

Sociogeographic Voter Turnout Disparities and Public Health in Kansas City, Missouri

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Abstract

Politics should be included in the academic and community discussion of spatial disparity. Poverty, healthcare, and access to transportation are frequent metrics when comparing geographic social advantage, but politics is almost always absent. Is it possible that political participation has an effect on the socioeconomic status or wellbeing of a community? Using voter turnout data from the Kansas City Election Board in all 37 elections in Kansas City, Missouri since 2000 and Census data, we can determine there is a statistically significant relationship between geography and voter turnout. Geographic variation in voter turnout can be reliably predicted using socioeconomic status – income, poverty, race, and disability. Furthermore, using Missouri Department of Health and Senior Services zip-code level mortality data, we can calculate life expectancy. We can then tentatively make the claim that voter turnout has a statistically significant lagged relationship with life expectancy. This can imply that voting results in long-term health benefits for a community.

Introduction

America is deeply divided. By race, by class, by political affiliation, people seem to be insulated within their own ‘bubbles’. These bubbles are not just abstract concepts, but can be visualized and mapped. Many American cities are hypersegregated, with areas almost exclusively occupied by individuals of the same race, class, and creed. There is a strong relationship between socioeconomic status and geography. Where you live and grow up determines many of the opportunities you have in life. But also your status can determine where you can live. In this sense, there is great sociogeographic disparity in the United States.

But why does this disparity exist? Surely civil society can recognize that issues of concentrated poverty, food deserts, and violent crime are public bads, worthy of social and government intervention. In many ‘bad areas’ of cities, there is a pervasive feeling that government has abandoned them. These feelings are reflected in reality – governments and institutions have disinvested from urban cores – leaving many neighborhoods in a state of distress and decline.

In Kansas City, Troost Avenue is a major dividing line for race, class, and education (O'Higgins, 2014). Historically, Troost served as a legal racial dividing line, confining Blacks to east of Troost. But even after the de jure end of segregation, the demographic character on each side of Troost has remained relatively static. Geography is a strong predictor of an individual's relationship with institutions. Living east of Troost makes many aspects of life more difficult, like receiving a bank loan, financing on a new car, or even to something as mundane as access to pizza delivery (Colby, 2013). Institutional disinvestment here contributes to a vicious cycle; institutions cite the risk of offering goods and services in underdeveloped areas, themselves contributing to the lack of development.

But how should these problems be addressed? Government and politics are intended as a method of group problem-solving. The US Constitution, in its first line, cites the role of government to “establish justice, domestic tranquility, providing for the common defense, promote the general welfare, and secure the blessings of liberty.” Theoretically, American government represents all citizens equally, ensuring the equal distribution of rights and services to all Americans. The public sector allocates trillions of dollars, roughly a fifth of the entire US economy, to a variety of competing policy priorities (“State & Local Government”, 2016).

A main component to prioritizing certain policy objectives and to agenda setting is citizen interest. Fundamental to determining citizen interests and how to distribute limited resources is the electoral process. US citizens vote for representatives in federal, state, and local government. These representatives have significant influence over the administration of resources. The significance of the electoral process underscores the importance of equitable political access and participation. Given the interaction of politics with every facet of society, it should be common sense that inequitable political access has an indirect impact on established public health factors like poverty, segregation, and transportation. This research will be important in more thoroughly understanding the complex interplay and relationship between political participation, social advantage, and public health.

This topic is important to study, because it could add greater gravity to efforts to expand political engagement and voter turnout. It could also attract greater resources and attention to understanding how voting impacts an entire local community. This research could motivate people to become more politically active; if voting is understood to impact neighborhood health, people may be incentivized to engage in political participation. It could also motivate public health professionals and other community leaders to more closely examine how the health, well-

being, and socioeconomic status of a community are influenced by politics. Furthermore, this research can create stronger interdisciplinary linkages between political science and other disciplines by highlighting the wide-reaching impact of politics. Furthermore, as a pedagogical model, this research forefronts the importance of political engagement particularly in a local and neighborhood context. American politics are far too frequently conceptualized at the national level, contributing to only an abstract understanding of political participation. Understanding the neighborhood and community consequence of politics may motivate previously disillusioned citizens.

Literature Summary

Critical to understanding the relationship between politics and public health is the concept of social capital. Social capital generally refers to the levels of trust and cooperation in a community, measuring how much people are motivated by the public good (Szreter and Woolcock, 2004). There is substantial literature establishing a positive relationship between social capital and health. d’Hombres et al. finds that countries which have large numbers of individuals who agree with the statement, “most people can be trusted,” and who do not feel alone have substantially higher self-reported health (2010). Along with those two metrics of trust and social isolation, d’Hombres et al. also measure membership in community organizations. They find that organizational membership is more difficult and has a less explicit impact on health. Important to recognize is that organizational membership is a potential metric of linking social capital, helping to explain why the mechanism here is less visible. Kumar et al. agrees that there is a relationship between social capital and health (2012). Kumar et al. measures social capital using volunteering rates and self-reported access to support from relatives and friends.

They find that both of these are positively correlated with better self-reported health in 139 different nations.

