

Our Unhealthy Democracy

*How Voting Restrictions Harm Public Health—and
What We Can Do About It*

Michael Latner

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Executive Summary

The United States is a representative democracy. We elect decisionmakers to represent us and make decisions in our interest. But as state legislatures have become more responsive to a smaller, wealthier, and healthier subset of voters, they have restricted access to health care for the broader population and have failed to address many health and environmental challenges within the communities they govern. The most vulnerable populations have, consequently, experienced worsening public health disparities. Ironically, even those who are currently overrepresented through electoral bias—namely more rural, white populations—are suffering the burden of failing democratic institutions.

This report explores the link between electoral representation and constituent health outcomes and finds that disenfranchisement is associated with poor health outcomes. Our democratic institutions have been weakened in a way that has entrenched unresponsive government. This report identifies a negative feedback system that is not likely to be reversed until we repair our nation's ailing electoral systems and outlines many evidence-based reforms that can be enacted to restore popular sovereignty and healthy democracy, if the political will can be built.

Partisan manipulation of election laws after the 2010 elections has effectively locked in governing parties across several states, diluted the voting power of targeted populations in many more, and eroded the capacity of our governing institutions to operate according to democratic principles. We are now beginning to see that the consequences of this erosion extend beyond the violation of voting rights to perpetuate long-term health disparities. With less ability to protect themselves at the ballot box, millions of citizens, especially the socioeconomically vulnerable, are unable to change the direction of public policy in their states. Using both new and old tools developed in political science, it is possible to measure the association between the quality of electoral systems and state-level health disparities.

Healthy Democracy, Healthy People

Greater life expectancy is associated with less electoral bias in the United States. People in sicker parts of the country face greater institutional hurdles to participating in elections and protecting their interests. Structural barriers, such as registration restrictions and limitations to ballot access, keep less healthy people away from the polls. As it becomes more difficult for sick people to vote because of these barriers, the electorate becomes even more distorted to favor healthier voters. Similarly, many states have erected greater barriers to voting since 2010, further insulating legislatures from accountability.

After the 2010 Census redistricting cycle, partisan bias increased to extraordinary levels in some states, with most of it concentrated in states where legislatures led the redistricting process with unified party control (that is, no governor from another party to veto the plans). Importantly, districting plans designed by independent or bipartisan commissions were much less biased than plans that were drawn by state legislative majorities that had no restraints on maximizing their partisan advantage.

Using data from America's Health Rankings, we find that health declines from 2010–2017 were more severe in extremely gerrymandered states, where insulated legislative majorities were less likely to adopt equitable health policies like expanding Medicaid or implementing other parts of the Affordable Care Act. This effect is not seen as strongly in states where greater barriers to voting were erected. Nevertheless, it is now clear that unresponsive legislators are exacerbating health inequities.

Considering a suite of reforms to effectively address 1) the cost of eligibility, 2) the cost of casting a vote, and 3) the value of the individual vote, this analysis considers the effectiveness of previously implemented reforms, comparative and historical analyses of electoral system design, and the practicality of implementation. (These reforms can be found at the Brennan Center for Justice, Fair Vote, and the Campaign Legal Center. See references for information on these organizations.)

Recommendations

To reduce the costs of eligibility: enact preregistration of 16- and 17-year-olds who are taking civics, provide automatic and same-day voter registration, and secure voter registration lists. More than a dozen states allow people to register as voters before they are eligible to vote, to prepare them for the responsibilities of voting. Bipartisan efforts have led to 16 states and the District of Columbia implementing automatic voter registration, an “opt out” policy that places all eligible citizens on voter registration rolls electronically and keeps the information synced with other government databases. Safe and secure registration lists can be protected through the prohibition of sloppy and unscientific “cleaning” tactics, such as exact matching, a process rife with voter and human error.

To reduce the costs of casting a vote: enact mail and early in-person voting, consolidate elections, and use election week voting centers. Extending the time to vote reduces an important barrier for those who do not have flexible work schedules and provides an opportunity to mobilize voters to get to the polls. Colorado’s early adoption of voting centers—places where voters in any county can drop off ballots or vote during an early voting period (as opposed to the traditional precinct system)—has proven to be a success. Consolidating local and state elections with national races also boosts local participation.

To protect the equal value of individual votes: create independent redistricting commissions; hold multi-seat, proportional elections; require publicly financed campaigns. Removing the authority from legislators to draw the electoral districts that they campaign in results in less biased districting. Several commissions have now been established, and comprehensive guides for their administration are now available. Along with full expenditure disclosure by candidates, the “democracy voucher” program—such as that adopted by Seattle and contained in H.R. 1—holds the most promise for empowering individual voters. It provides a subsidy directly to eligible voters, and candidates have to work for voters to spend the vouchers on them. Stronger ethics rules would ensure our officials make decisions in the public interest based on evidence, not the influence of special interests to which they are connected.

Possibly the single biggest threat to the legitimacy of democratic institutions in the United States in 2020 is the corruption of the decennial Census, the oldest and largest scientific project undertaken by the government every 10 years. We must not allow the Census to be weaponized for the distortion of political power. While the integrity of the questionnaire has been protected, for now, by the Supreme Court, the Trump administration has repeatedly claimed that they want to use data from the census and other US agencies to try to identify non-citizens. Along with the Voting Rights Act, the Census is arguably our best means of securing the integrity of our electoral systems and our democracy. The Trump administration continues to use fearmongering and intimidation to generate an undercount of at-risk populations, which would have a similar effect to diluting the political power of immigrants and people of color.

Conclusion

We are living through a very dangerous time. As health disparities grow at a rate not seen in a century, and an ecological crisis accelerates, the institutions that we rely on to make social choices about our shared fate are eroding. We can, and must, rehabilitate our democratic institutions if we are going to address these challenges. The solutions are there for us, tested through research in American states and across other democracies. By expanding voter eligibility, providing early and easy access to the ballot, and ensuring an accurate count of votes, we will eventually be able to pass evidence-based, equitable policies to improve the nation’s health.

