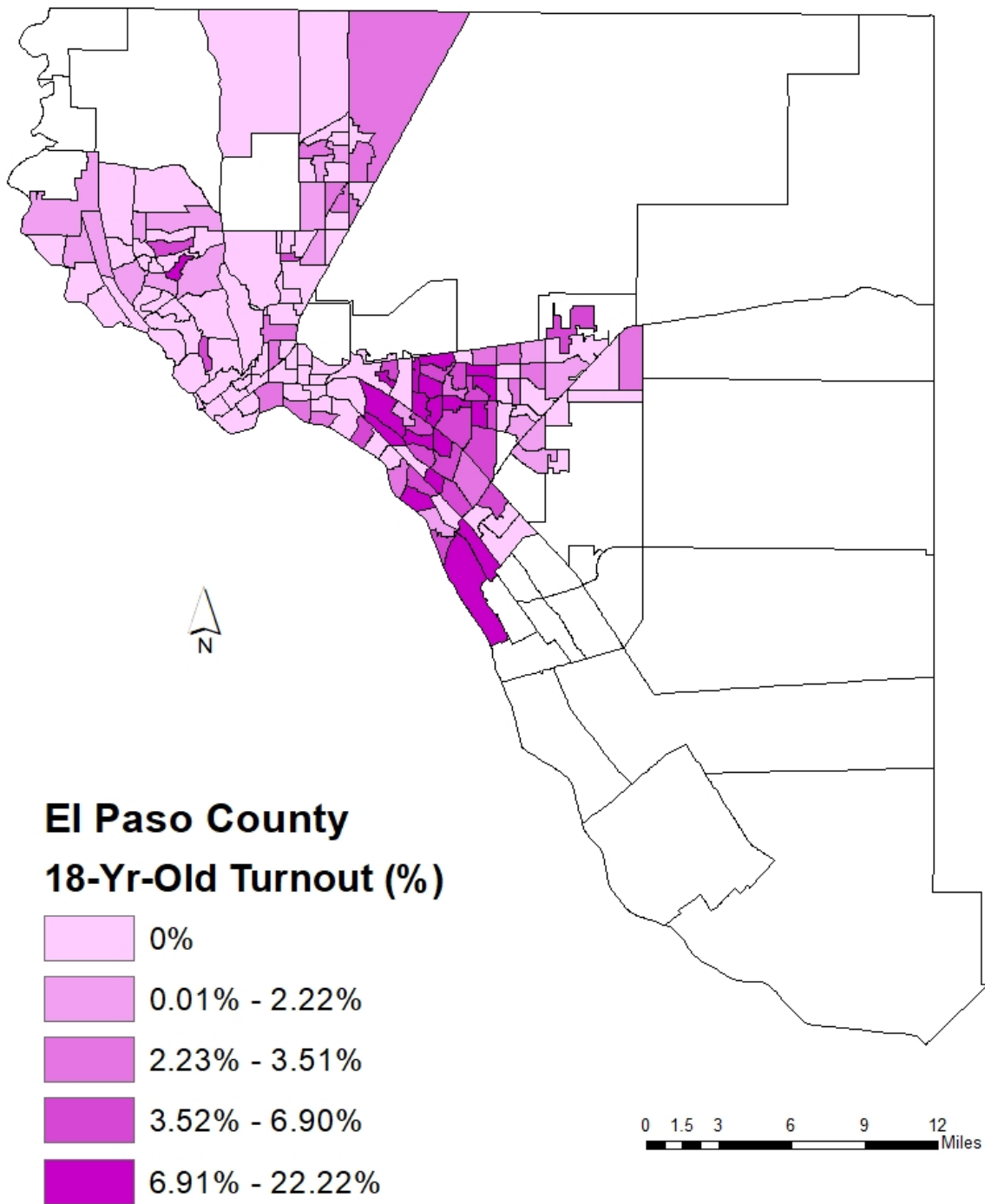


Figure 4.3. November 2015 Uniform Election Voter Turnout for People Aged 18 Years

Table 4.4 compares the turnout rate of voters aged 18 years in the county, YISD only, and of the SVI participants. The turnout rate for 18-year-old voters who were registered to vote in the YISD boundaries was 5.25%, more than twice as high than overall rate for 18-year-old voters in the county (2.46%). The 18-year-old voters who registered to vote during an SVI presentation had a turnout rate of 8.34%, more than three times higher than the overall county turnout for those aged 18 years.

Table 4.4 Turnout Rates Among 18-Year-Old Voters in the November 2015 Uniform Election

	El Paso County Overall	YISD	SVI
Number of 18-year-olds registered to vote	7603	2229	731
Number of 18-year-olds who voted	187	117	61
Turnout rate	2.46%	5.25%	8.34%

Table 4.5 compares the overall 18-year-old voter turnout rate in El Paso County (2.46%) to the turnout rate of the YISD 18-year-olds voters and the SVI voters, respectively, using two-sample z-tests of proportions. All z-tests are statistically significant ($p < 0.00001$) and indicate that the turnout rate for 18-year-old voters in the county was significantly lower than those of both YISD 18-year-old voters and the 18-year-old voters who participated in the SVI during the November 2015 Uniform Election.

Table 4.5 18-Year-Old Voter Turnout for the November 2015 Election by Registration Group

	Registered Voters	Voters	Turnout	Difference*	Z test	Sig.
YISD	2229	117	5.25%	-2.79%	-6.693	< .00001
SVI	731	61	8.34%	-5.88%	-8.947	< .00001

* Indicates difference from 18-year-old turnout for El Paso County (2.46%)

In summary, the November 2015 Uniform Election had an overall countywide turnout rate of 6.47%. The turnout rate of only 18-year-olds was 2.46%, but this was significantly higher than their youthful counterparts (19, 20, and 21-year-olds). All ages between 19-21-years had a turnout of no more than 1.45%. These differences proved to be statistically significant based on the inferential tests used. When looking at absolute numbers, YISD had the highest share of 18-year-old voters (63%), when there is a total of nine school districts in the county, of which, YISD is the third largest (Texas School Explorer, 2020). There were more 18-year-old voters in YISD than voters in this age group in all other ISD's. Of all the 18-year-old voters in YISD, almost half participated and were registered to vote during the SVI presentations. Inferential tests indicated the turnout rates for SVI and YISD 18-year-old voters were significantly larger compared to all 18-year-old voters in the county, suggesting that the SVI program was effective in getting 18-year-olds to vote.

4.2 Participation of Generation Z Voters Compared to Older Generations

This section focuses on comparing voting patterns of generation Z voters (18-19 years) to those of older age groups and the overall county turnout, both spatially and statistically. I first examined the spatial distribution of voter turnout by age group using precinct level maps before conducting the statistical tests and comparisons. To evaluate the representation of younger voters in the 2015 El Paso County elections, comparisons were made by the total number registered to vote and the number of voters in each generation. The turnout rates for each generation are determined as a percentage of registered voters in each precinct who voted in this election and are depicted in Figures 4.4 to 4.8, respectively. As mentioned previously in the discussion for Figure 4.3, choropleth maps illustrate precincts classified into five quintiles based on the percentage of registered voters who voted in the November 2015 Uniform Election. The lightest

shading is again used to display precincts in the lowest quintile (bottom 20%) of voter turnout and darkest shading is used for precincts in highest quintile (top 20%) of voter turnout.

