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The Evolution of Partisan Voting at the County Level in Georgia, Ohio, and Texas, 1990-2016

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Abstract

This paper evaluates aggregate-level partisan change in presidential and midterm elections at the county level in Georgia, Ohio, and Texas. Specifically, this analysis focuses on how demographic, electoral, cultural, and economic variables affect the percentage of the electorate voting for the Democratic Party candidates for U.S. President and other statewide offices from 1990 through 2016. In addition, this study conducts sub-state regional analyses using U.S. Census Metropolitan Statistical Areas (MSAs) to assess the local nature of partisan change in the U.S. OLS regression and correlation coefficients, as well as difference of means test results indicate that increases in population density over time and the presence of a county in a large U.S. Census MSA of one million people or more increases average Democratic Party vote percentages. Moreover, increases in the African American population in counties is an important positive factor for Democratic Party average vote percentages. On the other hand, increases in median age and median household income decrease Democratic Party vote percentages. Since 1990, there has been a substantial erosion of Democratic Party support across counties outside of MSAs, particularly in midterm elections. Overall, the results illustrate the growing urban/suburban and rural partisan divide in the U.S. at the county level.

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The Evolution of Partisan Voting at the County Level in Georgia, Ohio, and Texas, 1990-2016

I. Introduction

The 2016 presidential election illustrated the growing divide between urban and rural America. Rural counties across the country voted overwhelmingly for Republican Donald Trump, while central city and highly educated suburban counties shifted to the Democrats. This paper evaluates the extent and causes of county-level partisan change in presidential and midterm elections in the states of Georgia, Ohio, and Texas from the 1990 midterm elections through the 2016 presidential election cycle. The focus is on analyzing aggregate county-level voting behavior in each of the three states and in sub-state urban regions. This paper assesses how demographic, electoral, cultural, and economic factors explain changes in Democratic Party vote percentages at the county level over time.

The study of partisan change and realignment has been an important part of the literature on U.S. elections and electoral behavior since the seminal works of V. O. Key (1955; 1959) in the 1950s. According to Bullock, Hoffman, and Gaddie (2006, p. 497),

[R]ealignment is a dramatic change in the partisan expressions of constituencies and communities. The change is long lasting. It can occur suddenly, as with a critical realignment, or over time in a secular realignment. Realignment is not necessarily a change in the actual partisan identification of individuals, but of the composition of partisan preferences and choices made by the electorate in constituencies or groups.

Key (1955; 1959) formulated two key theories explaining partisan political change in the U.S. First, Key (1955, p. 11) developed the concept of a "critical" realignment, which is a substantial, sudden, and durable partisan voting behavior movement occurring in a single election. Key (1959) further augmented his realignment theory by identifying a second form of realignment, which he termed "secular." Secular realignments reflect gradual changes in the voting behavior of voters across multiple elections (Key 1959). According to Key (1959, p. 199), "[a] secular shift in party attachment may be regarded as a movement of the members of a population category from party to party that extends over several presidential elections and appears to be independent of the peculiar factors influencing the vote at individual elections." In addition, Key (1959, p. 203) explains why secular realignments occur. In Key's (1959, p. 203) study, he found that "[t]he infusion of new elements in the population" led to secular changes in party support. Key (1959) noted that the in-migration of newcomers into an area did not immediately result in election changes. Rather, electoral change gradually occurred over time due to the demographic changes (Key, 1959, p. 203).

Why do the core voting blocks of political parties change over time? The two main explanations for the occurrence of realignments are the conversion and mobilization hypotheses. According to the conversion thesis, realignments occur because existing voters change their partisan affiliation and voting tendencies to begin supporting another political party (Burnham 1970; Ladd and Hadley 1978; Sundquist 1983). The second explanation for realignment, the mobilization thesis, argues that changes in the strength of political parties is due to new voters in an area. The group of new voters may include the young, new residents, and previously unengaged and disillusioned citizens. The addition of these new voters can change the election dynamics to favor one party over another even if conversion of existing voters is minimal (Key

1955; Campbell et al. 1960; Petrocik 1981; Beck 1982; Campbell 1985; Carmines and Stimson 1989).

There is an important sub-focus in the realignment literature on regional and local realignments, often with an emphasis on the South (e.g., Bullock, Hoffman, and Gaddie 2006; Bullock 2010a; Bullock 2010b; Darmofal and Nardulli 2010; Nardulli 1995). Bullock (2010a) notes that a regional secular realignment is occurring in the South, a process beginning in the period following World War II. According to Bullock (2010a), partisan politics in the South revolve largely around race with Democrats winning most African American voters and Republicans garnering a large majority of white voters. For example, in Georgia, Bullock (2010b, p. 62) notes that in the past Democrats maintained control in the state by maintaining at least 40 percent support from whites and overwhelming support from African Americans. As the white vote percentage dropped, Republicans began to win at the statewide level in Georgia in the 1980s and 1990s.

In addition, a number of studies (e.g., Black and Black 2002; Knuckey, 2006) have found a shift since the 1960s among southern whites away from the Democratic Party to the Republican Party, resulting in a secular realignment in many areas of the South. The civil rights legislation of the 1960s, President Richard Nixon's "Southern Strategy," increases in socioeconomic status for southern whites, changes in cultural values and ideology, and a substantial in-migration of new residents into the region from other parts of the country are important factors explaining the ascendency of Republicans in the South (Campbell, 1977, pp. 37-38; McKee and Hayes, 2009, p. 402; Knuckey, 2006, pp. 58-61). Overall, the voting behavior literature documents realignments occurring more on a regional than national basis. The South, in particular, has been undergoing realignment toward the Republican Party since the 1960s.

Moving forward, this study assesses changes in the Democratic Party vote percentages in presidential and midterm elections at the county level dating back to 1990 in three states, Georgia, Ohio, and Texas. Why is more research needed for voting trends at the county level? States are often large and diverse jurisdictions with many different areas within a state voting differently. For instance, suburbs and central city counties often diverge in voting trends. A solid Republican state could have significant concentrations of Democratic support, which is important for understanding sub-state political races, such as for U.S. House, for state legislature, and for county offices. The concentrations of minority party support in a state may be evolving so that in the future the changes occurring at a local county level could result in a realignment at the state level. For instance, counties in and around a large metropolitan area may be growing and diversifying much faster than counties in the rest of the state (e.g., Metropolitan Atlanta counties in Georgia). The dramatic county-level changes may eventually result in a change in statewide partisan control.