Chapter 1

Introduction

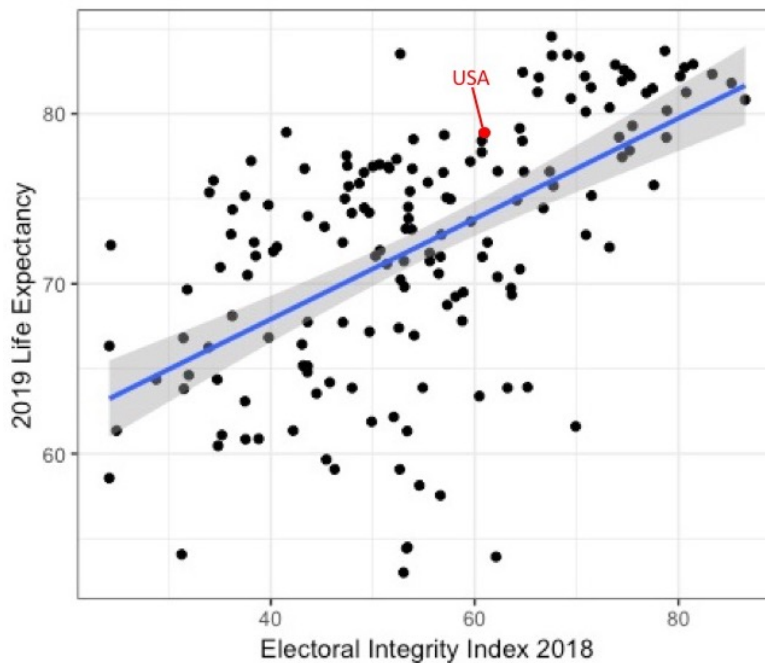
The United States is a representative democracy. We elect decisionmakers to represent us and make decisions in our interest. But as state legislatures have become more responsive to a smaller, wealthier, and healthier subset of voters, they have restricted access to health care for the broader population and have failed to address many health and environmental challenges within the communities they represent. The most vulnerable populations have, consequently, experienced worsening public health disparities. Ironically, even those who are currently overrepresented through electoral bias—namely more rural, white populations—are suffering the burden of failing democratic institutions.

This report explores electoral representation and constituent health outcomes and finds that voter disenfranchisement is associated with poor health outcomes. Our democratic institutions have been weakened in a way that has entrenched unresponsive government. The report identifies a negative feedback system that is not likely to be reversed until we repair our nation’s ailing electoral systems. The report outlines many evidence-based reforms that can be enacted to restore popular sovereignty and a healthy democracy, if the political will can be built.

This research is part of the efforts of the Center for Science and Democracy at the Union of Concerned Scientists (UCS) to engage scientists, advocates, and the broader public about the links among electoral institutions, scientific integrity, and public policy. The Center provides information and technical expertise to partners across environmental justice, public health, and voting rights spaces to build support for evidence-based institutional reform. Scientists should support the expansion of voting rights. The power of science to identify and amplify knowledge of social and environmental problems, and our capacity to solve them, plays a crucial role in the democratic process. It is increasingly important that those who value the role of science in public policy recognize the importance of full democratic participation in the social choices that determine our health and well-being.

Government is society’s operating system. While democracies are but one variation of regime type that have evolved to resolve collective conflicts and regulate natural and social resources, comparative research shows a clear link among democratic institutions, human development, and health (Bollyky et al. 2019; Rothstein 2011; Safaei 2006), as illustrated in Figure 1 (p. 4). The legitimacy of democratic government rests on the consent of the governed, who—through the expression of equally weighted votes, majority rule, and the rule of law—make collective choices to direct the society’s future. At its best, democratic government provides an open exchange of information about our problems and an evidence-based assessment of the most promising solutions (Latner 2018a).

Figure 1. The Global Link Between Electoral Integrity and Life Expectancy



Countries where the integrity of elections is perceived as high enjoy the highest life expectancies. While there are important exceptions, greater provision of infrastructure, economic development, education, and health care by democratic governments results in higher life expectancy.

Note: Data and international country codes are located at:

<https://www.nationsonline.org/oneworld/countrycodes.htm>

Source: United Nations Population Division (2019); The Electoral Integrity Project (2019).

Over the past decade, however, electoral systems across the United States have been undergoing a democratic backslide. Since 2010, several state legislatures and the US Supreme Court, the institutions primarily responsible for oversight of election law and administration, have systematically eroded voting rights protections, amplified the voice of economic elites as socioeconomic inequalities have grown, and distorted the strength of political parties through the gerrymandering of electoral districts (Bartels 2016; Bentele and O'Brien 2013; McGann et al. 2016).

Numerous political scientists have analyzed structurally undemocratic features of the US political system (Dahl 2003; McGann and Latner 2013; Norris, Cameron, and Wynter 2018; Schattschneider 1975; Schlozman, Verba, and Brady 2012), including the rigidity of the US Constitution regarding institutional reform and the numerous veto gates that reinforce the status quo. The changes observed over the past decade reflect a distinct trend. Legislators who fear a negative public reaction to social conditions have strong incentives to insulate or inoculate themselves from electoral accountability (Burnham 1975; Chubb 1988; Cox, Fiva, and Smith 2019; Iversen and Soskice 2009). As electoral coalitions shift, party leadership may seek to shape the electorate in its own image, even though support for the expansion of voting rights is widespread (Charles, Gerken, and Kang 2011; Gerken 2007; Samples and McDonald 2006; Winburn and

Wagner 2010). This report finds evidence of a causal cycle that incorporates health as a behavioral factor in voter choices and electoral entrenchment of governing parties after 2010.

Several studies have documented shifts in partisan support in places where health has stagnated or declined (Bilal, Knapp, and Cooper 2018; Bor 2017; Sund et al. 2017; Wasfy, Stewart, and Bhambhani 2017). In particular, frequency of alcohol and suicide deaths has been linked to increasing regional support for conservative candidates and movements (Goldman et al. 2019). By contrast, gains in health care insurance coverage are associated with vote shifts toward the Democratic Party and higher turnout among both those supportive of and opposed to expansion of health services (Clinton and Sances, 2017, Haselswerdt 2017; Hollingsworth et al. 2019), though

Republican controlled states have also previously exhibited less equitable voter registration (Michener, 2016). More generally, other analyses suggest that better health is associated with higher turnout and that healthier individuals (for example, those with more resources generally) are more likely to support the Republican Party (Pacheco and Fletcher 2015).

There is growing evidence that declining aggregate health and growing health inequalities have contributed to shifts in voting strength for the major parties as they respond to partisan cues. Individual-level research has long demonstrated that those with more resources are more likely to vote. Newer research also suggests that healthier people are more likely to identify as Republican and be less supportive of public health subsidies (Pacheco and Fletcher 2015).

Additionally, since 2010, at least three institutional changes in election law doctrine have been initiated by the US Supreme Court. First, although it was among the least noticed cases at the time, the court's 2004 decision in *Vieth v. Jubelirer* held that the judiciary had no standard to restrain partisan gerrymandering, leaving state legislative parties free to maximize partisan advantages in any context where they had the capacity and the motivation (McGann et al. 2016). This legal reasoning has since been reaffirmed by a bare majority of the Roberts Court in *Rucho v. Common Cause*, which recently declared that partisan gerrymandering is not a constitutional violation (SCOTUS blog 2019).

In 2013, the court again made it possible for state legislatures to implement discriminatory laws, striking down sections of the Voting Rights Act of 1965 that prevented jurisdictions with a history of voter suppression from changing electoral laws without permission (Hasen 2014, 2018; Levitt 2014). Additionally, the court's dismantling of several campaign finance restrictions in the *Citizens United v. Federal Election Commission (FEC)* and *McCutcheon v. FEC* cases has further exposed the legislative process to distortions from powerful financial interests (Goldman 2015; Hasen 2016; Lessig 2015).

These trends are only part of the story. Wage stagnation over decades, environmental stressors, rising health care costs, and the increased presence of opioids and firearms all contribute to a government that is less responsive to the needs and preferences of the public (Muennig et al. 2018).

