Incomplete Democracy: The Relationship of Race, Income, and Education to Voter Participation

By Gena Gunn McClendon, Kyle A. Pitzer, and Austin T. Tolani

A close look at St. Louis City and St. Louis County

A healthy democracy depends on the inclusion of all people in voting, regardless of socioeconomic status, gender, or ethnicity. A healthy democracy is equitable, representational, and participatory. Democracy works when citizens are civically engaged.

The United States is more racially and ethnically diverse than ever. One in three eligible voters is Hispanic, Black, Asian, or another racial or ethnic minority. Over 200 million Americans are registered voters. This represents a dramatic increase: Between 2012 and 2016, the number of registered voters grew from 153 million to 157 million. But does the growing number of registered voters represent the diverse population of the United States, particularly the population’s racial, economic, and educational diversity? This research brief examines the characteristics of voters and whether their demographics are associated with voter participation rates in the City of St. Louis, Missouri, and in St. Louis County.

Background

Voting is fundamental for democracy, providing an opportunity for civic participation and a voice in shaping policies that influence communities and families. But there are large discrepancies in voting rates. In particular, rates are higher among those with higher education levels and higher family income.

Researchers at the Pew Research Center noted that 137.5 million Americans voted in the 2016 presidential election. That represented about 58 percent of registered voters. In the 2014 midterm election, the total population of registered voters was 142,166,000.
Race, Income, and Education in Missouri and the St. Louis Area

Nearly two million of Missouri’s six million residents live in the greater St. Louis metropolitan area, which consists of the City of St. Louis and the seven surrounding counties: St. Louis, St. Charles, Jefferson, Franklin, and Warren counties in Missouri, and Madison, Monroe, and St. Clair counties in Illinois (U.S. Census Bureau, n.d.). County borders within the greater St. Louis area are shaped by the Mississippi and Missouri rivers.

The median age of Missourians is 38 years. Approximately 82.5% of the state’s population is White, 12% is Black, 5% is Native American, and 1.8% is Asian; 2.4% of the state’s population identifies with two or more races, and 1.1% identifies with other races (U.S. Census Bureau, n.d.).

The total population of St. Louis City is 316,030, and the median annual household income is $40,346. The city’s 151,000 Black residents comprise a majority (47.9%) of the population. Approximately 135,384 Whites comprise 42.7%, 12,547 Hispanics comprise 3.7%, and 9,600 Asians comprise 3.1% (DataUSA, n.d.; Statistical Atlas, 2018). Thirty-nine percent of residents have education above a high school diploma, and 15.5% do not have a high school diploma. Residents with high school diplomas comprise 45.5% of registered voters.

St. Louis County has a little over one million residents; Whites comprise 67.4% of the population, Blacks comprise 23.6%, Asians comprise 3.8%, and Hispanics comprise 2.6%. Nearly 50% of residents have a degree beyond high school. Fewer than 10% of residents lack a high school diploma. The median annual household income is $61,103.

At this writing, over four million Missourians are registered to vote (Missouri Secretary of State, 2018). Approximately 35% of registered voters cast a ballot in the 2014 congressional election, and over 65% cast a ballot in the 2016 presidential election (Missouri Secretary of State, 2016, 2014). Turnout in the 2016 election exceeded the national rate of 61.4% (U.S. Census Bureau, 2017). St. Louis County has over 90 municipalities and 47 zip codes (St. Louis County, 2018a, 2018b). St. Louis City is a single municipality with 29 zip codes. This excludes 11 postal-box zip codes. Twelve zip codes straddle both the city and the county (Daly, 2018).

(59.3% of the U.S. population), and the turnout rate was 38.5% (92,251,000). Approximately 17,700,000 Blacks were registered to vote in that election, and 39.7% of them turned out to vote. In contrast, there were 12,862,000 registered Hispanic voters, and the Hispanic turnout rate was 27.0%. As mentioned, national evidence ties voter participation to income. The 2017 median annual income of households in the United States was $59,039. In the 2014 election, less than 25% of voters came from households with annual income under $10,000, but 36.6% came from households with incomes over $150,000. Education has also been found to play a role. The turnout rate was 28.7% among voters with less than a ninth grade education, 53.2% among voters with a bachelor’s degree, and 62.0% among voters with an advanced degree. These national voter statistics likely differ from those in St. Louis City and St. Louis County.