Additionally, the 31 precincts with no data are represented in white in all these maps. A discussion of all five maps is provided first and the maps are presented after the discussion.

Figure 4.4 shows the November 2015 Uniform Election voter turnout for generation Z (age 18-19 years). Precincts in the highest quintile are located mainly in central El Paso, while those in the lowest quintile can be found mainly in west El Paso. Precinct 98 indicated the highest voter turnout among generation Z voters (11.54%). This is the same precinct with the highest voter turnout for 18-year-olds, although their turnout rate was much higher (22.22%). Additionally, most precincts in the highest quintile of generation Z turnout are located in YISD. In absolute terms, precinct 156 near Pavo Real Recreation Center in YISD boundaries had the largest number of generation Z voters, which was 11 voters between the ages of 18 and 19 years. The overall turnout for generation Z voters in the November 2015 Uniform Election was 1.95%, which is lower compared to the turnout of only 18-year-olds (2.46%).

Figure 4.5 shows the November 2015 Uniform Election voter turnout for millennial (20 to 35 years) voters. Precincts in the highest quintile are located mainly in central and central west (by the university) El Paso, while those in the lowest quintile are generally located in west El Paso. Precinct 98 has the highest turnout for millennial voters (6.82%). Most precincts in the highest quintile are located in YISD. Of the precincts in the lowest two quintiles, most are located in west El Paso and along the central part of the US-Mexico border. In absolute terms, precinct 50, near Desertaire Elementary in YISD, had the largest number of generation Z voters, which was 39 voters between the ages of 20 and 35 years. The overall turnout for millennial voters in the November 2015 Uniform Election was 1.62%.

Figure 4.6 shows the November 2015 Uniform Election voter turnout for generation X (36-51 years). Precincts in the lowest quintile of voter turnout are located in west and far east El Paso, while those in the highest quintile are concentrated east in El Paso. The precinct with the highest generation X turnout is precinct 96, near Eastpoint Elementary in YISD. There are 26 precincts in the highest two quintiles of generation X voters and all, but one is located in YISD. A majority of precincts in the lowest quintile are in west El Paso and along the central part of the border. In absolute terms, precinct 96 also had the largest number of generation X voters, which was 125 voters between the ages of 36 and 51 years. The overall turnout for generation X voters in the November 2015 Uniform Election was 4.64%.

Figure 4.7 shows the November 2015 Uniform Election voter turnout for baby boomers (52-70 years). Precincts in the lowest quintile of voter turnout are generally located in south-central and far east El Paso, while those in highest quintile are located mainly in east El Paso. The precinct with the highest voter turnout was precinct 108 near Tierra Del Sol Elementary in YISD. In absolute terms, precinct 96, near Eastpoint Elementary in YISD, had the largest number of generation X voters, which was 227 voters between the ages of 52 and 70 years. The overall turnout for baby boomer voters in the November 2015 Uniform Election was 11.98%.

Figure 4.8 shows the November 2015 Uniform Election voter turnout for the silent generation (71-88 years). Precincts in the highest quintile are located mainly in east and west El Paso. Precincts in the lowest quintile and are generally located in in the central part of the border and far east El Paso. Precinct 95 near the Gary Del Palacio Recreation Center in YISD indicated the highest turnout rate, but precinct 96 by East Point Elementary in YISD had the largest absolute number of silent generation voters, which was 168. The overall turnout for the silent generation voters in the November 2015 Uniform Election is 17.37%.

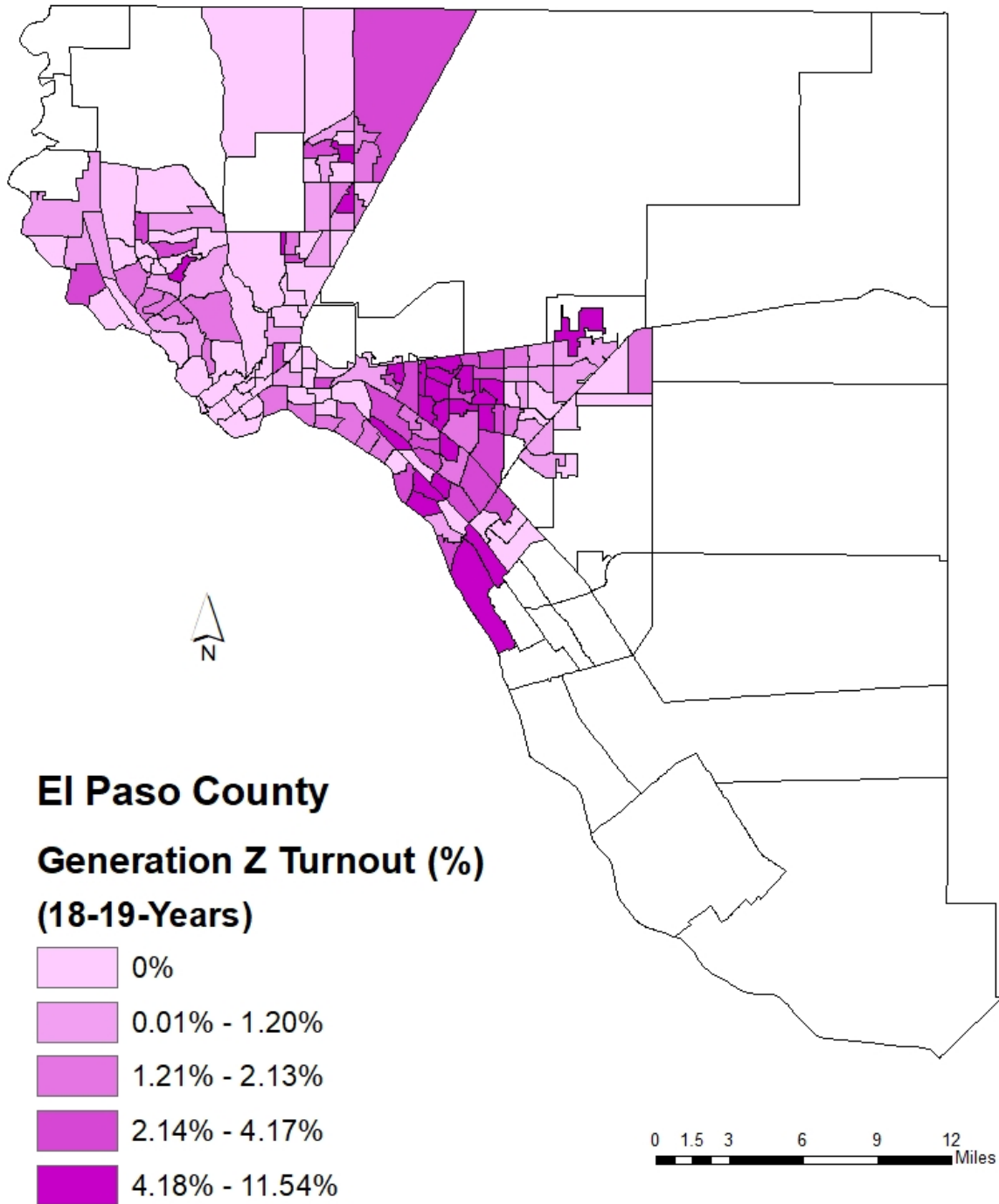


Figure 4.4. November 2015 Uniform Election Voter Turnout for Generation Z (18-19 years)