This paper analyzes sub-state regions (i.e., U.S. Census Metropolitan Statistical Areas of one million people of more) to more thoroughly assess causes of county level partisan change. Beck (1982) and Darmofal and Nardulli (2010) note the importance of studying realignment at a local or regional level, and this study seeks to contribute to the voting behavior literature by furthering this line of research by focusing on county-level partisan change. Moreover, this study seeks to illustrate the growing political "red-blue" divide in America. Recent survey data (e.g., Pew Research Center 2015) and research (e.g., McKee and Teigen 2009) indicate that Americans are increasingly polarized along "red" Republican and "blue" Democratic lines particularly with regard to living in rural/urban areas, age, and region of the U.S. The growing urban/suburban and rural divide was evident in the 2016 presidential election with Republican

Donald Trump winning overwhelmingly in rural and blue collar counties and Democratic nominee Hillary Clinton making in-roads into traditionally Republican suburban areas in large Metropolitan Statistical Areas (MSAs).

In order to assess the dynamics of county partisan change in three U.S. states, this paper addresses the following research questions:

(1) What variables explain changes in the Democratic Party average vote percentages at

the county level in Georgia, Ohio, and Texas, during the period 1990-2016?

(2) How do aggregate-level Democratic Party vote percentages at the sub-state level vary between MSA and non-MSA counties?

Pursuing answers to these questions is critical for explaining the importance of local partisan change. County level variations in partisan support levels may be masked by the focus on statewide election results, particularly in presidential races. The Democratic Party vote percentage change is used in this study as the dependent variable to gauge two-party vote change over time at the county jurisdictional level. The Republican Party vote percentages could also be used to conduct the same type of analyses. The Democratic vote was chosen since previous works in this area have often focused on how various groups have left the Democratic Party since the 1930s. For decades from the 1930s through the 1980s, the Democratic Party was the dominant political party at the state and local levels in the U.S. In the 1990s, the Republican Party began to make large inroads into local jurisdictions, particularly in the South and in rural areas.

II. Explaining Aggregate-level Voting Behavior

This paper uses sets of factors cited in the voting behavior literature to evaluate partisan change. First, the demographic characteristics of a county are typically influential in determining aggregate-level partisan voting trends in an area. The Michigan model of voting (Campbell et al. 1960) lays out a social-psychological framework for explaining partisan voting based on long-term factors such as party identification and demographic characteristics, including race, gender, and social class. The Michigan model holds that these long-term political and social-psychological characteristics of voters result in consistent and predictable voting patterns when it comes to voting for one of the two major political parties. Previous research studies (e.g., Knuckey 2006; McKee and Hayes 2009, Darmofal and Nardulli 2010) suggest that county-level demographics, particularly increases in the non-white population, are closely linked to party identification. Numerous studies find a strong positive relationship between increases in the African American and overall nonwhite vote in an area and increases in Democratic Party vote strength (Pew Research Center, 2015; Campbell, 2002; McKee and Teigen, 2009). Overall, it is expected that increases in the non-white populations of counties result in increases in Democratic Party average vote percentages.

H₁: It is hypothesized that increases in the percentage of the population who are African American result in increases in Democratic Party vote percentages.

H₂: It is hypothesized that increases in the percentage of the population who are Hispanic result in increases in Democratic Party vote percentages.

Additional demographic variables that may affect partisan voting tendencies for jurisdictions are the socio-economic status (SES) characteristics of an area. SES measures,

which are indicators of social class, typically include income level, occupational prestige, and educational attainment. Previous research studies indicate mixed results with regard to the impacts of SES factors on partisan voting behavior. On the one hand, some research suggests that higher socio-economic status individuals often vote more for Republicans than for Democrats (e.g., Key 1955; Campbell 2002; Knuckey 2006; Hawley 2015). On the other hand, some research studies indicate that increases in educational attainment are positively related to Democratic vote increases. For instance, McKee and Teigen (2009, p. 493) in an analysis of the 2004 presidential election in the South at the county level found that increases in the percentage of the population with a Bachelor's degree resulted in decreases in Republican voting. Overall, in total, the existing evidence slightly tilts toward the conclusion that higher socio-economic status is positively related to voting Republican.

H₃: It is hypothesized that increases in educational attainment levels in counties are negatively related to increases in Democratic vote percentages.

Moreover, age is a demographic factor potentially affecting voting tendencies in jurisdictions in the U.S. Studies have found that older voters tend to align more with the Republican Party while younger voters lean toward Democrats in greater numbers (Campbell 2002, p. 223; McKee and Hayes 2009, pp. 405-406). McKee and Hayes (2009, pp. 405-406) in a study of how southern Democratic and Republican primary voters are changing found that 60 percent of Republican primary voters were aged 45 or older in 2008 compared to 53 percent for the Democrats. The electorate age difference in primary elections between the parties is an indicator that older voters are gravitating more toward the Republican Party than the Democratic Party. In addition, Campbell (2002, p. 223) found a positive relationship between increases in age and Republican Party voter identification. Therefore, as the population of a county becomes older, it is expected to become more Republican and less Democratic leaning.

H₄: It is hypothesized that increases in median age in counties are negatively related to increases in Democratic vote percentages.

Moreover, cultural factors related to urbanization are expected to be influential for explaining aggregate-level partisan voting. Polling and academic research indicate an increasingly stark divide between citizens in urban metropolitan areas and those in rural areas (Gimpel and Karnes, 2006, p. 467). Studies indicate that increasing urbanization and population density are associated with increases in Democratic Party voting (e.g., Campbell 2002; McKee and Teigen 2009). McKee and Teigen (2009, p. 486) note that urbanites ...

are more likely to self-identify as liberals because tolerance is a way of life as well as an effective coping mechanism when living is such a varied setting. Routine exposure to a variety of people undoubtedly sets in motion a different socialization process than the one present in a rural setting.

In addition, Hawley (2015, p. 64) notes that "[i]t has also been argued that differences in communities' built environments can shape political attitudes" and that "crowded urban areas encourage people to hold more egalitarian and liberal political attitudes." Since urban areas tend to have a broader mix of diverse people than rural places, it is expected that the Democratic Party percentage of the vote will increase in higher population density jurisdictions, such as counties in

large U.S. Census MSAs, and decrease in lower density rural areas outside of these urban regions.

H₅: It is hypothesized that increases in the number of people per square mile (population density) in counties are positively related to increases in Democratic Party vote percentages.

H₆: It is hypothesized that Democratic Party vote percentages are higher in counties in large MSAs than in counties outside of large MSAs.

