VVN Research

Voter Purge Trends Among White and Black Voters, January 2020 to December 2021

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Executive Summary

Voters are added and removed from state voter rolls on a revolving basis, in a process referred to as "purging." VVN embarked on a large-scale, longitudinal research project involving over 400 voter file releases in calendar years 2020 and 2021 comparing purge rates for Black and White voters in order to provide voter protection practitioners a baseline and to isolate problematic jurisdictions. VVN performed a full churn analysis on each set of voter files to discern which voters were new to the state's rolls, which voters were dropped, and which voters remained on the rolls but changed their residential address. ***The purge rates for Black and White voters are remarkably similar nationally, but we did find some state and county jurisdictions removing voters at alarmingly high rates. Further research will be required to accurately estimate the number of voters illegally removed from the rolls.***

Background

In performing purges, Secretaries of State use a myriad of approaches, vastly different algorithms, and operate under byzantine, vague regulations. Recent rulings in federal court have enabled some states to embark on aggressive purge regimens. In most cases, researchers do not have access to the lists of voters purged, nor do we have access to the specific "Reason Codes" for each individual removed. We are forced to rely on big data analysis of successive releases of the Secretary of State voter files, applying fuzzy matching algorithms on name, address, and demographic data. The quality and availability of these files varies wildly by state.

States are required by federal law to periodically remove voters who have moved or died. Some state laws further require removing individuals who recently received a felony conviction or those who have been classified as mentally incompetent. However, the statutory language in the National Voting Rights Act (NVRA) requiring voter file maintenance and voter file purging is imprecise, and courts have allowed states considerable leeway in complying with the federal mandate. Faulty matching algorithms, in which two individuals with the same, or nearly the same, name or birth date may be incorrectly linked, disenfranchising bona fide voters. Postcards sent by election officials to voters to determine changes of address may not be returned by voters for a variety of reasons, resulting in over-aggressive purges.

The 2018 Supreme Court ruling on Ohio's purge procedures, Husted v. Randolph, further complicated the process. While the NVRA precludes removing voters solely for failing to vote, Ohio pushed the limits of the law. In the Buckeye state, voters who fail to vote for two years are sent notifications via the US Postal service to confirm their registration. If the voter fails to return the card, and they do not vote in the next two federal elections, they are purged from the rolls even if they remain at their current address. Surprisingly, the Husted ruling found that while Ohio's methodology was imperfect, the Court deemed it sufficiently "rigorous" to meet NVRA

requirements. This decision set a dangerous precedent for future widespread voter suppression as increasingly partisan-infused individuals are flooding the ranks of election officials at both the county and the state levels.

The VVN Research Model

VVN collated voter file data at the state and county level. Age, vote history and voter registration dates are derived directly from public data, backfilling some missing birthdate data with consumer data sets.

Race is not available in most jurisdictions; VVN assigned race at the level of the individual voter using a leading political industry predictive model. Due to persistent anomalies in race modeling, this analysis excludes voters identified as Asian or Hispanic (for more details, see the notes on methodology at the end of this report).

VVN examined data from all 50 states and the District of Columbia. We excluded voter files in Alaska, Iowa, New Hampshire, Pennsylvania, South Carolina, Virginia, and Utah for data quality issues.