Szreter and Woolcock aim to better define the specific mechanism of social capital and public health (2004). They note an explosive usage of the term ‘social capital’, but each with its own significant variations in methodological determination and underspecification. Szreter and Woolcock provide clarity to these discussions by dividing social capital into three different categories – bonding, bridging, and linking (2004). Bonding social capital refers to trust and cooperative relationships between members within a group. Bridging refers to trust and cooperative relationships between different groups. Linking social capital refers to trust and cooperative relationships “between people who are interacting across explicit, formal or institutionalized power or authority gradients in society” (Szreter and Woolcock, 2004, p.655). Linking is distinct from bridging in that bridging is often between two groups that are relatively equal in power. An example of bridging would be businessmen from two different nations exchanging business cards. An example of linking would be poor people getting access to formal institutions, like banks, police, government, and health care. Bonding, bridging, and linking social capital can be rephrased as intrasociety relations, intersociety relations, and state-society relations. Szreter and Woolcock contend that having too much of one form of social capital can be detrimental, because it can be used for special interests, instead of the collective good (2004). High quantities of all three kinds of social capital would enable active dialogue and negotiation to resolve conflicts and promote balanced development. Distinctions between bonding, bridging, and linking social capital can explain different mechanisms for the relationship between social capital and health. Two are usually identified; one being the socio-psychological, the feeling of social isolation or alienation. The other is material living conditions created by political

conditions. Improving public health requires both mechanisms; marginalized peoples must have access to healthcare and know how to utilize that healthcare.

While much of the social capital literature excludes ‘linking social capital’, there is a wealth of other literature exploring the topic. Kim, Kim, & You (2015) study the relationship between civic participation and health, which can serve as a proxy for linking social capital. They divide civic participation between voting as conventional participation and all other civic activities as non-conventional participation. Kim, Kim, & You (2015) find that individuals with high levels of civic participation reported better health. Reitan (2003) concurs; Reitan finds that regions of Russia with high life expectancies tended to have high voter turnout rates and regions with high voter turnout rates tended to have high life expectancies. Furthermore, Kim, Kim, & You found that public health spending and political participation were better indicators of self-reported health than material wealth and freedom (2015). This implies that socioeconomic and institutional variables have a ceiling as far as their impact on personal health, after a certain level of affluence, it is most important for states to spend on public health and political engagement. This implies that linking social capital may be one of the most important determinants of health in developed countries.

So it is well established that there is some sort of relationship between all the kinds of social capital and health. Bender et al. (2015) finds that both frequent socialization and high voter turnout have a significant positive relationship with participation in general health checkups. But the direction of this relationship is still unclear. Atkinson and Fowler (2011) point out that all of these studies establish a noncausal relationship – does social capital cause voting or the other way around? By studying Mexican Saint’s Day Fiestas and municipal turnout, Atkinson and Fowler find that Mexican cities which hosted Fiestas close to an election had lower

voter turnout (2011). This implies that increases in social capital aren't followed by higher political participation and that social capital can have a negative impact on voting, by fulfilling a citizen's civic duty (Atkinson and Fowler, 2011). The implication here is that if a relationship between voting and social capital is well established, then disproving one of the causal directions makes the other direction likelier by process of elimination. If social capital increases don't increase voting, then voting might increase social capital.

This is why a renewed emphasis on the concept of linking social capital is so important. Voting increases linking social capital, by promoting better representation and distribution of resources. Hajnal and Trounstine contend that disparities in voter turnout by race and class have significant electoral outcomes in determining representation (2005). They find that lower voter turnout in Latinos and Asians contributes to "systematic underrepresentation on local governing bodies" (Hajnal and Trounstine, 2005). Lack of representation then has influence on determining the distribution of public goods, indicating that racial turnout disparities result in inequitable government investment and service. Blakely, Kennedy, & Kawachi (2001) also discuss the importance of linking social capital. They argue that, at the very least, political institutions can mitigate the mechanisms which impose poor health outcomes in poor communities. They contend that "disparities in political participation across socioeconomic groups ... translates into policies that are detrimental to health" (Blakely et al., 2001). The authors examine the impact of socioeconomic voting inequality; the bigger the gap in voter turnout rates between the rich and the poor, the greater the socioeconomic voting inequality. People who lived in states with high socioeconomic voting inequality would be 43% more likely to report poor health (Blakely et al., 2001). After controlling for income inequality and median income, that number dropped to 27% (Blakely et al., 2001). This means that voting inequality, independent of income inequality and

economic status, has a significant negative health impact by changing the policy priorities of governments. This seems to be the operating mechanism connecting linking social capital and public health.

All of this fits within a rational choice theory of political economy. A quick search through the literature identifies at least two mechanisms connecting voter turnout and policymaking, both related to rent-seeking behavior. Rent-seeking individuals seek to increase their share of a limited resource. They seek to increase their slice of the pie, without increasing the total size. Aldashev (2004) finds that lower voter turnout reduces the accountability of politicians, allowing them to siphon off funds and resources for their own political benefit as opposed to the public good. Essentially, higher voter turnout checks the temptation of politicians and bureaucrats to misuse public resources. If certain segments of the population are underrepresented in the electorate, elected officials will have less political incentive to cater to their interests. Stratmann & Okolski (2010) find that higher voter turnout is associated with increased government spending, both totally and per capita. The implication here is that voters are motivated by rent-seeking, that if they vote they can secure a larger slice of the pie. Government resources are allocated primarily to who is politically active.

Argument

As discussed in the literature review, Szreter and Woolcock (2004) provide a theoretical framework to conceptualize social capital as either bonding, bridging, or linking. They further use this framework to theorize that improving social capital in a community can help mitigate negative health outcomes related to poor socioeconomic status. If people are bonded, they can find comfort within their own communities. If people are bridged, they can avoid conflicts with other communities. And if people are linked, they can receive greater assistance and support

from government services. All of these forms of social support should manifest themselves in public health outcomes, measured by life expectancy. However, most studies of social capital have not been specific about which kind of social capital they are studying.