Less healthy people are less likely to be members of the active electorate, while healthier voters are more inclined to vote. County-level estimates show a positive correlation between decreasing average health and Republican Party support, even though healthier people are more likely to support Republicans. Similar patterns have been found regarding income. That is, the poorest voters in poorer, Republican-dominated states strongly support Democrats (Gelman 2009). Consistent with this pattern is the disproportionate effect that erecting barriers to voting may have on less healthy residents.

These institutional and behavioral forces are transforming the US electoral landscape. Since 2010, a majority of voters in the battleground states of Michigan, North Carolina, Pennsylvania, and Virginia voted for Democratic local candidates, but as a result of gerrymandering and voting restrictions, the minority party maintained state legislative control (Ingraham 2018). Simply put, the violation of majority rule is an increasingly regular feature of US electoral systems (including the Electoral College). Political equality is also increasingly violated even in reform-minded states such as California, where the Republican Party earned about a third of the statewide vote but won only 13 percent of congressional seats due to the "winner-take-all" single-seat districting system. Worse still, new voter registration and ballot access restrictions, poll

closures and long lines, and other barriers across several states have likely kept thousands of eligible voters from exercising their voting rights (Root and Barclay 2018).

Partisan manipulation of election laws after the 2010 elections has effectively locked in governing parties across several states, diluted the voting power of targeted populations in many more, and eroded the capacity of our governing institutions to operate according to democratic principles. We are now beginning to see that the consequences of this erosion extend beyond the violation of voting rights to perpetuate long-term health disparities. With less ability to protect themselves at the ballot box, millions of citizens, especially those who are socioeconomically vulnerable, are unable to change the direction of public policy in their states. Using both new and old tools developed in political science, it is possible to measure the association between the quality of electoral systems and state-level health disparities.

Chapter 2

Partisan Bias and the Cost of Voting Index

Because state legislatures have a great deal of autonomy over election administration, they may reduce or raise barriers to voting. The less time and effort it takes to cast a vote, the easier it is. Several state-level analyses have attempted to quantify the quality of elections and democracy, especially regarding levels of integrity, performance, and empowerment (Latner 2018a).

Li and colleagues have recently developed an index specifically designed to capture voting costs—an index that accounts for variation in administrative and legal practices that shape both the costs surrounding eligibility and the costs associated with casting a ballot (2018). This index construction allows for analysis of impediments to voting (through principal component analysis) between states and across time, based on the more (or less) restrictive regulations that states establish.

The index, as illustrated in Figure 2 (p. 6), assigns values to each state for ease of registration, restrictions on eligibility, restrictions on who can register voters, and availability of preregistration for younger people before they are eligible. To calculate the cost of casting a ballot, the index scores states on the time available to vote, the opportunity to vote early, state assurance of time off work to vote, extent of identification requirements, availability of polling stations, and the number of hours available for in-person voting.

To measure the bias introduced in state legislatures from partisan gerrymandering, our analysis employs the oldest and most durable measure available in the social sciences: partisan bias, or “symmetry,” which has been developed over the past 50 years (Gelman and King 1990, 1994; Grofman and King 2007; Tufte 1973). The concept of symmetry is borrowed from the natural sciences. The intuition is that neutrality in districting (in terms of partisan outcomes) occurs when party voters are treated similarly under similar circumstances.

This bias standard does not necessarily presuppose that a “fair” districting plan must be proportional in terms of its vote-seat allocation. Rather, it measures the degree to which a plan treats parties symmetrically (in terms of seat share) under a range of (vote-share) scenarios. For example, suppose Party A wins 55 percent of the vote statewide, and a districting plan awards approximately 65 percent of the seats. Under a symmetrical plan, Party B would also win 65 percent of the seats with 55 percent of the statewide vote.

There are other sources of disproportionality between vote and seat shares, specifically responsiveness (see Figure 2, p. 8), that are intrinsic to single-seat electoral districts and are not included in our measure of bias. But these two metrics, the cost of voting index and partisan bias, provide a direct measure of how well an electoral system embodies the design principle of political equality, which is maximized when the costs of voting are minimized (every citizen has an equal opportunity to vote) and when all votes cast have equal weight.

Figure 2. Components of the Cost of Voting Index and Partisan Bias

Measuring the equality principle in electoral design

The cost of voting = eligibility barriers + ballot access barriers

eligibility:

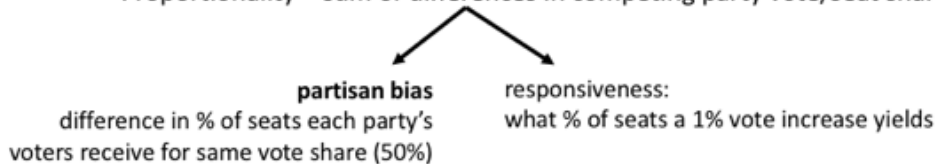
registration deadlines + felon eligibility + competency requirements + registration drive restrictions + pre-registration requirements

ballot access:

days to vote + mail/absentee voting requirements + time off work + voter ID requirements + polling station numbers and hours

The value of an individual vote = **partisan bias** + responsiveness

Proportionality = sum of differences in competing party vote/seat shares



The cost of voting index combines the difficulty of voter eligibility and access to the ballot, while partisan bias measures the advantage that voters of one party have over another (distinct from the responsiveness, or “winner take all” nature, of state legislative electoral systems) as a result of partisan gerrymandering, or manipulation of electoral district boundaries.

SOURCE: LI, POMANTELL, AND SCHRAUFNAGEL 2018; UCS.

Health statistics for this analysis are compiled from the United Health Foundation’s “America’s Health Rankings” and Kaiser Family Foundation data, both of which rely on data from the Behavioral Risk Factor Surveillance System, the National Health Interview Survey, the American Community Survey, and other data sources (United Health Foundation 2018). This report relies primarily on the “health determinants” measure of health, as it incorporates environmental and policy conditions, including clinical care, into state rankings.

Chapter 3

Healthy Democracy, Healthy People

In 2013, life expectancy in the United States reached a record high of 78.8 years, reflecting nearly a century of steady improvement. A considerable proportion of recent gains were attributed to declining inequalities between non-Hispanic white and non-Hispanic black adults, with black adults ages 25–44 making gains due to fewer deaths from HIV, heart disease, and cancer (Curtin 2019). Things looked good in terms of life expectancy.