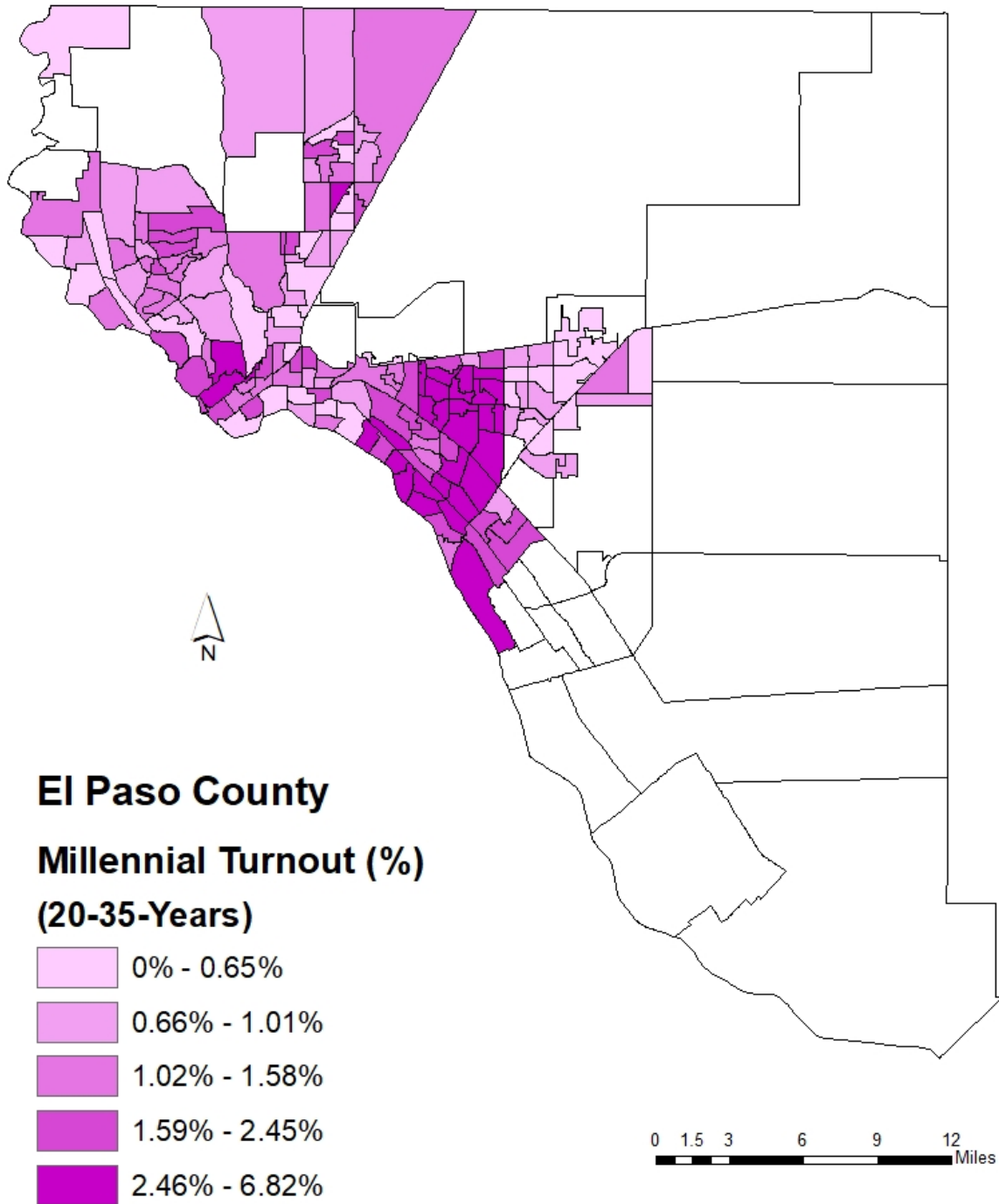


Figure 4.5. November 2015 Uniform Election Voter Turnout for Millennial (20-35 years)