Additionally, there has been little empirical study of the relationship between linking social capital and health factors. Interesting takeaways from political science, environmental justice, and disaster studies can be used to inform this relationship and further studies. Voter turnout, as a measure of linking social capital, produces life expectancy gains by improving sociopolitical resources. Hajnal and Trounstein contend that disparities in voter turnout by race and class have significant electoral outcomes in determining representation, which has an impact on policy outcomes (2005). Blakely et al., 2001 find that disparities in political participation translates into policy outcomes detrimental for public health. Furthermore, Aldrich (2008) finds that communities with low levels of social capital are targeted by businesses and governments for siting of hazardous industrial facilities, because they are less able to resist. Aldrich (2016) establishes that linking social capital was the strongest determinant of recovery in Japanese municipalities following the 2011 earthquake and tsunami, because they were able to secure more recovery aid and assistance. Similarly, Aldrich (2012) finds that communities in New Orleans which had higher voter turnout had substantially quicker recovery in the aftermath of Hurricane Katrina.

This thesis will explore two hypotheses. The first hypothesis is that there is significant sociogeographic disparity in political participation, measured by voter turnout. The second hypothesis is that this disparity has a negative impact on public health. Under this hypothesis, we should expect that zip codes with consistently higher voter turnout will also have higher life expectancy. We should also expect there to be a lagged effect – so voter turnout from several

years ago would have a stronger relationship to present day health than recent elections. Aldrich (2012) uses a methodology very similar to what this thesis will use to expand on all of this literature. Aldrich took precinct voting data from the 2004 Presidential Election and overlaid it over New Orleans zip codes to establish the relationship between linking social capital and disaster recovery. The remainder of this thesis will use a similar methodology, exploring Kansas City ward-level voter turnout data in forty elections since 2000 and tying this with zip code life expectancy data. This builds on the previously established literature in a few ways. First, it's longitudinal, meaning there can be more precision in studying changes in linking social capital, measured by voter turnout, over time. Forty datasets from the same locality over time allows for a variety of context-specific factors to be controlled. Additionally, this method uses life expectancy as the metric of well-being and socioeconomic status. The metric of life expectancy acknowledges that there are a variety of different mechanisms at play between linking social capital and socioeconomic status, but all of them should present in life expectancy. This methodology empirically tests the theory of Szreter and Woolcock (2004), while uniting a host of other tangentially related studies from multiple disciplines.

Research Design

This thesis utilized voter turnout data, provided by the Kansas City Election Board, from 37 city-wide Kansas City elections since 2000. These elections range from presidential general elections, to gubernatorial primary elections, to school district elections, and even to specific ballot initiatives. One election was excluded due to the difficulty associated with extracting workable data from the published election canvass. This data was used to establish historical voter turnout trends in all 24 Kansas City, Missouri voting wards. With records from 24 wards

over 37 elections, this makes for a total of 888 data points establishing geographic voting trends within Kansas City.

Since only voting data is collected by voting district, the voter data was converted into different geographic units. The 2010 US Census contains data allowing for the conversion of voting districts into census tracts¹. Since the smallest geographic unit requestable for life expectancy is by zip code, Census Tract-adjusted voting data was then converted into zip code voting data. This was accomplished using conversion data from the Department of Housing and Urban Development Crosswalk files to apply Census data to Postal Service geographies (zip codes). Using these files, we can convert between Census Tract and zip code².

The first hypothesis, that there is significant sociogeographic disparity in political participation was examined by coding Kansas City zip codes by socioeconomic status – specifically, using metrics of median household income, poverty rates, disability rate, and the percentage of the population racially identifying as White. If there is sociogeographic disparity in political participation, we should expect that voter turnout rates vary by zip code and that those variations remain relatively consistent. We should expect that zip codes which have relatively low voter turnout should also be zip codes with low levels of income, high levels of poverty, low levels of education, high levels of disability, and a greater nonwhite share of the population.

¹ For example, there are ten census tracts which populate Kansas City's first ward. In April 2010, the total adult population of the first ward was 14,572. The Census determines how many people from each tract contributes to that total population; for instance, 1,651 of those 14,572 specifically reside in Census Tract 11. Using that information, we can determine the adult population share of each voting ward – so 11.3% of Ward 1 lives in Tract 11. This number is then multiplied by the total number of votes and registered voters in the ward to convert voting data into census tract geographies. In April 2010, there were 11,877 registered voters and 832 ballots cast in Ward 1. Since 11.3% of the adult population in Ward 1 comes from Tract 11, we can assume that roughly 11.3% of the votes came from Tract 11. So multiplying those numbers by .113, we get the number of registered voters in Ward 1 and Tract 11 at 1345.7 and the number of votes at 94.2. Unfortunately, population statistics for voting districts isn't available outside of the 2010 Census, so the adult population ratio is assumed to be constant over time. In this fashion, this model doesn't account for age-based demographic changes, but even if these calculations aren't absolutely precise there is no apparent alternative and they should still demonstrate relative disparity in political participation.

² For example, 64% of residences in the 64123 zip code come from Census Tract 11. Multiplying the voting data for Census Tract 11 by .64 should convert it into zip code-level voting data. So 64% of the ~86 ballots cast in Tract 11 in April 2010 originate in 64123 and the remaining 36% originate in 64124. So we can calculate that of the ~86 ballots cast, 55 came from 64123 and 31 came from 64124. Aggregating all this data, we get the total estimated number of registered voters and ballots cast in each Kansas City zip code.

Voter turnout varies dramatically based on election type. The more local an election is, the lower the turnout. Presidential elections have the highest voter turnout and local elections have the lowest voter turnout. Furthermore, there are variations within locality. So, mayoral elections generally have higher voter turnout than ballot questions or school district elections. To account for this variation, voter turnout levels were displayed as a percentage of the voter turnout rate across Kansas City that election. For example, in the November 2007 special election, zip code 64113 had a voter turnout rate of 22.32% and 64149 had 7.35%. The Kansas City voter turnout rate was 11.97%, meaning that 64113 and 64149 had a city-adjusted voter turnout rate of 186.59% and 61.44% respectively. This shows that 64113 had nearly double the city's voter turnout rate and 64149 had almost half the city's voter turnout rate. So the first hypothesis would be supported if zip code 64113 consistently overperformed over other zip codes and the city average, effectively resulting in that zip code being better represented.

