Community-Centered Redistricting in Lowell, Massachusetts
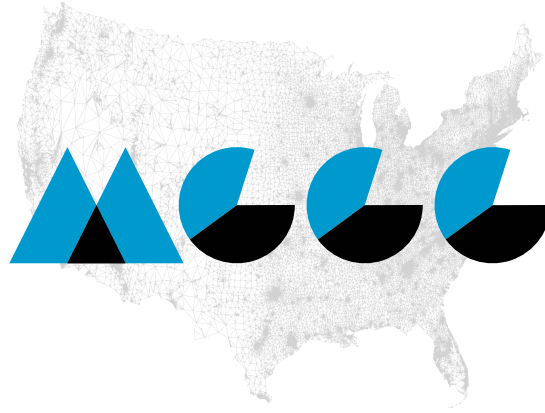
MGGG Redistricting Lab

Contents

Contributors

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MGGG is a non-partisan research organization based at the Jonathan M. Tisch College of Civic Life at Tufts University. We apply mathematical and computational methods to the study of elections, redistricting, and civil rights.

1 Introduction: What's happening in Lowell?

Lowell, Massachusetts is currently home to some really interesting debates about fair representation in city government. What do we want from our elected officials? Should they look like us? Live near us? Reflect our values? This is a short introduction to some of the ways that the system of election can shape our government and make it more—or less!—closely aligned to the voters and the communities.

Two years ago, the City of Lowell was sued because its *system* of election prevented minority communities from being represented in city government. For example, even though there are 9 members of the City Council—and nearly half of Lowell's population is Asian or Hispanic—there have only been 2 people of color elected to the City Council in 20 years![1]

This is because Lowell has used an election system called "at-large plurality voting," where voters select multiple candidates, and candidates with the most overall votes then get elected. While this might sound fair at first, this system tends to let the biggest voting group sweep all the seats (instead of just getting the biggest share).

The example in the picture below shows what could happen with at-large plurality voting in a city where cat voters outnumber dog voters 3-to-2. If this means that a leading cat candidate gets three votes for every two that go to a dog, then the winners will all be cats.
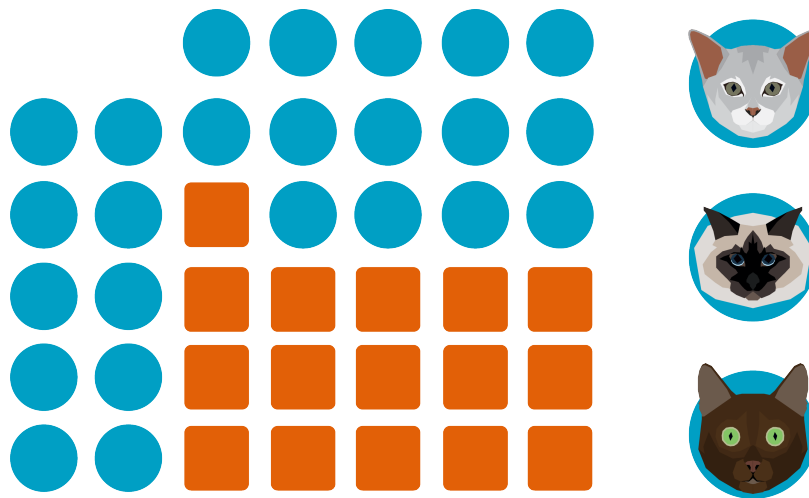

Figure 1. At-large plurality elections often allow the biggest group of voters to win ALL seats, leaving none open to smaller groups of voters.

This is sometimes referred to as "fencing out" the smaller group of voters, and it's the reason that cities with these systems are being sued more and more.

This year, Lowell has agreed to change its elections for City Council and School Committee to better represent Lowell's diversity. In November, voters will be choosing from two possible election systems, one that uses ranked choice voting (RCV) and one that uses a combination of districts and at-large seats. Below we describe both systems and some pros and cons of each.