The St. Louis region is marked by well-documented disparities in levels of segregation and access to health care. The extreme conditions in racially concentrated areas of poverty also are well documented. Considering these disparities, do race, income, and educational attainment determine who registers and who votes in St. Louis City and St. Louis County?

This research brief reports findings from an examination of data on participants in the 2014 midterm electoral process in St. Louis City and St. Louis County. Data from the election were matched with census information on race, income, and education to assess whether these demographic variables predict who participates in the electoral process within zip codes. The brief highlights the critical links between education, income, race, voter registration, and voter turnout.

Data and Methods

The analyses reported in this brief drew upon zip code–level data from the U.S. Census Bureau’s American Community Survey to determine whether population-level characteristics were correlated with registration and voting in the St. Louis region. Registration and voting data came from the city and county. They included information on voters’ geographic location, registration date, and voting history. Individuals in the registration data were aggregated by zip code to determine zip code–level counts of registered voters and voters in the 2014 midterm election. The American Community Survey’s 2014 5-year estimates provide data on characteristics such as the size of the population in a given zip code, the proportion of zip-code residents who were Black, the median annual household income in the zip code, and the percentage of the zip code’s residents who have a high school diploma. The data from the Census Bureau, city, and county were merged to create a data set with registration and voting counts as well as demographic
characteristics for zip codes in the St. Louis region. We used the data for each zip code to calculate the registration rate and voting rate. Data for five zip codes were removed from the final, merged data set: Census data were lacking for one zip code, and four zip codes were located mostly or entirely outside of St. Louis County. We analyzed data from 59 zip codes.

### Zip Codes in the St. Louis Region

Table 1 presents descriptive statistics for the St. Louis region in 2014. Statistics for the voting-age population were also considered but not included in the correlation analyses. The mean voting-age population for a zip code in the St. Louis region was 16,909. The average population size was larger in the zip codes of St. Louis County (including some zip codes also partially located in the city) than in those located partially or fully within St. Louis City, 17,962 and 15,901, respectively.

On average, Blacks accounted for a larger share of the population in city zip codes than in county ones, 49.64% and 25.37%, respectively. The average of median annual household incomes across zip codes was higher in the county than in the city: The average of medians in the county was $65,655, and that in the city was $40,284. Lastly, zip codes in the county had, on average, a slightly larger percentage of residents who completed high school. The mean was 91.55% in the county and 85.12% in the city.

We also examined descriptive statistics for registration and voting in the city, county, and region. In 2014, zip codes in the St. Louis region had, on average, 12,657 registered voters. Although the voting-age population in the city was approximately 12% smaller than that in the county, the average number of registrants per zip code in the county, 13,378, was more than double the average per zip code in the city. Additionally, the average percentage of registrants who voted in a city zip code in 2014 (36.27%) was lower than the average percentage who voted in a county zip code in that election (46.06%). For the St. Louis region, the average per–zip code registration rate in 2014 (registered voters/voting-age population) was 74.37%, and the average per–zip code voting rate (voters/voting-age population) was 31.72%.

### Zip Code Characteristics and Voter Registration in the St. Louis Region

Analyses were conducted to assess whether the number of registered voters in a zip code in 2014 was correlated with the proportion of Blacks in the zip code’s population, with the zip code’s median income, and with the proportion of residents with a high school education.

