

THE **GUINIER** PROJECT

# Getting From Votes to Seats

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**HOUSTON  
INSTITUTE**  
For Race & Justice

A Primer on  
Electoral  
System  
Design



# Democracy isn't working...

When most communities  
feel their voices are not  
being heard, we need to go  
back to the drawing board.

HERE'S WHAT WE CAN DO →



# Let's set the stage

## What does it take to win?

Effective representation requires more than voters and representatives—it requires an architecture that allows groups to coordinate, combine their voting strength behind strong candidates, and convert votes into seats. These architectures, which determine how voters' preferences are translated into election results, are called electoral systems. More restrictive systems consolidate and entrench political power for a smaller number of groups, while more permissive electoral systems allow a larger number of groups to share power.

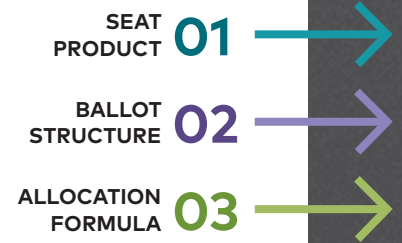
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*"One of the most pressing challenges of American democracy, if not the most pressing challenge, is finding an appropriate method of allocating political power among an increasingly diverse—in terms of race, ethnicity, religion, national origin, class, and ideology—and polarized people."*



Guy-Uriel Charles & Luis Fuentes-Rohwer, "Why PR Suits a Racially Diverse Nation" (2023)

# Three Components of Electoral System Design



## Design choices determine who wins representation

Every electoral system is built from a small set of design choices—and those choices determine who wins power, who is represented, and who is left out.

At its core, electoral system engineers have to make design choices about three components: **Seat Product**, **Ballot Structure**, and **Allocation Formula**. These components act as levers and, together, determine the mechanics of how political power is allocated and shared.

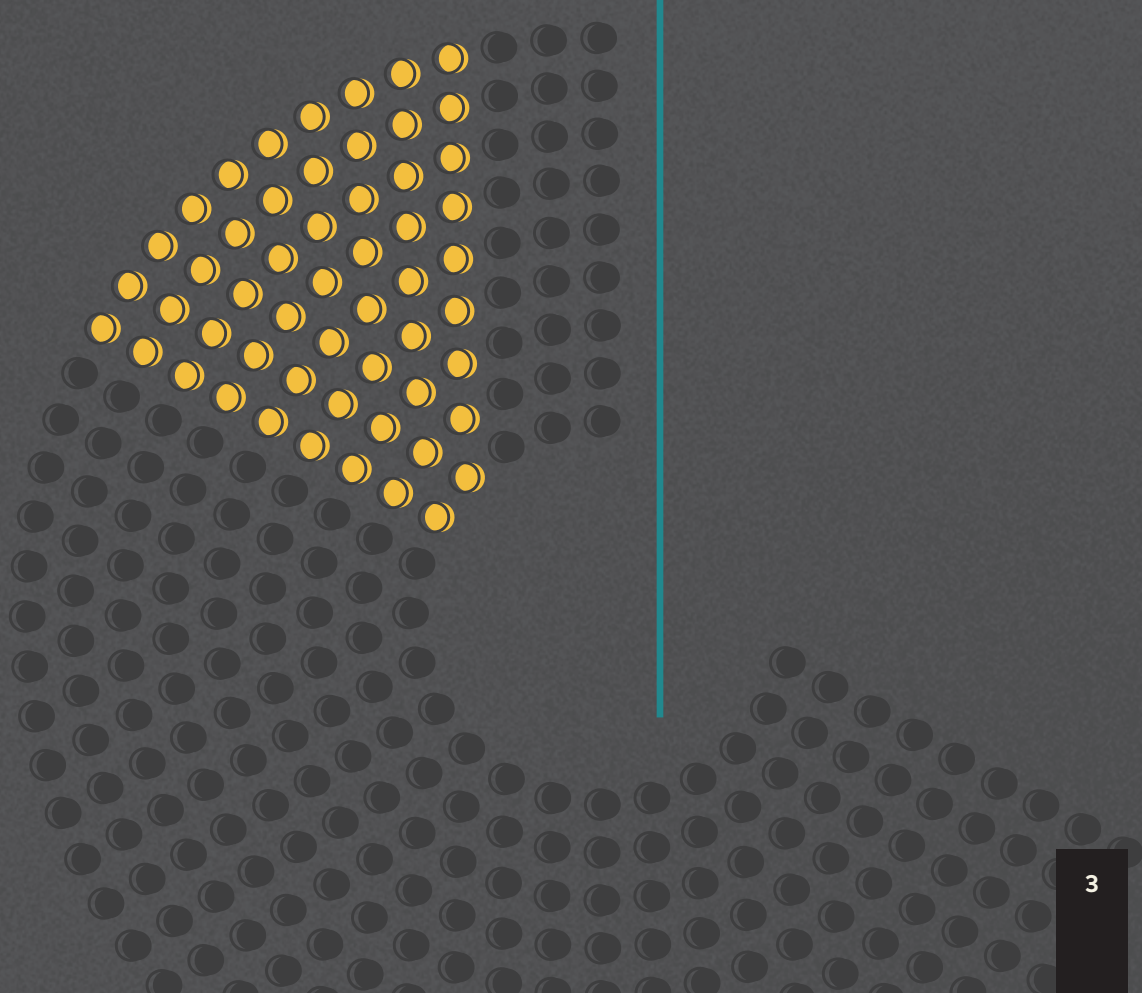
Each of these three components has a variety of design choices that range from more restrictive to more permissive with respect to multiple groups achieving representation. Through this Primer, you will learn more about these choices and how they can be implemented to benefit communities. When government outputs fail to address the needs of the people, it is necessary to reconsider electoral system design and ask ourselves whether it can be done better.