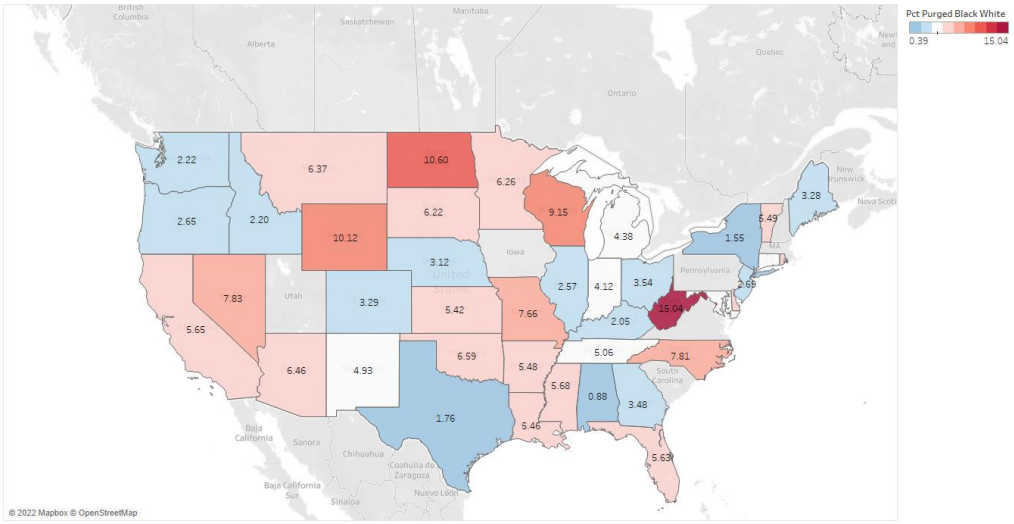
It is extremely important to note that up to 50% or more of voters purged occur in routine DMV or Social Security Death Index checks and not in the periodic large-scale purges that dominate the news and social media. Focusing solely upon large scale, statewide purges may miss long term purge trends.

Preliminary Findings

The purge rates for Black and White voters are remarkably similar. Our data does indicate that the methodology for removing voters is far more aggressive in some jurisdictions than in others. In 19 states and the District of Columbia, the total percentage of White voters removed from the rolls exceeded the percentage of Black voters removed. In 24 states, the percentage of Black voters purged was higher than the total percentage of White voters.

VVN found that 7.3 million Black and White Americans were purged from voter rolls in 2020 and 2021 in the 44 states in our research universe. This constitutes a nationwide combined purge rate of 4.46% for individuals of both races. Contrary to widespread belief, but in line with previous academic analysis, ***the nationwide purge rate for White Americans of 4.49% slightly exceeds the nationwide purge rate for Black Americans of 4.28%.*** West Virginia purged the largest percentage of voters, at 15%. However, West Virginia is also the "biggest loser" in population. The state shed nearly 60,000 residents from 2010 to 2020, with the overall population falling from 1.85 million to 1.79 million.

Average Combined Purge Rate for Black and White Voters by State[1]



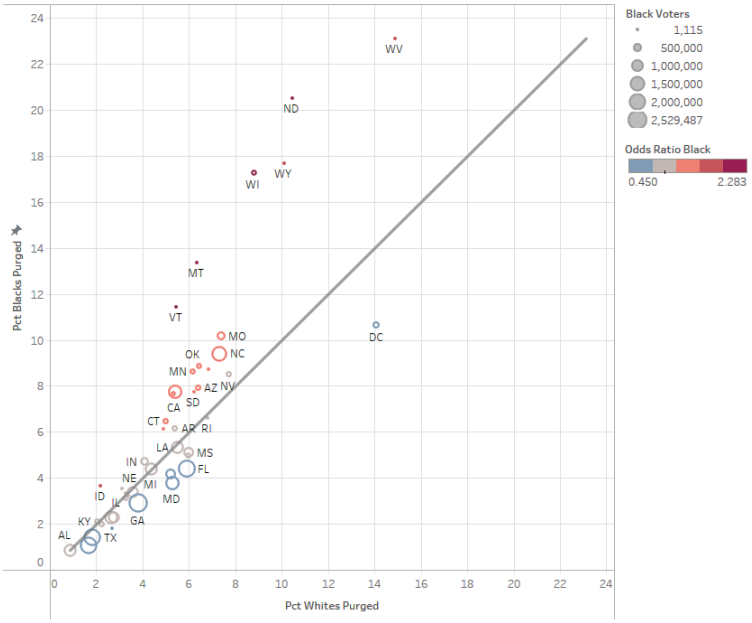
Purge rates vary markedly between states. While 15 states had a combined purge rate of between four and six percent, many states purged voters at a far higher or lower rate than the national average. Six states (Alabama, Idaho, Kentucky, New York, Texas, and Washington) had a combined purge rate of less than half of the national average, while five jurisdictions (North Dakota, Washington D.C., Wisconsin, West Virginia, and Wyoming) had a combined purge rate of more than twice the national average.