<table>
<thead>
<tr>
<th>Variable</th>
<th>City (n = 29)</th>
<th>County (n = 46)</th>
<th>Region (n = 59)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voting age population, M</td>
<td>15,901</td>
<td>17,962</td>
<td>16,909</td>
</tr>
<tr>
<td>Black population (%), M</td>
<td>49.64</td>
<td>25.37</td>
<td>35.36</td>
</tr>
<tr>
<td>Median annual household income, M in dollars</td>
<td>40,284</td>
<td>65,655</td>
<td>56,640</td>
</tr>
<tr>
<td>Population with high school diploma (%), M</td>
<td>85.12</td>
<td>91.55</td>
<td>89.05</td>
</tr>
<tr>
<td>Registered to vote in 2014, M</td>
<td>5,357</td>
<td>13,378</td>
<td>12,657</td>
</tr>
<tr>
<td>Voted in 2014, M</td>
<td>1,943</td>
<td>6,161</td>
<td>5,567</td>
</tr>
<tr>
<td>Registration rate in 2014 (%), M</td>
<td>-</td>
<td>-</td>
<td>74.37</td>
</tr>
<tr>
<td>Voting rate in 2014 (%), M</td>
<td>-</td>
<td>-</td>
<td>31.72</td>
</tr>
</tbody>
</table>

*Note: The term St. Louis region refers to zip codes in the City of St. Louis and St. Louis County. Some duplicate zip codes are included in disaggregated calculations because they are partially located in both the city and the county.*

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The St. Louis Region

<table>
<thead>
<tr>
<th></th>
<th>CITY</th>
<th>COUNTY</th>
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<tbody>
<tr>
<td>50%</td>
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<td>25%</td>
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<tr>
<td>BLACK RESIDENTS PER ZIP CODE</td>
<td></td>
<td></td>
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<tr>
<td>$40K</td>
<td></td>
<td>$66K</td>
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<tr>
<td>MEDIAN INCOME PER ZIP CODE</td>
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<td></td>
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<tr>
<td>85%</td>
<td></td>
<td>92%</td>
</tr>
<tr>
<td>RESIDENTS WITH HIGH SCHOOL EDUCATION PER ZIP CODE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5,357</td>
<td></td>
<td>13,378</td>
</tr>
<tr>
<td>REGISTERED VOTERS IN 2014, PER ZIP CODE</td>
<td></td>
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<tr>
<td>1,943</td>
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<tr>
<td>VOTED IN 2014, PER ZIP CODE</td>
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</table>
or with the percentage of residents with a high school diploma in the zip code. In examining the distribution of the data, we found evidence of departure from normality for each variable. We therefore estimated Spearman’s correlations. Where ties were present, we estimated Kendall’s correlations to determine the significance, direction, and magnitude of correlations. We found that the number of registered voters was significantly correlated with the proportion of Blacks in the population, with median income, and with the percentage of people with a high school education ($p < .05$). The proportion of Blacks in the population was negatively correlated with the number of registered voters. However, this relationship was weak, $r_s(57) = -.29, p = .02$. The correlation of the number of registered voters in a zip code with the median income of that zip code was positive and moderate, $r_s(57) = .30, p = .018$. The percentage of the population with a high school education was positively but weakly correlated with the number of registered voters in that zip code, $\tau_b = .20, p = .029$.

We followed the same procedure in identifying correlates of the registration rate, which is the percentage of registered voters out of the entire voting-age population. Correlation analyses indicated that the zip code–level registration rate was significantly correlated with all three variables. We found a negative and moderate relationship between the registration rate and the proportion of Blacks in the population, $r_s(57) = - .37, p = .004$. The correlation between the registration rate and the percentage of adults with a high school education was positive and moderate, $\tau_b = .41, p < .001$. Lastly, the correlation between median income and the registration rate was positive and strong, $r_s(57) = .53, p < .001$.

### Zip Code Characteristics and Voting in the St. Louis Region

Correlation analyses also assessed whether the number of 2014 midterm voters in a zip code was correlated with the proportion of Blacks in the zip code’s population, with the zip code’s median income, or with the percentage of residents with a high school diploma in the zip code. Due to the non-normality of the variables, Spearman’s correlations and Kendall’s correlations were again used to determine the significance, direction, and magnitude of relationships. The number of voters in the 2014 midterm election was significantly correlated with the proportion of Blacks in a zip code’s population, the median income in the zip code, and the percentage of people with a high school education. We found that the proportion of Blacks in a zip code’s population was negatively correlated with the number of actual voters, and this relationship was moderate, $r_s(57) = -.43, p < .001$. A positive and moderate correlation was found between the number of voters in a zip code and the area’s median income, $r_s(57) = .47, p < .001$. The number of voters in a zip code was also positively and moderately correlated with the percentage of the population with a high school education, $\tau_b = .33, p < .001$.

