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Abstract

Section 2 of the the Fourteenth Amendment of the US Constitution gives congress the power to reapportion congressional representation when the right to vote in a state is abridged for any reason "except for participation in rebellion, or other crime". Historically, however, all serious attempts to implement Section 2 have failed because of the the difficulty of quantifying the degree of voting rights abridgment given the available data. This article describes a computer model which quantifies voting rights abridgment for the states using only input information which was publicly available prior to the 1958 congressional election. The probable changes in the make-up of the 86th congress and possible impact on civil rights legislation at the time are also addressed. While it does seem that there was enough information available to model voter rights infringement, and thus to implement Section 2, it is questionable whether the ultimate impact on civil rights reform would have been material.
Keywords: fourteenth amendment, apportionment, simulation, nonlinear programming, civil rights, civil rights act

Introduction

One morning in late September, 1957, Victor Sharrow was eager to see President Eisenhower. He had arrived without an appointment at the President's summer house in Newport, Rhode Island carrying an armload of books and carefully compiled tables. His self-appointed mission was to bring an important matter to Eisenhower's attention: according to Sharrow's analysis, the Democrats were headed for another congressional victory in 1958. Fortunately, he had a solution which would allow the Republican president to avoid a divided government [18, pp. 89-90]. He urged that Republican congressmen must immediately push to enforce Section 2 of the Fourteenth Amendment of the US Constitution (14/2), which reads,

> Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice-President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

A widely read study by the Southern Regional Council, reported in the July 15, 1957 issue of *Newsweek* magazine, had concluded that very few eligible black voters in the South had actually voted in the previous election, presumably because their voting rights were being systematically abridged.[27] Under 14/2, this meant that Congress had the power to reapportion and take away House seats and presidential electors from these states. In those days the "Solid South" still voted overwhelmingly Democrat. In the 1956 election, 56 Southern Democratic members of Congress had run unopposed [16]. Victor Sharrow was a lukewarm Republican but a nearly fanatical supporter of the civil rights movement. He believed that enforcement of 14/2 would weaken the Southern voting block while giving more representation to progressive states like his own New York, finally allowing real progress in civil rights legislation. Alternately, Southern states could keep their seats in the house, but only if they dismantled the system of "Jim Crow" voting laws designed to keep black citizens from voting.

Victor Sharrow never got a chance to talk to Eisenhower. He was forced to leave his materials with a secret service agent. The closest he was allowed to come to the president was a quick glimpse of him across the golf course. Sharrow never knew whether his materials had been passed on [18, p. 90]. Even if they were, Eisenhower had more pressing matters to think about that September than an obscure clause in a century old constitutional amendment; throughout his "vacation" in Rhode Island, he had been trying to manage a rapidly escalating crises in Little Rock, in which Arkansas Governor Orval Faubus had deployed national guardsmen to openly defy school integration. Discussing a plan to enforce 14/2, and increase tensions with Southerners, would have been the last thing to interest Eisenhower at that point [1, pp. 413-423].

Victor Sharrow had no better luck with Vice President Richard Nixon, nor with the dozens of other politicians, journalists, and non-profit leaders that he contacted [18, pp. 89-138]. The Democratic party retained a comfortable majority in the 1958 election, yet Sharrow was undeterred. A union electrician who had put himself through law school at NYU, he had written his senior law note on the Fourteenth Amendment [19]. 14/2 became his lifelong obsession.

Denied entry to the New York Bar in 1951 for alleged "pinko" sympathies, he continued to work as an electrical contractor while spending most of his free time and money on a private campaign to enforce 14/2, self publishing a book on the subject in 1960 [10].

The Fourteenth Amendment had originally been intended to curb the political power of Southern representatives returning to congress after the Civil War. Section 2, allowing reapportionment of states that abridged voting rights, came over time to be regarded as nothing more than an "historical curiosity".[8, p. 2201]

Beginning around 1960, Sharrow instigated a series of at least fifteen court cases related to 14/2 [20]. While he was neither the first nor the only person to seek a judicial remedy, he was certainly the most persistent. Legal scholars Mark Killenbeck and Steve Sheppard have refer to him as the "section 2 warrior" [12]. Sharrow's court actions universally failed. Judges found various arguments to avoid ruling on apportionment, which they saw as a strictly political question. One of their more common arguments, cited in the decisions for such cases as Sharrow v Brown and Lampkin v Conner, was that the task of collecting enough information to show the amount of abridgment of voting rights in states and calculating the resulting change in apportionment were "Herculean" tasks, beyond the immediate ability of any of the parties in the cases [21][15]. Thus, in the eyes of the court, Sharrow and the other plaintiffs were incapable of describing the specific remedy they were seeking, and the cases were not justiciable. In fact the first congressional attempt to implement 14/2, in 1868, had been unsuccessful for exactly this reason. The task of gathering and analyzing data indicating all the reasons a citizen's voting might be restricted in each state was judged beyond the abilities of the 9th Census. The expedient Congress chose instead, simply adding a column to the census questionnaire for "citizens of the United States, being twenty-one years of age, whose right to vote is denied or abridged on other grounds than rebellion or crime", was too simplistic, required too much thinking on the part of respondents, and generated nonsense data which had to be discarded [27].