Finally, economic factors, such as the unemployment rate and changes in income levels, have been found to influence voting in elections (Blackley and Shepard, 1994; Abrams and Butkiewicz, 1995; Lewis-Beck and Stegmaier, 2000). There is a line of thought that holds that voters are rational self-interested actors seeking to maximize their own benefits relative to costs. The rational self-interest motives of voters leads them to support candidates most in-line with their current personal economic situations. Blackley and Shepard (1994, p. 366) note that "self-interested voters are more likely to prefer a new president if they are experiencing unemployment or income losses..." It is expected that increases in income levels benefit Republicans more than Democrats as people associate Republicans more with proposals to cut taxes and increase income levels.

H₇: It is hypothesized that increases in median household incomes in counties result in lower Democratic Party vote percentages.

III. Methods

As noted earlier in this paper, the dependent variable is the average percentage change in the Democratic Party vote for presidential and gubernatorial candidates in midterm and presidential elections at the county level. The variable is created by averaging vote percentages for the same type of election (presidential or midterm gubernatorial) over three election cycles. The average of election vote percentages, often referred to in the electoral realignment literature as the "normal vote" (Converse, 1966), provides a foundation for measuring aggregate-level partisan change in counties (Key 1955, 1959; Converse, 1966; Campbell 1977; Campbell 1985; Darmofal, 2008; Darmofal and Nardulli 2010). Converse (1966) developed the "normal vote" concept as part of the Michigan School to measure the extent of partisan change over time in a jurisdiction. A "multi-election averages" approach used by Darmofal and Nardulli (2010, pp. 262-263) is utilized in this study to calculate the average "normal vote" percentages for the Democratic Party at the county level. Campbell (1977, p. 60) originally noted the need to use several different preceding elections for estimating a core vote for a political party in order to reduce the impact of short-term factors in any single election. The "multi-election averages" methodology averages together a number of previous election results for a political party to reduce the effects of short-term factors (such as a controversy or presence of an unpopular incumbent President) on any one particular election result.

For the purposes of this paper, the average percentage change in Democratic Party voting is calculated separately for midterm and presidential election years. The average of consecutive election vote percentages is completed to minimize the impact of a single election on the analyses. Campbell (1985, p. 362), for instance, averaged the Democratic presidential votes in 1928, 1932, and 1936, to gauge the extent of the Democratic realignment in the 1930s. In this

paper, the change in presidential election percentages is calculated by subtracting the 2000 presidential election average (the average of the 1992, 1996, and 2000 presidential elections) from the 2016 presidential election average (the average of the 2008, 2012, and 2016 elections). The percentages are based on the Democratic Party share of the major two-party (Democratic and Republican) vote. Moreover, the change in gubernatorial (midterm) election percentages is calculated by subtracting the 1998 gubernatorial election average (the average of the 1990, 1994, and 1998 elections) from the 2014 average for gubernatorial midterm elections (average of the 2006, 2010, and 2014 election). The percentages are based on the Democratic Party share of the major two-party (Democratic and Republican) vote.¹ Table 1 provides descriptive statistics for the dependent variable.

In addition, in this study, demographic, electoral, cultural, and economic factors are used to assess county-level partisan change in the states of Georgia, Ohio, and Texas during the period spanning from 1990 through 2016. Demographic factors in this paper are variables measuring race, age, and educational attainment levels. First, the African American change in percentage of the population, 2000-2015, is an independent variable calculated using the change in the percentage of the total population between 2000 to 2015 who are African American (U.S. Census Bureau, 2017b). Second, the Hispanic change in percentage of the population, 2000-2015, is calculated by the change in the total population percentage between 2000 to 2015 who are Hispanic (U.S. Census Bureau, 2017b). A third independent variable, the median age change (years) from 2000-2015 is figured by the median age of the population change (in years) between 2000-2015 (U.S. Census Bureau, 2017b). Moreover, the educational attainment change variable is calculated as the change in the percentage of the population 25 years of age and over with a Bachelor's degree or higher between 2000 and 2015 (U.S. Census Bureau, 2017b).

In addition, other types of variables measuring the differences between midterm and presidential election cycles, population density, urbanity, and income levels are calculated and used in the analyses in this paper. An electoral factor, a dichotomous variable distinguishing presidential and midterm election cycles, is used to highlight differences in voting between MSA and non-MSA counties in each state in Table 5. Moreover, this study uses cultural factors focused on "urbanity" to assess how increases in population density and county MSA status affect Democratic Party voting. The population density change variable is calculated as the change in population per square mile of land (number of people) from 2000 to 2015 (U.S. Census Bureau, 2017b). The Urban/suburban ("urbanity") variable is created based upon U.S. Census Metropolitan Statistical Area (MSA) populations with a "1" for counties in MSAs with more than one million people and a "0" for counties not in a MSA or one million or more people.² (U.S. Census Bureau, 2017a). Finally, the economic indicator of median household income is used to examine if economic concerns play a role in voting. The median household income variable is the percentage change in median household income in counties from 2000 to 2015 (not adjusted for inflation) (U.S. Census Bureau, 2017b).

Tables 2, 3, and 4 provide results of OLS regression analyses testing the hypothesized relationships among the different variables. In addition, difference of means tests (Table 5) and correlation analyses (Table 6) are conducted to test relationships among different variables. In the data analyses in this paper, the OLS regression assumptions of linearity, normal distribution, and lack of multicollinearity were met. The presence of some outlier counties in Texas creates a modest heteroskedasticity issue in the Texas models. This situation reduces the precision of the coefficient estimates for Texas counties. In Tables 5 and 6, difference of means and correlation analyses are presented to supplement the OLS regression findings.

The states of Georgia, Ohio, and Texas are chosen for use in this paper because they provide representative examples of the different types of demographic changes occurring in the U.S. in contemporary politics. The states of Georgia and Texas highlight suburban areas that are quickly growing and diversifying, and are gradually realigning toward the Democratic Party at a local level. On the other hand, Ohio illustrates a different situation with low growth in most areas, declining populations in central cities and suburban areas typically Democratic in nature, and a graving of the electorate overall, which tends to benefit the GOP over time. While other states could be used to illustrate these divergent types of changes occurring at the local county level within states, these three states are regarded as either current or emerging partisan battlegrounds for the 2020 elections. So, the sub-state changes occurring in these three states may have a profound impact on future elections, particularly for U.S. President, while similar changes in states such as California and New York would likely not result in profound national political changes. In addition, in Georgia, Ohio, and Texas, the growing divide between urban and rural areas is clearly illustrated, particularly during the Donald Trump Presidency. The Republican Party vote percentage has jumped dramatically in rural counties in all three states, while Democratic strength, particularly in the fast growing and diverse metropolitan areas of Georgia and Texas, have been moving toward the Democrats. In particular, suburban counties around cities such as Atlanta, Austin, Dallas, and Houston, once Republican strongholds, are now becoming battleground counties. The changes occurring in these suburban counties were illustrated in the 2016 and 2018 elections. While the changes were not enough to change the Republican dominance in these states in statewide elections, there was a clear tightening of statewide vote margins between Democrats and Republicans because of changes in suburban counties.