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[1]https://commonwealthmagazine.org/politics/lawsuit-challenges-lowell-at-large-voting/

2 What is ranked choice voting, and what is it good for?

Typical elections in the United States require you to pick just one candidate at the ballot box. But most of the time, this won't totally capture all of your preferences. You might find some of the candidates to all be pretty good, and others to be a lot less desirable. Ranked choice is a way to communicate more information about your preferences, so that it can be taken into account when the votes are tallied.

In ranked choice voting, voters can rank some or all of the candidates running for City Council in order of preference. A seat on the City Council can be won by any group that hits a threshold number of votes for a candidate. This allows minority groups to still elect candidates of their choice.

We can see this by imagining five voters, two that tend to prefer dogs and three that tend to prefer cats. If the votes are handled in a way that takes all of the preferences into account, then a dog can be elected as well.
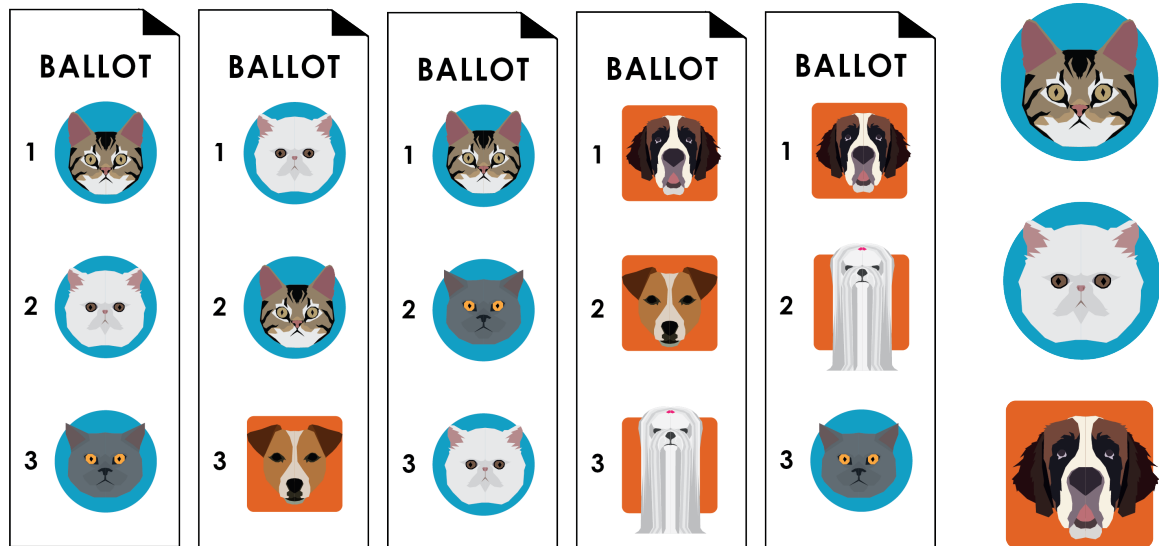

Figure 2. With Ranked Choice Voting (RCV), minority groups can more easily win spots on the City Council. If these same voters were using the conventional plurality system and not ranking their choices, all three cats would have won!

In this example, the dog-lovers get one seat, which is much closer to proportionally representing the preferences of this voter population. This is one of the key features that motivates the use of RCV, which is often referred to as a Proportional Representation (or 'PR') system.

3 What are districts, and what are they good for?

Districts have been used to secure voting rights opportunities for various kinds of minority populations ever since the founding of the country. Since the Voting Rights Act was passed in the 1960s, districts have been particularly emphasized as a tool to get more effective representation for communities of color.

Why districts? Keep in mind that the focus in the 1960s civil rights movement was better representation for African-Americans—especially at the time, Black communities were often extremely concentrated in residential living arrangements, making it relatively easy to draw districts with a Black majority that could elect candidates of their choice.

The logic of districts is partly that neighbors are likely to share concerns, and that neighborhood concerns should have a voice in government. Whether it's bus service, garbage collection, zoning, or violence prevention, your immediate community has important needs.