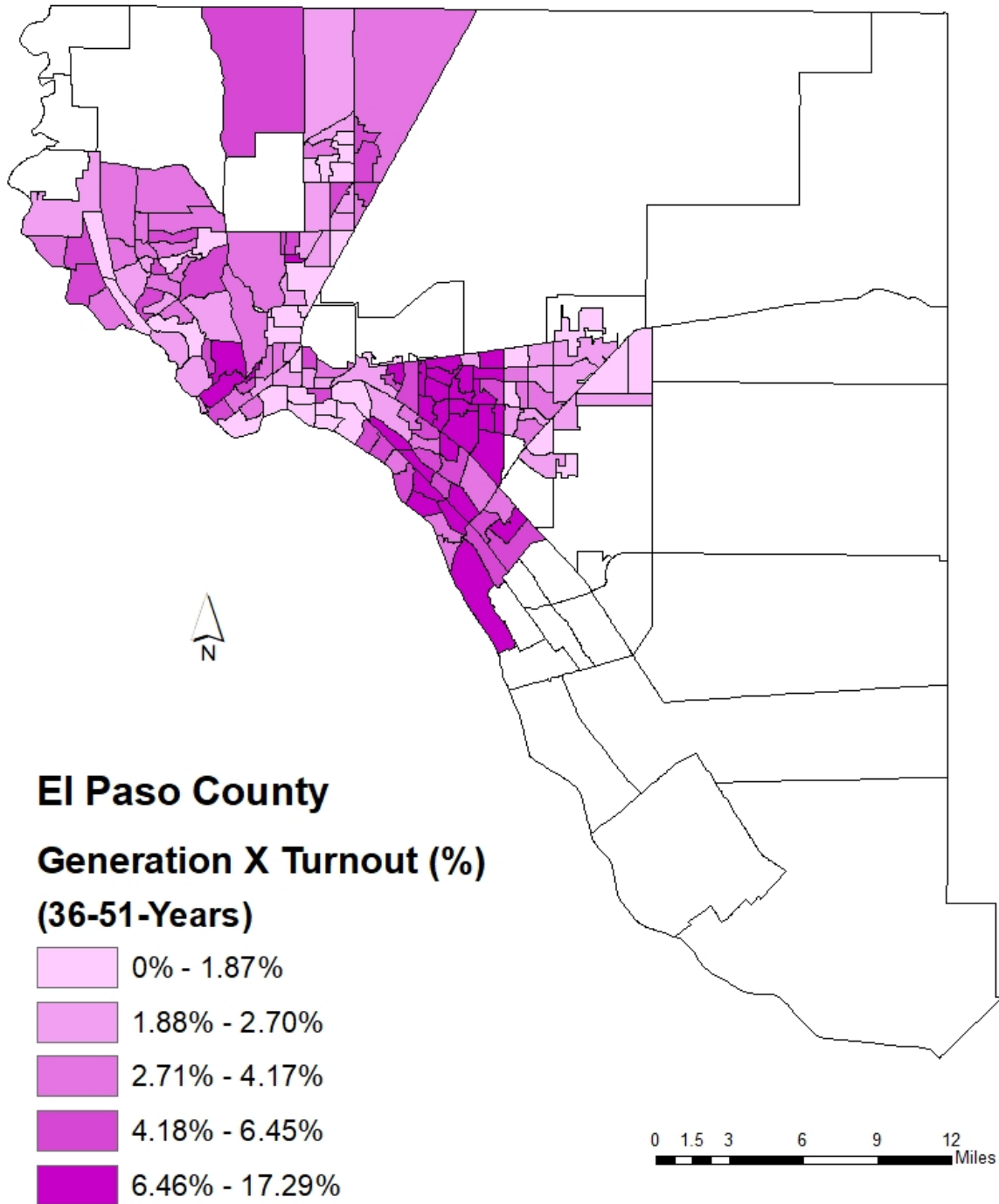


Figure 4.6. November 2015 Uniform Election Voter Turnout for Generation X (36-51 years)

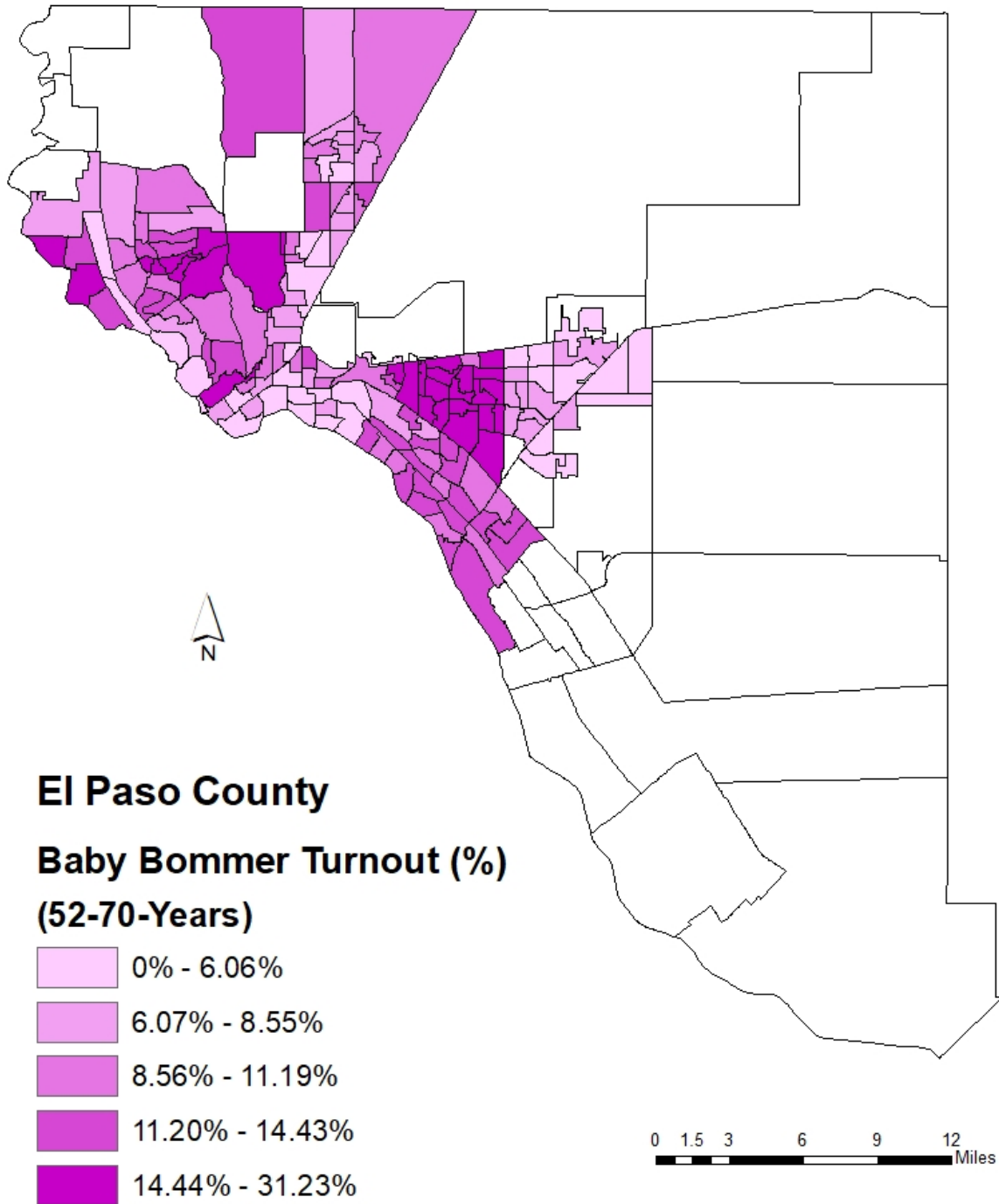


Figure 4.7. November 2015 Uniform Election Voter Turnout for Baby Boomers (52-70 years)