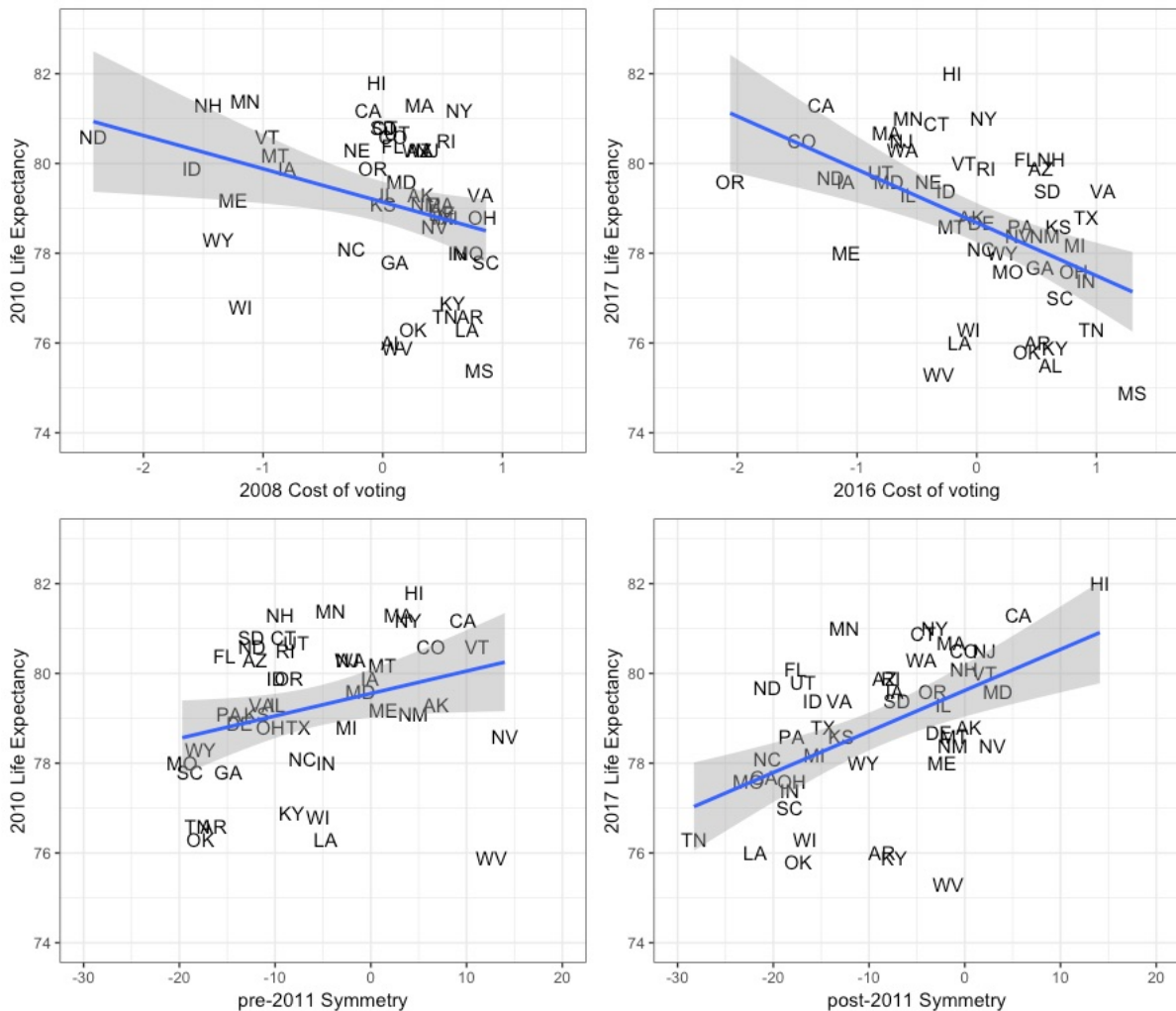
But over the past few years, life expectancy has flattened out or declined among certain age groups, including all racial groups for those ages 25–44. Death rates—primarily from substance use disorder deaths, including those involving opioids, and suicides—have now pulled down life expectancy for several years (Bernstein 2018). Nevertheless, it is important to consider broader health determinants when analyzing policy effects, as suicide rates have not changed dramatically from a few decades ago and these types of deaths are still a small percentage of overall death rates.

Simultaneously, this analysis finds that after the 2011 Census redistricting cycle¹, partisan bias increased to extraordinary levels in some states, with most of it concentrated in states where legislatures led the redistricting process with unified party control (that is, no governor from another party to veto the plans). Importantly, districting plans designed by an independent or bipartisan commission were less biased compared to plans that were drawn by state legislative majorities that had no restraints on maximizing their partisan advantage. The most extreme increases in bias, in some cases giving the governing party more than a 20 percent seat advantage, occurred in the upper chambers of Alaska, North Carolina, Tennessee, West Virginia, and Wisconsin, and in Louisiana’s lower chamber.

As Figure 3 (p. 10) shows, in states such as California, Colorado, Massachusetts, New York, Oregon, and Vermont, where life expectancy has remained relatively high, legislatures have lowered barriers to voting. Conversely, in Alabama, Louisiana, Mississippi, Tennessee, and Wisconsin, where life expectancy is declining, it has become harder to vote, due to more restrictions on eligibility and fewer voting options.

In the bottom two plots of Figure 3, we see that in a number of states where life expectancy was already below average, legislatures maximized their partisan advantage through gerrymandering and thus insulated themselves from public accountability. States such as Indiana, Ohio, Pennsylvania, and Wisconsin saw considerable declines in life expectancy since 2010.

Figure 3. Changes in Democratic Health and Life Expectancy



The association between life expectancy and both measures of democratic health—barriers to voting and partisan bias—has become stronger over the last decade (the statistical correlation has increased $R=0.28$ to 0.51 in both cases). In states where people do not live as long, state legislatures have made it harder to vote (top plots) and Republican legislatures have engaged in more extreme gerrymandering, insulating themselves from public accountability. Note: Symmetry data are not estimated for Alabama, Mississippi or Nebraska
 SOURCE: UCS; UNITED HEALTH FOUNDATION 2018.

The most extreme Democratic gerrymander is now in Hawaii, an already heavily Democratic state. The gerrymander gives nearly a 13 percent advantage that boosts the size of the governing majority as a result of districting bias. California’s system is slightly biased, but Republicans do poorly in that state largely due to the “winner take all” design of single-seat districts—not from gerrymandering, as the legislature does not control the districting process.

The magnitude of bias tends to be much higher for Republican gerrymanders, in part because their voters are distributed more efficiently (i.e., not packed into dense urban spaces). The magnitude is also higher because after 2010, the Republican Party had control over more state redistricting plans than did the Democrats. Several states that President Obama won in 2008 (for example, Florida, Indiana, Michigan, North Carolina, Ohio, Pennsylvania, and Wisconsin) were converted to extreme Republican gerrymanders

after the Republican Party took control of those state legislatures in 2010. In the case of North Carolina, this was the first time in a century the Republican Party had done so.

For both measures—partisan bias and the cost of living index—greater life expectancy is associated with higher electoral integrity. A large body of research has already demonstrated that the most vulnerable populations are less likely to have the resources to be political engaged (Bartels 2016; Schlozman, Brady, and Verba 2018; Schlozman, Verba, and Brady 2012). People in sicker states also face greater institutional hurdles to participating in elections and protecting their interests. Structural barriers, such as registration restrictions and limitations to ballot access, keep less healthy people away from the polls. As it becomes more difficult for sick people to vote because of these barriers, the electorate becomes even more distorted to favor healthier voters.