When nearby states are examined side-by-side some of the disparities are striking. Indiana and Wisconsin combined have 7.9 million Black and White voters – only half a million more than Illinois' 7.4 million. However, Indiana and Wisconsin combined to purge more than 495,000 voters. Illinois, conversely, purged just 191,000 voters. Many factors explain interstate variance in purge rates. In Wisconsin, same-day registration requires more exhaustive list maintenance than in states with traditional registration laws, possibly elevating the state's purge rate.

North Carolina purges voters at one of the most aggressive rates in the nation. However, the presence of large military installations, at which significant numbers of uniformed personnel frequently cycle in and out, may account for at least part of the difference. Counties with some of the highest purge rates are also home to big bases. Onslow County purged 16.6% of its voters, but the county is home to Camp LeJeune. Cumberland County purged 17.3% of total voters--the highest purge rate in the state-- but the county contains Fort Bragg, with over 50,000 active-duty soldiers.

[1] In this map, the states are colored by purge rate, with white representing the national average of 4.4%, blue representing rates below the national average, and red representing rates above the national average. Rates that diverge more widely from the mean of 4.46% are shaded progressively darker. States omitted from our analysis are colored gray.

Purge Rate among Black Voters vs. Purge Rate Among White Voters[2]



Of the 25 states where Black Americans constituted more than 5% of total voters, five (California, Connecticut, Missouri, North Carolina, and Oklahoma) removed Black voters 25% more frequently than they removed White voters. In the most extreme cases, California purged 7.75% of Black Voters but only 5.39% of White Voters, while Oklahoma purged Black and White voters at rates of 8.87% and 6.44%, respectively. Conversely, of those same 25 states, seven (Florida, Georgia, Massachusetts, Maryland, New York, Texas, and Washington D.C.) purged White voters at least 25% more often than Black voters. In the most extreme cases, New York State purged 1.65% of White Voters but only 1.06% of Black Voters, while Maryland purged White and Black voters at rates of 5.29% and 3.77%, respectively. In Wisconsin, while Black voters constitute a smaller percentage of total voters than the states listed above, Blacks were purged at significantly higher rates than Whites (17 % of Black voters were purged versus just over 8% of White voters).

When comparing statistical results on test groups of different sizes, variances can be exaggerated in small samples. For example, there are more than half a million Black voters on the voter file in Los Angeles County, California, but just 123 Black voters in Alamosa County, Colorado. Even one Black household moving in Alamosa would substantially increase the purge rate. This phenomenon is especially apparent in New England.

Purge Rates by County

[2] - The color of bubbles is based on the ratio between the purge rate among Black voters and White voters – red means Black voters purged at higher rates; blue means white voters purged at higher ratios.
- The size of each bubble corresponds to number of Black voters in each state
- The trend line represents what would be complete equality of purge rate between white and Black voters

Purge rates at the county level show even more dramatic variance, raising alarm bells that some jurisdictions are implementing potentially illegal or overly aggressive list maintenance procedures. Interestingly, inordinately high purge rates affect both Black and White voters. Of the 2,728 counties analyzed nationwide, the majority (1,776 counties) purged between 2% and 7% of Black and White voters, while another 430 counties removed fewer than 2% of voters. However, more than one in twenty counties nationally purged over 10% of Black and White voters, with the 39 highest-purging counties each culling over 15% from both groups.

