In 2013, Minneapolis voters elected Abdi Warsame and Alondra Cano to their city council. Both were historic candidates. Warsame defeated an incumbent to become the first Somali to be elected to the city council; indeed, at the time, he became the highest elected official of Somali descent in the United States. And as the first Mexican American elected to that office, Cano’s election was a breakthrough, too. These remarkable individuals were aided, in part, by an arcane process known as redistricting, which fashioned voting districts that offered Somali and Mexican-American communities the opportunity to elect a candidate of their choice. The manner by which these districts were drawn—by the public directly, meeting a complex set of conditions—serves as a blueprint for how the public can be engaged in
redistricting to serve the representational needs of communities, rather than the self-serving interests of politicians.

We describe our efforts to empower the public. Too often, politicians draw districts out of the public’s sight to accomplish their political ends. These districts assist the reelection of incumbents, deny representation to persons of color, and help one party win a legislative majority even when most voters choose candidates from the other party. Our public mapping efforts across the country reveal a fundamentally different approach to redistricting: one that allows the public to draw its own fully legal districts that are politically fair, protect and even enhance minority representation, and respect local community boundaries. These wildly divergent results flag the urgent need for transparency and public participation in redistricting.

Our perspectives on public mapping are informed by nearly three decades of being active participants in state and local redistricting efforts and litigation across the United States. We have analyzed data and developed software for our scholarly pursuits and advocacy work. During a 2010 round of redistricting, we created open-source, web-accessible redistricting software called DistrictBuilder in collaboration with Azavea, a Philadelphia GIS company. We deployed it in states and localities across the United States to enable ordinary people to draw legally admissible redistricting plans. This book is a reflection on our experiences from a practical and (dare we say) academic viewpoint. We learned a lot beyond simply doing software project management. We helped build
grassroots coalitions for public mapping, educated the public and policymakers about the need for transparency and public participation, and did the things academics tend to do, such as building and analyzing datasets. This book is an extension of our work to educate, encourage, and empower.

**History and Background**

Everywhere in the United States, candidates are elected by the districts they are campaigning to represent: it’s true for local offices like city council and school boards, state legislatures, and the national Congress. Districts serve an important purpose, which is to identify the community that an elected government official must represent. Every decade, new district lines are drawn to equalize districts’ populations to ensure that some people do not receive more representation than others.

In theory, governments do this work to achieve relatively neutral administrative goals such as drawing nicely shaped districts that follow existing political or geographic boundaries, and to allow communities with shared interests an opportunity to be represented together. In practice, the people in charge of drawing districts for political offices are state legislators, and they have a vested interest in how these districts are drawn. Once elected, politicians manipulate boundaries by slicing and dicing communities to assist their personal reelection, win legislative majorities for their political party,
and deny representation to communities of color. You may be familiar with this malpractice as *gerrymandering*, which was coined in 1812 to mock a salamander-shaped Massachusetts state senate district signed into law by Governor Elbridge Gerry. The original gerrymander was so effective that the Federalists—Governor Gerry’s political opponents—won only 27 percent of the seats in the next election despite winning a narrow majority of the vote. The gerrymander lives on. Most recently, these alarming anti-majoritarian outcomes occurred during the 1996 and 2012 congressional elections, and during recent Michigan, Pennsylvania, Virginia, and Wisconsin state legislative elections.

An important redistricting element is population data. Every ten years since the founding of the republic, the federal government has conducted a census that determines the number of seats each state will have for the following decade. For a long time, a change in the number of congressional representatives did not necessarily trigger the drawing of new district boundaries, because some states elected their members in at-large statewide districts instead; congressional, state, and local districts were not required to be representative of a given state’s population. But in the 1960s, the Supreme Court found districts of unequal populations, a practice known as *malapportionment*, to violate the US Constitution, thus setting in motion the decennial ritual of redistricting following a new national census. Later that decade, the federal government passed into law the Voting Rights
Act, which effectively prohibited the worst racial gerrymandering practices. Still, states and localities have wide latitude within federal limits to draw districts to protect incumbents and help political parties.

Reform advocates are pursuing two pathways to reduce political self-dealing during redistricting. An approach that would strike a blow to partisan gerrymandering throughout the United States is to have the Supreme Court adopt an anti-partisan gerrymandering judicial standard, much as it did to outlaw malapportionment. Another approach is for reformers to engage state-by-state by bringing lawsuits to enforce existing state regulations, amending state constitutions, or passing new laws to create new regulations.

There remains a hope that the US Supreme Court could outlaw partisan gerrymandering. The nine-member court is divided with four liberal justices who believe partisan gerrymandering is unconstitutional and that a standard exists to identify when violations occur. Two conservative justices do not believe partisan gerrymandering is unconstitutional. As of this writing, two conservative justices rejected statewide partisan gerrymandering claims but appear willing to entertain single-district challenges. A ninth member’s position is unknown, and Justice Kennedy’s retirement creates substantial uncertainty in this area.

Reform advocates have had more success with state supreme courts, which struck down redistricting plans in Florida and Pennsylvania for being excessive partisan gerrymanders in violation of their state constitutions.
Pennsylvania’s court interpreted a long-standing clause requiring elections to be “free and equal” to prohibit partisan gerrymandering. Florida’s court looked to a voter-approved 2010 amendment to the constitution that states, “No apportionment plan or individual district shall be drawn with the intent to favor or disfavor a political party or an incumbent.” In both of these states, the legislature still has a direct role in drawing districts, and it is up to the courts to enforce their constitutions. Seven other states have similar prohibitions, but there has been no favorable court action to enforce them.

