An American Melting Pot?
Describing the constituencies of state legislative Democrats and Republicans in the United States

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Abstract

This archival study sought to determine if indicators of race, income, and education in state legislative districts were associated with higher levels of 2020 Democratic state legislative representation (compared to Republican representation). It also sought to determine if demographic trends in terms of 2020 Congressional partisan representation were generally consistent with those at the state legislative level. Census demographic data from 2019 was used to run descriptive analyses using partisan representation data from all but one US state legislative chamber (NH House). The analyses generally revealed that state legislative Democrats represent constituents at a wider range of income levels, more formally educated constituents, and more racially diverse constituents than state legislative Republicans, nationwide. This generally tracks to Congressional partisan representation trends.

State legislatures make most of the laws that affect constituents' daily lives. Those state legislative seats, thanks in large part to the REDMAP operation of 2010, skew Republican. Democrats have made gains in the past decade, but Republicans continue to control 61 of 99 state legislative chambers in the country. The Donald Trump-era of Republicanism has brought up questions about the right's association with white nationalism in an increasingly diverse nation, their waning appeal to educated suburbanites, and their embrace of personal excuses for wealth inequality in a nation that is more economically divided than ever. So are state legislative Republicans mostly representing white, less educated, wealthier people? Are state legislative Democrats representing everyone else?

This analysis seeks to answer these questions using 2019 census data alongside the elected representatives in these districts as of post-election 2020. Using descriptive analyses of all state legislative districts in the country (except NH house), the top quartile, and the top 1% of districts on all indicators, we seek to determine what the constituencies of state legislative Democrats and Republicans look like when it comes to indicators around race, income, and education. We hypothesized that partisan representation trends at the state legislative level would reflect trends at the congressional level, such that Democrats would be more likely to represent districts with more diverse residents, higher income residents, and more formally educated residents compared to Republicans.

1. Demographic Trends in the US

After centuries of white voter dominance, people of color wield an increasingly larger amount of power in the electorate as their share of the population in general increases, a trend that is projected to continue into the future. The 2020 census showed a drop of 8.6% in residents who identify as white alone since 2010, and minority groups are growing across the board, with the population of Hispanic and/or Latinx constituents, for instance, growing 23% over the past decade.

Americans have also taken a sharp turn in higher education. In 1940, fewer than 5% of Americans held a 4 year college degree. In 2019, this figure stood at about 1 in 3 adults over 25. The percentage of people in the US

that hold a master's degree has doubled since just 2000, and the percentage of people who hold a doctorate has more than doubled in the same period.

At the same time, Americans have the same purchasing power with their wages as they did back in 1964 when accounting for inflation. Escalating wealth inequality in the U.S. since 1980 means that the majority of the wealth is increasingly concentrated among a small group of people. Forbes even estimates that US billionaires gained $1.2 trillion in wealth during the Covid-19 pandemic. In the same period, unemployment for regular Americans was higher than it was during the Great Recession.

These factors - race, education, and income - have repeatedly been brought forth to explain the behavior of voters in recent years. In terms of race, non-hispanic white people make up about 60% of Democratic voters, while they make up about 80% of Republican voters nationally. Zingher (2018) suggests this is not only due to ideological sorting as various party identifications and voter behavior have aligned more in recent years, but also because white people feel the Democratic party is moving to the left of the median white voter position on economic issues. Some research has even found that making a "majority-minority" racial demographic shift (a shift where the majority of the electorate in an area is made of up racial and ethnic minority voters) salient to white voters causes them to warm up more to the Republican party and its policies (Craig & Richeson, 2014).

In terms of education, much has been made in the news about the different voting patterns between college-educated and non-college-educated white voters, something that emerged as a difficult point for Trump among white suburban voters. White voters without a college education comprise 57% of the Republican party, while nearly 2/3rds of college educated voters vote for Democrats. Since 2008, white working class voters have made up less than half of American voters, a huge shift in the American electorate. However, it appears that the GOP has a larger hold on these voters than ever.

And in terms of income, Pew finds that financial security is a better predictor of voting Republican than financial wealth, a Forbes survey found that U.S. billionaires were more likely to vote for Biden than Trump, and the richest Americans are starting to increase their support for the Democratic party in the past few presidential elections.

2. Demographics and representation

But how do these demographic factors among US adults and voters relate who is actually representing these constituents? Much of the research mentioned above reflects national averages and presidential elections, but most elected officials represent a much smaller, and much less nationally representative, group of constituents.

Some work has explored demographic trends at the more nuanced Congressional level. Some work has explored demographic trends at the more nuanced Congressional level. An investigation by the Atlantic found that white people were overrepresented compare to the national average in 4/5ths of the congressional districts represented by Republicans, while non-white voters were overrepresented compared to the national averages in over 2/3rds of districts represented by Democrats. They find similar results for education, with 3/4ths of the Republican-represented congressional districts behind the average for white college educated folks, while almost 2/3rds of Democratic-represented congressional districts exceed the average of white college education folks. And research indicates that Democrats at the Congressional level represent the districts with the highest median income in the United States. It appears that while the poverty rate is higher in congressional districts represented by Democrats, there are more poor people actually living in Republican held congressional districts by over 2 million.

These trends are compelling, but existing literature tells us less about these trends at the state legislative level (though some recent analysis around recent voter suppression bills does seem to suggest that Republicans are representing an overwhelmingly white constituency in state legislatures as well). Congressional districts do present a more detailed picture than averages across the whole country, but there are still only 435 congressional districts in the whole United States, meaning that each US representative is representing about 750,000 Americans.

3. Specific Aims and Hypotheses.

In this investigation, we explored whether trends we know to be true nationally and at other levels of representation, including at the Congressional level, hold true when looking at the state legislative level. For example, are Democratic politicians' constituents doing better on indicators around income than Republican-controlled state legislative districts, as some resources above indicate they are at the Congressional level? Are college educational attainment levels higher in Democratically-controlled state legislative districts? This study will explore the extent to which trends we see at the national and even congressional level do or

don't extend to state legislative districts.

There may be reason to expect that trends at the Congressional and state legislative levels would track. For one thing, there is increasing evidence of consistent voting results in federal, statewide, and state legislative races as exemplified through a decline in ticket-splitting (Abramowitz & Webster, 2016). Second, typically the same bodies -- either state legislatures or commissions -- draw both a state's Congressional and state legislative maps. It's important to note, however, that we don't know if these Congressional and state legislative representation trends properly reflect voter preferences, because of gerrymandering in many states, which distorts voter preferences to advantage partisan mapmakers. The current report provides a descriptive analysis of what factors are associated with partisan representation, but does not address why the descriptive analyses look this way.

This report will explore the relationship between Democratic representation and demographic information about the districts they represent at the state legislative level. It will specifically explore the state legislative representatives elected in these districts as of 2020 (except for NH lower) and use the 2019 census data estimates available for constituent demographics (including race, income and education). This report will help to characterize Democratic and Republican constituencies, demonstrate associations between educational attainment, income level, and racial diversity and partisan representation at the state legislative level, and fill a gap in the existing literature by exploring these relationships at a level of representation rarely explored: state legislative districts. The analysis also compares trends at the state legislative level to those at the Congressional level.

We tested the following hypotheses:

H1 - As the percentage of non-white population increases, representation by Democratic state legislators increases.

H2 - As median income increases, representation by Democratic state legislators increases.

H3 - As the percentage of college education increases, representation by Democratic state legislators increases.

H4 - Associations between demographic factors (race, age, income) and partisan representation will be similar between the top quartile of Congressional and state legislative districts.

H5 - Of the top quartile and top 1% of state legislative districts by income and education indicators, a larger percentage of wealthier and more educated districts

will be represented by Democrats than Republicans.

H6 - For the top quartile and top 1% of state legislative districts by each non-white racial category and for % of racial/ethnic minorities in the district, a larger percentage of the districts will be represented by Democrats than Republicans. For the top quartile and top 1% of state legislative districts by whites, a larger percentage of the districts will be represented by Republicans than Democrats.

4. Research Design

This study was conducted internally by Sister District Action Network, and utilized descriptive statistical approaches to describe secondary data about state legislative districts obtained from the US Census Bureau. In order to test the hypotheses, three different descriptive statistical approaches were employed to attempt to give a well-rounded picture of the data: descriptive analysis of state legislative districts nationwide, descriptive analysis of the upper quartile of districts in each indicator, and descriptive analysis of the top 1% of districts for each indicator.