Disparities between the purge rates among White and Black voters can be more pronounced in counties than at the state or national levels. In the 799 counties where Black voters constituted more than 5% of voters, the majority (419 counties) purged White voters and Black voters at approximately the same rate; in these counties, neither Black voters nor White voters were purged at a rate more than 25% higher than the other race-specific group. However, in 42 counties, the purge rate among Black voters exceeded the purge rate among White voters by greater than 50%. In another 107 counties, the purge rate among White voters exceeded the purge rate among Black voters by more than 50%.

County Population Drill Down

Purge rates are to some extent correlated to a county's population; often, smaller counties purge at the highest rates. Of the 39 counties that purged more than 15% of voters, 25 had fewer than 20,000 voters on the rolls. Meanwhile, of the 46 lowest-purging counties (each purging below 0.9%), only 20 had voting populations smaller than 20,000. The issue of small sample sizes discussed earlier in this paper may play a role in this disparity – inferences drawn on data from smaller counties will, by definition, tend to have higher margins of error. Still, the purge rate for Black and White voters living in counties with fewer than 20,000 total voters exceeded that among Black and White voters living in larger counties by a margin of 0.59 percentage points.

Voters On File	Counties	TotalVoters	PctPurged	PctBlacksPurged	PctWhitesPurged	OddsRatioBlack	OddsRatioWhite
More than 20,000	1,264	151,743,952	4.41	4.27	4.44	0.96	1.04
Fewer than 20,000	1,464	11,840,854	5.00	4.48	5.05	0.89	1.13

Most of the low-population, high-purge-rate counties have disproportionately White populations. Of the 39 counties with purge rates in excess of 15%, Black voters constituted more than 7% of the file in just four counties – in 34 of those counties, more than 70% of voters were White. As a result of this phenomenon, some majority White working class counties, particularly rural counties, sport alarmingly high purge rates. Purge rates for White working-class counties are especially troubling in Arkansas, including Johnson (36%), Hempstead (22%), Jefferson (18%), and Lincoln (17%), with Lee and Lonoke removing White voters at 12.5%. Several states are

disproportionately represented in the 150 counties with the highest purge rates for Whites. These include North Carolina (15), North Dakota (14), Wisconsin (10), Arkansas (7), Missouri (8), and Tennessee (7). 4 of 15 rural White counties in Nevada also appear in the top 150.

The disparity in purge rates between voters living in low- and high-population counties has many causes. Due to sample size, our analysis likely overstates the extent to which small counties purge. Macroeconomic factors also likely play a role. Smaller counties tend to have high unemployment rates, low household median incomes, low life expectancies and often low voter turnout; each of these indicators may impact county-wide voting propensity potentially placing more voters in line for removal.

Trends in county-level population growth rates may also play a role in high purge rates in rural counties. Counties that are losing population will obviously have a high purge rate. West Virginia's Monongalia County shed 15,976 voters in 2020-2021 in a jurisdiction with just 62,432 total voters. VVN's linear regression analysis returned a negative, statistically significant relationship between population growth and purge rates; purge rates tend to increase in counties with small growth rates, not only in counties losing population. Many of the counties with overall purge rates above 15% are losing population. Conversely, large counties experiencing robust growth (Fulton in Georgia, Maricopa in Arizona, or Harris in Texas) can mask a relatively high number of individual purges through net population growth.

Purge Rates and Density of Subgroups

Mirroring the above trend, individuals in racial subgroups were more likely to be purged in regions where their racial group was less prevalent. This phenomenon exists at both the state and county levels. Black voters constituted less than 5% of total voters in each of the five states with the highest purge rate among Black voters (Montana, North Dakota, Vermont, West Virginia, and Wisconsin). The same five states also had the widest gaps between Black purge rates and White purge rates in the country, with each purging Black voters at least 75% more often than White voters. Meanwhile, the three states with the lowest purge rates among Black voters (Alabama, New York, and Texas) all have large Black voting populations, with Black voters constituting more than 11% of all voters in each state. Each of these states purged White voters at a higher rate than Black voters.