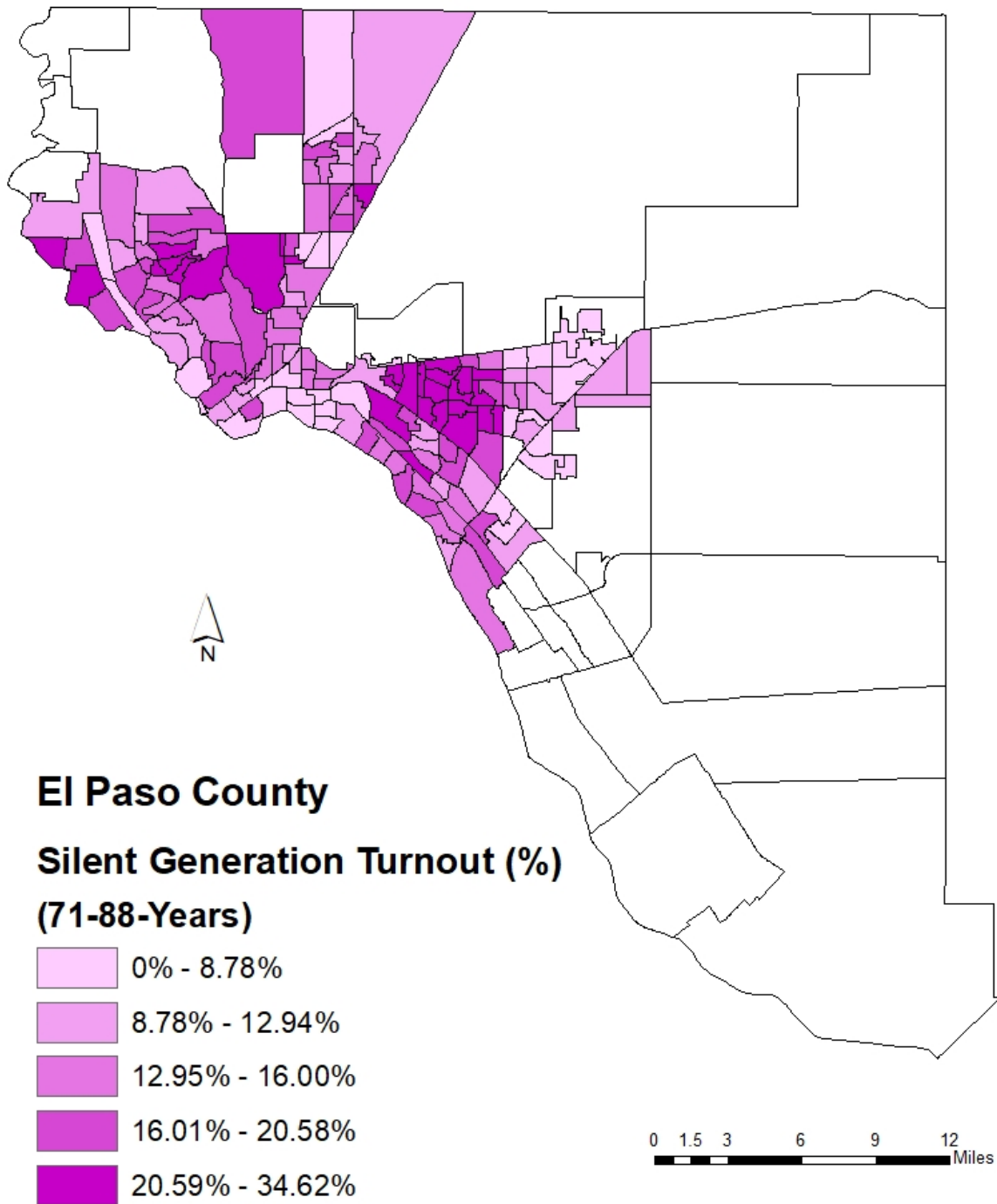


Figure 4.8. November 2015 Uniform Election Voter Turnout Silent Generation (71 years+)

The next step of the analysis statistically compares the overall November 2015 Uniform Election turnout rate to the turnout rate of each generation. The results are summarized in Table 4.6. This table shows that the voter turnout tends to increase with each subsequent generation, after the millennial generation (voters over the age of 35). The millennial generation had the lowest turnout of 1.62%, while generation Z voters had a turnout of 1.95%. Two sample *z*-tests for proportions were conducted to compare the voter turnout for each age group to the overall county turnout (6.47%); all tests were statistically significant ($p < 0.00001$). The first row of the table indicates that turnout rate for voters aged 18-19 years (1.95%) is much smaller than the countywide turnout rate and this disparity (4.52%) is significantly different from zero based on the *z*-test. Similarly, the turnout rates for millennial voters (1.62%) and generation X voters (4.64%) are both significantly smaller compared to the countywide rate of 6.47%. The disparity is 4.85% for millennial voters and 1.83% for generation X voters. The turnout of baby boomers was 11.98%, which was 5.51% larger than the overall county turnout. The turnout for silent generation voters is 17.37%, 10.9% larger than the overall county turnout.

Table 4.6 Overall Voter Turnout for the November 2015 Election by Generation

	Registered Voters	Voters	Turnout	Difference*	Z statistic	Sig.
Generation Z (18-19-years)	15352	299	1.95%	4.52%	22.626	< 0.00001
Millennial (20-35-years)	117408	1901	1.62%	4.85%	64.799	< 0.00001
Generation X (36-51-years)	97571	4526	4.64%	1.83%	21.390	< 0.00001
Baby Boomers (52-70-years)	99129	11878	11.98%	-5.51%	-58.618	< 0.00001
Silent Generation (71-88-years)	35175	6111	17.37%	-10.90%	-75.016	< 0.00001

* Indicates difference from voter turnout rate for El Paso County (6.47%)

Table 4.7 compares the generation Z voter turnout rate (1.95%) to the turnout rate of the other or older generations. While all z-tests are statistically significant ($p < 0.00001$), three of them indicate the older generations (generation X, baby boomers, and silent generation) had turnout rates that were significantly larger than those of generation Z voters. But the first row of the table shows that the turnout rate for millennial voters (1.62%) is smaller than the generation Z turnout rate and this disparity (0.33%) is significantly different from zero ($p < 0.01$) based on the z-test. The turnout rates for generation X voters (4.64%) are significantly larger compared to generation Z turnout rates with a disparity of 2.69%. Turnout rates for baby boomer and silent generations are also significantly higher by 10.03% and 15.42%, respectively.

Table 4.7 Voter Turnout for the November 2015 Election Compared to Generation Z (18-19-years)

	Registered Voters	Voters	Turnout	Difference*	Z statistic	Sig.
Millennial (20-35 years)	117408	1901	1.62%	0.33%	2.9983	< 0.0027
Generation X (36-51 years)	97571	4526	4.64%	-2.69%	-15.324	< 0.00001
Baby Boomers (52-70 years)	99129	11878	11.98%	-10.03%	-37.526	< 0.00001
Silent Generation (71-88 years)	35175	6111	17.37%	-15.42%	-47.914	< 0.00001

* Indicates difference from voter turnout rate for generation Z (1.95%)

In summary, choropleth maps indicate how turnout rates vary geographically across the county for each generational group. The maps are consistent in that the lower turnout region of El Paso tends to be the central part of the border. Additionally, turnout rates were consistently high in east El Paso in the YISD boundary. Millennial voters had the lowest turnout (1.62%) in the election, a disparity of (0.33%) compared to generation Z voters. This could be related to the positive impact of the SVI in turning out 18-year-old and thus generation Z voters. After the low millennial turnout, the turnout in each older generational group (generation X, baby boomers,

and the silent generation) increases with age. This is consistent with the literature in that turnout increases with each subsequent generation. Again, when comparing the younger voters below the age of 35 (generations Z and millennials), there is a higher turnout rate of 18-year-old El Paso voters compared to the turnout of their youthful (19 to 21-years) peers, and a larger turnout of generation Z compared to the older millennial generation. This provides further evidence of the positive impact the SVI had in increasing voter turnout of 18-year-olds.

4.3 Precinct Level Patterns and Analysis

To examine statistical associations between dependent variables representing voter turnout rate for each generation (age group) and independent variables describing socio-demographic characteristics of precinct residents, I conducted bivariate correlation analysis using Pearson's Product-Moment correlations. Multivariate regression models using several combinations of independent variables were also considered, but the presence of significantly high multicollinearity among the precinct level socio-demographic variables prohibited the use of multiple regression.

Table 4.8 lists the Pearson's correlation coefficients between voter turnout and variables representing older age, household income, home ownership, and educational attainment of precincts. Multiple precinct level variables yielded significant linear associations with voter rates for different age groups. Precincts with a higher proportion of older residents (age 65+) indicated significant and positive correlations with the overall rate of county turnout, as well as turnout rates for all six age groups analyzed. The proportion of households with an annual income of less than \$20,000 showed a negative and significant relationship with the older voters of generation X, baby boomers, and the silent generation. The proportion of households with an annual income between \$20,000 and \$39,999 indicated no significant association with the turnout of any group.