The second hypothesis was tested by correlating sociogeographic voter turnout disparities with zip-code level life expectancy over time. Zip-code life expectancy over time was calculated using the Sub-County Assessment of Life Expectancy Project Guide. Mortality data, organized by age group and zip code, provided by the Missouri Department of Health and Senior Services, was reconciled with Census age group population estimates in each zip code. Given the difficulties in precisely determining life expectancy on a small enough locality like zip code, data from multiple years was strung together. So life expectancy by zip code was ordered into three sets: 2001-2005, 2006-2010, and 2011-2015. Using this data, we can track changes in life expectancy over time in each zip code.

We can then perform statistical analyses to calculate the zip code-level relationship between Voter Turnout Share and Life Expectancy. If the second hypothesis is true, zip codes

with high voter turnout will also have positive life outcomes. Additionally, the longitudinal collection of the voter turnout and life expectancy data enabled a more causal analysis. If voting has an impact on life outcomes, the effect is likely lagged. It takes time for institutional linkages to form between political institutions and their constituents; elected officials do not immediately know all of their constituents needs and political action is likely even further delayed. If this is true, substantial voter turnout in a given Kansas City zip code will only pay dividends months or years down the road. There is likely a lagged relationship between voting and life outcomes. If this is false it would indicate that voting, as an action, is less important than being a voter, as a person. This research design will help answer whether voting is consequential, or if people who vote also tend to be active and healthy citizens.

Findings

There is significant variation in voter turnout rates across Kansas City zip codes. As figures 1 and 2 indicate, there is substantial variation in geographic voter turnout. In some elections, like in the April 2012 election, there is only a 2% difference between the highest and lowest turnout zip codes. However, in other elections, variation between zip codes can exceed 30%. All in all, there is an average 18% range between the highest and lowest turnout zip codes in Kansas City.

This analysis is robust after displaying turnout as a percentage of the Kansas City-wide voter turnout numbers in each election. Adjusting voter turnout numbers to the City average is useful, because it helps to eliminate turnout fluctuations due to electoral type. The more local the election, the lower the turnout. Showing turnout as a percentage of the city average helps to correct this bias in the data. After performing the adjustment, the average maximum voter turnout in a given zip code was 48.7% over the city average, while the average minimum was

62.0% of the city average, making the average range a whopping 86.7%. This means that in a given Kansas City election, the highest voting zip code will have almost double the voter turnout as the lowest voting zip code.

This variation between zip codes results in substantial misrepresentation in elections. This is because overperforming zip codes tend to continue to overperform and underperforming zip codes continue to underperform. Essentially, a zip code's voter turnout in a given election is a strong predictor of past and future voter turnout in that zip code. The zip code 64113 has had the highest voter turnout rate in 24 of 37 elections, roughly 2/3 of the time. Conversely, zip code 64126 had the lowest voter turnout rate in 26 of 36 elections, 72% of the time. This political participation gap can be troublesome, because if voting has electoral and/or political consequence, then political resources are being overly concentrated in select areas of Kansas City, Missouri.

Additionally, these zip codes are in the most need of greater political assistance. In Kansas City zip codes, median household income and whiteness is positively correlated with voter turnout while disability and poverty rates are negatively correlated with voter turnout. These relationships are all statistically significant and relatively consistent across all four election types, meaning whether an election is for the President or for the school board, the predictive power of socioeconomic status on voter turnout is approximately equal (Figure 8). Zip code 64113, which had the highest voter turnout in 64.8% of elections, is 94.7% White, has a high school graduate rate of 99.4%, possesses a poverty rate of 0.8%, and has a massive median household income of \$117,431. Conversely, zip code 64126, which had the lowest voter turnout in 72% of elections, is 48.2% White, has a high school graduate rate of 58.6%, a poverty rate of 35.5%, and a median household income of \$23,800. An identified statistical relationship between

these indicators of socioeconomic status and voter turnout in Kansas City zip codes establishes significant support for the first hypothesis, that there is sociogeographic disparity in political participation. There is variation in voter turnout between zip codes. These variations are persistent, chronic, and consistent. Furthermore, these variations can be, at least partially, predicted or explained using metrics of socioeconomic status.

In addition to the first hypothesis, evidence was found supporting the second hypothesis. Voter turnout has a statistically significant relationship with life expectancy, even after controlling for poverty and race (Figure 9). Furthermore, voter turnout has a more significant relationship with life expectancy when lagged. Voter turnout from 2000-2005 has a stronger relationship with life expectancy from 2011-2015 rather than life expectancy from 2000-2005 (Figure 9). However, no variable maintains statistical significance when including the disability rate in a zip code. This is likely because disability status both overwhelms and is related to all other factors. A person with a disability is also likely to be impoverished, less likely to vote, etc. Also, disability status is more directly related to health, whereas other social determinants operate more indirectly on health. Even though this is the case, it is still significant that voter turnout has a significant lagged relationship with life expectancy when compared to poverty and race. Additionally, there are limits to performing a linear regression analysis. Since voter turnout, poverty, and race are all strongly interrelated with one another, there is likely a much more complex nonlinear relationship at play here.

Furthermore, there were several methodological difficulties in performing this study. There was room for error in the automated translation of Kansas City Election Board voting data from their original PDFs to Excel. Furthermore, there was room for error in the manual parsing of that data. Additionally, precision was lost in looking at voting data from the ward level,

instead of from the precinct level. Smaller geographic units to start with would have made conversions into census tract and zip code much more accurate. The conversions of voting data from wards into census tracts and then into zip codes was rough. These conversions assume static geographic boundaries over time, something not true for census tracts or zip codes.