Across state lines, the purge rate among Black voters living in counties where more than 5% of voters were Black was nearly 1.3 percentage points lower than in counties with smaller Black populations. Just 1.6 million or 6.6% of all Black voters reside in counties in which Black voters constitute less than five percent of the county's voter file, yet they were responsible for 9% of all Black purges nationwide. Perhaps more importantly, Black voters were 25% more likely than White voters to be purged in these counties, despite having a lower purge rate than White voters nationwide.

The COVID Factor

Roughly one million Americans have now lost their lives to COVID. While the precise number of these deaths among registered voters is unknowable, it is likely that the COVID death toll is having an impact on purges. Generally, voters in recent elections are infrequently purged. Historical purge research conducted by VVN found that fewer than 10% of voters purged will have cast a ballot in the most recent federal election. In our 2020-2021 analysis, VVN found much larger-than-expected purges among 2020 voters. In Pima County (Tucson) 49% of voters purged voted in the 2020 election. Detroit's Macomb County saw 63% of purged voters voting in 2020, while Brooklyn's Kings County saw 34% and Miami's Dade County saw 64%. We believe that COVID deaths are in large part responsible but are continuing to investigate. Older voters vote with greater propensity than younger voters, and, as demonstrated in the table below, nearly ¾ of COVID deaths occurred among individuals aged 65 years or older.

COVID Deaths by Age Cohort (as of 4/6/2022)[3]

Age Group	***Deaths***
0-17	962
18-29	6,129
30-39	17,807
40-49	42,366
50-64	184,388
65-74	226,178
75-84	253,601
85+	251,987

Avenues for Further Research:

VVN sees a number of compelling paths for legal and legislative action and further research:

*Voter protection practitioners can shed significant light on purges by gathering more data containing both the lists of voters purged (eliminating the need for large scale fuzzy name and address matching) as well as the Reason Codes for the individuals removed.

*Research linking the rates of residential moves should be applied to high purge geographies.

*Mortality statistics need to be appended at more granular geographies, perhaps at levels as small as the Zip Code.

[3] https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm#SexAndAge on 4/6/2022

*Deeper knowledge of the purge algorithms deployed by Secretaries of State and county election officials is crucial. Statutory language often provides little or no guidance on the specific criteria used to remove voters from the rolls.

*Moving forward, VVN will strive to craft baseline numbers for Hispanics and Asians, but we will likely focus on areas of high concentration among these populations—modeling the suburbs for race presents too many confounding data points. VVN will begin to overlay county level voter turnout to purge rates.

*VVN will conduct more drill-down research on voter turnout and purges at the precinct level.

*VVN will begin to more fully correlate purge rates with local conditions. A factory closure or the presence of a prison or university may explain high local purge rates.

*In recent years, more states have joined the Electronic Registration Information Center (ERIC), a multistate voter maintenance tool created by the Pew Charitable Trusts. ERIC's cross state analysis may identify more out of state purges and may have an impact on purge rates between ERIC and non-ERIC jurisdictions.

* Correlations between day-registration and vote-by-mail must be examined in greater detail. Wisconsin, a same day registration state, still sports robust purge rates. Vote-by-mail programs have proven effective in increasing voter turnout but may disenfranchise those whose ballots are incorrectly sent back to election officials by postal authorities.

Notes On Research Methodology:

VVN utilizes in-house, proprietary fuzzy matching algorithms to conduct a full churn analysis, determining if a voter is new to the rolls, has fallen off the rolls, or has moved to a different address in state. VVN examines name, address, and birth date data for each new release of the voter file. Secretary of State identification numbers are included in the analysis but are often of marginal usefulness. Often, voters who move are assigned a new state file id, and even minor changes in a voter's record, such as the inclusion or deletion of a middle name, can trigger a change in a voter's state file id.