Was the task still impossible in the 1950's and 1960's? Based on information which was publicly available in 1957, would it have been possible to quantitatively estimate the extent of voting rights abridgment on a state-by-state basis? If so, and assuming that congressional representation was reapportioned per Section 2 of the Fourteenth amendment, how might this change the results of the 1958 congressional election?

Methodology

A four step process was used to model the amount of voting rights abridgment in each state in the 1956 presidential election, which would have been the most recent national election prior to the 1958 congressional election. All input data was taken directly from US Government publications from the period. The first step was to calculate the percentage of eligible voters (citizens over 21 whose

rights had not been abridged for "rebellion or other crime") who had actually voted in each state in 1956. The second step was to calculate a rough estimate of the degree of voter freedom in each state. In the third step, using only states which appeared to have a negligible degree of voting rights infringement, national average voter turnout rates were estimated for white, black, and other non-white voters. In the final step, the above data was used to create a simulation model to refine the estimates of voting freedom for each racial group in each state.

Based on the output of this model, and assuming that Section 2 of the 14th Amendment was applied literally, the resulting change in congressional apportionment was then calculated. Another simulation model was then used to explore the probable changes in party control of the House of Representatives after this revised apportionment.

Calculation of Actual Voter Turnout in 1956

Estimated populations of each state in 1956 are available from the US Census Bureau [3]. The bureau estimates populations in intercensal years by extrapolating from the most recent census. Numbers of citizens 21 and over and break-downs of state populations by racial category (white, black, and other non-white) are also available [22]. Voting statistics for federal elections are maintained by the Office of the Clerk of the House of Representatives[16]. Using this data, the total percentage voter turnout for citizens age 21 and over for each state can be approximated by equation 1.

$$T_i = \frac{(V_{56,i})(E_{50,i})}{(e_{50,i})(E_{56,i})} \tag{1}$$

Where:

T_i = total voter turnout in state i
$V_{56,i}$ = total votes cast in state i in 1956
$E_{50,i}$ = total population in state i in 1950
$e_{50,i}$ = total non-incarcerated population 21 or older in state i in 1950
$E_{56,i}$ = total population in state i in 1956

This data is summarized in table 1.

Initial Estimate of Voting Freedom Rates by State

The turnout, T_i is a function of the percentage of voters who are free to vote (U), the percentage of voters in each of racial category (P) and the *natural turnout rate* (T) for each racial group (i.e. the percentage of eligible citizens from that group who would vote if there were no restrictions). (eq 2).

$$T_i = U_{w,i}P_{w,i}T_{w,i} + U_{b,i}P_{b,i}T_{b,i} + U_{o,i}P_{o,i}T_{o,i} \tag{2}$$

Where:

$U_{w,i}$ = voting freedom rate of whites in state i
$P_{w,i}$ = fraction of state i's total population that is white
$T_{w,i}$ = natural turnout rate for whites in state i
$U_{b,i}$ = voting freedom rate of blacks in state i
$P_{b,i}$ = fraction of state i's total population that is black
$T_{b,i}$ = natural turnout rate for blacks in state i
$U_{o,i}$ = voting freedom rate of other non-whites in state i
$P_{o,i}$ = fraction of state i's total population that is other non-white
$T_{o,i}$ = natural turnout rate for other non-whites in state i

In order to estimate the U terms, assume that the natural turnout for each racial group in each state is equal to the mean turnout for the entire nation in 1956, 58.181%. First approximations for the (U) terms are then found by minimizing equation 3 for each state:

Minimize:

$$0.58181(U_{w,i}P_{w,i} + U_{b,i}P_{b,i} + U_{o,i}P_{o,i}) - T_i \tag{3}$$

For decision variables:

$$U_{w,i}, U_{b,i}, U_{o,i}$$

Subject to:

$$U_{w,i}, U_{b,i}, U_{o,i} \in [0, 1]$$
$$U_{w,i} \geq U_{b,i}$$
$$U_{w,i} \geq U_{o,i}$$

The later two constraints are based on the assumption that white voters in 1956 were always more free from voting restrictions than non-white voters. Finding the minimum yields an approximate solution even if the system does not have an exact, unique solution in the interval [0,1].