*"Methods of empowerment and society's views of electoral opportunity should not be tied to once-appropriate systems of remedying discrimination that now limit the advancement of minority empowerment and governmental accountability. Rather than looking back, we need to look forward by exploring new ideas and concepts of fairness and real representation."*

” Judith Reed, "Of Boroughs, Boundaries, and Bullwinkles: The Limitations of Single-Member Districts In A Multiracial Context" (1992)

How many  
seats are  
needed to  
actually  
represent a  
community?

SEAT PRODUCT



*"Once people have that sense that their voice is being recognized, they then are more willing to move to consensus. Once people feel that their ideas are respected, I think that you will find a move toward cooperation. People are much more conciliatory once they feel they've been respected. That's the threshold we need to get to: the idea of respecting different viewpoints."*



Lani Guinier, The NPR Interviews 1995

**The number of seats determines how many voices can win representation in a district.**

## SEAT PRODUCT

# Assembly Size and District Magnitude

Long before voters cast their ballots, the size of an elected body and the number of seats per district shape whose voices will be represented.

The first component of electoral system design is the **Seat Product**. The Seat Product consists of two linked variables: **Assembly Size** and **District Magnitude**.

**ASSEMBLY SIZE** is the total number of seats elected to a representative body or assembly. Assembly size can have a big impact on representation because the smaller the assembly, the fewer diverse characteristics and views can be accommodated. The larger the assembly size, the more likely smaller constituencies can elect a member to an assembly. Think of it as a dinner table, the more seats there are, the more likely you are to get a seat at the table.

**DISTRICT MAGNITUDE** is the number of seats elected per district. District magnitude is widely considered by political scientists to be **the decisive factor** in determining the number of coalitions that gain representation in an assembly. Think of it as the number of plates on the table, does everyone get one choice or many?

Taken together, the mathematical product of assembly size and district magnitude, the Seat Product, is a strong predictor of how many groups will be effectively represented under an electoral system.

# 1.1

## Assembly Size and Representation

**Assembly size is the total number of seats elected to a representative body or assembly.**

**Historically**, social movements in the US have manipulated assembly size for both inclusive and exclusive ends. During the Progressive Movement of the early 20th century, council sizes were dramatically reduced in many American cities.

### REDUCTION EXAMPLES

Shrinking assemblies has historically been used to consolidate power and dilute minority representation.