Finally, in aggregate-level analyses, care needs to be taken to avoid the "ecological fallacy" problem of applying aggregate-level changes to individual-level voting behaviors. The focus in this paper is on assessing county-level data, and not on trying to predict how individuals behave in elections. Counties are used in this aggregate-level study of voting as the unit of analysis because, as McKee and Teigen (2009, p. 488) note, "… they are the smallest geographic unit for which reliable demographic and political data are available." U.S. Census data is widely available for counties, but not for precincts. In addition, precinct and other local government borders change across time making comparisons across different election years problematic.

IV. Findings

The findings of the analyses of county-level data from Georgia, Ohio, and Texas are illustrated in Tables 2 through 6. OLS regression results for President and Governor (midterm) for all counties in the three states are provided in Table 2. Tables 3 and 4 lay out OLS regression results for counties by large U.S. Census MSA status. Moreover, Table 5 provides an illustration of difference in means between MSA and non-MSA counties for President and Governor in the three states covered in this paper. Finally, Table 6 provides bivariate correlation coefficients for the variables in this study.

The first research question asked, what variables explain changes in the Democratic Party average vote percentages at the county level in Georgia, Ohio, and Texas, during the period 1990-2016? First, race is a moderately important factor determining Democratic Party vote outcomes in the various OLS regression, difference of means, and correlation analyses in Tables 2 through 6. As the proportion of the overall electorate who are African American increases in a

county, Democratic Party average vote percentages increase over time. However, many of the coefficients are not statistically significant. The most consistent impact of race on Democratic Party vote results is in Georgia with every one percentage point increase in the proportion of the population being African American resulting in about a half percentage point increase in the average Democratic Party vote (Table 2). In addition, there is a similar effect in the MSA counties of Georgia, which compose the Atlanta metropolitan region (Table 3). In Ohio, for President, there is a positive coefficient for both the African American and Hispanic variables. However, the other coefficients are not statistically significant. The Texas results are not statistically significant except for a small positive correlation coefficient in Table 6 for President. Overall, increases in the African American population is a positive influence on Democratic voting, but the results are not consistently significant across elections. The Hispanic impact is negligible, but is likely to become more important as Hispanics begin to participate in higher numbers in future elections in the fast growing and diversifying states of Georgia and Texas.

Another important factor for aggregate-level voting outcomes is educational attainment, which is a measure of socio-economic status. It was expected that increases in socio-economic status would be associated with lower Democratic Party vote percentages. The OLS regression coefficients in this paper illustrate a mixed picture of the effect of SES on the Democratic vote. The majority of the coefficients are not statistically significant. Of those that are significant, results from Georgia suggest a negative relationship between increases in educational attainment and Democratic Party vote percentages, while results from Ohio indicate a positive relationship. The Texas results are statistically insignificant. The results indicate that in multivariate analyses, specific independent variables are more important in one state than another.

Furthermore, as hypothesized, the variable measuring increases in the median age of voters in counties is negatively related to increases in Democratic Party vote percentages in presidential elections in Georgia and Ohio. However, the majority of coefficients across the three states are statistically insignificant. Based on the OLS regression results (Tables 2 and 3), increases in median age reduce Democratic Party vote percentages in presidential elections, indicating that an aging population in a county is a positive factor for Republicans. The correlation coefficients are negative in Georgia and Ohio, and insignificant in Texas (Table 6). Overall, the findings suggest that an aging population in a county favors Republicans, while a younger electorate is more beneficial to Democrats.

In the OLS regression models of Tables 2, 3, and 4, the most consistent and important variable for explaining changes in the Democratic Party average vote percentages in counties is increases in population density. A related factor that is assessed in Table 5 are the differences in Democratic Party vote percentages in counties in large U.S. Census MSAs and counties in rural and smaller urban areas. As hypothesized, increases in population density are positively associated with increases in the Democratic Party average vote percentages in presidential and gubernatorial elections in MSA and non-MSA counties in the three states. While not all of the OLS regression coefficients are statistically significant, they are consistently in the positive direction and the beta coefficients indicate that population density is the most important factor for explaining changes in Democratic Party average votes. The correlation coefficients in Table 6 suggest a moderately strong, positive relationship between increasing population densities and increases in support for the Democratic Party. These findings indicate that increasing urbanization and population density enhances Democratic Party vote percentages in urban and suburban counties in large MSAs.

Moreover, in Table 5, the difference of means results indicate that Democratic Party support is substantially higher in large MSA counties, on average, than in non-MSA counties. The county Democratic Party vote averages for MSA and non-MSA counties are statistically different for President across the three states, but only statistically significant for Governor in Texas. For President, there is a substantially large decline in Democratic Party vote percentages for President in non-MSA counties, suggesting a growing urban/suburban and rural partisan divide in the three states for Democrats. However, for gubernatorial elections held during midterm election cycles, there is very little difference in Democratic Party vote percentages between large MSA counties and counties outside of large MSA regions, except in Texas. The presidential election results illustrate a meaningful difference between urban/suburban and rural counties, but the differences are less pronounced in midterm gubernatorial elections. The differences between presidential and gubernatorial elections is likely due to higher turnout and a more diverse electorate participating in presidential than in midterm elections. The presidential electorate advantages Democrats more than does the composition of the typical midterm electorate.

Finally, changes in median household income is a moderately important factor for explaining Democratic Party support at the county level. Overall, there is a consistent negative relationship (except for gubernatorial elections in Texas) between increases in median household income and Democratic Party average vote percentages. Democratic Party support generally drops as the median household income increases. This result suggests that there is a small self-interest motivation for voters in elections, with Republicans generally benefitting from increases in income levels.

Moreover, the second research question in this study focused on the question of how do aggregate-level Democratic Party vote percentages at the sub-state level vary between MSA and non-MSA counties? In Table 5, MSA and non-MSA average vote percentage changes for different offices for the Democratic Party vote are presented for presidential and midterm gubernatorial elections. For presidential elections, there are substantial, statistically significant differences between counties in urban/suburban MSA regions of one million people or more and counties outside of these large MSAs. For instance, in Georgia, the average change in the Democratic Party percentage average of the presidential vote between 2000 and 2016 was -5.99 percent, compared to -12.56 for non-MSA counties. Similar results are present for Ohio and Texas. However, for midterm elections for Governor, the differences between MSA and non-MSA counties in Georgia and Ohio are not statistically significant. Only for Texas, is there a statistically significant difference showing less decline in MSA counties than in non-MSA areas. The difference of means results in Table 5 illustrate presidential and midterm elections are fundamentally differently. The Democratic Party vote percentage is stronger in the higher turnout presidential elections than in the lower turnout midterm elections, but the results vary considerably across states, MSA/non-MSA counties, and type of election.