The overall voting freedom rate, $\bar{U}$, is the average of the U terms weighted by the population percentages. Based on the approximate U terms, 25 states had a $\bar{U}$ of 100%, indicating that there was little or no voting abridgment in these states.

Calculation of Natural Voting Turnout Rates by Racial Group

The average turnout for each group was calculated by averaging 10,000 runs in which a bootstrap sample of 25 states was created by drawing with replacement

from the set of 25 states with negligible voting rights abridgement, then finding turnout rates that minimized equation 4. The bootstrap method was used to mitigate adverse effects of the small sample size.

Minimize:

$$\sum_{j=1}^{25}(T_{w,j}P_{w,i} + T_{b,j}P_{b,j} + T_{o,j}P_{o,j} - T_j)^2 \tag{4}$$

For decision variables:

$$T_{w,j}, T_{b,j}, T_{o,j} \qquad : \quad j \in \{i \mid \bar{U}_i = 0\}$$

Subject to:

$$T_{w,j}, T_{b,j}, T_{o,j} \in [0, 1]$$

Interestingly, this model seems to indicate that, even without voting restrictions, black voters in 1956 tended to be less active than others (table 2).

Final Estimate of Voting Freedom Rates by State and Racial Group

The final step was to create a simulation model with 10,000 runs to generate estimates and confidence intervals for the voting freedom level, U for each racial group in each state.

The turnout rate for each racial group in each state was sampled from a triangular distribution with minimum value 0%, maximum value 100%, and most likely value the average turnout rate for that racial group from table 2.

The relative error in census enumeration was modeled with a triangular distribution using the calculated percent population as the most likely value and the Census Bureau's reported rates of erroneous inclusion (white: 0.8%, non-white: 1.2%) and omission (white: 2.0%, non-white 4.5%) for the 1950 census as lower and upper bounds, respectively [23, p. 11].

According to Census Bureau publications, the gross error for intercensal population estimates by racial group was less than 1% through the 1950s. Because these estimates are an aggregate of many smaller regional census errors in each state, the population percentage for each racial group is essentially a mean. Therefore, by the central limit theorem, errors in its estimation can be expected to be normally distributed. Accordingly, intercensal error in population percentages was sampled from a normal distribution with mean=0 and 97.5th percentile=1% [4].

In each trial, for each state (i), the simulation generated turnout rates and population percentages for each racial group then found values of U_w, U_b, and U_o to minimize equation 5 for that state.

Minimize:

$$U_{w,i}P'_{w,i}T'_{w,i} + U_{b,i}P'_{b,i}T'_{b,i} + U_{o,i}P'_{o,i}T'_{o,i} - T_i \tag{5}$$

For decision variables:

$$U_{w,i}, U_{b,i}, U_{o,i}$$

Where:

$$\begin{aligned}
P'_{w,i} &= \frac{P_{w,i}(1+E_{E,w,i})(1+E_{I,w,i})}{\hat{P}_i} \\
P'_{b,i} &= \frac{P_{b,i}(1+E_{E,b,i})(1+E_{I,b,i})}{\hat{P}_i} \\
P'_{o,i} &= \frac{P_{o,i}(1+E_{E,o,i})(1+E_{I,o,i})}{\hat{P}_i} \\
\hat{P}_i &= P_{w,i}(1+E_{E,w,i})(1+E_{I,w,i}) + \\
&\quad P_{b,i}(1+E_{E,b,i})(1+E_{I,b,i}) + \\
&\quad P_{o,i}(1+E_{E,o,i})(1+E_{I,o,i}) \\
E_{E,w,i} &= \text{relative enumeration error for whites} \\
&\sim Tri(-0.008, 0, 0.02) \\
E_{E,b,i} &= \text{relative enumeration error for blacks} \\
&\sim Tri(-0.012, 0, 0.045) \\
E_{E,o,i} &= \text{relative enumeration error for other non-whites} \\
&\sim Tri(-0.012, 0, 0.045) \\
E_{I,w,i} &= \text{relative intercensal interpolation error for whites} \\
&\sim N(0, 0.005102) \\
E_{I,b,i} &= \text{relative intercensal interpolation error for blacks} \\
&\sim N(0, 0.005102) \\
E_{I,o,i} &= \text{relative intercensal interpolation error for other non-whites} \\
&\sim N(0, 0.005102) \\
T'_{w,i} &\sim Tri(0, T_{w,i}, 1) \\
T'_{b,i} &\sim Tri(0, T_{b,i}, 1) \\
T'_{o,i} &\sim Tri(0, T_{o,i}, 1))
\end{aligned}$$

The values for U_w, U_b, U_o, and $\bar{U}$ for each state in each trial were then tabulated with means and 95 percent confidence intervals calculated. The results are summarized in table 3 and figure 1.