As a secondary research study, this data was not manipulated in any way, and thus, all results are descriptive and simply describe the constituencies of representatives that are already elected. They are not predictive results, and therefore cannot predict who will present these constituencies in the future.

4.1 Data

Data was pulled from the US Census 2019 American Community Survey (ACS) using an API designed by a SDAN data team member. Data was pulled for all state legislative districts in every state in the United States. In order to determine the partisan representation of each district, the 2020 election results for each chamber were pulled from Ballotpedia. Democrats were coded as 1s, Republicans were coded as 0s, and all third party representatives were coded as 2s and removed from all analyses (other than being included in the denominator for both upper quartile and top 1% proportions). All data was numerical and analyzed using Stata and Microsoft Excel software. Data was compiled in April 2021.

4.2 Chambers

There are 99 state legislative chambers in the United States. Only one state, Nebraska, has a unicameral state legislature, while the rest have an upper and a lower chamber, similar to the House and Senate of the US Congress. Of those 99 chambers, 98 were included

in the analysis. The excluded chamber was the New Hampshire House of Representatives, as we were unable to match the census data to these 400 districts. These seats are excluded from the entire analysis, including denominators.

4.3 Measurements

For each district, the data included indicators around income, race, and education, as well as a code for the partisan affiliation of its current state legislative representative or senator. For income, it included median income, the percentage of the district population making less than $30,000 a year, the percentage of the district population making more than $50,000 a year, and the percentage of the district population living in poverty. For race, it included the percentage of the population that identified as Asian-American/Pacific Islander (AAPI), Black/African-American, Hispanic/Latinx, Native American, and white, respectively. It also included an indicator of the percentage of the population that identified as a racial or ethnic minority. For education, it included the percentage of the population with a High School diploma as their highest degree, the percentage of the population with a Bachelor's degree, and the percentage of the population with a graduate or professional degree. Other than median income, all indicators used in this study are expressed in percentages of the population in that district that belong in that category.

5. Analyses

There were 3 main analytical approaches to this analysis: nationwide descriptives, upper quartile descriptives, and top 1% descriptives. Each approach is described in detail below.

Nationwide results. Originally, mixed logistic regression was used to explore hypotheses 1-3, but the models were overfit, indicating some unreliability in the estimates. After considering several regression approaches that were unable to accurately model the data for a variety of reasons, an inferential statistical approach was abandoned in favor of descriptive analyses. For hypotheses 1-3, Excel was used to determine the concentration of demographics in all state legislative districts in the US (except NH lower). It was determined what percentage of state legislative districts in the US were represented by both major political parties for each indicator. The data was split into percentiles (e.g., 0-10%, 10-20%, etc). The number of seats in each percentile held by each of the two major parties was divided by

the total number of districts in that percentile, including any districts represented by a third party. Results are expressed in percentages.

Upper quartiles. For hypotheses 4-6, Excel was used to determine the upper quartile, or top 25% of the data, for each indicator. The dataset was sorted based on the indicator of interest, and it was determined how many districts were represented by both major political parties in the upper quartile of the data. This was divided by the number of districts in the upper quartile, including any districts represented by a third party. Results are expressed in percentages.

Top 1%. Similar to the upper quartiles, the top 70 districts for each indicator were pulled. It was determined how many districts were represented by both major political parties in the top 1% of the districts. This was divided by 70, even if some districts in the top 1% were represented by third party representatives. Results are expressed in percentages.

6. Results

As previously mentioned, the three types of indicators were analyzed in three different ways. Results are presented by indicator type (race, income, education).

6.1 Race indicators

6.1.1 Nationwide Results - Race was considered in two ways in the nationwide results. The first is by considering all ethnic and racial minorities (i.e., anyone who isn't white) in aggregate. This racial minority category was split into percentiles and it was determined what percentage of the districts in each percentile were represented by each party. Only the Democratically-held district trends are included in the results since the two party system is so ingrained in the US that the Republican-held district trends are almost the mirror opposite of the Democratically-held district trends. The analysis revealed that as the percentage of the population that identifies as a racial and/or ethnic minority increases in a district, districts are more likely to be represented by state legislative Democrats, compared to Republicans. This indicates that more diverse state legislative districts are represented by Democrats than Republicans.

Race was also considered individually, creating percentiles for all individual racial groups and determining how many Democratically- and Republican-held districts were in each percentile. Democrats represent the majority of districts in which all individual minority groups compose the majority of residents. Conversely, they represent the minority of districts with the largest concentration of white residents.

Table 1. Partisan representation by race variables
Democratically held districts*

	0-10%	10-20 %	20-30 %	30-40 %	40-50 %	50-60 %	60-70 %	70-80 %	80-90 %	90-100 %
AAPI	40.62%	85.09%	91.30%	93.35%	87.50%	95.45%	100%	100%	100%	–
Black	36.43%	48.68%	47.69%	62.90%	93.28%	98.58%	98.66%	98.46%	100%	100%
Latinx	36.56%	53.68%	63.66%	65.52%	75.33%	90%	89.41%	83.67%	84.21%	83.33%
Native American**	45.12%	12.16%	5.56%	0%	50%	100%	89.47%	90.91%	100%	–
Racial minority	22.30%	27.98%	37.07%	48.51%	66.18%	87.43%	91.35%	95.72%	97.22%	94.20%
White	96.26%	96.12%	94.74%	91.78%	82.68%	58.42%	43.14%	36.05%	25.05%	21.46%

*Republican-held districts are not included as the two-party system is so ingrained in the United States that the Republican-held district table is almost an identical mirror to the Democratically-held district table (i.e., if the district is not represented by a Democrat, it is probably represented by a Republican).

**Native American majority districts are very rare, leading to some potentially unreliable patterns in this racial group.

Chart 1. Democratic Representation of White vs Racial/Ethnic Minority Aggregate
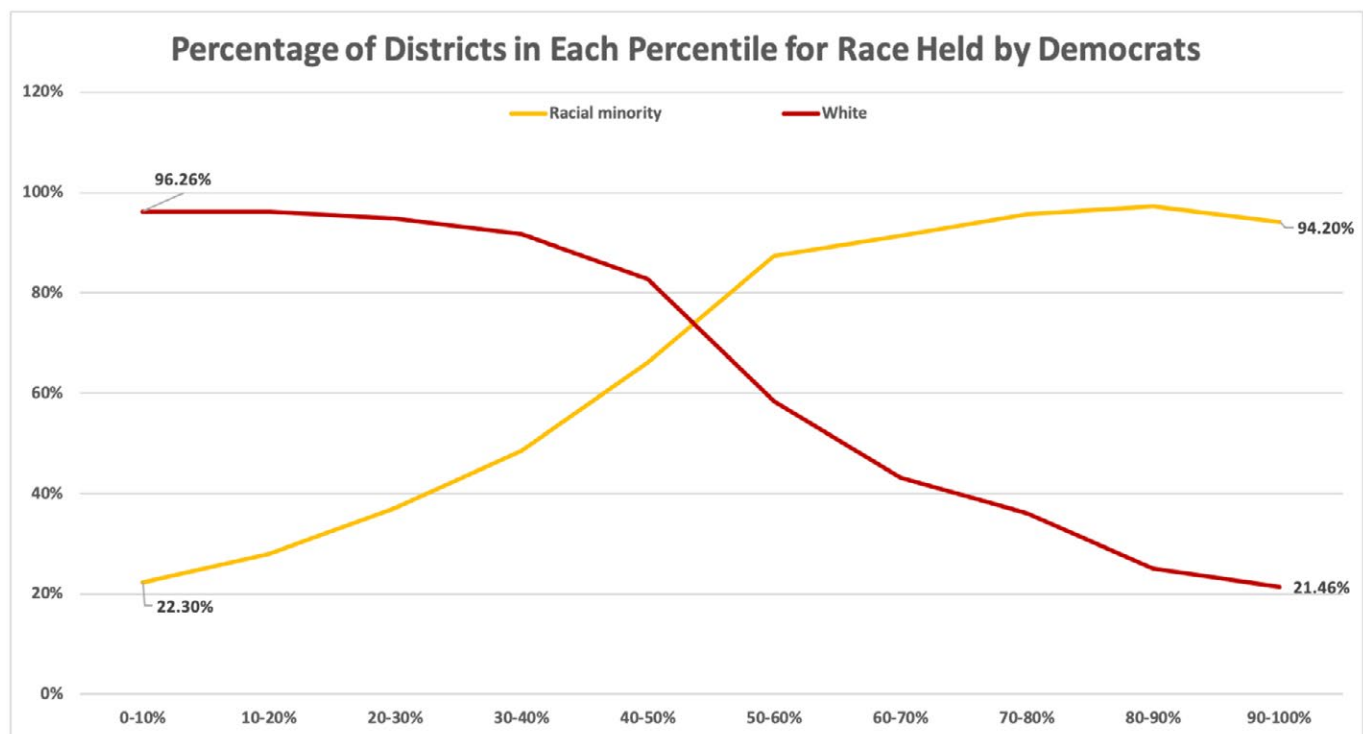
*Data for individual racial and ethnicy minorities all demonstrated similar curves to the combined racial and ethnic minority category, so individual race curves were removed for simplicity.