Overall, the results in Tables 2 through 6 for presidential and gubernatorial elections indicate that changing demographics are having significant impacts on election results. Increases in the non-white populations of counties is a positive factor for increasing Democratic Party strength. On the other hand, increases in median age and in median household income are negatively related to increases in Democratic Party vote averages. In addition, and more importantly, increasing population density per square mile, a measure of urbanization, is a positive factor for Democratic Party vote percentages in both presidential and midterm election cycles. Moreover, as illustrated in Table 5, there are substantial differences between large MSA

counties and non-MSA counties across the three states analyzed. The differences between counties in large MSAs and those outside of these areas are less pronounced in lower turnout midterm gubernatorial elections.

V. Conclusions

V. O. Key in the 1950s identified critical and secular partisan realignment processes for explaining long-lasting and durable voting behavior changes (Key 1955, 1959). In addition, Nardulli (1995) and others (e.g., Jackson and Carsey, 1999; Darmofal, 2008; Darmofal and Nardulli, 2010) found that partisan realignments are often local or regional phenomena. In this paper, the local nature of partisan changes are evaluated with a focus on county-level aggregate voting behavior. Since the 1990 elections, significant changes have occurred at the county level in Georgia, Ohio, and Texas. The most significant finding is that increasing urbanization is fundamentally changing politics by enhancing the urban-rural divide in American politics. The divide is more apparent in high turnout presidential elections than in lower participation midterm elections for state governor. In particular, increases in population density over time and the presence of a county in a large U.S. Census MSA of one million people or more increases the average Democratic Party vote percentages for presidential and gubernatorial races. This is most noticeable in Tables 3 and 4 where increases in population density in Georgia and Texas are associated with increased in the Democratic vote. Since the populations of Georgia and Texas are growing faster than in Ohio, this is an expected occurrence. In addition to urbanization processes, increases in the African American population in counties has an important positive effect on Democratic Party average vote percentages. On the other hand, increases in median age and median household income at the county level results in decreases in the Democratic Party vote. However, turnout rates for nonwhite voters matter, and power shifts at the statewide level may not occur in the near future due to most statewide offices being elected in midterm elections with lower turnouts and more favorable Republican electorates.

In conclusion, this aggregate-level assessment of partisan voting in counties in Georgia, Ohio, and Texas illustrates the growing political "red-blue" divide in America. Demographic and other aggregate changes are often analyzed at a statewide level, but the true magnitude of these changes are better viewed using county-level data. The diverse and high population "core" counties of large MSA regions are moving toward Democrats, even though some of the counties at an aggregate-level still vote Republican overall. The less populated and less diverse counties outside of major MSAs are moving in an opposite direction toward Republicans. The results from this study illustrate the propensity of voters to sort themselves into similar like-minded communities, and in the states analyzed, the county-level voting data indicate that the "Red State" and "Blue State" divide is relevant in local counties as well as at the state level.

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References

- Abrams, Burton A., and James L. Butkiewicz. 1995. "The Influence of State-level Economic Conditions on the 1992 U.S. Presidential Election." <u>Public Choice</u> 85: 1-10.
- Beck, Paul Allen. 1982. "Realignment Begins? The Republican Surge in Florida." <u>American</u> <u>Politics Quarterly</u> 10(4): 421-438.
- Black, Earl, and Merle Black. 2002. <u>The Rise of Southern Republicans</u>. Cambridge, MA: Belknap Press of Harvard University Press.
- Blackley, Paul R, and Edward M. Shepard III. 1994. "A Statistical Analysis of the Effect of State-level Economic Conditions on the 1992 Presidential Election." <u>Public Finance</u> <u>Quarterly</u> 22 (3): 366-382.

Bullock III, Charles S., Donna R. Hoffman, and Ronald Keith Gaddie. 2006. "Regional Variations in the Realignment of American Politics, 1944-2004." <u>Social Science Quarterly</u> 87(3): 494-518.

- Bullock III, Charles S. 2010a. "Introduction: Southern Politics in the Twenty-first Century." In Mark J. Rozell and Charles S. Bullock III, eds., <u>The New Politics of the Old South: An</u> <u>Introduction to Southern Politics</u>. Lanham, MD: Rowman & Littlefield Publishers.
- Bullock III, Charles S. 2010b. "Georgia: A Study of Party and Race." In Mark J. Rozell and Charles S. Bullock III, eds., <u>The New Politics of the Old South: An Introduction to</u> <u>Southern Politics</u>. Lanham, MD: Rowman & Littlefield Publishers.
- Burnham, Walter Dean. 1970. <u>Critical Elections and the Mainspring of American Politics</u>. New York: Norton.
- Campbell, David E. 2002. "The Young and the Realigning: A Test of the Socialization Theory of Realignment." <u>The Public Opinion Quarterly</u> 66(2): 209-234.
- Campbell, Angus, Philip Converse, Warren Miller, and Donald Stokes. 1960. <u>The American</u> <u>Voter</u>. New York: John Wiley & Sons, Inc.
- Campbell, Bruce A. 1977. "Change in the Southern Electorate." <u>American Journal of Political</u> <u>Science</u> 21(1): 37-64.
- Campbell, James E. 1985. "Sources of the New Deal Realignment: The Contributions of Conversion and Mobilization to Partisan Change." <u>The Western Political Quarterly</u> 38(3): 357-376.
- Carmines, Edward G., and James A. Stimson. 1989. <u>Issue Evolution: Race and Transformation</u> of American Politics. Princeton, NJ: Princeton University Press.
- Converse, Philip E. 1966. "The Concept of the Normal Vote." In Angus Campbell, Philip Converse, Warren Miller, and Donald Stokes, eds., <u>Elections and the Political Order</u>. New York: Wiley.
- Darmofal, David. 2008. "The Political Geography of the New Deal Realignment." <u>American</u> <u>Politics Research</u> 36(6): 934-961.
- Darmofal, David, and Peter F. Nardulli. 2010. "The Dynamics of Critical Realignments: An Analysis across Time and Space." <u>Political Behavior</u> 32(2): 255-283.
- Florida Department of State. 2017. "Election Results Archive." Available at: <u>http://dos.myflorida.com/elections/data-statistics/elections-data/election-results-archive/</u> [Accessed November 10, 2017].
- Georgia Secretary of State. 2017. "Current and Past Election Results." Available at: <u>http://sos.ga.gov/index.php/Elections/current_and_past_elections_results</u> [Accessed November 10, 2017].
- Gimpel, James G., and Kimberly A. Karnes. 2006. "The Rural Side of the Urban-Rural Gap."