Calculation of Revised Apportionment

Using the voting freedom rates estimated above, and assuming a literal implementation of Section 2 of the Fourteenth Amendment, the change in apportionment was then calculated. The "method of equal proportions" was used, as

it has been the official apportionment method of the House of Representatives since 1941. Initially, each state is assigned one representative. Then a *priority number* is calculated for each state using equation 6 and the next available representative is assigned to the state with the highest number. The algorithm iterates until all representatives have been assigned [27, 2].

$$\phi_i = \frac{\bar{U}_i E_{50,i}}{m_i \sqrt{m_i + 1}} \tag{6}$$

Where:

$$\begin{aligned} \phi_i &= \text{priority number} \\ \bar{U}_i &= \text{overall voting freedom rate} \\ E_{50,i} &= \text{population of state in most recent enumeration} \\ m_i &= \text{number of representatives already assigned to state} \end{aligned}$$

The projected results of reapportionment are shown in table 4.

Simulation of Effects on the Power Balance in Congress

Assuming that this revised apportionment occurred, redistricting would have been required in all of the affected states. There is no certain way to predict which representatives would have been elected to congress. However, a rough estimate of the relative party strengths following the election is possible. Taking the ratio of Democratic candidates elected in each state to the total number of seats in that state as a point estimate for the mean proportion of Democrats that would be elected in that state for any possible districting scheme, it is possible to approximate the distribution of the number of Democrats elected in a given state as a binomial distribution (eq. 7). The expected number of Democrats elected from each state would then be equal to the proportion of Democrats actually elected in 1958 multiplied by the number of congressional districts. The expected total number of Democrats elected would have been 255. While less than the historical number elected, 283, this would still be well over the 217 seats needed for a majority in a 437 seat House. Since the standard standard deviation of the mean of a proportion is equal to $\sqrt{\frac{p(1-p)}{N}}$, a confidence interval for the above estimate can be found with a straight-forward simulation that samples the binomial distribution for each state based on a sampled probability of election of a Democrat.

$$D_{total} = \sum_{i=1}^{50} D_i \qquad : \quad D_i = Bin^{-1}(p_i, q_i, \alpha_i) \tag{7}$$

Where:

$$
\begin{aligned}
p_i &\sim N(\bar{x}_i, s_i) \\
\bar{x}_i &= \text{ratio of Democrats elected to total representatives} \\
&\quad \text{in state } i \text{ in 1958 election} \\
s_i &= \sqrt{\frac{\bar{x}_i(1-\bar{x}_i)}{q_i}} \\
q_i &= \text{number of congressional districts in state } i \\
\alpha &\sim U(0,1)
\end{aligned}
$$

Based on this simulation there would only have been a 1.33% probability (95% CI: [1.04%, 1.63%]) that the Democratic party would have lost their majority following the 1958 election as a result of reapportionment. The probability that Republicans could actually have obtained a majority in the House is only 0.20% (95% CI: [0.08%, 0.32%]) (table 5).

Results

Based on this analysis, it seems that a number of states did indeed show significant impediments to voting in 1956. Of the twelve states in the first quartile, ten were former members of the Confederacy. Had Congress, with or without the urging of Dwight Eisenhower, decided to implement Section 2 of the Fourteenth Amendment to remedy this situation in the 1958 election, it would have caused Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virgina, and Maine to lose representatives, weakening the Southern voting block in Congress. The states which would have gained representatives would have been California, Connecticut, Illinois, Michigan, Missouri, New Jersey, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, and Wisconsin. It is highly unlikely that Democrats would have lost control of the House, but many more house seats would have been filled with moderate Democrats who would be less likely to oppose civil rights legislation.

The most significant piece of Civil Rights legislation passed by the 86th Congress was the Civil Rights Act of 1960, which was essentially a bipartisan measure. The mostly Democratic Southern voting block fought hard to stall or derail the act. Of the 109 congressmen voting against the act, 100 of them were from Southern states, with the contingents from Alabama, Virginia, South Carolina, Georgia, Louisiana, and Arkansas voting against it unanimously. Ultimately, however, they could not martial the numbers to stop it. These are among the states which would have lost the most representatives if 14/2 had been enforced. Congressman Samuel Stratton of New York, addressing the house after the bill passed, lamented that it did not go far enough. Whether a reduction in the numbers of the Southern voting block would actually have allowed

Stratton and his allies to pass a stronger bill, though, is purely speculative. [24, pp. 6512-6513].

Southerners in the senate, on the other hand, were able to muster much stiffer resistance, mounting a filibuster and other maneuvers to stall the bill for several weeks and managing to weaken the bill with amendments before it finally passed[24, pp. 7727-7815]. Enforcement of 14/2 would not have had any effect on the composition of the Senate.