**Line graphs used in place of histograms to demonstrate multiple trends simply and clearly in one space.

6.1.2 Upper Quartile Results

Again, we considered both an aggregate percentage of racial and ethnic minority members in the district and each race broken out on its own. Upper quartile ranges for the percentage of racial and ethnic minorities, AAPI population, Black population, Hispanic/Latinx population, Native American population, and white population were all computed.

As in the nationwide results, Democrats represent the majority of state legislative districts that fall into the upper quartile for the percentage of that racial group in the population for racial and ethnic minorities combined (86.55%), AAPI (75.63%), Black/African-American (65.99%), and Hispanic/Latinx voters (66.46%). However, an interesting outlier is that Democrats only represent 32.86% of the upper quartile of districts with the highest percentage of Native Americans living there[1]. It should be noted that so few districts have a concentration of 50%+ Native Americans that the upper quartile of districts with the highest concentration of Native Americans ranges from 0.6-82.5%, meaning that even districts with less than 1% Native American residents fall into the top 25% of districts with the most Native American residents. This indicates that there are few districts with a majority Native American population (see footnote 1). Republicans also continued to represent the majority of the whitest state legislative districts in the country (77.10%; see Chart 1).

Chart 2. Partisan Representation of Top Quartile of State Legislative Districts by Race
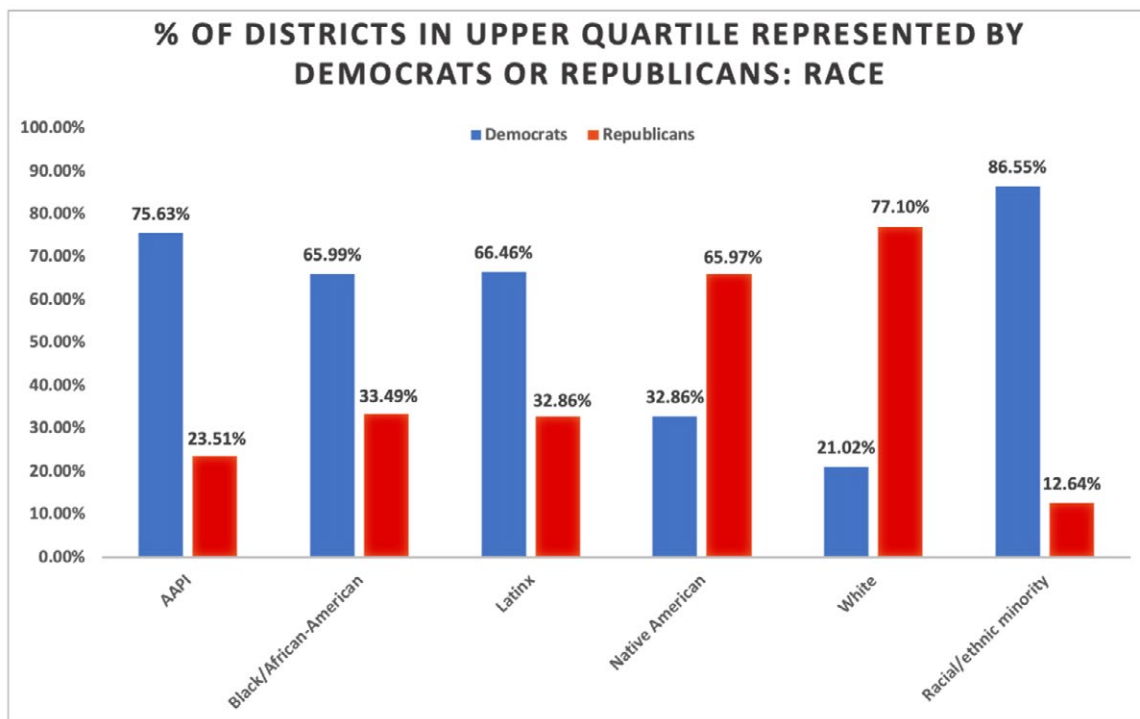
These trends regarding the relationship between race/ethnicity and partisan representation generally seem to track trends at the Congressional level.

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[1] Native Americans are the smallest racial and ethnic minority group included as a category in the census data. There are only 36 districts where Native Americans make up 50%+ of the population. Of these 36 districts, 33 (91.67%) are represented by Democratic state legislative representatives or senators. Native Americans only account for more than 10% of the population in 141 state house and senate districts, far fewer districts than Black, Asian, and Latinx Americans occupy at similar numbers. Simultaneously, most of the states with sizable populations of Native Americans are "red states." In addition to the structural barriers to voting for Native Americans, it appears as though they may be gerrymandered into red districts when their numbers, and therefore their political power, are/is diminished. See this, this, and this for more information.

Chart 3. Partisan Representation of Top Quartile of State Legislative and Congressional Districts by Race
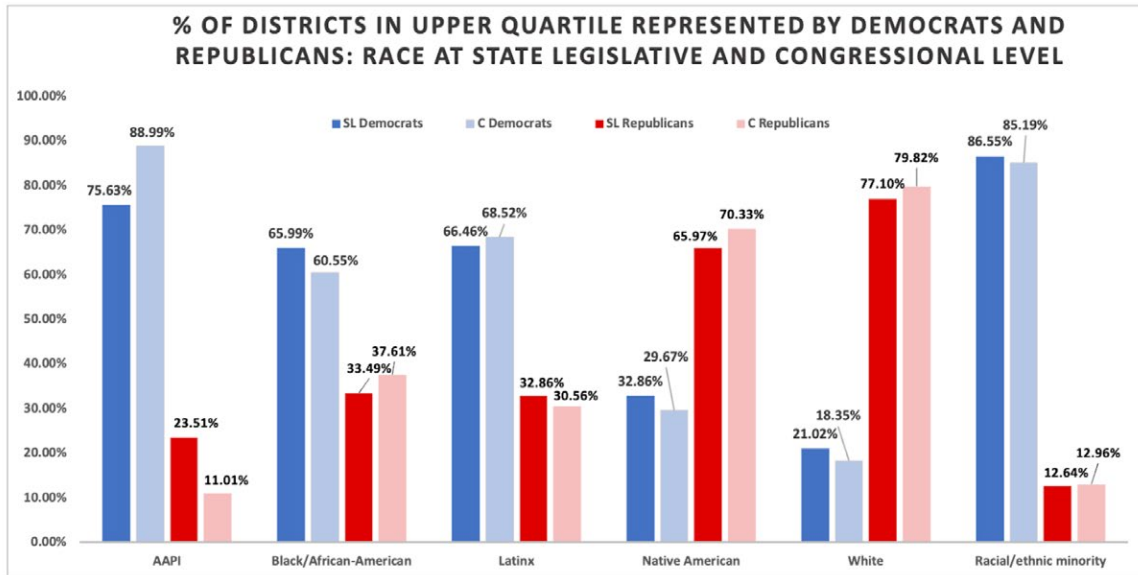
6.1.3 *Top 1% Results* – We conducted a similar descriptive analysis honing in on just the top 1% of districts in each category (the 70 districts with the highest percentages). Of the top 1% of districts in terms of percentage of racial and ethnic minority population, 94.29% are Democratically represented. When races are broken out individually, state legislative Democrats represent 88%+ of the top 1% of districts with the largest percentage of AAPI, Black, and Latinx constituents and 51.43% of the districts with the largest percentage of Native American constituents. Again, Republicans represent the majority (68.57%) of the state legislative districts with the highest concentration of white constituents in the country. It should be noted that Republicans represent none of the top 70 districts with the highest percentage of Black constituents, and only represent 5.71% of the top 1% of the most racially diverse state legislative districts in the country.