In Lowell, the lack of a voice for some neighborhoods has been an issue. Clemente Park has lacked proper lighting, and many residents have found it hard to get the ear of the City Council. Some think the answer is districts in which each councillor has a smaller and more focused constituency to answer to.

But districts have limitations as a tool for minority representation. For one thing, they require careful line-drawing which can sometimes seem to split up a city or state in unnatural or counter-intuitive ways—neighbors on different sides of a street might find themselves in different districts and wonder why they are separated. Also, people move and neighborhoods change. Since districts are usually only re-drawn every ten years, they tend to get out of date by late in the decade.
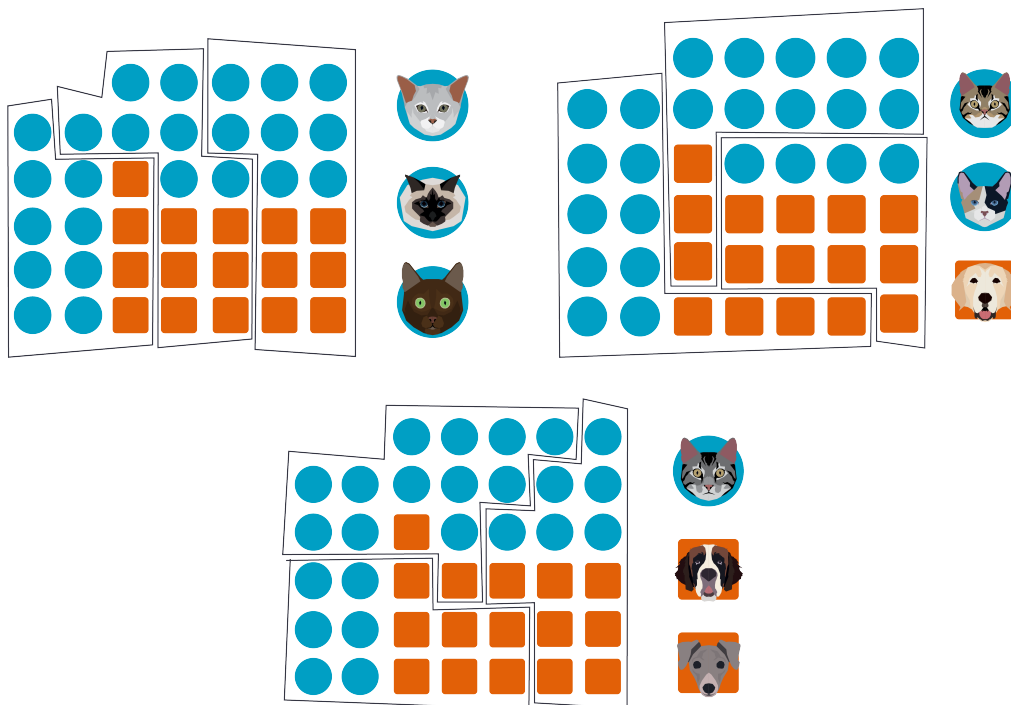

Figure 3. Districts can be used to get representation for the dog-voters with careful line-drawing. Here we can get a cat sweep, one safe dog district, or two narrow wins for the dogs just from a different choice of districts!

The choice of how to draw district lines can have a big effect on outcomes. Figure 3 shows how the same group of voters can end up with totally different representation just because of the district lines. If you are not in one of the districts that is designed to give your group a majority, it is easy to feel that your vote does not count.

4 Visualizing Lowell's diversity

While districts can be very effective with concentrated communities, they work much less well with dispersed communities. Imagine a city in which every single city block has 20 dog voters and 30 cat voters. Then it wouldn't matter how carefully you drew the lines! As long as you made districts without splitting up blocks, cats would win every single district.