Despite the powerful hold it had on the imagination of Victor Sharrow and others, Section Two of the Fourteenth Amendment probably did not, in itself, have the power to make a serious difference in the progress of Civil Rights legislation. This may well have been President Eisenhower's conclusion, assuming that Sharrow's presentation materials were actually passed on to him. Even had enforcement of 14/2 been more likely to have an effect, it is questionable whether the president would have or could have pushed for it. Biographer Stephen Ambrose writes that Eisenhower was generally in favor of civil rights, and felt that the right to vote was one of the most critical parts of the American way of life. He also worried that the disenfranchisement of black voters negatively affected the worldwide image of the United States. However, he tended to avoid direct confrontation with Southern congressmen and seemed to lack a clear vision for civil rights reform. In the previous congress Republicans members, at Eisenhower's urging, had spent two years passing the Civil Rights Act of 1957. The final product was a law that the president barely recognized, with such light penalties and such barriers to enforcement that Eisenhower considered it to be nearly useless. It seems likely that Eisenhower dismissed Sharrow's plan to enforce 14/2 as a political impossibility [1, pp. 406-413,497-499].

Conclusion

It seems that, contrary to the opinion of the Federal courts, there was indeed enough information publicly available in 1957 to estimate the extent of voting abridgment in each state with a fair degree of confidence. This implies that Congress had the prerogative to reapportion representation of those states according to Section 2 of the Fourteenth Amendment. Whether they had the duty to do so, and whether the Judiciary branch had the power to require that they do so are more doubtful. The opinion of the judiciary branch was that 14/2 could be enforced or not at the pleasure of Congress. In an earlier 14th Amendment case, United States v Dennis, both the trial and appellate judges quoted the following passage from David Watson's *The Constitution of the United States: Its History, Application and Construction* [6],

> Congress has never exercised the power conferred upon it of reducing the representation of a State in its lower branch, but there can be no question of its power or its right to do so. Of its duty to do so, it alone is the judge. The amendment places the responsibility of enforcing its provisions upon that body [25].

Given this construction of 14/2, enforcement would require that the majority of representatives in the house would have enough of a vested interest in enforcing it to risk alienating the entire South. Given that they did not do so immediately after the civil war, when ill feeling had waxed its highest, it is unlikely they would have done so in 1958.

Another question is whether the tools existed to analyze the information is another question. The model presented here relies on nonlinear programming techniques which are now widely implemented in computer software and routinely used. In the 1950's and 1960's, however, the field was still in its infancy. While some of the first principles had been touched on as early as 1938 [13] a workable formulation had not been offered until Kuhn's and Tucker's seminal 1950 paper [14]. A reliable software tool was still years in the future.

In 1965 Congress finally acted to ensure voting rights for minorities, but the vehicle they chose was the Voting Rights Act, rather than Section 2 of the 14th Amendment. The Jim Crow era ended at last. While 14/2 is still occasionally cited in debates over issues as diverse as term limits [12] and immigration reform[26], its original purpose–forcing states to enfranchise black citizens–has been accomplished by other means.

Ultimately, to the disappointment of enthusiasts like Victor Sharrow, 14/2 never played a central role in the civil rights struggle in America. From an historical point of view, however, the debate over 14/2 enforcement is a fascinating illustration of the changing role of data driven decision making in public policy. Sharrow and others spent decades writing about 14/2, lobbying for its enforcement, and arranging for federal court cases to produce a hoped for supreme court precedent. Repeatedly, they were told that the question was not justiciable because they were unable to demonstrate a convincing argument that reapportionment would benefit them. There is no evidence that any of these activists built a quantitative model like the one described in this paper to support their case, yet here was sufficient data, the required mathematical techniques existed, and digital computers, while still slow and expensive, were commercially available.

Perhaps the entire concept of data driven decision making was simply too new in the mid 20th century to be a regular part of the thought process for judges, lawyers, or lobbyists. It took years for computer modeled evidence to regularly appear in the courtroom. By the mid 1970s numerous articles on the subject began to appear in law reviews, many of them written by business or information professionals, rather than lawyers [5][7]. Jenkins, writing in 1976, pointed out that the admissibility of this evidence was still an emerging area of law and some judges still regarded the computer as a "new-fangled invention", but overall momentum of the profession seemed to be towards greater use of computer modeling,

> Many companies now offer ready-made programs to assist attorneys in some or all of the areas suggested. Many universities and business schools have knowledgeable people who have already developed programs to do some or all of the things suggested in this

article. Bar associations around the country are offering informative seminars relating to the use of computers.

Law schools are beginning to offer courses in quantitative methods and the law or computers and the law. [11]

By the 1990s, computer models, including sophisticated visual animations, were widely used by the legal profession and admitted as evidence [17]. Now, in the 21st century, data driven computer models are ubiquitous in nearly every aspect of our society. Today, contrast to 1958, developing a computer model would not only seem like a natural step to a legal activist today, but would probably be one of the first steps, reflecting the changing role of computer modeling and data science over the past six decades.