As previously mentioned, many states have erected greater barriers to voting since 2010, further insulating legislatures from accountability. As the Brennan Center for Justice has noted, some of the most common restrictions enacted since 2010 were implemented in newly gerrymandered states (Brennan Center for Justice, 2018). The variety of new restrictions covers both costs of eligibility and costs of casting a vote (see Table 1).

As we see from Figure 3, since 2010, many states have also reduced the cost of voting through the modernization of voter registration processes and expansion of ballot access. Therefore, rather than a general decline, the country is experiencing balkanization in the cost of voting.

In modeling the effect of the cost of voting on turnout, Li and colleagues estimated that a standard deviation increase in the cost of voting reduces voter turnout by 2–3 percent (Li, Pomantell and Schraufnagel 2018). The analysis that follows relies more on the bias metric, because poorer voters are more likely to support Democratic candidates (Gelman 2009) and are disproportionately affected by restrictive election laws (Leighley and Nagler 2013). Those turnout inequalities will be reflected as an advantage for the Republican Party if they are strong enough to make a difference in the seat allocations of the two parties.

Table 1. Barriers To Voting Erected Since 2010

Barriers to Voting	States Enacted
Felon disenfranchisement	IA, SD
Registration restrictions/voter list purging	GA, IA, IN, OH, WI
Restrictions on who can collect voter registration	FL, IL, TN, TX, VA
Early/absentee votes/ballot harvesting	AZ, FL, GA, IN, MT, NC, NE, OH, TN, WI, WY
Proof of citizenship requirements	AL, AZ, KS ² , TN
Voter identification requirements	AL, AR, IA, IN ³ , KS, NC ⁴ , ND, NH, MO, MS, RI, SC, TN, TX, VA, WI

Many states, including gerrymandered states, further insulated themselves from public accountability after 2010.

SOURCE: BRENNAN CENTER FOR JUSTICE 2019.

Chapter 4

Greater Bias, Greater Health Disparities

If restrictive election laws sustain a negative feedback loop that disproportionately affects the health of those excluded from the political process, it works through biased policymaking. Dilution of representation in state legislatures results in a shift in the median assembly member's policy preference away from what would be preferred by representatives of those excluded voters. It would be expected that adopted policies would reflect that bias, and that is indeed what this report and others have found.

The shift in policy direction caused by post-2010 gerrymandering has been measured using ideological points from the voting records of newly elected members (Caughey, Tausanovitch, and Warshaw 2017). Caughey and colleagues found that the ideology of the median legislator shifted significantly in the most gerrymandered states, in the direction of the gerrymander. They concluded that in states such as Michigan and Wisconsin, partisan bias enabled legislatures to adopt unpopular policies, including tax increases on pensions, corporate tax cuts, and right-to-work laws (which have weakened organized labor in what were traditionally union strongholds).

The Center for American Progress has also highlighted the connection between gerrymandering and policy implementation in the states (Corriher and Kennedy 2017). Polling conducted in Michigan, North Carolina, Ohio, Rhode Island, Virginia, and Wisconsin has shown that legislatures in these states are acting directly against the preferences of large majorities of voters on issues such as the expansion of Medicaid under the Affordable Care Act (ACA) of 2010, support for marriage equality and same-sex adoption, gun violence prevention, public education, minimum wage increases, and the provision of safe drinking water. Rhode Island is a particularly interesting case. There, the Democratic leadership did not gerrymander but designed a responsive districting plan that left Republican voters with about half the percentage of seats won compared to their statewide vote share.

Less responsive legislatures are also more likely to have passed model legislation from conservative groups such as the American Legislative Exchange Council, including prohibitions against regional climate collaboration, limitations on corporate liability, and "stand your ground" laws. Such legislatures were also less likely to adopt renewable energy or efficient energy standards, which have widespread health benefits (Dimanchev et al. 2019; UCS 2017)

Dynamic time series models reveal a significant relationship between partisan bias and health after accounting for other statewide effects, suggesting that the policy differences between biased and unbiased state electoral systems are linked to worsening health. As Table 2, p. 13 shows, the most gerrymandered states showed greater declines in health. After 2010, state legislatures with less healthy populations were more likely to increase barriers to voting and gerrymander districts. Less responsive government may, therefore, be exacerbating already stark health disparities.

One example that illustrates this pattern is the age-adjusted opioid death ratio for non-Hispanic white adults, non-Hispanic black adults, and Hispanic adults (Figure 4, p. 13). In higher-poverty states, the most extreme partisan bias was associated with higher increases in opioid deaths between 2010 and 2017. This was especially true for African Americans, a population for which the ratio was twice as high as that for non-Hispanic whites in the most gerrymandered states.

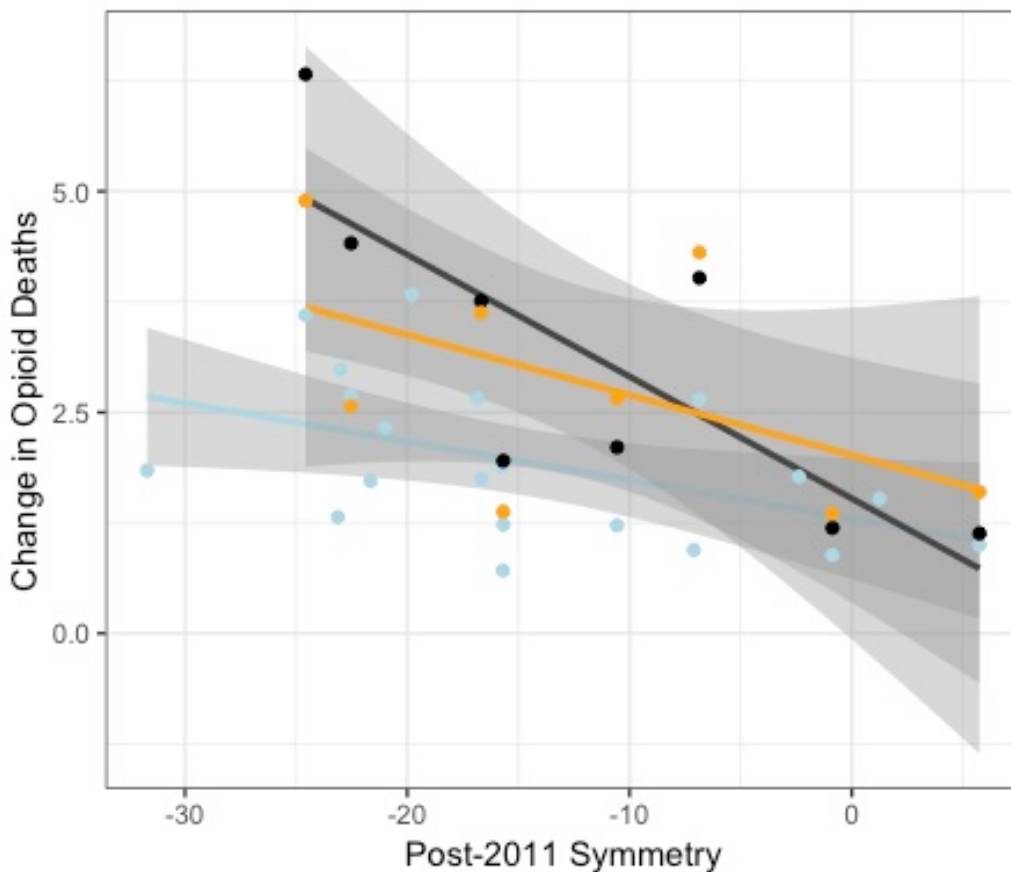
Table 2. Changes in State Health Determinants 2010-2017, by Levels of Bias And Voting Costs