Chart 4. Partisan Representation of Top 1% of State Legislative Districts by Race
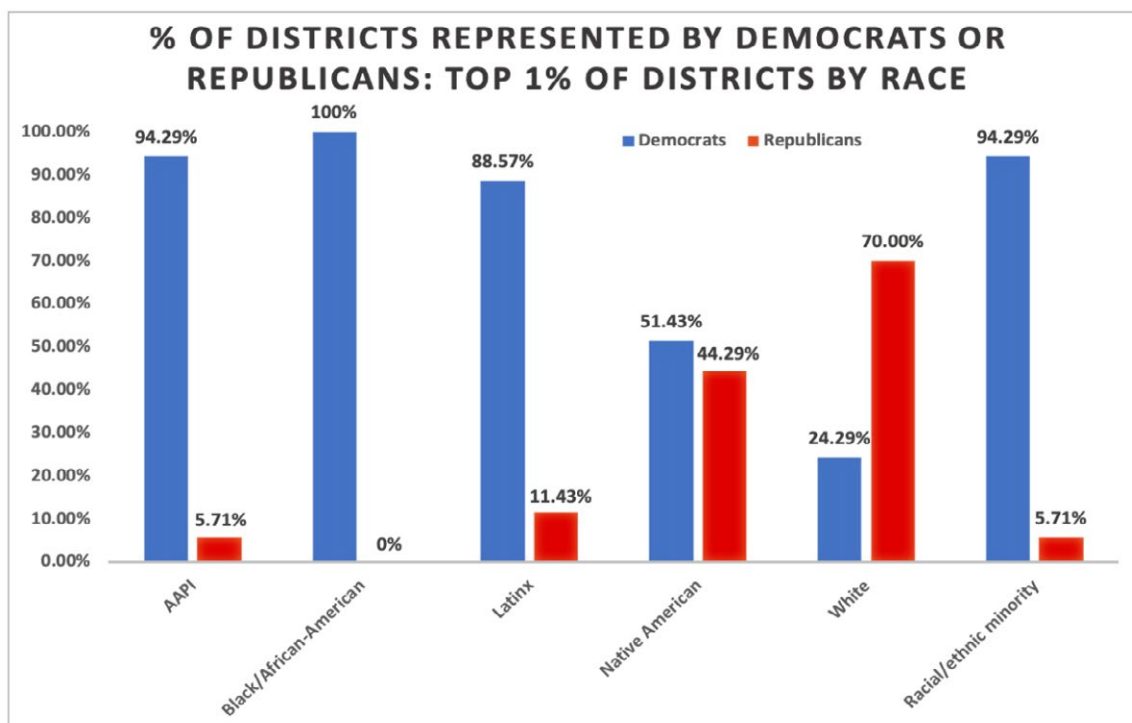
When the descriptive results are considered together, a clear picture emerges: Democrats represent the most racially and ethnically diverse state legislative districts in the country, and state legislative Republicans represent the least racially and ethnically diverse state legislative districts. These results were echoed at the congressional level, demonstrating that the racial demographics of state legislative constituencies are similar to those at the congressional level for the two major political parties. The results support H1, state legislative Democrats do represent a larger portion of districts with more racial and ethnic minorities, as well as H6, that state legislative Democrats represent most of the districts in the upper quartile and top 1% of districts with the most ethnic and minority constituents. Further, it supports H4, that these trends track at the congressional level.

6.2 Income indicators

6.2.1 Nationwide Results - Again, we looked at the nationwide results for these indicators by grouping each variable into percentiles and determining how many were held by each of the major parties. We considered four of the income indicators: Median income, percentage of the district population making over $50,000 annually, percentage of the district population making under $30,000 annually, and percentage living in poverty. Democrats represent the most districts at the lowest levels of median income, but also represent the most districts at the highest levels. In the $40,000-$70,000 range, Democrats hold a minority of the seats (which are mostly held by Republicans). For this reason, the Democratic and Republican national median income averages are remarkably similar, with Democrats just edging out republicans with an average median income of $64,994.96 (compared to Republicans' average of $63,453.37).

Chart 5. Partisan Representation by Median Income in District
Democratically held districts*
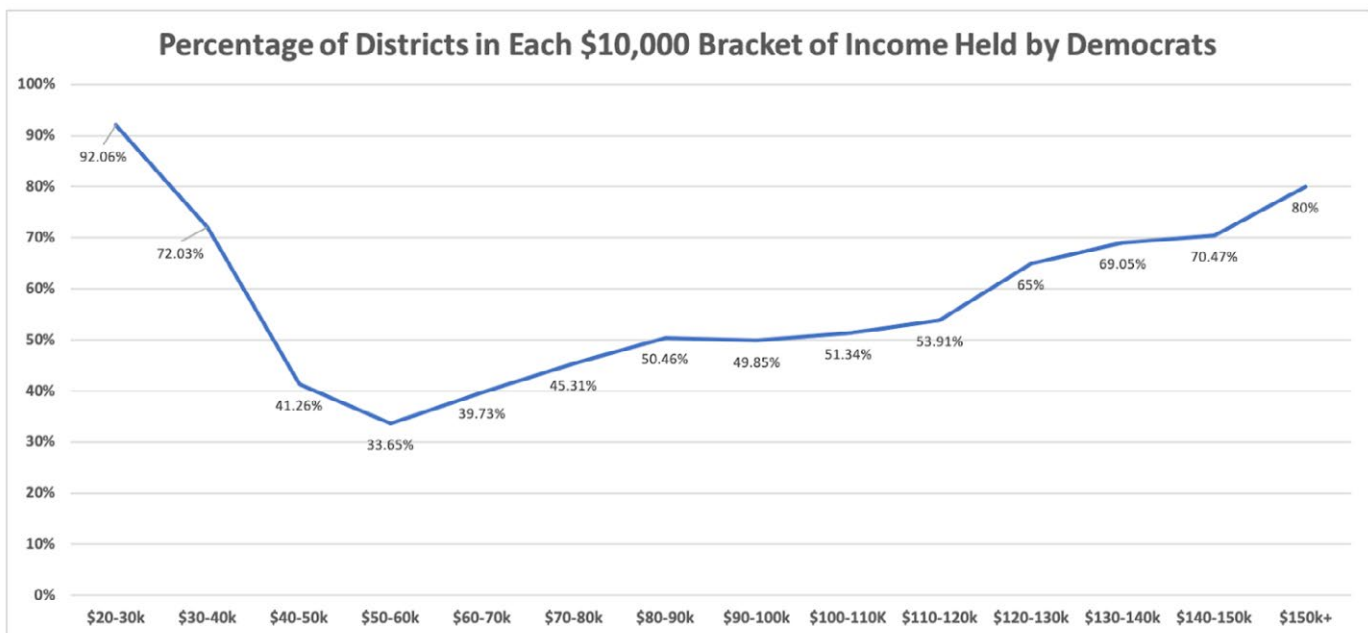
Republican-held districts are not included as the two-party system is so ingrained in the United States that the Republican-held district chart is almost an identical mirror to the Democratically-held district chart (i.e., if the district is not represented by a Democrat, it is probably represented by a Republican).

Echoing these findings, when considering the other 3 indicators, Democrats hold the majority of districts with the largest concentrations of poverty as well as the largest concentrations of residents making less than $30,000, as well as the majority of the districts with the largest concentrations of people making over $50,000.

Table 2: Partisan Representation by Income Variables
Democratically held districts*

|	0-10%	10-20 %	20-30 %	30-40 %	40-50 %	50-60 %	60-70 %	70-80 %	80-90 %	90-100 %
Poverty	41.21%	37.64%	69.37%	92.54%	87.50%	100%**	–	–	–	–
Under $30k	44.16%	45.83%	37.61%	44.99%	76.38%	92.19%	100%**	–	–	–
Over $50k	–	–	95.31%	69.76%	42.86%	35.51%	43.15%	50.28%	52.24%	100%**

*Republican-held districts are not included as the two-party system is so ingrained in the United States that the Republican-held district table is almost an identical mirror to the Democratically-held district table (i.e., if the district is not represented by a Democrat, it is probably represented by a Republican).

**These percentiles are sparse, with only 1 district in the 60-70% group for under $30,000 and the 90-100% group for over $50,000, and only 2 districts in the 50-60% poverty group.