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	Estimated Population (1000s)					
State	Total	White	Black	Other Non-White	Total Votes Cast (1000s)	Overall Voter Turnout
AL	3,071	2,086	982	3	426	24.31%
AR	1,704	1,322	381	1	405	40.77%
AZ	1,053	919	36	97	261	42.00%
CA	13,713	12,844	599	271	5,342	57.18%
CO	1,625	1,590	25	10	630	60.82%
CT	2,316	2,253	62	2	1,097	68.76%
DE	408	351	56	1	174	64.31%
FL	4,047	3,163	881	3	989	37.15%
GA	3,701	2,557	1,142	1	656	30.39%
IA	2,703	2,681	20	2	1,269	72.60%
ID	628	620	1	7	276	74.23%
IL	9,530	8,802	707	22	4,481	68.75%
IN	4,458	4,259	197	2	1,955	67.50%
KS	2,119	2,034	81	4	896	64.84%
KY	2,898	2,698	199	1	993	57.90%
LA	3,032	2,030	997	5	652	36.36%
MA	4,891	4,808	76	6	2,383	87.71%
MD	2,811	2,345	463	4	902	49.24%
ME	938	941	1	2	352	59.42%
MI	7,467	6,935	518	14	2,799	58.15%
MN	3,240	3,209	15	16	1,379	66.47%
MO	4,163	3,848	313	2	1,892	68.01%
MS	2,086	1,138	944	4	286	24.69%
MT	656	636	1	20	265	64.13%
NC	4,309	3,165	1,111	33	1,211	49.39%
ND	613	602	0	11	270	74.53%
NE	1,397	1,371	20	5	610	67.26%
NH	566	565	1	0	273	72.86%
NJ	5,615	5,239	370	6	2,420	62.12%
NM	806	746	10	50	239	53.71%
NV	250	234	7	9	82	49.08%
NY	16,112	15,071	998	43	7,128	63.24%
OH	9,207	8,606	594	6	3,701	60.50%
OK	2,273	2,069	148	56	949	67.45%
OR	1,698	1,671	13	14	695	62.15%
PA	10,972	10,299	667	6	4,581	62.64%
RI	840	824	15	1	414	72.62%
SC	2,229	1,362	866	2	341	28.15%
SD	670	645	1	24	294	71.50%
TN	3,415	2,863	551	1	893	43.49%
TX	8,830	7,703	1,119	8	2,076	38.27%
UT	809	795	3	11	330	72.00%
VA	3,722	2,895	823	3	620	27.28%
VT	377	376	0	0	154	64.81%
WA	2,668	2,598	34	36	1,103	63.06%
WI	3,742	3,695	31	15	1,607	66.39%
WV	1,857	1,755	106	0	874	80.52%
WY	312	305	3	4	129	67.51%

Table 1: *State populations and voter turnouts in 1956 presidential election.* Voter turnout is the approximate percentage of non-incarcerated persons age 21 or over who voted in the election. Alaska and Hawaii had not yet become states in 1956.

Racial Group	Mean	SE of the Mean	95% CI for Mean	
Whites	68.854%	0.017%	68.821%	68.888%
Blacks	35.799%	0.232%	35.345%	36.253%
Other Non-White	59.562%	0.428%	58.724%	60.401%