Barriers to Voting	Partisan Bias		Cost of Voting	
	High	Low	High	Low
Change in Health	-0.075	-0.002	-0.041	-0.024
(std. dev.)	(0.102)	(0.140)	(0.116)	(0.145)

After extreme gerrymanders were enacted after 2011, states with greater partisan bias exhibited significantly worse decline ($p = 0.02$) in health determinants compared to states with less bias. States with greater barriers to voting also showed greater decline, but the difference was not statistically significant. More restrictive election laws were also passed after 2012 in many gerrymandered states, often as health continued to decline.

SOURCE: UNITED HEALTH FEDERATION, AMERICA'S HEALTH RANKINGS

Figure 4. Change in Opioid Deaths (ratio) in High-Poverty States and Partisan Bias, by Race, 2010–2017



Increases in opioid deaths, measured as the ratio of deaths in 2017 over 2010, increased more in gerrymandered states with above average poverty, especially for African-Americans. Blue = white, non-Hispanic; orange = Hispanic; black = black, non-Hispanic.

SOURCE: UCS; UNITED HEALTH FOUNDATION 2018.

Two gerrymandered states, Ohio and Pennsylvania, have some of the highest overdose death rates in the country (Edwards 2019). Both expanded Medicaid despite their state's level of gerrymandering, and the

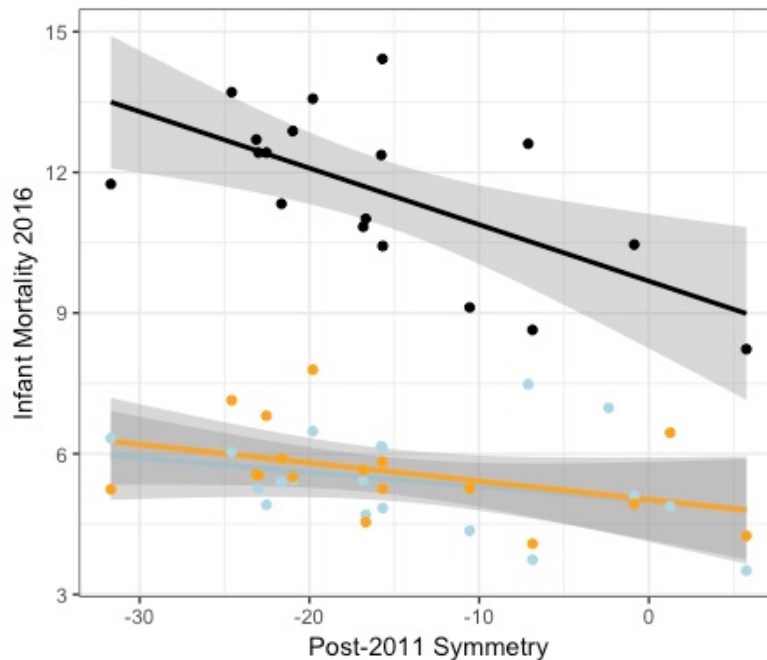
Medicaid expansion appears to have reduced the level of substance use disorder deaths since it was implemented (Snider et al. 2019). In Ohio and Michigan, separate studies show that the expansion successfully increased health care access (Scott 2018; Shaffer, n.d.). In Florida, Virginia, and Wisconsin—all gerrymandered states that President Obama still won in 2012—after the passage of the ACA, Snider and colleagues estimate that the lack of Medicaid expansion resulted in 289 additional substance use disorder deaths in Florida, 107 in Virginia, and 30 in Wisconsin (2019).

Ohio and Pennsylvania also ranked nearly last among all states in terms of post-recession socioeconomic distress, which has a bigger impact on health disparities than health services (Braveman and Gottlieb 2014; Economic Innovation Group 2017). In short, as a result of persistent socioeconomic distress, black and Hispanic opioid deaths have grown faster than opioid deaths among whites in the most gerrymandered states, regardless of whether those states expanded Medicaid.

To the extent that biased, less responsive governments are leaving less represented constituents behind, the negative impact on burdened populations starts early. Consider disparities in infant mortality in higher-poverty states (Figure 5). To a much greater degree than for other populations, infant mortality for non-Hispanic black communities is higher in the most gerrymandered states.

Previous analyses have shown massive disparities in prenatal care and treatment for African American mothers (Flanders-Stepans 2000; Villarosa 2018). More recent research has also shown a negative impact from social stressors on Latina mothers, reaffirming the importance of the regulatory and policy environment for pregnancy (Novak, Geronimus, and Martinez-Cardoso 2017).

Figure 5. Infant Mortality and Partisan Bias, by Race, 2016



Infant mortality is much higher for African-American children, especially in the most gerrymandered. Blue = white, non-Hispanic; orange = Hispanic; black = black, non-Hispanic.

Source: UCS; United Health Foundation 2018.

Whereas the impact of legislative bias on health outcomes is mediated by poverty and socioeconomic distress, the association between health disparities and the cost of voting is unambiguous: in states with greater health disparities, it is harder for people to vote. These barriers have real and lasting consequences. Probably the most infamous example comes from Flint, Michigan, already one of the most socioeconomically distressed regions in the country. In 2012, voters rejected a ballot initiative to turn over control of local municipal services to a state-controlled emergency manager, but only a month later, the gerrymandered legislature did it anyway. Two years later, a state-appointed manager switched Flint's water supply to the Flint River without proper treatment, resulting in a contamination outbreak that killed 12 people. Lead poisoning in the area has been linked to a spike in fetal deaths and lower birth weights (Daley 2019; Grossman and Slusky 2017).

The Michigan legislature has since been unwavering in its determination to maintain control. On July 30, 2019, 15 individuals filed a federal lawsuit challenging the eligibility requirements for the state's new citizen redistricting commission (see the "To protect the equal value of individual votes" section) under the First and Fourteenth Amendments of the US Constitution. The Missouri legislature is similarly trying to kill sweeping electoral reform that voters overwhelmingly approved in 2018 (Hancock 2019).

Arizona already has a long history of voter suppression, but a surge of voter turnout in 2018 prompted the legislature to go further. The legislature wanted to purge eligible voters from absentee ballot mailing lists if they did not vote in two consecutive elections, which could affect as many as 200,000 voters. The legislature also wanted to ban the payment of campaign workers according to the number of registration forms they turn in (Lopez, Jaspers, and Martinez-Beltran 2019). Voter participation in Arizona has national consequences. As a border state, Arizona is ground zero for immigration policy, and Arizonans are increasingly suffering on the front lines of the climate crisis. Environmental heat-related deaths there have hit record highs for the past three years, posing disproportionate risks to outdoor laborers and other workers (Lougee, Hess, and Winston 2018).