<u>PS: Political Science and Politics</u> 39(3): 467-472.

- Hawley, George. 2015. <u>White Voters in 21st Century America</u>. New York: Routledge.
- Jackson, Robert A., and Thomas M. Carsey. 1999. "Presidential Voting Across the American States." <u>American Politics Quarterly</u> 27(4): 379-402.
- Key, V. O., Jr. 1955. "A Theory of Critical Elections." Journal of Politics 17: 3-18.
- Key, V. O., Jr. 1959. "Secular Realignment and the Party System." Journal of Politics 21: 198-210.
- Knuckey, Jonathan. 2006. "Explaining Recent Changes in the Partisan Identification of Southern Whites." Political Research Quarterly 59(1): 57-70.
- Lacombe, Donald J., and Timothy M. Shaughnessy. 2007. "Accounting for Spatial Error Correlation in the 2004 Presidential Popular Vote." <u>Public Finance Review</u>. 35(4): 480-499.
- Ladd, Everett Carll, Jr., with Charles D. Hadley. 1978. <u>Transformations of the American Party</u> <u>System</u>. New York: Norton.
- Lewis-Beck, Michael S., and Mary Stegmaier. 2000. "Economic Determinants of Electoral Outcomes." <u>Annual Review of Political Science</u> 3: 183-219.
- McKee, Seth C., and Danny Hayes. 2009. "Dixie's Kingmakers: Stability and Change in Southern Presidential Primary Electorates." <u>Presidential Studies Quarterly</u> 39(2): 400-417.
- McKee, Seth C., and Jeremy M. Teigen. 2009. "Probing the Reds and Blues: Sectionalism and Voter Location in the 2000 and 2004 U.S. Presidential Elections." <u>Political Geography</u> 28: 484-495.
- Nardulli, Peter F. 1995. "The Concept of a Critical Realignment, Electoral Behavior, and Political Change." <u>American Political Science Review</u> 89(1): 10-22.
- North Carolina State Board of Elections. 2017. "Election Results." Available at: <u>https://www.ncsbe.gov/Election-Results</u> [Accessed November 10, 2017].
- Petrocik, John R. 1981. Party Coalitions. Chicago: University of Chicago Press.
- Pew Research Center. 2015. "Party Identification Table." <u>A Deep Dive into Party Affiliation</u>. Available at: <u>http://www.people-press.org/2015/04/07/a-deep-dive-into-party-affiliation/</u> [Accessed on February 4, 2018].
- Sundquist, James L. 1983. Dynamics of the Party System. Washington, DC: Brookings.
- U.S. Census Bureau. 2017a. "Metropolitan and Micropolitan Statistical Areas: 2010-2016." Available at: <u>https://www.census.gov/data/tables/2016/demo/popest/total-metro-and-</u> micro-statistical-areas.html [Accessed on November 10, 2017].
- U.S. Census Bureau. 2017b. "American Community Survey (ACS)." Available at: <u>https://www.census.gov/programs-surveys/acs/</u> [Accessed Nov. 10, 2017].

| State | Election type | Ν | Mean (Std. Error) | Minimum | Maximum | Standard deviation |
|---------|------------------|-----|----------------------|---------|---------|--------------------|
| Georgia | | | | | | |
| | President | 159 | -11.36 (0.82) | -29.27 | 25.38 | 10.37 |
| | Governor | 159 | -17.27 (0.75) | -36.50 | 20.56 | 9.51 |
| Ohio | | | | | | |
| | President | 88 | -6.04 (0.66) | -21.96 | 11.59 | 6.20 |
| | Governor | 88 | 7.32 (0.48) | -4.94 | 20.75 | 4.51 |
| Texas | | | | | | |
| | President | 254 | -14.06 (0.63) | -34.73 | 12.03 | 10.00 |
| | Governor | 254 | -7.94 (0.44) | -26.51 | 10.54 | 7.06 |

 Table 1: Descriptive Statistics for the Dependent Variable, Change in Democratic Vote

 Percentages*

*The data in this table reflect changes in the average vote percentages for Democratic Party candidates for President of the U.S. (2000 to 2016) and Governor (1998 to 2014).

| INDEPENDENT | President | Governor | President | Governor | President | Governor |
|----------------------------|----------------------|-----------|-----------|----------|-----------|-----------|
| VARIABLES | (Georgia) | (Georgia) | (Ohio) | (Ohio) | (Texas) | (Texas) |
| | | | | | | |
| African American change in | 0.525** b | 0.441** | 1.073* | 0.922 | 0.345 | -0.215 |
| percentage of population, | (0.149) ^c | (0.146) | (0.539) | (0.572) | (0.354) | (0.262) |
| 2000-2015 | 0.273 ^d | 0.251 | 0.170 | 0.200 | 0.056 | -0.050 |
| Hispanic change in | -0.140 | -0.259 | 3.020** | 1.444 | 0.014 | -0.037 |
| percentage of population, | (0.278) | (0.272) | (0.818) | (0.868) | (0.145) | (0.107) |
| 2000-2015 | -0.036 | -0.073 | 0.333 | 0.218 | 0.006 | -0.021 |
| Educational attainment | -0.283 | -1.077** | 1.019** | 0.364 | -0.092 | -0.056 |
| (Bachelor's degree or | (0.264) | (0.258) | (0.247) | (0.262) | (0.195) | (0.144) |
| higher) percentage change | -0.076 | -0.314 | 0.320 | 0.157 | -0.028 | -0.024 |
| in population, 2000-2015 | | | | | | |
| Median age change (years), | -0.659* | -0.285 | -0.472 | 0.497 | -0.346 | 0.126 |
| 2000-2015 | (0.328) | (0.321) | (0.317) | (0.336) | (0.220) | (0.163) |
| | -0.141 | -0.067 | -0.117 | 0.169 | -0.094 | 0.048 |
| Population density change | 0.043** | 0.027** | 0.008 | -0.016 | 0.058** | 0.038** |
| (number of people) per | (0.010) | (0.010) | (0.009) | (0.009) | (0.007) | (0.005) |
| square mile, 2000-2015 | 0.349 | 0.242 | 0.067 | -0.192 | 0.467 | 0.431 |
| Median household income | -0.119* | -0.120* | -0.195** | -0.010 | 0.017 | 0.056* |
| percentage change, 1999- | (0.059) | (0.058) | (0.058) | (0.061) | (0.032) | (0.024) |
| 2015 | -0.142 | -0.156 | -0.274 | -0.020 | 0.031 | 0.146 |
| | | | | | | |
| ADJ. \mathbb{R}^2 | 0.370 | 0.281 | 0.572 | 0.093 | 0.224 | 0.149 |
| Ν | 159 | 159 | 88 | 88 | 253 | 253 |
| F-STATISTIC | 16.436** | 11.283** | 20.393** | 2.492 | 13.096** | 8.338** |
| CONSTANT | -7.643** | -11.384** | -7.903** | 1.921 | -15.309** | -11.187** |
| | (2.068) | (2.024) | (2.538) | (2.692) | (2.028) | (1.497) |