The proportion of households with an annual income between \$40,000 and \$59,999 only had a significantly negative relationship with overall county turnout. The proportion of households with an annual income between \$60,000 and \$99,999 indicated a positive and significant relationship with the older voters of generation X, baby boomers, and the silent generation. The proportion of households with an annual income over \$100,000 indicated a positive and significant correlation with overall turnout and rates of baby boomers and the silent generation. The proportion of homeowners only showed a positive and significant association with baby boomer turnout rates. When looking at education attainment, the proportion of adults with a high school diploma indicated a positive and statistically significant correlation with overall, generation X, baby boomer, and silent generation turnout rates. Similarly, the proportion of those with a bachelor's degree or higher has a positive and significant relationship with overall, baby boomer and silent turnout rates.

With regards to the overall turnout rate, bivariate correlation results indicate that the county turnout was significantly greater in precincts with higher proportions of older residents (age 65 and up), higher proportions of household with annual income over \$100,000, and higher proportions of educated adults with a diploma or a bachelor's degree or higher. One variable that stuck out was the negative and significant relationship between overall county turnout and the proportions of households with income between \$40,000 and \$59,999.

The 18-year-old turnout only had a positive and statistically significant correlation in precincts with higher proportions of older residents (age 65 and up). The same is true for generation Z and millennial turnout. Generation X turnout, on the other hand, was significantly greater in precincts containing higher proportions of older residents, higher proportions of household with annual income over \$60,000, and higher proportions of adults with a high school

diploma. The turnout rate for this generation was significantly smaller in precincts with higher proportions of households with income below \$20,000.

Baby boomer turnout is unique in that it is significantly correlated with almost all the independent variables. For this generation, there was a positive correlation between precincts containing higher proportions of older residents, households with annual income above \$60,000, home ownership, and proportion of adults with higher educational attainment with either a high school diploma and/or bachelor’s degree. The turnout rate for this age group was significantly smaller in precincts with higher proportions of households with income below \$20,000. Finally, silent generation turnout was significantly greater in precincts containing higher proportions of older residents, higher proportions of households with annual income above \$60,000, and proportion of adults with higher educational attainment with either a high school diploma or bachelor’s degree. Silent generation turnout was significantly lower in precincts with higher proportions of households with income below \$20,000.

Table 4.8 Bivariate Correlations (Pearson’s r) Between Voter Turnout and Precinct Socio-Demographic Characteristics

	Overall Voter Turnout	18-Yr-Olds	Gen Z (18-19-years)	Millennials (20-35-years)	Gen X (36-51-years)	Baby Boomer (52-70-years)	Silent (72-88-years)
Proportion of people aged 65 years or more	0.426**	0.201*	0.255**	0.331**	0.223**	0.294**	0.305**
Proportion of HHs with income <\$20K	-0.124	-0.057	-0.080	-0.038	-0.157*	-0.315**	-0.313**
Proportion of HHs with income \$20K-\$39,999	-0.043	0.141	0.114	0.111	0.067	-0.097	-0.117
Proportion of HHs with income of \$40K-\$59,999	-0.143*	0.051	0.076	-0.03	-0.005	-0.072	-0.011
Proportion of HHs with income \$60K-\$99,999	0.119	0.093	0.098	0.006	0.164*	0.256**	0.236**

Proportion of HHs with income \$100,000+	0.159*	-0.089	-0.065	-0.007	0.046	0.283**	0.274**
Proportion of homeowners	0.078	0.150	0.117	0.144	0.107	0.210**	0.130
Proportion of pop. 25+ high school graduate or higher	.222**	0.003	0.062	0.024	0.169*	0.348**	0.382**
Proportion of pop. 25+ with bachelor's degree or higher	.231**	-0.110	-0.058	-0.005	0.069	0.309**	0.337**
N (precincts)	191	158	157	158	158	158	158

** $p < 0.01$; * $p < 0.05$

Chapter 5: Summary and Conclusions

This chapter focuses on summarizing and interpreting the results and drawing conclusions about El Paso County voters in the November 2015 Uniform Election. The discussion of findings for each of the three research questions is followed by some personal observations as a presenter in the SVI program, as well as implications for potential solutions or policies and future research that could improve voter turnout rates.

The SVI was a community effort comprising 40 volunteers and presentations in ten high schools that resulted in the registration of over 700 students. To evaluate the effectiveness of the SVI in getting students or 18-year-olds to vote, it should be noted first that only 6.47% of registered voters in El Paso County voted in the 2015 Uniform Election. The overall turnout was low, regardless of age. Second, the voter turnout of 2.46% for those aged 18 years appears to be unusually low. However, 18-year-old voters came out to vote in larger numbers and at substantially greater proportions than their youthful counterparts (19, 20, and 21-year-olds). This increase in turnout was 1.01% and 1.42% compared to 19 and 20-year-olds, respectively, and proved to be statistically significant.

Further, when looking at the choropleth maps depicting precinct level voter turnout rates in the county, there was consistently higher turnout rates for precincts in YISD or turnout concentrated around central El Paso. The precinct with the highest turnout among 18-year-olds was 22.22%, a rate substantially higher than the average 18-year-old turnout (2.46%). Lastly, when examining only 18-year-old voters, YISD (the district that participated in the SVI) had the largest share of 18-year-old voters (63%) among the nine El Paso school districts. There were more 18-year-old voters in YISD despite that fact that YISD is the third largest ISD in the county (Texas School Explorer, 2020).

Out of all 18-year-old voters in YISD, half participated and were registered to vote during the SVI presentations. Overall, 18-year-old voters in the county had a turnout rate of 2.46%. Meanwhile the turnout rate of the 18-year-old voters who were registered to vote in the YISD boundaries had a higher turnout rate of 5.25%, more than twice as high as the overall county turnout. Finally, 18-year-old voters who registered to vote during an SVI presentation had a turnout rate of 8.34%, almost 3.5 times greater than the overall county turnout for this age group. This evidence, supported by appropriate statistical tests, indicates that the SVI had a positive and significant effect on the student or 18-year-old voter turnout in this county.

When investigating voter turnout by age group and investigating whether younger voters are underrepresented in the El Paso November 2015 Uniform Election, overwhelming evidence showed age is a huge factor that impacts voter turnout in El Paso County. When comparing the maps, central parts of the border consistently had low voter turnout in all the maps. Additionally, east El Paso in the YISD boundary had the most consistent high turnout in the maps. The turnout rates for the generational groups of El Paso voters was not entirely consistent with the literature that state turnout increases with age (Fry, 2018). For the November 2015 Uniform Election, generation Z voters (18-19 years) had a turnout rate of 1.95%, while the turnout of the older millennial voters (20-35 years) was only 1.62%. Further, the turnout rate of 18-year-old El Paso voters was higher than the turnout of their youthful (19 to 21-years) peers. These findings support the positive impact of the SVI in increasing turnout of younger voters.

Multiple inferential tests were conducted to determine a statistical significance of the percentage differences between overall voter turnout for the November 2015 Election and each subsequent generational group. The findings indicate that in this election, generation X, baby boomers, and the silent generation showed increased in voter turnout based on increase in age.