There are also concerns with the life expectancy data. Life expectancy is not regularly publicly published below the county level, because that data is potentially identifiable and because of issues working with small numbers. There is an entire academic conference dedicated to tackling the issue of calculating sub-county life expectancy. When working with geographic units this small, there is inherently going to be some level of unreliability with calculating life expectancy figures. In order to mitigate this unreliability, life expectancy was calculated over five year periods. However this has the consequence of leaving only three time periods for analysis in conjunction with the voting data. Since this thesis explores a lagged relationship between voting and life expectancy and since these three time periods are concurrent with the voting data, that effectively leaves only two time periods which can be used for analysis. Since the Kansas City Election Board publishes election data back to 1989, there is potential for the scope of data to be expanded to a total of seven five-year periods, instead of the three in this study.

These methodological difficulties reflect the lack of attention and focus given to political geography. Zip codes, census tracts, counties, and states all have a host of data published for their geographic units. The data available for voting districts is scant. More data published by voting district or a more precise method to convert voting district data into other more commonly studied geographic units would do wonders for future research on political geography.

Aside from methodological difficulties, there's always the possibility that these results are not replicable outside of Kansas City, Missouri. It's possible that voter turnout disparities are only present in Kansas City, or are only present in cities, or are only present in the Midwest, or in any number of geographic unites. This highlights new avenues for research, replicating this research in other cities or even expanding the scope of research to study and compare multiple geographies.

Conclusion

America is deeply divided. Metrics and discourse of spatial disparity include concepts like food deserts, segregation, or concentrated poverty. But this research indicates there is also such a concept as a political desert. Certain areas of Kansas City consistently have significantly reduced voter turnout compared to their 'better off' peers. This results in the disproportionate concentration of political resources and institutional investment in select geographies. This alone is of great significance to the efficacy of civil society and existing methods of institutional participation. Furthermore, there are many implications which arise from a statistically significant and lagged relationship between voter turnout and life expectancy, even after controlling for poverty and race. A lagged significant relationship between voter turnout and life expectancy could imply that voting has an effect on health outcomes. This is potentially because voting results in politicians more responsibly distributing government funds and resources.

However tempting it is to declare a causal relationship between voting and health outcomes, this has not been accomplished. There were a host of methodological concerns in conducting this study. Some of them were due to the relative inexperience of the author and some were due to inherent barriers studying at this level of locality. Either way, the data and analysis are not smooth or unclean. To aid in future research, cities, counties, and states ought to

make data more accessible. In light of the open data movement, it's surprising that something so simple as local voter turnout or life expectancy was so difficult to compile and work with.

Neighborhoods and communities need access to data to make informed and effective decisions.

Methodological difficulties do not mean this thesis was worthless. This uncertainty, in the context of the findings, should provide an impetus towards additional inquiry and research.

Methodological problems are puzzles to solve and do not necessarily constitute insurmountable challenges. Even without changing the initial datasets, there is much opportunity in more constructive data manipulation techniques to perform geographic conversion. There is much to learn from additional study into neighborhood-level political participation. Specifically, an expansion of this thesis, with a more watertight methodology, has great potential in bringing new insights and knowledge to political science, public health, and a litany of other disciplines.

Research ought to be directed more locally. The vast bulk of political science research is on the national or state level, but those levels can mask significant geographic disparities in political participation. There is a pervasive feeling that everyday people are divorced from politics. In an ideal democracy, this should be exactly the opposite. Perhaps part of the problem is that political writing and research is almost exclusively conceptualized at 'higher' levels of government. This exclusive focus does a disservice to informing citizens about school board and municipal politics, which are potentially more consequential and which citizens have a greater ability to influence. Even if additional research doesn't explore the relationship between zip code voter turnout and life expectancy, there is still a need to explore and conceptualize politics at the neighborhood level.

Neighborhoods and communities are in as much need as ever. Yet many communities have been abandoned and disinvested from. Government is intended to be these communities'

outlet, but some voices are overpowering others. If these divisions are not addressed, society will continue to fracture. The existence of sociogeographic disparity in political participation means there is much work to do in cutting the noise and forging a more equitable politics.

Figures

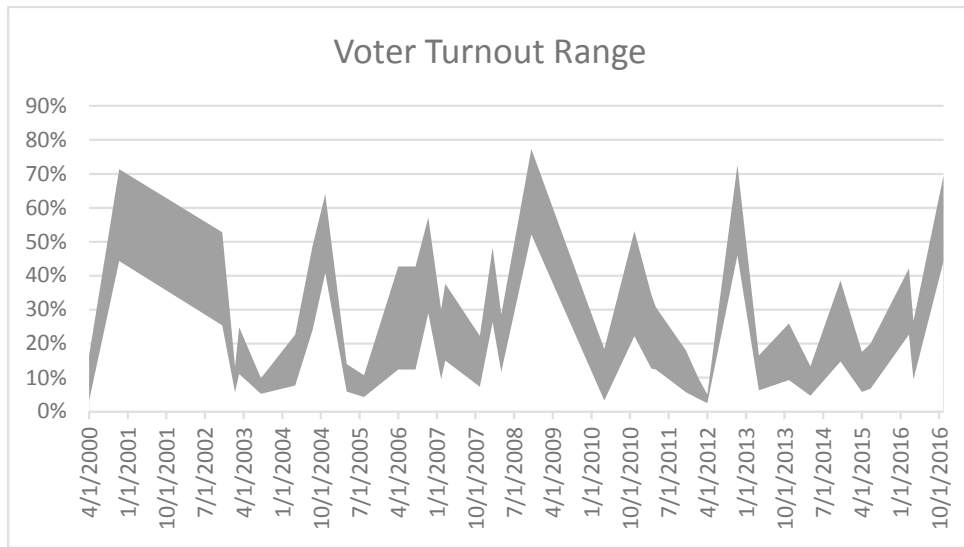


Figure 1. Total range of Kansas City zip code voter turnout over time.