City	Year	Size Δ	% Reduction
New York City, NY	1938	65 → 26	60%
Philadelphia, PA	1919	145 → 22	85%
New Orleans, LA	1912	17 → 4	76%
Pittsburgh, PA	1911	67 → 9	87%
Boston, MA	1909	88 → 9	90%

This was at times a **strategic move** to intentionally dilute the political influence of ethnic and racial minorities, moving from larger, neighborhood-based "ward" councils to small, majority-dominated "at-large" or citywide councils.

Since passage of the Voting Rights Act, the **expansion of assembly size** has been a component of many **vote dilution** remedies, including some of the most famous voting rights cases.

### EXPANSION EXAMPLES

Expanding assemblies has often been a corrective tool to restore fair representation after vote dilution.

Jurisdiction	Year	Size Δ	Primary Legal Trigger
Santa Maria, CA	2017	4 → 5	CVRA Settlement
Anaheim, CA	2014	5 → 7	CVRA / VRA Settlement
Dallas, TX	1991	11 → 15	<i>Williams v. City of Dallas</i> (VRA Sec 2)
New York City, NY	1989	35 → 51	<i>Board of Estimate v. Morris</i> (VRA Sec 5)
Bladen Co, NC	1987	3 → 9	<i>Poplar v. Bladen County</i> (VRA)
Mobile, AL	1985	3 → 7	<i>City of Mobile v. Bolden</i> (Post-VRA Amend)
Multiple jurisdictions, AL	1980s	3 → 5 5 → 7	<i>Dillard v. Crenshaw County</i> (VRA Sec 2)
Houston, TX	1979	8 → 14	VRA Section 5 (Annexation settlement)
Tuskagee, AL	1972	3 → 5	<i>Pritchett v. City of Tuskegee</i> (VRA)

### Who Gets Left Out?

In 1990, NAACP Legal Defense Fund litigator Judith Reed served as General Counsel to the New York City Districting Commission, overseeing an expansion of the New York City Council from 35 to 51 seats. In 1992, Reed wrote of her experience in "**Of Boroughs, Boundaries, and Bullwinkles: The Limitations of Single-Member Districts in a Multiracial Context**" including her frustration that the Commission failed to seriously consider the adoption of proportional or semi-proportional electoral systems. Drawing on the work of Lani Guinier, a civil rights litigator and Harvard Law professor, Reed argued that the single-seat districting remedy suffered from two major flaws:

"First, minority groups who may be politically cohesive but residentially dispersed are apt to remain unrepresented. Second, reliance on geography [as a proxy for interests] also may exacerbate conflict among minority groups, setting up what may be called a 'political land grab.'"

# 1.2

## District Magnitude: The Decisive Factor

**District magnitude (M) is the number of seats elected per district.** It is widely considered by political scientists to be the decisive factor in determining the number of groups that gain representation in an elected body.

**SINGLE-SEAT DISTRICTS (M=1):** A district magnitude equals one when only one legislator is elected per district. The group with the most votes wins that one seat even if they have less than a majority of the vote. This is the standard "winner-take-all" model.

**MULTI-SEAT DISTRICTS (M>1):** As M increases (i.e., as more seats are elected per district), seats can be won with smaller shares of the vote and more groups may be represented among those elected. For example, in a five-seat district, a group needs roughly 17% of votes cast to win a seat.

### Thresholds of Exclusion: Vote Shares vs. Number of Voters

The share of votes it takes to win a seat in a district is formally known as the threshold of exclusion or the mathematical boundary that must be crossed to win representation. The threshold of exclusion strongly shapes the strategic behavior of groups seeking political

power. The threshold is determined by district magnitude and the allocation formula (see Section 3).

#### BASIC THRESHOLD EQUATION

$$\text{Threshold of Exclusion} = \frac{1}{\text{Seats per District} + 1}$$

### Geography and Mobilization

Electoral engineers must look beyond percentages. As the number of seats per district increases, so does the number of voters needed to win a seat. This can introduce its own barrier to representation.