In other states, reformers have changed the redistricting process by placing it in the hands of a commission that works independent of the legislature. Reformers generally regard the Arizona and California commissions as their reform model. These commissions have four desirable characteristics:

1. Vetting: a state agency vets prospective members to root out people with obvious conflicts of interest.
2. Clear districting guidelines: while drawing districts, the commission must abide by a set of well-defined criteria.¹
3. Transparency: the commission must operate in the open.
4. Public comments: the commission must solicit and accept public input into how districts should be drawn.

Because politicians are loath to give up their power voluntarily, redistricting reforms usually occur through a ballot
initiative that empowers voters to have their say. Reform through a ballot initiative is difficult, however, and only available in about half of the states that permit it. Petition circulators must first collect signatures from registered voters who want the question to appear on the ballot. If enough valid signatures are collected, a statewide campaign—typically costing millions of dollars—must educate the public about the issue. If the party in control of state government opposes reform, the ballot initiative will often fail; their supporters take the cue from their leaders to vote against it. If fortune favors the reformers, however, the initiative may be adopted.

The good news for reformers is that the public is generally on their side. Advocacy groups have successfully reformed state redistricting processes through voter approval of ballot questions in Arizona, California, Florida, Ohio, and Washington. At the time of this printing, active advocacy efforts are underway in more states. Not all reform efforts have been successful. Prior efforts failed in California, Florida, and Ohio, and South Dakota voters recently rejected a reform proposal. Still, the successes outnumber the failures, and reformers can learn from their mistakes to successfully try again.

Public Mapping: Our Model for Success

One of these reform efforts occurred in the city of Minneapolis, where reformers wished to demonstrate
the viability of reform by starting local. The Minneapolis city council districts were formerly drawn by a bipartisan commission appointed directly by the city council, setting up the possibility of political self-dealing through gerrymandering. In 2010, Minneapolis voters approved a Charter Amendment that transferred redistricting power to the city’s Charter Commission, which is appointed by the chief judge of the Hennepin County District Court.3 (Minnesotans tend to trust judges with governance, a reform model that is not shared widely elsewhere.) The Charter Commission, in turn, solicited interested members of the public to serve on the nine-member Redistricting Group to advise the commission on the drawing of new city council districts. The Charter Commission established criteria to guide the Redistricting Group, notably keeping communities of interest in a single city council ward, where possible. For those who could not serve on the Redistricting Group but still wanted to be involved in the deliberations, the Charter Commission invited suggestions from the public.

Working with a state-based advocacy group, Draw the Line Minnesota, we put our DistrictBuilder software into the hands of interested members of the public, empowering them to provide their suggestions to Minneapolis’ Redistricting Group during the public comment period. As mentioned, DistrictBuilder allows mapping novices to draw legal districts through their web browsers, without having to be experts in geographic information software. (We discuss
DistrictBuilder in greater detail in the following chapters.) Redistricting Group members had purchased a single desktop version of a commercial redistricting software to accomplish their task, which they found inconvenient to use, so members began using DistrictBuilder from their offices and homes. So, too, did two community-based groups: a Latino community group and the Citizens Committee for Fair Redistricting led by Abdi Warsame. In all, users generated thirty-eight city council maps using our software.

Citizens Committee for Fair Redistricting advocated for the creation of a predominantly East African Ward 6. The Latino group advocated for increasing the Hispanic population of Ward 9. Through DistrictBuilder’s sharing features, these groups were able to share their ideas with the Minneapolis Redistricting Group, which incorporated the draft district maps into their working plan. The result of this collaboration between the public and the Redistricting Group resulted in changes to the city council ward districts.

Figure 1.1 shows the African American community located around Ward 6 prior to the redistricting. The census blocks are shaded by the proportion of the population that is African American. Most of the nonshaded census blocks are composed primarily of businesses or other zero-population blocks that are difficult to display in a monochromatic color scheme. The community was spread across four districts: Ward 2, Ward 6, Ward 7, and Ward 8. Following the redistricting, the African American community was consolidated
within Ward 6, as shown in figure 1.2. As a result, Ward 6’s non-Hispanic black population was increased from 26 percent to 45 percent. Figure 1.3 shows the Hispanic community located around Ward 9 before the redistricting. The community was effectively divided among three districts, Wards 6, 8, and 9. Following the redistricting, the community was consolidated into Ward 9, as shown in figure 1.4. Ward 9’s Hispanic population was increased from 17 percent to 37 percent. And you already know what happened in the new districts after the election: the first Somali American and Mexican American gained seats on the Minneapolis city council, giving voice to communities that previously were unrepresented there.

These maps help illustrate why redistricting is so important to representation. An effective gerrymandering strategy denies representation to communities of color and other politically cohesive communities. Here, African American and Hispanic communities were spread across several districts, a gerrymandering strategy known as cracking. Cracking dilutes the voting power of a community such that they cannot elect a candidate of their choice among any of the districts they are cracked among. Another effective gerrymandering strategy is known as packing, whereby a community’s voters are concentrated within a single district, thereby by wasting their votes in a district their candidate of choice wins by an overwhelming margin. A happy medium between these two extremes affords the best representation, where a
community is neither cracked or packed so that they can have an effective say in their representation.

We have supported public mapping efforts like Minneapolis's in states and localities across the United States, and even in Mexico. Minneapolis was our greatest success in demonstrating that by giving the public the data and tools, they can be full partners in the redistricting process. We had other successes and failures. In this essay, we reflect upon our experiences with public mapping, how it beats the current process to create better outcomes, how to do your own public mapping, and how your efforts can be an important part of the redistricting reform agenda.