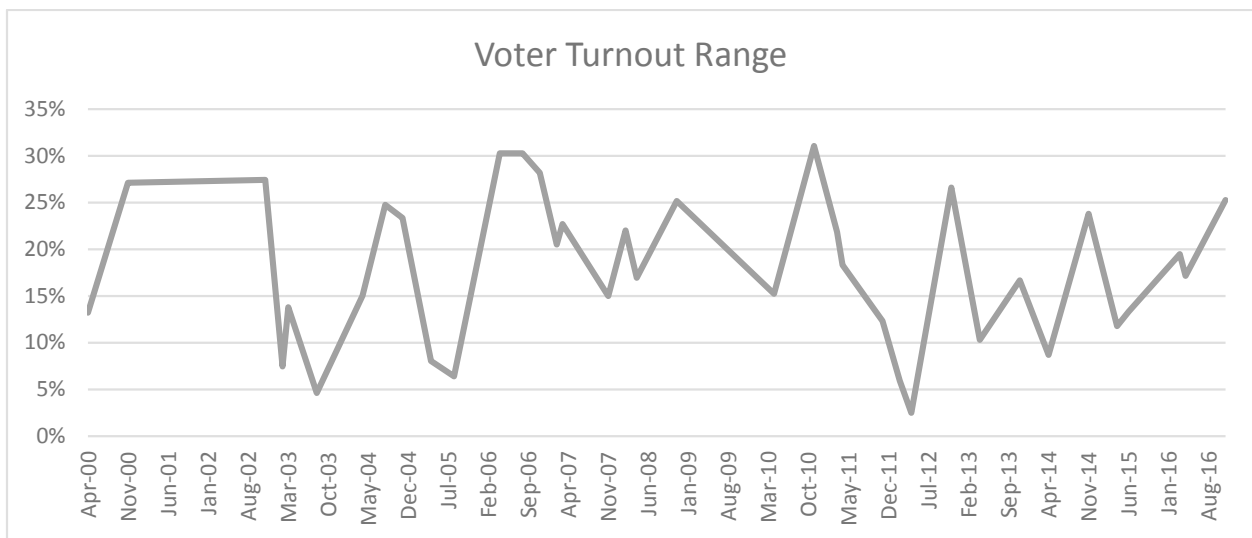


Figure 2. Gap between highest and lowest turnout zip code over time in Kansas City, MO.