Table 2: *Average Natural Voting Rates by Racial Groups*

	Voting Freedom Rate			
State	Mean	SE	95% CI	
MS	51.35%	0.21%	50.95%	51.76%
AL	53.06%	0.18%	52.71%	53.41%
VA	55.22%	0.21%	54.80%	55.63%
SC	60.94%	0.18%	60.60%	61.29%
GA	64.06%	0.18%	63.70%	64.42%
TX	73.19%	0.18%	72.83%	73.55%
FL	73.22%	0.18%	72.88%	73.56%
LA	74.13%	0.17%	73.80%	74.46%
AZ	76.88%	0.17%	76.55%	77.21%
AR	78.36%	0.16%	78.04%	78.68%
TN	80.65%	0.16%	80.34%	80.96%
NV	83.73%	0.15%	83.44%	84.02%
NC	83.91%	0.15%	83.62%	84.20%
MD	83.97%	0.15%	83.68%	84.26%
NM	88.39%	0.12%	88.15%	88.62%
CA	91.14%	0.10%	90.94%	91.34%
ME	92.28%	0.10%	92.09%	92.47%
KY	92.30%	0.10%	92.11%	92.49%
MI	92.61%	0.09%	92.43%	92.80%
CO	93.31%	0.09%	93.14%	93.48%
OH	93.72%	0.08%	93.56%	93.89%
OR	93.98%	0.08%	93.82%	94.14%
NJ	94.00%	0.08%	93.84%	94.16%
NY	94.50%	0.08%	94.35%	94.65%
WA	94.82%	0.07%	94.67%	94.96%
PA	94.96%	0.07%	94.82%	95.10%
MT	95.10%	0.07%	94.96%	95.24%
VT	95.23%	0.07%	95.10%	95.37%
KS	95.88%	0.06%	95.76%	96.01%
MN	96.13%	0.06%	96.01%	96.25%
WI	96.19%	0.06%	96.07%	96.31%
IN	96.63%	0.06%	96.53%	96.74%
NE	96.64%	0.06%	96.54%	96.75%
WY	96.85%	0.05%	96.75%	96.96%
IL	97.28%	0.05%	97.18%	97.37%
CT	97.42%	0.05%	97.33%	97.51%
OK	97.59%	0.04%	97.50%	97.67%
MO	97.73%	0.04%	97.64%	97.81%
SD	98.21%	0.03%	98.14%	98.27%
UT	98.29%	0.03%	98.23%	98.36%
IA	98.52%	0.03%	98.46%	98.58%
NH	98.59%	0.03%	98.53%	98.64%
RI	98.61%	0.03%	98.55%	98.66%
ID	98.92%	0.02%	98.87%	98.97%
DE	99.03%	0.03%	98.98%	99.08%
ND	99.11%	0.02%	99.07%	99.15%
WV	99.89%	0.00%	99.88%	99.89%
MA	99.96%	0.00%	99.96%	99.96%