 TABLE 2: Determinants of Change in Democratic Party Average Vote Percentages for

 U.S. President and Governor (All Counties in Georgia, Ohio, and Texas), 1990-2016^a

Significance (two-tailed): *p < 0.05 **p < 0.01

^a Dependent variable: Percentage change in the three-election average vote for the Democratic Party presidential or gubernatorial candidate spanning elections from 1990 through 2016. See Table 1 for the operationalization of the variable.

^b Unstandardized OLS regression coefficients

^c Standard errors

^d Standardized beta coefficients

 TABLE 3: Determinants of Change in Democratic Party Average Vote Percentages for

 U.S. President (MSA and Non-MSA Counties in Georgia, Ohio, and Texas), 1990-2016^a

| INDEPENDENT VARIABLES | MSA Counties - President (Georgia) | Non-MSA Counties - President (Georgia) | MSA Counties - President (Ohio) | Non-MSA Counties - President (Ohio) | MSA Counties - President (Texas) | Non-MSA Counties - President (Texas) |
|---|---|---|--|--|---|---|
| African American change in | 0.662** b | -0.104 | 0.913 | 0.980 | 1.081 | 0.148 |
| percentage of population, | (0.225) ^c | (0.263) | (0.811) | (0.949) | (0.957) | (0.373) |
| 2000-2015 | 0.410 ^d | -0.039 | 0.263 | 0.104 | 0.186 | 0.025 |
| Hispanic change in | -1.394 | -0.492 | -0.133 | 3.537** | -0.467 | 0.035 |
| percentage of population, | (1.140) | (0.305) | (1.985) | (0.872) | (0.803) | (0.146) |
| 2000-2015 | -0.188 | -0.162 | -0.017 | 0.410 | -0.103 | 0.016 |
| Educational attainment | 0.180 | -0.214 | 0.925* | 0.290 | 0.134 | -0.219 |
| (Bachelor's degree or | (0.633) | (0.297) | (0.435) | (0.348) | (0.754) | (0.204) |
| higher) percentage change in population, 2000-2015 | 0.037 | -0.064 | 0.349 | 0.074 | 0.030 | -0.070 |
| Median age change (years), | 0.317 | -0.801* | -2.728* | -0.383 | -0.005 | -0.329 |
| 2000-2015 | (1.484) | (0.351) | (1.218) | (0.332) | (0.854) | (0.224) |
| | 0.029 | -0.222 | -0.590 | -0.111 | -0.001 | -0.099 |
| Population density change | 0.050** | 0.080** | -0.000 | 0.059 | 0.037** | 0.192** |
| (number of people) per | (0.015) | (0.027) | (0.010) | (0.036) | (0.009) | (0.031) |
| square mile, 2000-2015 | 0.494 | 0.275 | -0.004 | 0.151 | 0.623 | 0.395 |
| Median household income | -0.700* | -0.104 | -0.183 | -0.235** | -0.077 | 0.034 |
| percentage change, 1999- | (0.275) | (0.060) | (0.254) | (0.058) | (0.152) | (0.033) |
| 2015 | -0.444 | -0.156 | -0.188 | -0.396 | -0.089 | 0.069 |
| | | | | | | |
| ADJ. R ² | 0.749 | 0.120 | 0.657 | 0.520 | 0.519 | 0.158 |
| Ν | 29 | 130 | 20 | 68 | 35 | 218 |
| F-STATISTIC | 14.920** | 3.937** | 7.069** | 13.120** | 7.122** | 7.812** |
| CONSTANT | -5.066 | -6.722** | 6.725 | -5.621 | -7.352 | -16.901** |
| | (6.270) | (2.229) | (11.984) | (2.869) | (10.881) | (2.053) |

Significance (two-tailed): *p < 0.05 **p < 0.01

^a Dependent variable: Percentage change in the three-election average vote for the Democratic Party presidential or gubernatorial candidate spanning elections from 1990 through 2016. See Table 1 for the operationalization of the variable.