Similarly, though voter turnout numbers in Texas and Tennessee are already among the lowest in the nation, the legislatures in those states seek to further curtail political participation and voting. Even after a botched voter suppression effort that involved purging mostly Hispanic voters from county lists (Lopez 2019; Stern 2019), Texas is now moving forward with a plan to jail people for submitting registration forms if they have any errors on them (Lopez, Jaspers, and Martinez-Beltran 2019).

In uber-gerrymandered Tennessee, the legislative majority wants to fine people who submit incomplete absentee forms, and expand deadlines to submit those forms earlier in the election cycle. "We have never seen a bill like this on the floor, until we dared to register 86,000 black and brown people to vote," said Tequila Johnson, co-founder of Tennessee's Equity Alliance.

Tennessee voters deserve better so that they can protect their interests. In 2018, workers near Kingston held a remembrance ceremony for the 10-year anniversary of a Tennessee Valley Authority dike rupture that released more than a billion gallons of toxic coal ash into the Emory River. Since then, 36 of these workers have died from brain or lung cancer, leukemia, or other diseases related to the spill (Bourne Jr. 2019).

Chapter 5

Fighting Back: The Path to Democratic Renewal

The Center for Science and Democracy at UCS sees both the failure of democratic institutions and recent health decline as part of a larger negative feedback loop perpetuating structural inequalities and the erosion of not just voting rights, but human rights. We agree with other scientists and health experts that addressing this systemic crisis requires addressing broader, structural questions (Muennig et al. 2018). A response to the crisis is already emerging. Disenfranchised people are organizing, and several evidence-based electoral reforms are being tested in states and localities across the country.

The year 2018 was probably the most historic year for advocates of electoral reform since the launch of Freedom Summer in 1964 (which ultimately led to the Voting Rights Act of 1965). While federal litigation efforts to curb partisan gerrymandering were ultimately unsuccessful, citizen organizations in Colorado (Fair Districts and People Not Politicians), Michigan (Voters Not Politicians), Missouri (Clean Missouri), and Utah (Utahns for Better Government) organized ballot initiatives to require independent or bipartisan redistricting processes. They all passed. Currently, the Michigan and Missouri legislatures are resisting reform, an indication that these changes would matter to entrenched interests.

In Florida, the group Second Chances organized to get a ballot initiative overwhelmingly approved to re-enfranchise more than 1 million felons who had been permanently barred from the electoral process. The Florida legislature and Governor Ron DeSantis have done everything in their power to kill this citizen-led effort, including imposing an effective poll tax that requires all fees and restitutions be paid before an ex-felon can register (Sharif 2019). The legal fight there continues.

According to the Brennan Center for Justice, the past two legislative cycles have seen more expansive voting rights legislation adopted at the state level than restrictive legislation, and momentum is growing (Brennan Center for Justice 2019). Colorado's new standards for vote centers and improvements to the registration process for Native Americans stand out as examples of broad reforms. Even the Georgia legislature, with some litigation to nudge it, is moving to improve problems with voting systems (though serious insecurities remain), voter list management, and voting for people with disabilities (see Table 3, p. 17).

At the local level, several cities—including Baltimore, Denver, and New York—passed new public campaign financing laws, and more cities elected or defended electoral system reforms. Residents in Fargo, North Dakota, were the first in the country to adopt approval voting, a method that allows voters to cast “approval” votes for as many candidates as they like (Piper 2018). Voters in Memphis, Tennessee, have now twice voted to implement ranked choice voting (RCV) for the city council. RCV allows voters to rank candidate preferences. The state has essentially shut down the reform, claiming that it violates state law (Munks 2019), but Ranked Choice Tennessee communications director Carlos Ochoa is continuing litigation on the matter. Several large cities—including St. Paul, Minnesota; San Francisco; and Oakland, California—have already adopted RCV, and the state of Maine used RCV for the first time in 2018 to determine the winner of a congressional race.

Table 3. Recent Expansions of Voting Rights (Post-2016)

Voting Rights	States Enacting
Redistricting reform	CO, MI, MO, UT
Automatic voter registration	CA, CO, IL, ME
Preregistration (for 16- or 17-year-olds)	CA, NY
Felon enfranchisement	CO, FL, IL, NV
Extension of Native American voting rights:	CO
Same-day registration	NM, NV, NY
Extension of early/absentee voting	DE, GA, NY
Voting centers	CA, CO

In recent years, the trend of voting restrictions has been reversed, with more states expanding voting rights.
 SOURCE: BRENNAN CENTER FOR JUSTICE 2019.

However, nearly half of US states, arguably the half that need it most, do not have the initiative or referendum, which is how all these measures were passed. Therefore, people will have to implement federal legislation or work through state legislatures and courts. Litigation strategies are going to be crucial, given the level of resistance that elected officials are employing to preserve the status quo. Considering a suite of reforms to effectively address 1) the cost of eligibility, 2) the cost of casting a vote, and 3) the value of the individual vote, this analysis explored the effectiveness of previously implemented reforms, comparative and historical analyses of electoral system design, and the practicality of implementation. (More information can be found at the Brennan Center for Justice, Fair Vote, and the Campaign Legal Center.)

To reduce the costs of eligibility: preregistration of 16- and 17-year-olds who have taken civics, automatic and same-day voter registration (AVR and SDR), and secure voter registration lists.

More than a dozen states—including Republican-controlled states such as Florida, North Carolina, and Utah—allow people to register as voters before they are eligible to vote, to prepare them for the responsibilities of voting. When included as part of a comprehensive high school civics curriculum, preregistration contributes to the habit of voting (Holbein and Hillygus 2016; McDonald 2009). US congressman Joe Neguse has introduced, in the 116th Congress, legislation that would allow preregistration, and it—as well as SDR legislation—is part of H.R. 1, a sweeping electoral reform and voting rights bill (Neguse 2019).

Bipartisan efforts have led to 16 states and the District of Columbia implementing AVR, an “opt out” policy that places all eligible citizens on voter registration rolls electronically and keeps the information synced with other government databases (Brennan Center for Justice 2019). After AVR is fully adopted, eliminating registration requirements, it improves turnout by 2–3 percent and yields more representative electorates in both urban and rural areas (Highton 1997; McElwee, Schaffner, and Rhodes 2017).

A growing threat to voting rights is the use of list-purging, which has been upheld as a legitimate state interest by the Supreme Court (Latner 2018b). Safe and secure registration lists can be protected through the prohibition of sloppy and unscientific “cleaning” tactics, such as exact matching, a process rife with voter and human error (MIT Election Lab 2018). Additionally, removal of voters for lack of voting should be prohibited. For those concerned about voter fraud, AVR and secure list management could be coupled with a voter identification requirement. It would be fairly seamless to provide voters with an ID under such a system, as recommended by the Carter-Baker electoral integrity commission (Balz 2005).