The exception was the turnout of voters under the age of 35. The turnout for Generation Z (1.95%) was higher than that of the turnout of millennial voters (1.62%), as noted previously. Further, the younger 18-year-old voters displayed higher turnout than their peers' age 19 to 21-years-old. When examining the generation groups older than 35, the largest disparity was observed between overall county turnout (6.47%) and the silent generation turnout (17.37%). Inferential statistical tests indicate that only three older generations (after millennials) had a turnout rate that was significantly larger than those of generation Z voters. The significantly higher turnout of generation Z voters compared to millennial turnout could be related to the success of the SVI in increasing youth voter participation.

Finally, to analyze whether and how specific socio-demographic characteristics of precinct residents are related to the rates of overall voter turnout and turnout for various age groups in El Paso County, I focused on variables representing older age, income, home ownership, and educational attainment. The proportion of population age 65 or older proved to be the most statistically significant and consistent predictor of overall voter turnout and turnout for every generational group. This could be linked to evidence from the previous research question and the literature which indicates higher voting participation among the older generational groups (Khalid, 2016).

With respect to voter turnout by age group, baby boomers and the silent generation voters indicated statistically significant correlations with most of the precinct level socio-demographic variables. The unique characteristic about turnout for baby boomers was its positive and statistically significant relationship with the proportions of homeowners in the precinct. Home ownership was not significantly correlated with voting participation in other age groups, as found in previous studies (e.g., Oliver, Ha and Callen, 2012). The relationship between home

ownership and voter turnout in El Paso could be influenced by the presence of University of Texas at El Paso students who are of voting age and politically active, but more likely to rent instead of own homes. Home ownership was the only difference between the statistically significant correlations for the turnouts of baby boomers and the silent generation. Both older generations revealed significantly higher turnout in precincts containing higher proportions of older residents, households with annual income above \$60,000, and proportion of adults with higher educational attainment with either a high school diploma and/or bachelor's degree. Both older generations also indicated significantly lower turnout in precincts containing higher proportions of households with annual income below \$20,000.

In summary, the results of the Pearson's Product-Moment correlations overwhelmingly indicate significantly greater voter turnout for the county overall and for all the age groups in precincts contain higher proportion of older residents. Voting participation for ages 52 or higher was also significantly higher in precincts contain more economically affluent and educated residents. More detailed data and voter level analysis is necessary to better explain and understand these statistical relationships that were found using precinct level data.

As someone who participated as a presenter in the SVI, it is important to provide some context to these findings. The higher rates of 18-year-old turnout did not happen in an SVI vacuum. Although nonpartisan voter education is helpful, the entire district actively worked to increase voter turnout for students, teachers, administration, and parents. Several high schools had mobile polling locations during early voting. Additionally, the district tried to support students without a government issued ID by providing information to obtain Election Identification Certificates so that they would have the proper identification to vote. This was a district and community effort, very similar to how Linimon and Joslyn (2002) describe the

success of Kids Voting USA. The success was attributed to the community support. A coalition between schools, businesses, parents, and others worked together and hundreds of community members participated in the program. The SVI supports how schools act as a "central socializing agent" (Linimon and Joslyn, 2002; p.28) in influencing values and beliefs about voting.

With regards to the SVI presentation itself, it is aimed to get students to think about issues and policies impacting their daily lives. It was intended to be more of a facilitated conversation in the classroom. However, at times, it was hard to engage students in the conversation. Students had to be often instructed by their teachers to participate and teachers would acknowledge that the SVI presentation was not a typical lecture. This underscores the unilateral way in which students are traditionally taught in the classroom. As McQuillan argues (2005), most institutions operate using hierarchical structures that prefer students who remain subordinate. Schools that listen to students translates into students who are more inclined to take ownership over their own education. Perhaps the ways in which students are taught, particularly the use of standardized testing, need to be reevaluated, along with the topics and/or courses covered. Further, it was also easy to identify the teachers' political views by listening to what the students said. While the teachers were not explicitly sharing their political beliefs, the school functions as a socializing agent and teachers have opportunities to build genuine relationships with students. In this way, shared values and beliefs become the culture and basis for political views.

Engagement also varied within students in the schools. For example, students of Advanced Placement (AP) Government or Economics classes and students in the early college high school (ECHS), were much easier to engage in discussion. This can be attributed to the ways in which students self-select the more challenging course load accompanying AP and

ECHS instruction. According to their enrollment policy for ECHS, YISD emphasizes acceptance based on need. Their policy explicitly states they prioritize student enrollment based on factors such as lower socioeconomic status and at-risk student populations over grades or test scores (Ysleta Independent School District, 2019).

Akee et al. (2018) found that external factors such as an increase in income positively impacted the children of lower income households in voter turnout once they were eligible to vote, more so than their peers in higher income households. Further research can investigate if nonpartisan voter education presentations or programming have a higher impact on AP or ECHS students than their peers who did not choose to participate in such coursework. Instead of looking at an increase of income like Akee et al., research could investigate the impact of nonpartisan voter education on primarily low-income students (given the YISD ECHS enrollment policy) on voter turnout compared to the turnout of their peers in more economically affluent households taking traditional high school coursework.

It is important to consider, however, that YISD is only one of nine school districts in El Paso County. It would be interesting to see what youth (18-year-old) voter turnout looks like if every school district participated in a nonpartisan voter education presentation, while encouraging students, parents and administration to vote like YISD in the November 2015 Uniform Election. Such research could look more closely at the voter turnout rates of not only student populations, but also those of the administration and parents. Linimon and Joslyn (2002) did find evidence of upward socialization, in that students were the driving factor that brought parents to the polls. This is not fully supported by the research of Akee et al. (2018) because the impact of income on households was not observed in parental voting behavior, but in their children's voting behavior. This suggests that longer-term research is needed to see if upward

socialization occurs on parent vote behavior, after their children become more habitual voters. Additionally, while YISD is contiguous as a school district (with the exception of one school), more research on the countywide participation in nonpartisan voter education presentations with active encouragement of students, parents, and administration to vote is required. It is also necessary to investigate the local impact of neighborhood accessibility and geographical markers like Interstate Highway 10, which almost divides El Paso County in half. Additional use of GIS-based data and maps is recommended, as a strategic tool to investigate the role of neighborhood accessibility and geographical markers in influencing voter turnout, especially if neighborhood factors have not been explicitly considered in previous research (Barber and Imai, 2014).

The literature overwhelmingly agrees that authentic opportunities for youth to grow and apply their critical and analytical skills are a core educational component. Successful programs make the youth feel like their work is valued and worthwhile. However, when this is juxtaposed to the strict voter laws of Texas, the low voter turnout among youth (and probably older Texans) can easily be explained. Texas has a pattern of voter intimidation, which includes, but is not limited to, the following: (1) a 1979 Supreme Court ruling that Waller County violated the 26th Amendment or voting rights of students on the majority-Black school of Prairie View A&M University; (2) a 2004 attempt to keep students from voting in the same Texas County resulting in student protests; and (3) a lawsuit in 2018, because Waller County again did not provide polling locations on the university campus. Texas also has a history of 15 Supreme Court cases of voter suppression. During the last legislative session, Texas banned mobile polling locations. Then-Secretary of State David Whitley also caused unnecessary panic by falsely claiming there were 95,000 non-citizens registered to vote and then giving them 30 days to prove their citizenship or be purged from Texas voter rolls.