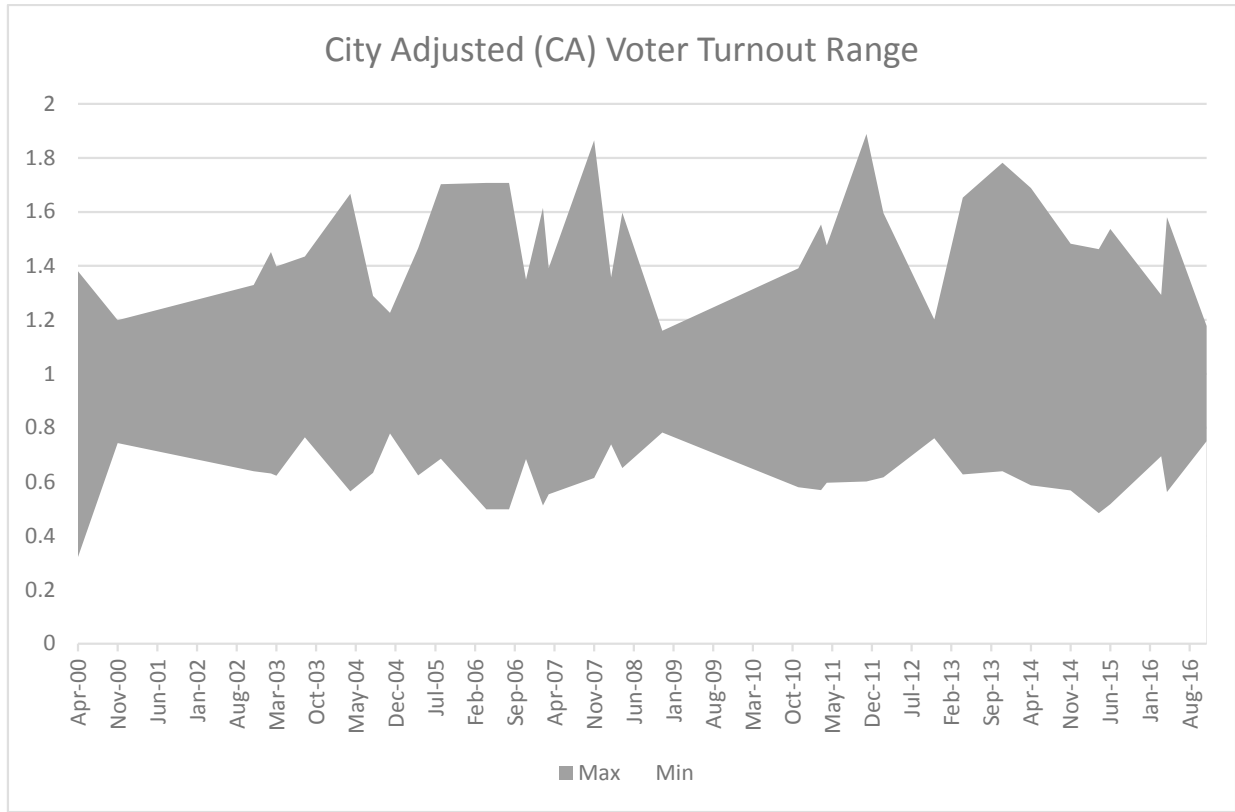


Figure 3. Total range of CA zip code voter turnout over time

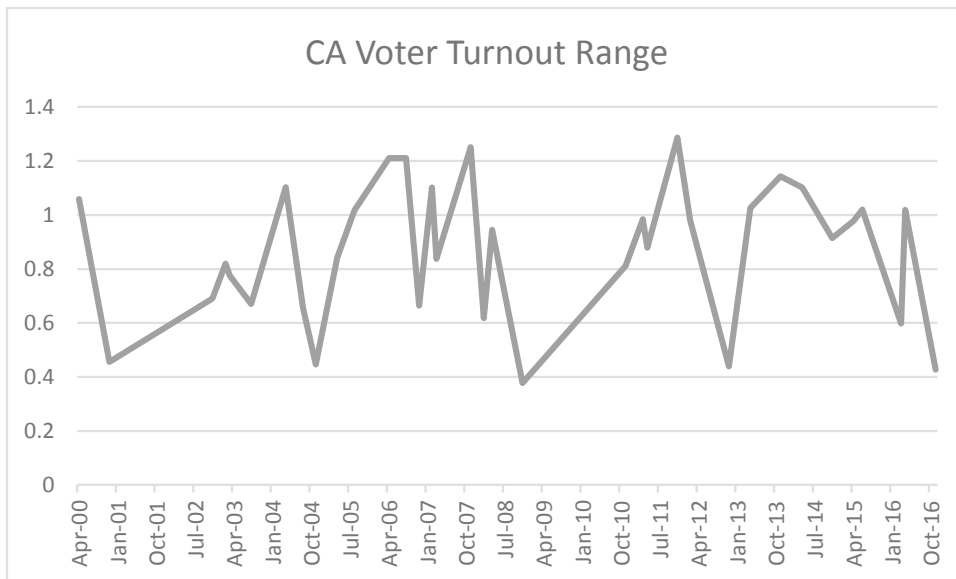


Figure 4. Gap between highest and lowest CA turnout zip codes over time

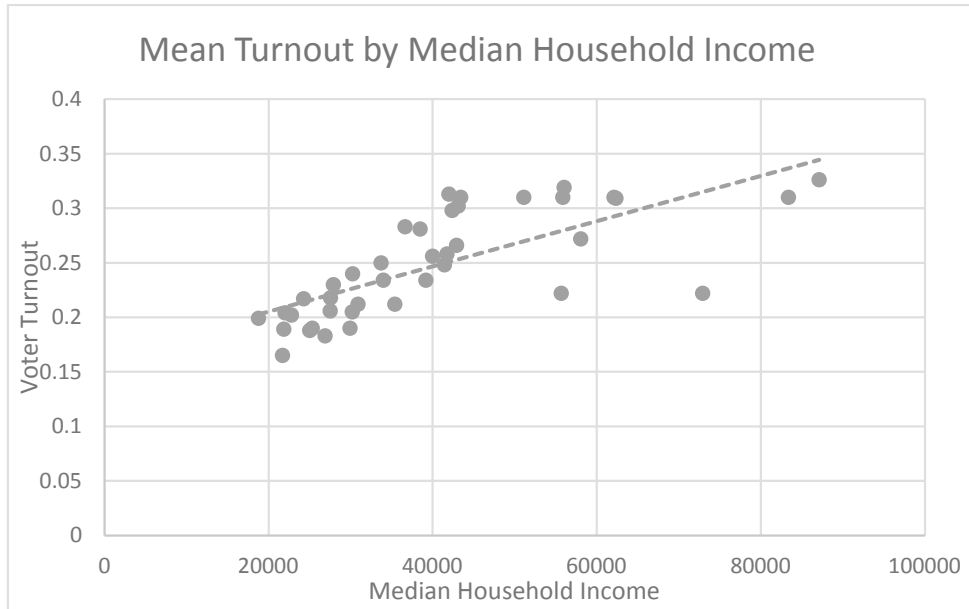


Figure 5. Voter Turnout by Median Household Income in Kansas City, Missouri zip codes

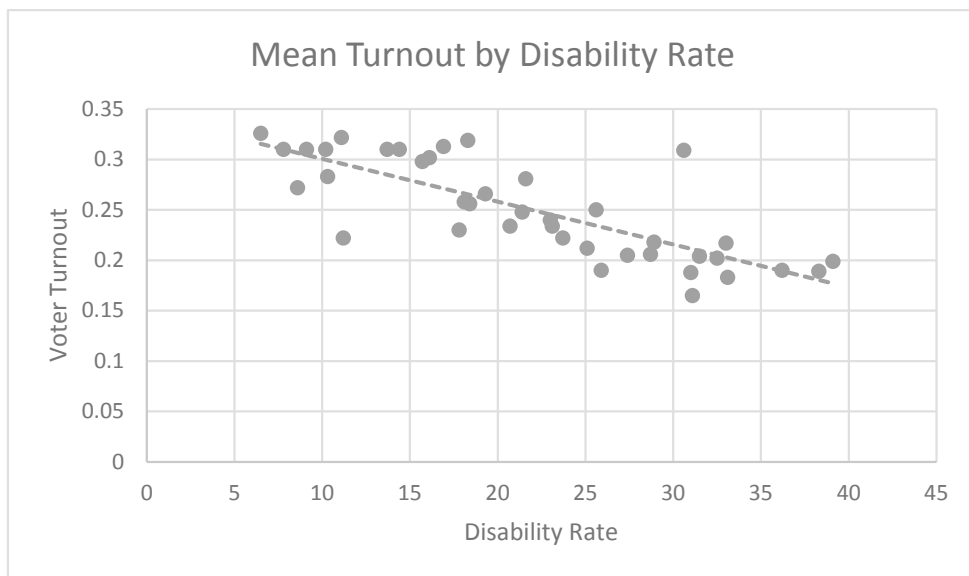


Figure 6. Voter Turnout by the adult nonelderly noninstitutionalized disability rate in Kansas City, Missouri zip codes