Analyses of voting rate—that is, the percentage of the voting-age population that voted in the 2014 midterm election—indicated that it was significantly correlated with the proportion of Blacks in the population, median income, and the percentage of people with a high school education. The relationship between the voting rate and the proportion of Blacks in the population was negative and strong, $r_s(57) = -.66, p < .001$. The correlation between the voting rate and the percentage of adults with a high school education was positive and strong, $\tau_b = .67, p < .001$, as was the relationship between the voting rate and the median income, $r_s(57) = .82, p < .001$.

### Geographic Distribution of Turnout, Race, Education, and Income in the St. Louis Region

Figure 1 illustrates the relationship between 2014 turnout and the proportion of Blacks in the population. Zip codes with higher proportions of Blacks in the population were concentrated on the north side of the city; those with the lowest proportions of Blacks in the population were located in the central and southern parts of St. Louis County. There was a significant disparity between the turnout rates in St. Louis County zip codes and those in St. Louis City zip codes. Zip codes with the lowest turnout rates were found in St. Louis City. Generally, this map shows that turnout was lower in zip codes with larger proportions of Blacks in the population.

Results from the analysis of the relationship between 2014 turnout and median income are illustrated in Figure 2. Zip codes with the highest median incomes were concentrated in the western and central parts of St. Louis County. Those with the lowest median incomes were located predominantly in St. Louis City. There was a large disparity between the turnout rates in St. Louis County zip codes and those in zip codes within the city. Zip codes with the lowest turnout rates were found in St. Louis City. Generally, this map shows that zip codes with higher median incomes had higher turnout rates.

The relationship between the proportion of the population with a high school education and the 2014 turnout rate is illustrated by zip code in Figure 3. Zip codes with the highest proportions of high-school-educated populations were located in the central and southern regions of St. Louis County. Those with the lowest proportions were located predominantly in St. Louis City. There was a large disparity between the 2014 turnout rates of zip codes in St. Louis County and those of zip codes in the city. The zip codes
**Fig. 1.** Turnout lower in zip codes with larger percentages of Black residents.

The figure illustrates the relationship between the relative size of the Black population and turnout in the 2014 midterm election, by zip code, for the City of St. Louis and St. Louis County, Missouri.

**Fig. 2.** Turnout higher in zip codes with higher median incomes.

The figure illustrates the relationship between median annual household income and turnout in the 2014 midterm election, by zip code, for the City of St. Louis and St. Louis County, Missouri.
Fig. 3. Turnout higher in zip codes where more residents have at least a high school education.

The figure illustrates the relationship between education and turnout in the 2014 midterm election, by zip code, for the City of St. Louis and St. Louis County, Missouri.

with the lowest turnout rates were in St. Louis City. Generally, this map shows that zip codes with more educated populations had higher turnout rates.

From Voting Data to Strengthening Democracy in the St. Louis Region

The results from these analyses of 2014 midterm election data are consistent with national findings: Higher income, educational attainment, and race were predictors of voter turnout. The findings, however, provide no relief from concern. Voting is practiced at the local level, and St. Louis City and County have a well-documented challenge in incomplete democracy.

The findings suggest a two-pronged approach to strengthen voter turnout. Hundreds of organizations, some formal and others informal, are focused on increasing voter registration and GOTV (get out the vote) campaigns. However, to what extent are citizens civically engaged? Do Americans understand what it means to be civically engaged? One way to improve voter turnout in low-income, majority Black neighborhoods may be to develop a year-long effort to organize civic engagement activities—activities that draw citizens into “the life of a community to improve conditions or to help shape the community’s future.” Such activities may focus on political processes as well as nonpolitical objectives. Income and educational levels in communities of color are not going to change without substantial policy adjustments that offer better solutions in the lives of poor people.