Most relevant to the issue of youth voter turnout and the role of schools, in terms of policy and vote culture, is the impact of the Texas Educators Vote program. It was a 2015 effort to get students to the polls. The Texas Attorney General (AG) issued a nonbinding opinion stating that efforts such as Texas Educators Vote which took students to the polls was a misuse of funds and did not serve any educational purpose. Such actions from any state AG can play a factor in schools' decision to participate (or not participate) in any youth voter mobilization efforts. Because of this aggressive and bold statement from the Texas AG (Children's Defense Fund et al., 2019), schools now practice great caution when it comes to student voter turnout efforts. For example, SVI volunteers were trained and repeatedly instructed to remain nonpartisan. YISD participated in the SVI, while smaller schools in the rural areas were more hesitant to have their students participate. However, even with YISD, several reassurances to the district were made to assure that the SVI was entirely nonpartisan and all volunteers were explicitly told to not mention the upcoming YISD bond election.

Additionally, from experience, every teacher was different in how comfortable they were with the presentation. Some teachers participated in the conversation with positive feedback, while others would interrupt to include their own opinions or be upset with some of the concerns brought up by students. I believe this to be one of the ways in which the state actively opposes student voter mobilization, because it tends to discourage any sort of political conversation in the classroom. It is possible to be critical of policies while remaining nonpartisan, much like it is possible to acknowledge your beliefs while instructing on current policies by illustrating the costs and benefits of every policy, no matter how political they may seem in a state like Texas. Ultimately, being informed on both sides of any issue is the best way to make a decision or cast a ballot.

The SVI and related literature demonstrate that community support in the form of easily accessible nonpartisan information, familiar polling locations, mobile polling locations, and access to voter ID requirements can positively impact voter turnout. This supports the empowerment theory and mobilization theory suggested by Barber and Imai (2014). The SVI was a mobilization strategy of the SVI and of the district to get people to vote, and the community effort helped build feelings of trust. Based on the evidence, it can be argued that policies which make nonpartisan mobilization initiatives accessible can make a difference. Supportive statewide policies would include decreasing voter ID requirements and/or including student IDs as an acceptable form of identification, including civics requirements in curricula or the statewide standard in the Texas Essential Knowledge and Skills (TEKS) requirements and having the accessibility of mobile polling locations.

Having these state policies and a State Attorney General who will not issue such aggressive statements on school participation in student voter turnout can create a more supportive culture and encourage student mobilization. To some extent, these policies further support the empowerment theory of voting. Because state policies pertaining to voting rights and accessibility are excessively strict, they are taking away the sense of trust and connectedness in communities and resulting in low voter participation. This process is otherwise known as voter suppression. In fact, the Children's Defense Fund published a 2019 report titled: *The Kids Are Not the Problem: Promoting Civic Empowerment in Texas' Youth When Participation is Revolutionary*. Not only is it critical of Texas, listing the history and ways in which policies criminalize some voters and keep Texans away from the polls, but it also offers ways to promote youth voter turnout. Most of their recommendations focus on the role of schools, such as courses on civics, government, law, and related topics that include: civil deliberations of current and

controversial issues; service-learning; student-led voluntary associations; student voice in schools; simulations of adult civic roles; news media literacy education; action civics; social and emotional learning; school climate reform. These recommendations align with the literature on not only empowerment theory (Barber and Imai (2014), the impact of schools (Linimon and Joslyn, 2002), but also the idea that education is, or can be, democracy. Although education is necessary for active participation in a democratic and pluralistic community (McQuillan, 2005), the current political climate in Texas prevents this from happening.

It is also important to consider the sustainability of initiatives like the SVI. The SVI was a community effort comprising 40 volunteers and presentations in ten high schools that resulted in the registration of over 700 students. While this was an initiative from the Senate District 29 Youth Advisory Committee, it was largely an effort implemented by the Office of Texas State Senator Jose Rodriguez. This included a wide range of activities and tasks: partnering with organizations, volunteer recruitment, volunteer training, coordinating trainings, identifying training locations, scheduling training with the schools and individual teachers, scheduling with volunteers, providing assurances to the school district and the county elections office, gathering materials, and delivering presentations to thousands of students; a major logistical challenge that was organized by a single office. In fact, the November 2015 Uniform Election was a relatively convenient case study because the one school district was easy to manage. For the next semester of school when the 2016 Primary Election was held, many more school districts were visited, but in a less systematic manner due to capacity. This impacted the amount of data available and the number of high schools in each district that were visited. Other data necessary for this analysis that was missing in this research include the total number of student participants and the number of eligible students. This would have allowed a more detailed evaluation of their costs, time, and

efforts, compared to the number of students who registered to vote. Further, all high schools in YISD participated in the November 2015 Election, while participation was somewhat sporadic across school districts in the 2016 Primary Election. After the 2016 Primary and General Elections, the SVI efforts dwindled. These trends suggest that efforts like the SVI may not be sustainable.

It is also difficult to view the SVI as a community and nonpartisan effort since it was led primarily by a Democratic state senator's office. Although this senator ran unopposed and had limited incentive to engage students into the electoral process, such efforts can be viewed as partisan. The SVI being implemented from the senator's office acted as a double-edged sword. On the one hand, the senator added legitimacy to the SVI and made it somewhat easier for schools to get onboard with the initiative. On the other hand, it might have been difficult for an actual nonpartisan community-based organization to implement such an initiative with districtwide support without the legitimacy added by that the senator's office. Senator Rodriguez could ensure that every aspect of the presentation was vetted by his general council to make the presentations nonpartisan. There was the added motivation that state legislatures cannot use state resources for campaigning purposes. Therefore, greater caution and intention was considered from many different perspectives, including legal ramifications of such an initiative. Additionally, volunteers were a combination of students, educators, and community members with very different political ideologies. It was personally satisfying to see the diversity of the volunteers participating in such an effort geared towards youth voter education. This is one example of democracy, especially as described by McQuillan (2005).

Finally, if the evidence suggests a relationship between education and voting, then any means to make higher education more affordable and thus, more accessible, can have a

significant impact. Additionally, as Oren Levin-Waldman (2012) argues, wage policies to grow the middle class, or at least reduce the number of households who survive under an annual income of \$20,000 would increase civic engagement. This research is also focused only on a single 2015 election when El Paso County's youth voter (ages 18-29 years) participation rates went from being in the bottom 20% of voter turnout to the top 20% in Texas (High School Voter Registration Convening 2020). Continuous and long-term analyses of voting patterns and trends in El Paso County are recommended. There is much to learn about this group of voters and which specific socio-demographic factors are related to recent increases in turnout. Although this thesis provided important insights on how several precinct level characteristics influence voter turnout in El Paso County, future research needs to examine these statistical associations in more detail using individual voter level data on race/ethnicity, income, home ownership, and educational attainment.

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