Race is assigned at the individual level using an industry standard third-party model. Race is a social construct, not a mathematical absolute, and assigning a race to each of the more than 200 million adults on the national voter rolls necessarily carries a significant margin of error. Since those margins are generally higher for Asians and Hispanics, the first release of this report focuses on individuals flagged as Caucasian (White) or Black. With intermarriage by 2015 running at 27% for Hispanics and 29% for Asians, name matching algorithms are becoming increasingly error prone particularly among women, who often change surnames upon marrying. Assimilation further complicates the analysis. In 2017, a Pew Research Center analysis estimated that 11% of Hispanic adults no longer self-identified as Hispanic, a number that grows each year. As Hispanic communities become more diffuse, with fewer Hispanics and Asians residing in

urban ethnic clusters and more residing in far more integrated suburbs, accurate analysis becomes even more difficult. Asian names are often inexpertly rendered on Secretary of State voter files, and first/middle/last names may appear in different orders in different releases of the file. Sometimes, all or part of a surname may appear or disappear with each successive release, exacerbating accurate name matching over various releases of the data.

Counts of voters purged are cumulative over the study period. Percentages are derived by counting the number of voters purged in all voter files we examined in the two-year period and dividing by the number of voters listed on the most recent voter file studied. One of the primary disadvantages of this method of voter file analysis is the potential for overstated (and therefore untrustworthy) results due to small and inconsistent sample sizes. When comparing results of a statistical analysis performed on test groups of different sizes, it is essential to consider that as the test groups decrease in size, any variance in data will correspond to a larger change in statistical indexes. In this cross-sectional analysis, voter file data is broken into demographic and geographic groupings that vary significantly in size. A baseline purge-rate is calculated for every group, regardless of population. To reiterate an example used earlier, although there are more than half a million black voters on the voter file in Los Angeles County, California, and only 123 black voters in Alamosa County, Colorado, we calculate the average purge rate both for Black voters in Los Angeles County and Black voters in Alamosa County with identical methodology.[1]

Prudent interpretation of the data in this paper requires a firm acknowledgement that calculated purge rates of larger groups of voters are significantly more trustworthy than those of smaller groups.

Seven jurisdictions were excluded for poor or inconsistent data quality:

AK and UT: These Secretaries of State allow large numbers of voters to mask their addresses on the public-facing voter file, rendering statistically significant churn analysis difficult.

IA, PA and SC: Inconsistency in file quality over the study period rendered analysis unreliable.

NH: Changes in the propagation of key dates and vote history and large variances in address quality rendered New Hampshire data difficult. New Hampshire purges voters once a decade. That purge occurred this spring, after VVN core research for this project was compiled and the results of that purge are not included in our analysis.

VA: Overlap and inconsistencies between the definition of cities and counties made county level analysis unstable.

The cadence of available state-based voter files is yet a further complication. In some jurisdictions, VVN examined 8 or even 9 different releases of the file. In other jurisdictions, we had only 2 or 3 releases. Analyzing multiple releases for each voter file leads to challenges identifying which (and how many) voters were actually removed from voter rolls; some voters will drop off in one release only to reappear, perhaps at a different address, in a different release months later. In those cases, a voter might be counted as purged in April, then tallied as new in

September after they re-register and reappear on the rolls. In voter files released a year apart, we will miss the short-term churn of that voter, counting them as a change of address.

State and county algorithms and methodologies for purging vary widely and are largely opaque to researchers. Some states perform list maintenance frequently, others just once a decade, while some run monthly checks on Department of Motor Vehicle records and the Social Security Master Death Index.