6.2.2 *Upper Quartile Results* – We found the quartiles for each of the variables considered in the nationwide results, as well as for a measure indicating the percentage of the population in the district that is living in poverty. Democrats represent a higher percentage of state legislative districts with the highest median income (52.98%) compared to state legislative Republicans, the highest percentage of population making under $30,000 compared to state legislative Republicans (55.02%), and 64.11% of the districts with the highest concentration of constituents in the census category for living in poverty. State legislative Republicans just edge out state legislative Democrats on representation of districts with the highest concentration of constituents making over $50,000 (49.83% vs 49.48% respectively). However, the difference between the parties is control of 6 districts & neither party tops 50% representation in this quartile.

These results indicate that Democrats represent the majority of state legislative districts when considering the top 25% of districts on all of these income indicators, with the exception of districts making over $50,000, where they basically tie Republicans. That means that they are representing many of both the richest and poorest districts. For Republicans, it appears that they are more likely to represent state legislative districts with higher median incomes and a larger share of the population in the state legislative district making more than $50,000 a year than they are to represent less economically advantaged districts.

Chart 6. Partisan Representation of Top Quartile of State Legislative Districts by Income
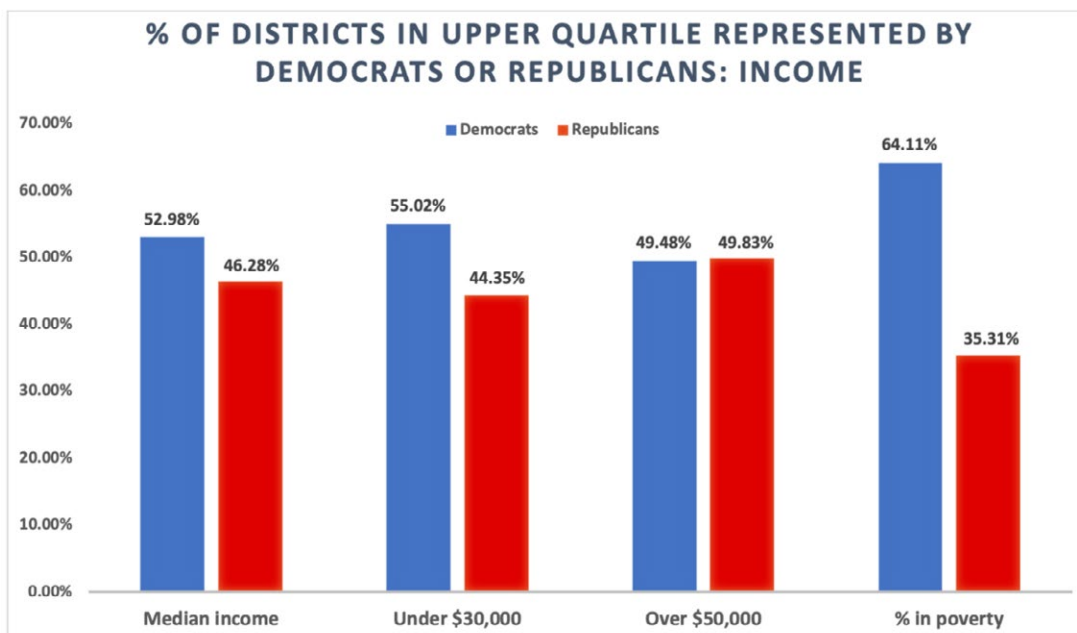
These trends regarding the relationship between income and partisan representation generally do track trends at the Congressional level, but the trends towards Democrats representing more wealth are more pronounced at the Congressional level and the trends towards representing less advantaged constituents are more pronounced at the state legislative level.

Chart 7. Partisan Representation of Top Quartile of State Legislative and Congressional Districts by Income
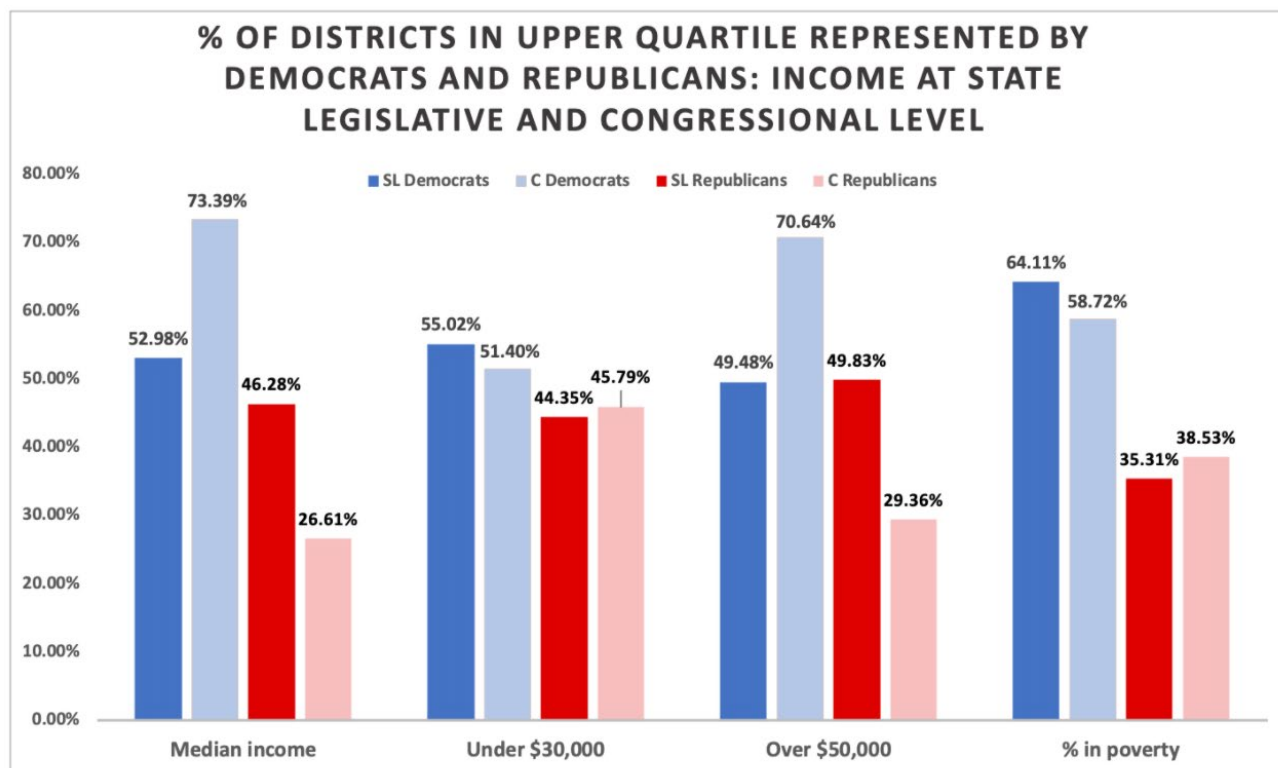
6.2.3 Top 1% Results

Looking at the top 1% of districts (top 70 districts with the highest value for the variable), Democrats represent the majority of both the highest median income and of over $50,000 districts (78.57% of upper 1% of median income districts; 54.29% of upper 1% income over $50,000 districts). Democrats also represent the majority of districts with the largest percentage of people living in poverty (91.43% of the top 1% of impoverished districts) and people making under $30,000 (91.43% of the top 1% of districts with the largest percentage of people making less than $30,000 a year). This largely echoes the results of the quartile analysis with two exceptions: Democratic representation of economically disadvantaged districts is even more pronounced when looking at the top 1% of most disadvantaged districts than when it was looking at the top quartile of such districts. And Democrats represent the majority of the top 1% of districts with the largest concentration of people making $50,000 a year or more. In other words, when looking at the top 1% of economically advantaged and disadvantaged districts, Democrats represent more of both compared to Republicans.