A strategic effort that promotes both community and civic engagement may increase voter turnout in low-income neighborhoods. Community engagement partnerships could involve academia, school boards, departments of social services, community neighborhood associations, local governments, and nonprofit organizations. The efforts could recruit from retired teacher associations, boards of elections, police departments, prosecuting attorney offices, and the legislature. They could develop community gardens and parks, participate in block-club organized clean-ups and beautification programs, and facilitate civic- and voter-education forums. Combinations of partnerships could systemically cover all age groups and could be deployed initially in low-income neighborhoods, with plans to expand throughout St. Louis City and the county. People of all races and ethnicities, education levels, and household incomes care about their families and communities. All Americans want equitable access to education for their children, employment, and public safety. This is a firm foundation for building democratic participation.

An early voting law is one idea that legislators and policy organizations have considered for Missouri. A
collaborative approach for such a policy may have a chance given the history of voter suppression and civil rights in Missouri. That history seemed to play a role in a recent order issued by the Circuit Court of Cole County, Missouri. In *Priorities USA v. State of Missouri*, the plaintiffs challenged the constitutionality of a 2016 law requiring Missouri voters to show photo identification at the polls or to sign an affidavit and present a form of non-photo identification. The amended order prevents the state from requiring voters to sign a sworn statement if they opt for a non-photo ID and from disseminating materials representing that photo identification is required to vote; poll workers are not permitted to ask voters to show a photo Identification. Other cases may have additional implications for the 2016 law and for voters’ access to polls.\(^{19}\)

Another way to reduce obstacles to voting is to change the rule on absentee voting, allowing for permanency rather than an annual request. Legislators have explored the policy in the past. Currently, there is an application process to vote absentee. To be eligible for an absentee ballot, voters must be (a) absent on Election Day from the jurisdiction of the election authority in which such voter is registered to vote; (b) be incapacitated or under confinement due to illness or physical disability, religious belief, or practice; (c) be employed as an election authority, as a member of an election authority, or by an election authority at a location other than such voter’s polling place; (d) be incarcerated; (e) be able to meet all voter qualifications; and (f) be certified as a participant in the address confidentiality program.

A change to a no-excuse, permanent absentee-voting policy would allow voters flexibility, decrease barriers to voting for persons with disabilities, and reduce transportation problems associated with voting.

**Conclusion**

The data and analyses in this brief document incomplete democracy in St. Louis City and St. Louis County. Although the national picture is much the same, this provides no excuse or comfort for our local area. Democracy is practiced locally, and we have work to do.

To summarize the challenge, maintaining a strong democracy is the responsibility of every citizen because democracy thrives when it is practiced and not prevented.\(^{20}\) And a stable democracy means “politics (citizenship) as a way of living: an expected element of one’s life.”\(^{21}\)

The Voter Access and Engagement project will review results from the 2018 midterm election and examine their implications in a future report. The project also will suggest positive steps for building stronger participation and democratic inclusion.

**Notes**

3. The estimate of registered voters is based on the total population of eligible voters (18 years and older).
5. The City of St. Louis and the surrounding St. Louis County have been geographically and politically distinct entities since 1876. Elections and voter registration are managed in the city by the St. Louis Board of Election Commissioners and in the county by the St. Louis County Board of Election Commissioners.
9. U.S. Census Bureau (2015b). The voter turnout rate is the percentage of voters out of the total population.
14. In this brief, *St. Louis region* refers collectively to the studied zip codes within the City of St. Louis and St. Louis County. The term *greater St. Louis metropolitan area* refers collectively to lands within the City of St. Louis and the seven counties surrounding the city.
16. U.S. Census Bureau (n.d.). Zip code–level data are the lowest geographic level for which we could aggregate the voting data, and we use data from 2014 because we look at participation in the last midterm election.

**References**


U.S. Census Bureau. (2017). *Reported voting and registration, by race, Hispanic origin, sex, and age for

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