It is impossible to discern hypothetical outcomes of close elections based upon this research. We did not discern widespread fraud or malfeasance in these data; most voters purged have likely moved out of state or died. Purged individuals who remain in one state typically are profoundly infrequent voters. It should not be assumed that an individual who failed to vote in two federal elections would necessarily have voted in a third had they remained on the rolls. Previous research from VVN of voter history data suggest that the universe of voters who missed two consecutive federal elections and who remain on the voter rolls will vote at no greater than 10 to 15 percent frequency if the next federal election is a Presidential contest. They are likely to vote at 5% or less frequency if the next federal contest is a midterm. The key take-away here remains consistent: voters should not be removed from the rolls merely for choosing to skip several elections

A common, and pernicious, research mistake is to tally the number of purged voters, compare them to the size of the margin between candidates in previous elections, and then draft hypothetical election results based on the assumption of near 100% turnout of the voters purged. A second common mistake is the false assumption that most purged voters are progressive. The ideological spectrum of purged voters is far more evenly balanced.

Appendix A: Statewide Purge Rates

State	TotalVotersBlackWhite	TotalPurgedBlackWhite	PctPurgedBlackWhite	PctWhitesPurged	PctBlacksPurged	PctBlackVoters
AL	3655452	32213	0.8812	0.8906	0.856	26.18
AR	1749076	95926	5.4844	5.3897	6.131	12.28
AZ	3644627	235365	6.4579	6.3796	7.9286	3.8
CA	12315008	696353	5.6545	5.3922	7.7524	6.18
CO	3721708	122452	3.2902	3.2963	3.1295	3.12
CT	2168979	111614	5.1459	5.0044	6.4492	8.41
DC	484705	60071	12.3933	14.0864	10.6384	44.21
DE	731669	42222	5.7706	5.9762	4.9764	18.9
FL	12058281	678582	5.6275	5.8935	4.4002	13.88
GA	7032364	244948	3.4832	3.798	2.9226	32.37
HI	340192	23640	6.949	6.8398	8.7406	2.22
ID	1022350	22494	2.2002	2.196	3.6436	0.28
IL	7429379	191163	2.5731	2.6322	2.2608	13.55
IN	4532206	186909	4.124	4.0681	4.712	8.3
KS	1824627	98910	5.4208	5.3129	7.6482	4.27
KY	3517911	72067	2.0486	2.0454	2.0987	5.86
LA	2914283	159008	5.4562	5.5114	5.3422	30.77
MA	4187502	216733	5.1757	5.2674	3.7569	5.27
MD	4029227	193357	4.7989	5.2888	3.7677	28.81
ME	1149480	37662	3.2764	3.2762	3.3282	0.39
MI	7724303	338485	4.3821	4.3844	4.3673	12.9
MN	3450011	216120	6.2643	6.1592	8.6223	4.04
MO	4167094	319228	7.6607	7.3887	10.1767	9.48
MS	2084098	118327	5.6776	5.9693	5.1073	33.34
MT	743086	47309	6.3666	6.3464	13.3552	0.28
NC	6816126	532140	7.8071	7.3191	9.4059	21.39
ND	406690	43124	10.6037	10.4454	20.5	1.51
NE	1194678	37297	3.1219	3.1065	3.545	3.32
NJ	5158464	138588	2.6866	2.7637	2.2609	11.87
NM	725998	35762	4.9259	4.891	6.1483	1.45
NV	1582629	123847	7.8254	7.7291	8.5045	8.96
NY	10567937	163295	1.5452	1.6537	1.062	14.43
OH	7771332	275043	3.5392	3.559	3.3773	10.55
OK	2080379	137053	6.5879	6.4361	8.8734	5.65
OR	3294340	87392	2.6528	2.6652	1.8175	1.32
RI	719106	48747	6.7788	6.7867	6.6109	3.86

SD	622728	38761	6.2244	6.2099	7.7313	0.91
TN	4412312	223269	5.0601	5.217	4.1786	14.71
TX	11669027	205705	1.7628	1.8397	1.3967	11.69
VT	507113	27819	5.4858	5.4546	11.4264	0.51
WA	4557113	101309	2.2231	2.2323	1.9785	3.12
WI	3377741	308914	9.1456	8.7865	17.2651	4.06
WV	1146765	172470	15.0397	14.8809	23.118	1.91
WY	296710	30025	10.1193	10.0908	17.6682	0.36