Chart 8. Partisan Representation of Top 1% of State Legislative Districts by Income
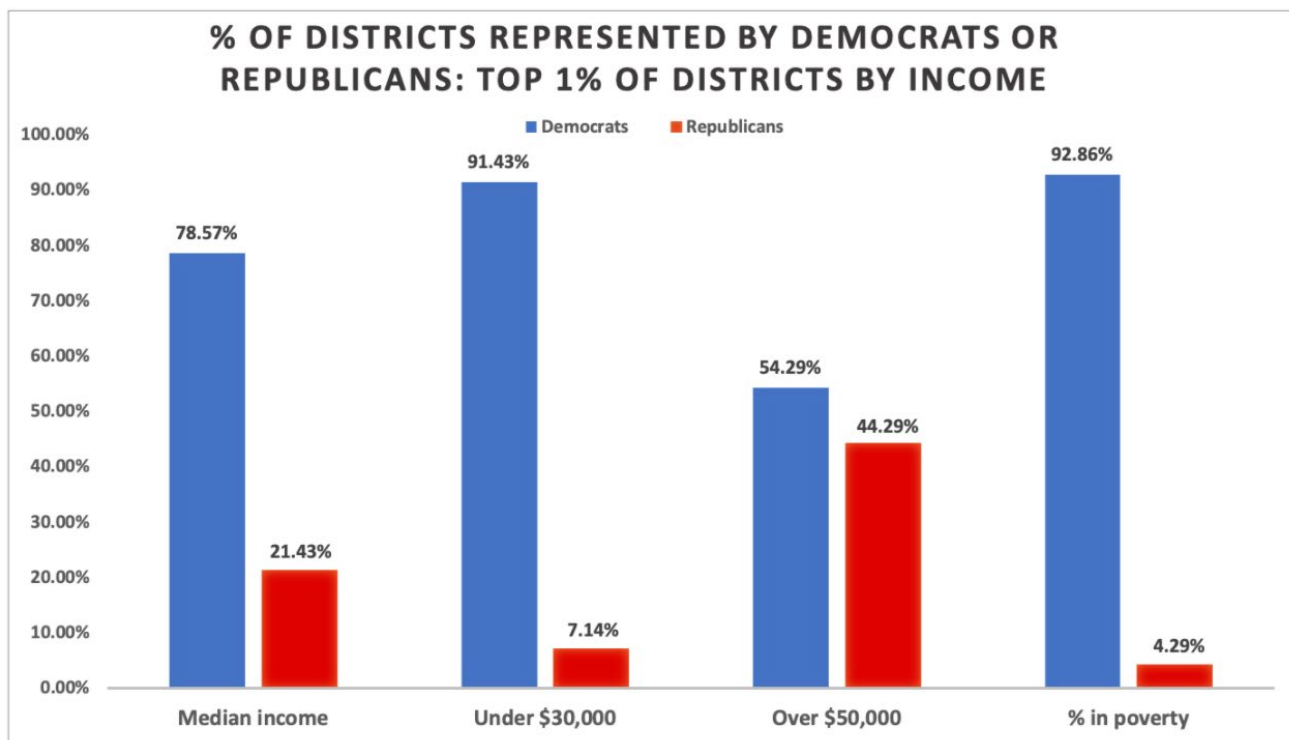
Taken together, the income indicators suggest that, in general, Republicans are more likely to represent more economically advantaged districts than less economically advantaged districts. However, when looking at the most and least advantaged districts, Democrats represent the majority of both, indicating that Democrats have constituents at a broad range of incomes, from the most impoverished to the highest median incomes in the country. Republicans appear to represent a narrower constituency of districts where people are less likely to struggle economically.

Ultimately, H2 was partially supported. Though Democrats and Republican-held districts have similar median income averages nationally, this appears to be partially because Democrats represent far more impoverished districts than Republicans do. However, the national percentile results also demonstrate that Democrats represent the majority of very wealthy districts compared to Republicans. H5 was fully supported, with Democrats representing the majority of districts with the most constituents making more than $50,000 a year and the majority with the highest median incomes in the top 1%. Further, they hold a virtual tie with Republicans in the upper quartile of districts making more than $50,000 a year and

represent the majority of constituents in the upper quartile for median income. Finally, H4 was also supported, with trends tracking at the congressional level.

6.3 Education indicators

6.3.1 *Nationwide Results* – For education, we similarly split the three education indicators (high school degree only, bachelors' degree, and graduate degree), into percentiles and determined how many were held by each of the two major political parties. We found that as the percentage of people with a bachelor's degree increases in a district, the likelihood of having a Democratic state legislator increases. Conversely, as the percentage of people with a high school diploma as their highest degree increases in a district, the likelihood of having a Democratic state legislator decreases. Further, Democrats represent the majority of districts with the the largest concentration of people with graduate degrees. This indicates that state legislative Democrats are representing districts with more formally educated constituents than state legislative Republicans.

Table 3: Partisan Representation by Education Variables

Democratically held districts*

	0-10%	10-20 %	20-30 %	30-40 %	40-50 %	50-60 %	60-70 %	70-80 %	80-90 %	90-100 %
High School	100%**	92.75%	83.17%	66.55%	55.64%	33.70%	20.61%	-	-	-
Bachelor's	100%**	58.45%	37.19%	33.04%	47.08%	58.44%	68.33%	81.97%	90.91%	-
Graduate	33.08%	50.42%	71.39%	89.47%	100%	100%	-	-	-	-

*Republican-held districts are not included as the two-party system is so ingrained in the United States that the Republican-held district table is almost an identical mirror to the Democratically-held district table (i.e., if the district is not represented by a Democrat, it is probably represented by a Republican).

**These percentiles are sparse, with only 1 district in the 0-10% group for High School as the highest education achieved and only 4 districts in the 0-10% group for Bachelor's degree.

Chart 9. Partisan Representation by Education Level in the District
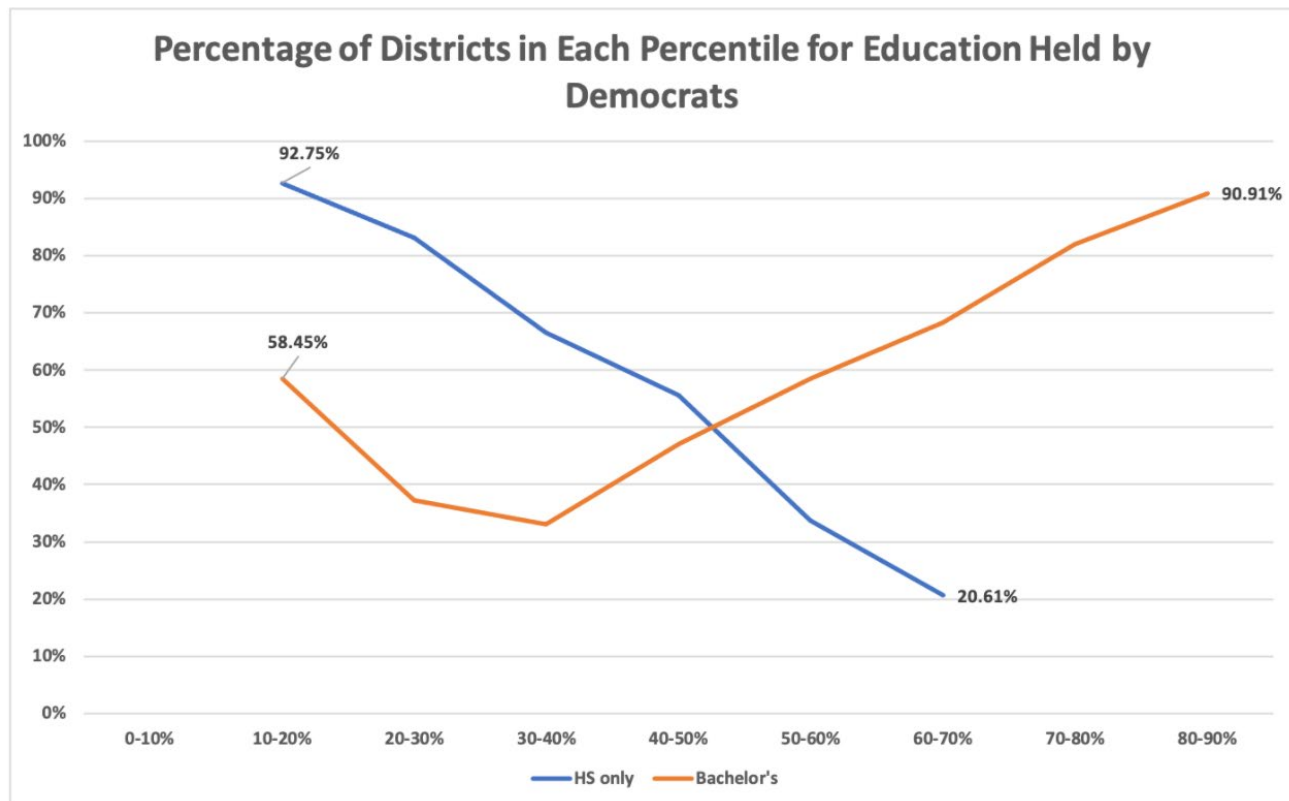
Please note: the lowest percentile listed for the High School and Bachelor's groups in Table 4 was dropped from Chart 3 for sparseness.