Lowell has a high level of Asian and Latino population, but both of these communities are fairly dispersed, as you can see in Figure 4.
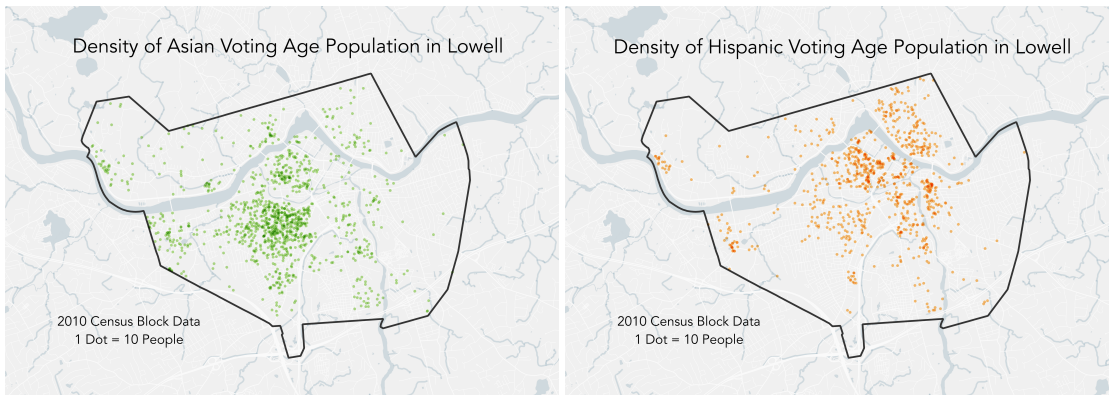

Figure 4. These maps show you where Asian and Latino people live in the city. Each dot represents 10 people.

Even though 47.2% of Lowell's population is people of color, we found it hard to draw districts that would have good POC representation. Our computers generated thousands of districting plans, and we looked for 8-district plans with the best prospects of electing candidates of choice for Asian and Latino voters. We found that even the most carefully drawn plans still had only 1-2 out of eight districts which would likely elect a candidate of color, according to recent voting patterns.
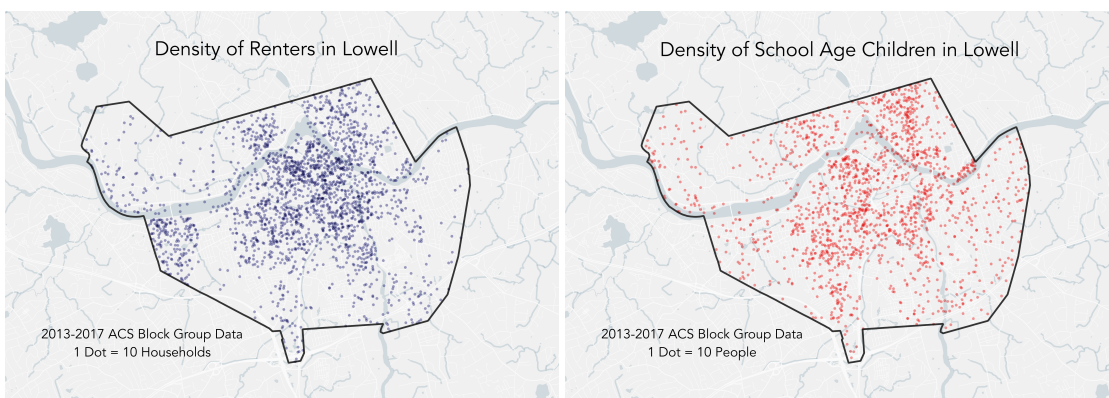

Figure 5. Where do renters live? Where do school-age kids live?

And of course, there are other important kinds of community voices to represent! Imagine trying to draw districts to give a strong voice to Asian and Hispanic voters…. and also people who rent their homes, and also people with kids in school, all at the same time.

5   The choice you'll be facing in November

Modeling elections is hard, because voters can surprise you! We can't predict for sure who will run under each system, how they will campaign, and whose votes they will earn. But we've tried to model it anyway, and there are some noticeable differences.

This November, you will be asked to vote between two choices. One of them (RCV 1×9), will have you ranking many candidates from across the city to fill nine positions. A computer will be used to redistribute the votes so that if your favorite candidate is eliminated, your vote now goes to your second choice.