^b Unstandardized OLS regression coefficients

^c Standard errors

^d Standardized beta coefficients

 TABLE 4: Determinants of Change in Democratic Party Average Vote Percentages for

 Governor (MSA and Non-MSA Counties in Georgia, Ohio, and Texas), 1990-2016^a

| INDEPENDENT VARIABLES | MSA Counties - Governor | Non-MSA Counties - Governor | MSA Counties - Governor | Non-MSA Counties - Governor | MSA Counties - Governor | Non-MSA Counties - Governor |
|----------------------------|-------------------------------|-----------------------------------|-------------------------------|-----------------------------------|-------------------------------|-----------------------------------|
| | (Georgia) | (Georgia) | (Ohio) | (Ohio) | (Texas) | (Texas) |
| African American change in | 0.510 ^b | -0.038 | -0.058 | 1.106 | 0.398 | -0.315 |
| percentage of population, | (0.263) ^c | (0.245) | (0.933) | (1.084) | (0.673) | (0.284) |
| 2000-2015 | 0.338 ^d | -0.015 | -0.022 | 0.143 | 0.113 | -0.073 |
| Hispanic change in | -2.578 | -0.428 | 2.718 | 0.850 | -0.358 | -0.035 |
| percentage of population, | (1.332) | (0.285) | (2.283) | (0.995) | (0.565) | (0.111) |
| 2000-2015 | -0.371 | -0.149 | 0.465 | 0.120 | -0.130 | -0.022 |
| Educational attainment | -0.186 | -1.023** | 0.175 | 0.872* | -0.557 | -0.128 |
| (Bachelor's degree or | (0.739) | (0.278) | (0.500) | (0.397) | (0.530) | (0.155) |
| higher) percentage change | -0.040 | -0.325 | 0.087 | 0.270 | -0.203 | -0.056) |
| in population, 2000-2015 | | | | | | |
| Median age change (years), | -0.100 | -0.447 | -0.155 | 0.576 | 0.176 | 0.118 |
| 2000-2015 | (1.734) | (0.327) | (1.401) | (0.379) | (0.601) | (0.170) |
| | -0.010 | -0.131 | -0.044 | 0.203 | 0.051 | 0.049 |
| Population density change | 0.048* | 0.015 | -0.007 | -0.048 | 0.023** | 0.101** |
| (number of people) per | (0.018) | (0.025) | (0.011) | (0.041) | (0.007) | (0.023) |
| square mile, 2000-2015 | 0.507 | 0.054 | -0.162 | -0.151 | 0.636 | 0.286 |
| Median household income | -0.764* | -0.090 | -0.254 | 0.007 | 0.077 | 0.067** |
| percentage change, 1999- | (0.321) | (0.056) | (0.292) | (0.067) | (0.107) | (0.025) |
| 2015 | -0.517 | -0.143 | -0.342 | 0.015 | 0.145 | 0.184 |
| | | | | | | |
| ADJ. R ² | 0.608 | 0.142 | 0.220 | 0.068 | 0.352 | 0.077 |
| Ν | 29 | 130 | 20 | 68 | 35 | 218 |
| F-STATISTIC | 8.240** | 4.5567** | 1.895 | 1.817 | 4.074** | 4.037** |
| CONSTANT | -5.492 | -10.416** | 10.038 | 0.071 | -4.644 | -12.058** |
| | (7.326) | (2.081) | (13.781) | (3.274) | (7.658) | (1.562) |

Significance (two-tailed): *p < 0.05 **p < 0.01

^a Dependent variable: Percentage change in the three-election average vote for the Democratic Party presidential or gubernatorial candidate spanning elections from 1990 through 2016. See Table 1 for the operationalization of the variable.

^b Unstandardized OLS regression coefficients

^c Standard errors

^d Standardized beta coefficients

| Change in Democratic Party Average Vote for President: 2000 to 2016 | MSA ^b | Non- MSA | Sig. |
|---|------------------|----------------|----------|
| Georgia (N=159: MSA counties = 29 . | | | <u></u> |
| Non-MSA counties = 130) | -5.99 | -12.56 | ** |
| Ohio (N=88; MSA counties = 20, Non- | | | |
| MSA counties $= 68$) | -1.19 | -7.47 | ** |
| Texas (N=254; MSA counties = 35, Non- | | | |
| MSA counties = 219) | -6.31 | -15.29 | ** |
| | | | |
| Change in Democratic Party Average | | | |
| Vote for Governor (Mid-term | | Non- | |
| elections): 1998 to 2014 | MSA | MSA | Sig. |
| | | | |
| Georgia (N=159; MSA counties = 29 , | | | |
| Georgia (N=159; MSA counties = 29, Non-MSA counties = 130) | -15.44 | -17.68 | NS |
| Georgia (N=159; MSA counties = 29, Non-MSA counties = 130) Ohio (N=88; MSA counties = 20, Non- | -15.44 | -17.68 | NS |
| Georgia (N=159; MSA counties = 29, Non-MSA counties = 130) Ohio (N=88; MSA counties = 20, Non- MSA counties = 68) | -15.44 7.45 | -17.68 7.28 | NS NS |
| Georgia (N=159; MSA counties = 29, Non-MSA counties = 130) Ohio (N=88; MSA counties = 20, Non- MSA counties = 68) Texas (N=254; MSA counties = 35, Non- | -15.44 7.45 | -17.68 7.28 | NS NS |

TABLE 5: Comparing Mean Averages in MSA and Non-MSA Counties^a

Significance: p < 0.05 p < 0.01 NS = Not significant

^a Average county vote percentage for MSA and non-MSA counties

^b MSA counties in Georgia are the 29 counties composing the Atlanta-Sandy Springs-Roswell MSA. No other MSA in Georgia exceeds one million people.

Springs-Roswell MSA. No other MSA in Georgia exceeds one million people.

| | GA: Dem. Pres. Vote Average Percentage Change, 2000-2016 | OH: Dem. Pres. Vote Average Percentage Change, 2000-2016 | TX: Dem. Pres. Vote Average Percentage Change, 2000-2016 | GA: Dem. Gov. Vote Average Percent Change, 1998-2014 | OH: Dem. Gov. Vote Average Percent Change, 1998-2014 | TX: Dem. Gov. Vote Average Percent Change, 1998-2014 |
|--|---|---|---|---|---|---|
| African American change in percentage of population, 2000- 2015 | 0.505** | 0.492** | 0.184** | 0.379** | 0.236* | 0.057 |
| Hispanic change in percentage of population, 2000- 2015 | 0.141 | 0.640** | 0.047 | 0.044 | 0.288** | -0.023 |
| Educational attainment (Bachelor's degree or higher) percentage change in population, 2000- 2015 | 0.015 | 0.433** | 0.032 | -0.255** | 0.129 | 0.056 |
| Median age change (years), 2000-2015 | -0.304** | -0.370** | -0.123 | -0.218** | 0.009 | 0.003 |
| Population density change (number of people) per square mile, 2000-2015 | 0.506** | 0.194 | 0.475** | 0.294** | 106 | 0.384** |
| Median household income percentage change, 1999-2015 | -0.295** | -0.402** | -0.41 | -0.324** | -0.166 | 0.047 |
| N= Significance: *p <0.05 | 159 | 88 | 254 | 159 | 88 | 254 |
| **p < 0.01 | | | | | | |

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 TABLE 6: Bi-variate Correlations (Pearson's r)

Significance: *p < 0.05 **p < 0.01

¹ The sources for the data for calculating the dependent variable are the Florida Department of State (2017), the Georgia Secretary of State (2017), and the North Carolina State Board of Elections (2017).

² Urban Counties -- U.S. Census Metropolitan Statistical Areas (MSAs) of 1,000,000 or more people (as of 2015):

GEORGIA

1. Atlanta-Sandy Springs-Roswell, GA MSA (5,614,323)

OHIO

- 1. Cleveland-Elyria, OH MSA (2,077,240)
- 2. Columbus, OH MSA (1,836,536)
- 3. Cincinnati, OH-KY-IN MSA (Ohio counties only) (1,624,983)

TEXAS

- 1. Dallas-Fort-Worth-Arlington, TX MSA (6,003,967)
- 2. Houston-The Woodlands-Sugar Land, TX MSA (5,539,949)
- 3. San Antonio-New Braunfels, TX MSA (1,942,217)
- 4. Austin-Round Rock, TX MSA (1,513,565)