6.3.2 *Upper Quartile Results* – For the upper quartile analysis, we determined upper quartiles for three different education variables: high school diploma only, bachelor's degree, and graduate degree. In line with the nationwide results, Democrats represent 63%+ of the state legislative districts in the upper quartile of districts by percentage of people who hold a bachelor's degree and percentage of people who hold a graduate or professional degree. Similarly, as indicated by the nationwide results, state legislative districts represented by Republicans were more likely to have a higher concentration of constituents with high school diplomas as their highest degree. These results continue to indicate that Democrats represent state legislative districts with a larger percentage of formally educated constituents.

Chart 11. Partisan Representation of Top Quartile of State Legislative and Congressional Districts by Income
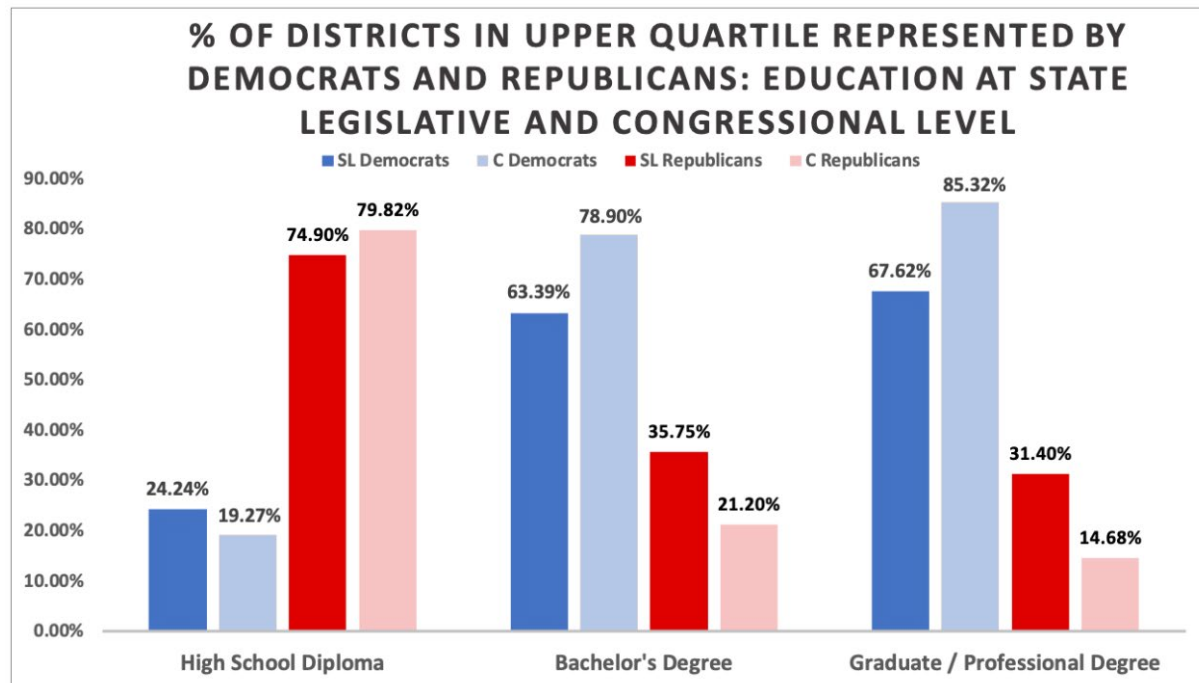
6.3.3 *Top 1% Results* – Looking at the top 1% of districts for the same categories as the quartile analysis, the trend holds and becomes even more exaggerated. Democrats represent 88%+ of the top 1% of state legislative districts with the largest percentage of both college educated and graduate or professional school educated constituents. Republicans represent 70% of the state legislative districts with the highest concentration of people who have obtained a high school diploma as their highest degree.

Chart 12. Partisan Representation of Upper 1 % of State Legislative Districts
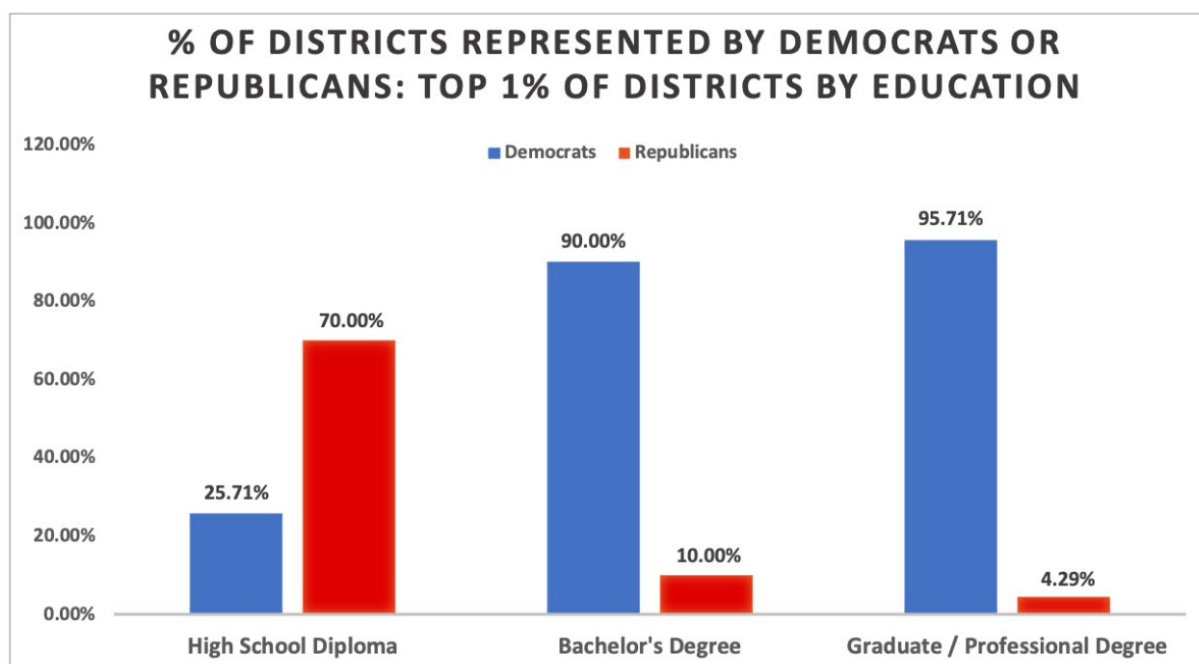
Overall, the education results indicate that, across all of the analyses and indicator types, state legislative Democrats represent more formally educated constituencies than state legislative Republicans. These results are similar at the congressional level, which also tracks with national trends for college educated voters to vote for Democrats.

This means that H3 was supported: Democrats represent districts with a higher percentage of college educated constituents. H5, that Democrats would represent the majority of districts in which voters have higher education degrees in the upper quartile and top 1 % of districts in bachelor's and graduate degrees, was also supported. And finally, H4 was fully supported as the education trends track at the congressional level as well.

7. Discussion

The data generally supported or partially supported all of the hypotheses. It is clear that state legislative Democrats represent the most racially and ethnically diverse districts, across all levels of income, and are more likely to represent districts with higher educational attainment levels. Republicans, on the flip side, tend to represent whiter districts, districts with lower levels of poverty, and who tend to have a high school diploma as their highest degree.

Other than education level, Republican constituencies do not align with the demographics of the US as a whole. This begs the question: how do Republicans have a state legislative majority in the country while they represent constituents who describe a minority of people in this country? It isn't entirely clear, but it almost certainly involves gerrymandering, since the people being represented by Democrats, and therefore electing Democrats, actually represent the majority of people in the country.

Democrats tend to represent state legislative districts that reflect demographic trends in the country -- districts that are more diverse in terms of race and income, and more educated.

Racially diverse voters tend to vote Democratic. As the nation gets more racially and ethnically diverse, fairly drawn districts should proportionately reflect these increases by increasing Democratic representation. Similarly, higher educational attainment is associated with higher levels of Democratic voting. Therefore, as more Americans have bachelor's and graduate degrees, this too should increase Democratic representation in state legislatures. In terms of income, wealth inequality is increasing, and federal and statewide Republican officials continue to oppose measures designed to bolster the

social safety net (like extended unemployment benefits and raising taxes on the wealthy).

Overall, it appears that all growing constituencies in the US trend Democratic, while Republicans are mostly dominating in constituencies that are decreasing in population share every year. If maps are drawn fairly, we should see state legislative districts that are increasingly represented by Democrats.