The other choice (Hybrid $8+3$), will create city districts in Lowell for the first time. If you choose this, you'll have eight members elected from districts and three that are chosen city-wide. Probably the three extra seats will be filled by plurality at-large voting, which is the old system of election that you're used to. This also expands the size of the City Council from 9 members to 11.
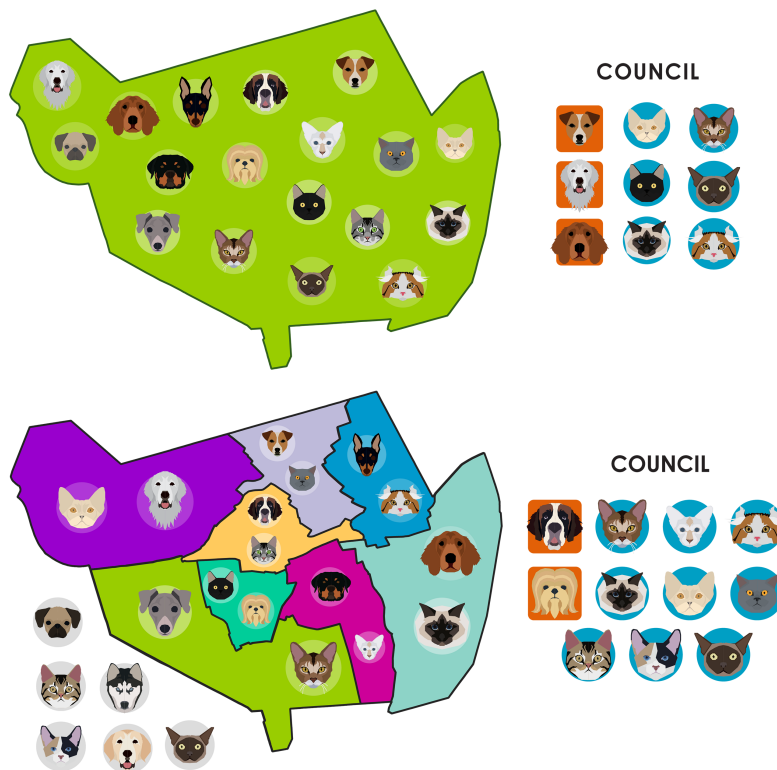

Figure 6. Ranked choice (1×9) versus Hybrid districts/at-large $(8 + 3)$

There are definite pros and cons of each system. In the Hybrid system, it's guaranteed that the City Council will have one representative from each of the 8 districts, ensuring *geographic diversity*. A move to RCV will require some adjustment to a large ballot, but will bring the benefit that any sizable community, no matter how dispersed they are, can get representation on the City Council if they vote together. (Think of home-renters from Figure 5.)

Ranked Choice (1×9)	**Hybrid Districts/At-Large** $(8 + 3)$
Pro: Voters can vote for candidates from all over the city, and two candidates from the same neighborhood can campaign together rather than competing.	**Pro:** District representatives are accountable to a specific set of voters, and they can campaign in a smaller neighborhood rather than city-wide.
Pro: Much stronger prospects for minority representation—likely 2-4 out of 9, even with low turnout.	**Pro:** Neighborhood involvement and guaranteed representation from every part of the city.
Con: New system will be unfamiliar and will require some new vote-counting infrastructure.	**Con:** Because two specific majority-minority districts will be made, overall minority representation likely 1-2 out of 11.
Con: Hard to be familiar with all of the candidates running; ballot size may be intimidating.	**Con:** Dispersed groups may not get representation. Outside of concentrated districts, voters may feel their vote does not count.

However, our research shows that even if people try to draw the lines that are best for representation of communities of color, they're likely to get only 1-2 seats on an expanded 11-member City Council. We also found that out of thousands of randomly made maps with 8 districts, *zero* of them had as many as three majority-minority districts. And we now have years of experience in Lowell telling us that when people of color are in the minority, they don't tend to get their candidate of choice into office.

On the other hand, with similar assumptions about who runs and who turns out to vote, we think 1×9 is likely to elect 3-4 coalition-preferred candidates out of 9. Even very poor turnout by coalition voters is likely to only bring the number down to 2 out of 9.