To reduce the costs of casting a vote: mail and early in-person voting; election week voting centers; consolidated elections.

Only 11 states do not allow some form of early voting. Extending the time to vote reduces an important barrier for those who do not have flexible work schedules and provides an opportunity to mobilize voters to get to the polls (Burden and Gaines 2015; McDonald, Shino, and Smith 2015). While

absentee provisions alone may not increase turnout, automatic mail voting—a process in which eligible voters are mailed ballots at least two weeks prior to Election Day—can boost participation when it is part of a comprehensive voting system.

Colorado's early adoption of voting centers—places where any county voter can drop off ballots or vote during an early voting period (as opposed to the traditional precinct system)—has proven to be a success (Pew Charitable Trusts 2016). Colorado's electoral system is regularly regarded as one of the most integral in the country, and the state had the second highest turnout in 2018 (Minnesota was first). Several states, including California, are now experimenting with voting centers (but not automatic mail voting).

Finally, voter turnout in odd-years and in odd months tremendously reduces turnout due to the low levels of information available to voters. A major reform that would boost participation would be to consolidate elections so that local and state offices are filled during larger electoral contests (Brennan Center for Justice, 2019).

To protect the equal value of individual votes: independent redistricting commissions; multi-seat, proportional elections; publicly financed campaigns; electoral ethics commissions; full participation in the decennial census

Removing authority from legislators to draw the electoral districts that they campaign in results in less biased districting (Keena et al. 2019). Several independent redistricting commissions have now been established, and comprehensive guides for their administration are now available (Campaign Legal Center 2018; Princeton 2018; State of California 2019).

US municipalities have a history of using proportional electoral systems (Santucci 2017). In proportional voting, rules are designed to more accurately match the share of voters that support a party with the share of seats that the party wins. Most democracies today use some form of proportional elections (Soudriette and Ellis 2006). The properties of these systems are well understood, and small (three to five seats) magnitude districts could be designed and implemented to fully comply with, and probably enhance, the Voting Rights Act (Latner and McGann 2005; Reynolds, Reilly, and Ellis 2005). Ten states currently use multimember districts to elect state legislators, but only Maine has adopted a statewide proportional electoral formula. When electoral districts contain multiple seats and use proportional allocation, the incentive to gerrymander is reduced because multiple parties win seats.

Many states and cities currently use some form of public financing, and public financing is growing in popularity (Berger 2019). Public financing of election campaigns may be the only constitutional remedy for reducing the influence of large donors that dominate electoral politics (Gilens and Page 2014; Hasen 2016; Lessig 2015). Along with full expenditure disclosure by candidates, the “democracy voucher” program—such as that adopted by Seattle and contained in H.R. 1—holds the most promise for empowering individual voters. The voucher program provides a subsidy directly to eligible voters and candidates have to work for voters to spend the vouchers on them.

The administration of elections requires professional and ethical oversight, which have been sorely lacking in the United States (Astor 2019; LATEB 2016; Lichtblau 2015). Stronger ethics rules would ensure our officials make decisions in the public interest based on evidence, not the influence of special interests to which they are connected. Both H.R. 1 and the Corporate Political Disclosure Act would curb abuses by federal government officials and address conflicts of interest. States and municipalities have successfully established ethics commissions to govern their own electoral systems, with considerable public participation (Common Cause New Mexico 2018; Greenblatt 2017).

Together, this suite of reforms would ensure more transparent governance and oversight, and reduce the corruption of political equality and popular sovereignty.

Possibly the single biggest threat to the legitimacy of democratic institutions in the United States in 2020 is the potential corruption of the decennial Census, the oldest and largest scientific project undertaken by the government every 10 years. The individual geographic data collected are used to allocate seats to the US House of Representatives and determine the structure of districting plans across the country. Census

information is also used to generate the data that will be used by government and business for the next 10 years.

For now, the Supreme Court has prevented the Trump administration from including a citizenship question on the 2020 Census. Court documents revealed that the administration's effort to include the citizen question was part of an attempt to weaponize the Census and use it to discriminate against Hispanic Americans. In 2015, Republican Party redistricting expert Thomas Hofeller was commissioned by the Republican National Committee to analyze the impact of drawing electoral districts using the citizen-eligible population, rather than the required "all persons" used to allocate seats to the US House (Daley 2019).

Hofeller's work demonstrated that such districting would be "advantageous to Republicans and non-Hispanic whites." Several other studies have supported Hofeller's claims that citizen-only districting would dilute Latino representation in Congress and state legislatures, and that substantial power would shift away from areas with more immigrants and people of color to already overrepresented areas with more non-Hispanic whites and older residents (Beveridge 2016; Klarner 2005).

However, Hofeller believed, "Without a question of citizenship included on the 2020 Decennial Census questionnaire, the use of citizen voting age population is functionally unworkable." Now that the Supreme Court has prohibited the administration from including such a question—the legal representation for the administration lacked scientific justification (the nation's top social scientists and Census experts opposed the change)—the administration plans to use administrative data from related agencies to provide enough information for state legislatures to draw districts as Hofeller had intended.

The Census should not be weaponized for the distortion of political power. Along with the Voting Rights Act, the Census is arguably the best means of securing the integrity of our electoral systems and our democracy. The Trump administration continues to use fearmongering and intimidation to generate an undercount of at-risk populations, which would have a similar effect to diluting the political power of immigrants and people of color.

Together, science advocates and defenders of civil rights are working to ensure that people know their rights and know that they need to have their voices counted—voices that are free from the threat of government retribution. The decennial Census is the scientific instrument that allows the United States to achieve the principle of equal treatment under the law, and as Justice Ruth Bader Ginsburg affirmed in the Texas apportionment case *Evenwel v. Abbott*, "As the Framers of the Constitution and the Fourteenth Amendment comprehended, representatives serve all residents, not just those eligible to vote" (Supreme Court Reporter 2016).

Chapter 6

Conclusion

We are living through a very dangerous time. As health disparities grow at a rate not seen in a century, and an ecological crisis accelerates, the institutions on which we rely to make social choices about our shared fate are eroding. As unresponsive state legislatures inoculate themselves against public accountability, health disparities worsen for the most vulnerable populations, making it harder for communities to protect themselves from these threats. Access to quality health care, the risk of substance use deaths, and massive inequalities in infant mortality rates are all higher in states where representation has been distorted by restrictive election laws.

We must rehabilitate our democratic institutions and address these challenges. The solutions are there for us, tested through research in American states and across other democracies. By expanding voter eligibility, providing early and easy access to the ballot, and ensuring an accurate count of votes, we will eventually be able to pass evidence-based, equitable policies to improve the nation's health. The 2020 election cycle may be the most important of our lifetime, and we must make it count. Unresponsive governments are not going to give up their privileged positions. People have to mobilize and take power back.

ENDNOTES

1. Alabama and Mississippi are missing comprehensive state legislative election results.
2. Reversed by court.
3. An injunction was placed on Indiana's list-purging.
4. Reversed by court.

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