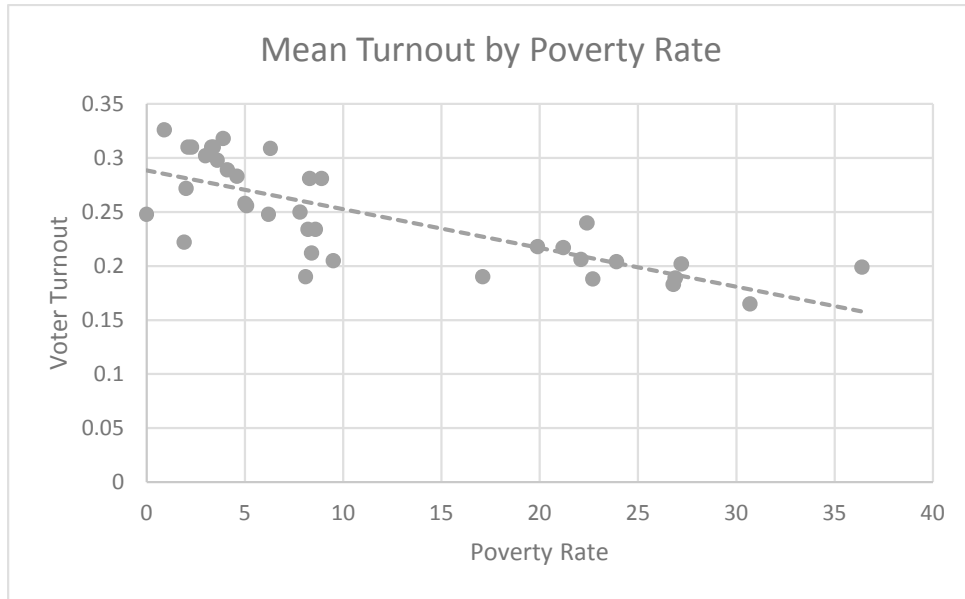


Figure 7. Voter Turnout by poverty rate in Kansas City, Missouri zip codes

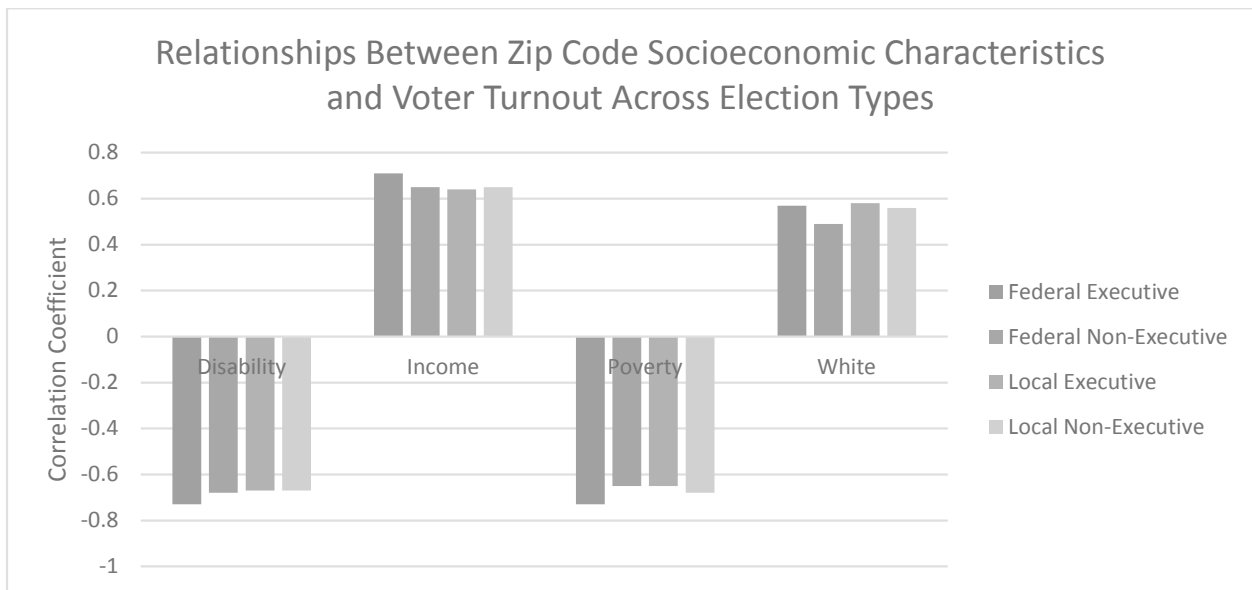


Figure 8. Statistical relationships between zip code disability, income, poverty, and whiteness rates with voter turnout across election types

VARIABLES	(1) Life Expectancy 2011	(2) Life Expectancy 2011	(3) Life Expectancy 2011	(4) Life Expectancy 2006	(5) Life Expectancy 2006	(6) Life Expectancy 2000
Poverty %	-0.017265 (0.093)	-0.026688 (0.095)	-0.043035 (0.094)	-0.145968 (0.092)	-0.159344* (0.093)	-0.090495 (0.078)
White %	0.037072 (0.028)	0.028896 (0.028)	0.039148 (0.028)	0.037132 (0.027)	0.032052 (0.028)	0.044643* (0.023)
turnout00_05	7.907182** (3.734)			5.504313 (3.667)		6.379584** (3.115)
turnout06_10		6.589848* (3.457)			4.150195 (3.393)	
turnout11_15			4.207516* (2.487)			
Constant	66.032062* ** (5.094)	67.849795* ** (4.715)	69.488215* ** (4.348)	69.752997* ** (5.003)	71.509319* ** (4.628)	67.278093*** (4.249)
Observations	38	38	38	38	38	38
R-squared	0.445	0.433	0.421	0.591	0.582	0.639

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Figure 9. Regression Analysis

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