That is a huge difference! The Asian and Hispanic coalition makes up about 40% of the city. With ranked choice, coalition-preferred candidates will likely get $22 - 44\%$ of the council's seats, but with the hybrid system, the expectation drops to $9 - 18\%$ of representation. Improving minority representation is not the only issue facing Lowell, but it is important—it is the reason that Lowell's old way of electing the City Council got challenged in court!

6 Other election alternatives

Although only two election systems will appear on the ballot in November, Lowell also considered other ways to elect a 9-member City Council. They considered a 3×3 system, where Lowell would be divided into just 3 districts, each electing three members to the Council using RCV. And they considered 9×1: nine different districts, each electing one member.

Just like the ones on the ballot, these systems each have advantages and disadvantages in campaigning, voting, minority representation and access to elected officials. But we especially think 3×3 is interesting, combining some of the best features of districts with the best features of RCV. Candidates could campaign more locally, while dispersed groups and interests could still have a stronger expectation of election.
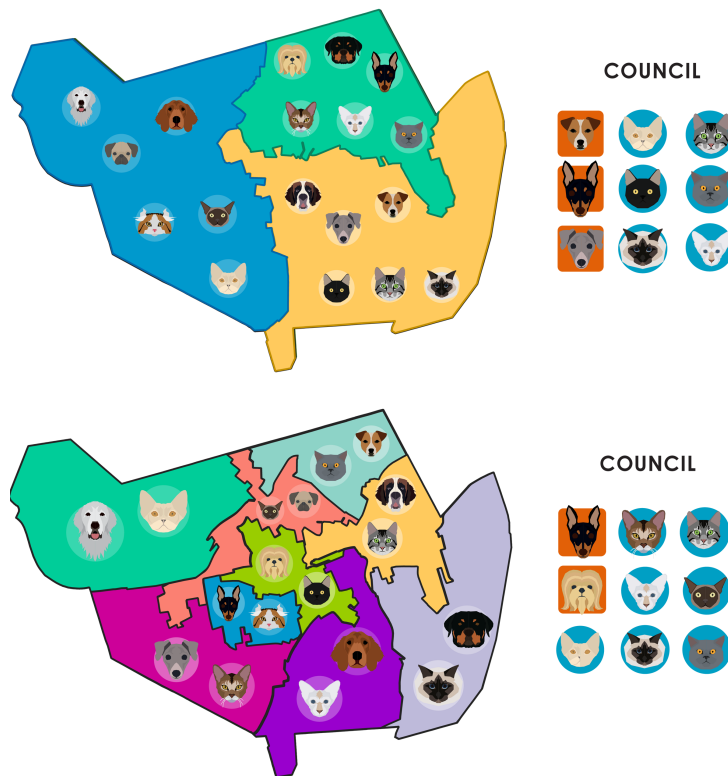
Figure 7. Other options that won't be on the ballot: a 3×3 system and a 9×1 fully districted system.

7 Conclusion

Ranked choice systems and districted systems both have benefits and drawbacks, and we hope we've done a good job surveying some of them here. But a major focus in Lowell right now is on more effective electoral opportunities for diverse communities around the city.

No matter which election system is chosen in this process, people of color will have a greater chance of being represented in Lowell's City Council than ever before. But we do predict some significant differences under the two systems that are on the ballot: under RCV, we predict $2 - 4$ out of 9 POC-preferred candidates on the City Council ($22 - 44\%$), while under the Hybrid system we predict only $1 - 2$ out of 11 ($9 - 18\%$), assuming the at-large seats are chosen by the old plurality system, as expected.

Democracies grow stronger through deliberation, debate, and voter engagement. But in order to have a vibrant democratic process that reaps the benefits of a new election system, community involvement is essential. This means the next step under any new system is to get lots of great candidates running for office and to be sure that all of Lowell's communities turn out to vote!

But first it is your turn to weigh in on which election system best reflects your values and priorities when electing your city government.