Table 3: *Overall Voting Freedom Rates by State, 1956*

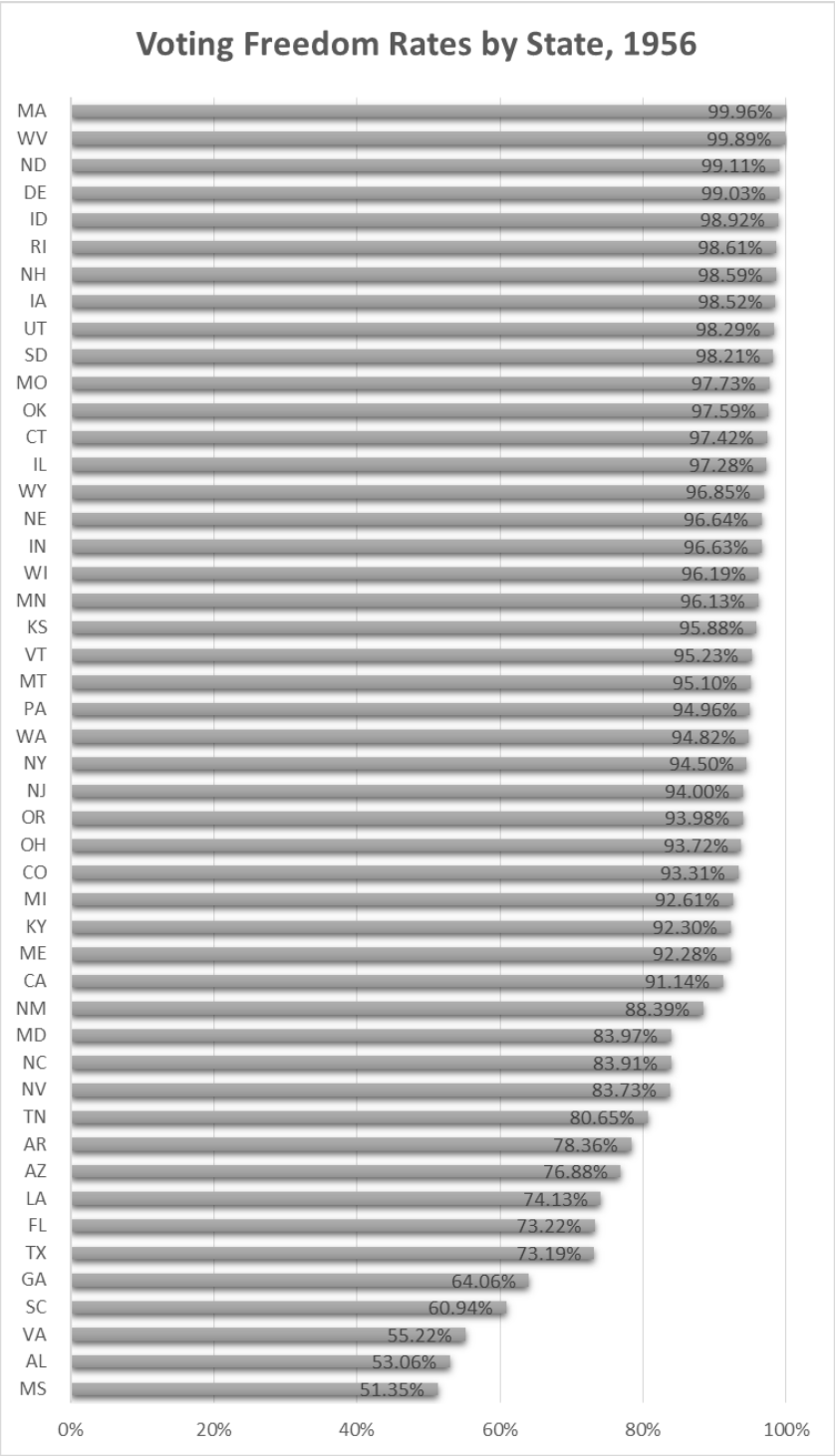

Figure 1: *Voting Freedom Rates by State, 1956*

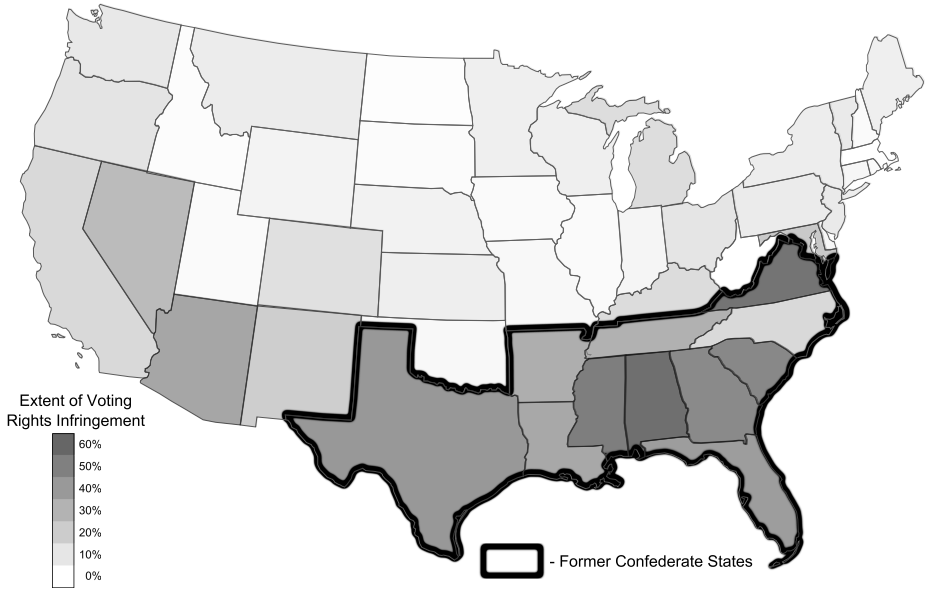

Figure 2: *Extent of Voting Rights Infringement by State, 1956*

State	Apportioned Reps., Historical	Apportioned Reps. if 14th Amendment Enforced	Change
AL	9	5	-4
AK	1	1	0
AZ	2	2	0
AR	6	4	-2
CA	30	33	3
CO	4	4	0
CT	6	7	1
DE	1	1	0
FL	8	7	-1
GA	10	7	-3
HI	1	1	0
ID	2	2	0
IL	25	29	4
IN	11	12	1
IA	8	8	0
KS	6	6	0
KY	8	8	0
LA	8	6	-2
ME	3	3	0
MD	7	6	-1
MA	14	13	-1
MI	18	19	1
MN	9	9	0
MS	6	3	-3
MO	11	13	2
MT	2	2	0
NE	4	4	0
NV	1	1	0
NH	2	2	0
NJ	14	16	2
NM	2	2	0
NY	43	49	6
NC	12	10	-2
ND	2	2	0
OH	23	25	2
OK	6	7	1
OR	4	5	1
PA	30	34	4
RI	2	3	1
SC	6	4	-2
SD	2	2	0
TN	9	8	-1
TX	22	18	-4
UT	2	2	0
VT	1	1	0
VA	10	6	-4
WA	7	7	0
WV	6	6	0
WI	10	11	1
WY	1	1	0

Table 4: *Expected Change in Congressional Apportionment in 1958 had Section 2 of the Fourteenth Amendment Been Enforced.* Based on a 437 seat House of Representatives. Hawaii and Alaska were assigned one seat each pending the next enumeration.

Outcome	Probability	95% CI	
Democratic majority in the House	98.40%	98.08%	98.72%
No majority for either party	1.33%	1.04%	1.63%
Republican majority in the House	0.27%	0.13%	0.40%

Table 5: *Possible outcomes in 1958 congressional election assuming reapportionment.* Based on a Monte Carlo simulation with 1500 trials.