However, we know that maps are not always drawn fairly. Gerrymandering, a common practice for both congressional and state legislative maps, allows politicians to draw maps that minimize the voices of these growing constituencies (especially as it comes to race and income) and overrepresent the voices of these fading constituencies (i.e., white people). Since many states still allow partisan state legislators to draw the district maps, this means that people who gerrymandered their way into power can preserve that power by continuing to gerrymander the maps. They do this by drawing maps that "pack" constituents that belong to groups that traditionally vote for the party not drawing the maps into districts together to concentrate their voting power into fewer districts, and by "cracking" these same kinds of constituents into multiple districts where their voices are overshadowed by constituents who will vote for the map-drawing party.

Gerrymandering presents a unique challenge for this type of analysis, as in some badly gerrymandered states, the official representing a district may not actually reflect the voices of the constituents in an area. This bias is present for both congressional and state legislative maps, as the same people often create both. This means that some demographics for districts that are known to be badly gerrymandered, like those in North Carolina and Wisconsin, may not reflect the demographics of the geographical area or region's constituencies. This may attenuate, and already appears to be attenuating, Democratic power at the congressional and state legislative levels.

This data is archival and is not an exhaustive examination. In addition to omitting the New Hampshire house, it is only a snapshot in time of the current representatives in these districts. The data may or may not be the same in the future. Further, in aggregating the data, it may be difficult to determine if certain states, regions, or types of chambers are behaving differently. More research is needed to determine if these trends persist over time, and if other trends exist that are not currently explored here, like those relating to age or gender. Additionally, gerrymandering undermines the voices of the voters living in a district and gives that power to elected officials drawing state legislative and congressional maps

instead. More research needs to be done to determine how gerrymandering affects the ways that different constituencies are able to voice their preferences at the ballot box (and therefore affects partisan representation). This research presents an interesting starting point in exploring how demographics and partisan representation intersect at the state legislative level, and how those trends compare to those seen at the congressional level.

References:

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Craig, M. A., & Richeson, J. A. (2014). On the precipice of a "majority-minority" America: Perceived status threat from the racial demographic shift affects White Americans' political ideology. *Psychological science*, 25(6), 1189-1197.

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Appendix
Quartiles, Appendix References

6.1.2 *Appendix References*

Table 6a: Summary of upper quartile of racial populations by state legislative and congressional districts

Racial category - upper quartile range	State Legislative		Congressional	
	Democratically repped districts in top quartile (% of total districts in upper quartile)	Republican repped districts in top quartile (% of total districts in upper quartile)	Democratically repped districts in top quartile (% of total districts in upper quartile)	Republican repped districts in top quartile (% of total districts in upper quartile)
% AAPI - 4.3-80.7%	1,307 (/1,740 = 75.11%)	418 (/1,740 = 24.02%)	97 (/109 = 88.99%)	12 (/109 = 11.01%)
% Black - 14-95.8%	1,141 (/1,734 = 65.80%)	584 (/1,734 = 33.68%)	66 (/109 = 60.55%)	41 (/109 = 37.61%)
% Latinx - 12.6-94.9%	1,149 (/1,744 = 65.88%)	584 (/1,744 = 33.49%)	74 (/108 = 68.52%)	33 (/108 = 30.56%)
% Native American - 0.6-82.5%	505 (/1,537 = 32.86%)	1,014 (/1,537 = 65.97%)	27 (/91 = 29.67%)	64 (/91 = 70.33%)
% white - 88.1-99.7%	378 (/1,732 = 21.82%)	1,333 (/1,732 = 76.96%)	20 (/109 = 18.35%)	87 (/109 = 79.82%)
% racial/ethnic minority - 40.5-97.7%	1,499 (/1,740 = 86.15%)	228 (/1,740 = 13.10%)	92 (/108 = 85.19%)	14 (/108 = 12.96%)

6.2.2 *Appendix References*

Table 8a: Summary of upper quartile of income indicators for state legislative and congressional districts (Independent/third party repped districts only included in denominator)

Indicator - upper quartile range	State Legislative		Congressional	
	Democratically repped districts in top quartile (% of total districts in upper quartile)	Republican repped districts in top quartile (% of total districts in upper quartile)	Democratically repped districts in top quartile (% of total districts in upper quartile)	Republican repped districts in top quartile (% of total districts in upper quartile)
Median income - $74,820 - $206,176	936 (/1,746 = 53.61%)	799 (/1,746 =45.76%)	80 (/109 = 73.39%)	29 (/109 =26.61%)
Under $30,000 - 30.6 - 60.8%	952 (/1,742 = 54.65%)	779 (/1,742 = 44.72%)	55 (/107 = 51.40%)	49 (/107 = 45.79%)
Over $50,000 - 67.6 - 90.6%	873 (/1,742 = 50.11%)	858 (/1,742 = 49.25%)	77 (/109 = 70.64%)	32 (/109 = 29.36%)
% poverty - 17.2 - 57.6%	1,102 (/1,735 = 63.52%)	622 (/1,735 = 35.85%)	64 (/109 = 58.72%)	42 (/109 = 38.53%)

6.3.2 *Appendix References*

Table 10a: Summary of upper quartile of education indicators for state legislative and congressional districts (Independent/third party repped districts only included in denominator)

Indicator - upper quartile range	State Legislative		Congressional	
	Democratically repped districts in top quartile (% of total districts in upper quartile)	Republican repped districts in top quartile (% of total districts in upper quartile)	Democratically repped districts in top quartile (% of total districts in upper quartile)	Republican repped districts in top quartile (% of total districts in upper quartile)
% high school diploma - 56.8 - 69.2%	422 (/1,740 = 24.25%)	1,303 (/1,740 = 74.89%)	21 (/109 = 19.27%)	87 (/109 = 79.82%)
% bachelor's degree - 48.3 - 88.4%	1,104 (/1,740 = 63.45%)	622 (/1,740 = 35.75%)	86 (/109 = 78.90%)	23 (/109 = 21.20%)
% graduate or professional degree - 14.9 - 57.4%	1,180 (/1,745 = 67.62%)	549 (/1,745 = 31.46%)	93 (/109 = 85.32%)	16 (/109 = 14.68%)

Top 1% Appendix References

6.1.3 *Appendix References*

Table 12a: Summary of upper 1% of income and education indicators by state legislative districts

Indicator - upper 1%	Democratically repped districts in top 1% (% of top 70 districts)	Republican repped districts in top 1% (% of top 70 districts)
% AAPI - 35.6-80.7%	66 (/70 = 94.29%)	4 (/70 = 5.71%)
% Black - 72.7-95.8%	70 (/70 = 100%)	0 (/70 = 0%)
% Latinx - 71-94.9%	61 (/70 = 87.14%)	9 (/70 = 12.86%)
% Native American - 19-82.5%	36 (/70 = 51.43%)	31 (/70 = 44.29%)
% white - 96.7-99.7%	18 (/70 = 25.72%)	48 (/70 = 68.57%)
% racial/ethnic minority - 89.90-97.7%	66 (/70 = 94.29%)	4 (/70 = 5.71%)

6.2.3 *Appendix References*

Table 13a: Summary of upper 1% of income and education indicators by state legislative districts

Indicator - upper 1%	Democratically repped districts in top 1% (% of top 70 districts)	Republican repped districts in top 1% (% of top 70 districts)
Median income - $135,763 - $206,176	54 (/70 = 77.14%)	16 (/70 =22.86%)
Under $30,000 - 49.7-60.8%	63 (/70 = 90%)	6 (/70 = 8.57%)
Over $50,000 - 84.9-90.6%	38 (/70 = 54.29%)	31 (/70= 44.29%)
% poverty - 34.8-57.6%	64 (/70 = 91.43%)	4 (/70 = 5.71%)

6.3.3 *Appendix References*

Table 14a: Summary of upper 1% of income and education indicators by state legislative districts

Indicator - upper 1%	Democratically repped districts in top 1% (% of top 70 districts)	Republican repped districts in top 1% (% of top 70 districts)
% high school diploma - 64.9-69.2%	18 (/70 = 25.71%)	49 (/70 = 70%)
% bachelor's degree - 77.2 - 88.4%	61 (/70 = 87.14%)	9 (/70 = 12.86%)
% graduate or professional degree - 36.2-57.4%	65 (/70 = 92.86%)	5 (/70 = 7.14%)