In her evaluation of New York City's 1990s reforms, Judith Reed noted that the size of multi-seat districts in NYC—which might range from one to two million people—was a "major impediment" to consideration of proportional representation. This was due primarily to concerns about the cost of elections and the logistical difficulty of mobilizing voters across larger districts.

Consider the following comparison:

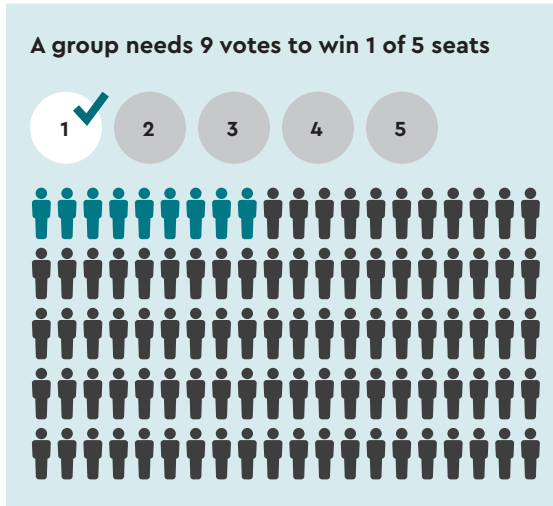
- **SCENARIO A (SINGLE-SEAT DISTRICT, SSD):** In a 5-seat assembly with five single-seat districts, 10 voters per district, and 50 voters total, a group of **6 voters** geographically concentrated in one district is guaranteed a seat ( $1/(1+1) = 50\%$  of 10 voters = 5 voters). This has been the primary remedy to secure representation for excluded groups under the Voting Rights Act.

A group needs 5 votes to guarantee a seat



→ **SCENARIO B (MULTI-SEAT DISTRICT, MSD):**

In a single 5-seat district with the same 50 voters, it would take **9 voters** to cross the threshold for one seat ( $1/(5+1) = 17\%$  of 50 voters = 8.3 voters).



When designing appropriate district magnitudes to represent specific communities, reformers must consider not just the share of voters, but the **number of voters** needed to win. It is essential to know how many voters a coalition is picking up in districts where they were previously unrepresented to ensure they have the numbers required to win in a larger, proportional district. Importantly, comparative studies show that even in very large districts, like the **Dutch lower house**, a single 150-seat countrywide district that houses 18 million people, **local communities** still play a large role in recruiting candidates and mobilizing voters. In other words, place still matters. There are a variety of ways that electoral districts can be designed to protect the representation of specific communities or regions and still ensure proportional outcomes.

Many proportionally representative democracies ensure geographic representation by **varying district magnitude** across geographies. This is the same principle underlying the allocation of seats to states in the House of Representatives: larger territories receive a proportionally larger share of seats to the legislature. For example, the federal republic of Switzerland uses districts that **range in size** from single-seat districts to 34-seat

proportionally representative districts. States and localities in the US might choose to represent geographic communities with appropriately sized districts to ensure overall proportionality as well as local ethnic and racial diversity.

## Geography and Representation in the US

Another design option, already common in the US but in its winner-take-all form, is to use tiered or **mixed-member systems**. Many large US cities already structure their city councils to have single-seat districts and another tier of "at-large" representatives elected citywide.

### MIXED-MEMBER CITY COUNCILS

Across cities, mixed systems combine district and at-large seats to broaden representation.

City	Population (2024 Est.)	Council Structure
Houston, TX	2,390,125	11 Districts / 5 At-Large
Philadelphia, PA	1,573,916	10 Districts / 7 At-Large
Jacksonville, FL	1,009,833	14 Districts / 5 At-Large
Charlotte, NC	943,476	7 Districts / 4 At-Large
Seattle, WA	780,995	7 Districts / 2 At-Large
Denver, CO	729,019	11 Districts / 2 At-Large
Nashville, TN	704,963	35 Districts / 5 At-Large
Washington, D.C.	702,250	8 Districts / 5 At-Large
Boston, MA	673,458	9 Districts / 4 At-Large
Detroit, MI	635,250	7 Districts / 2 At-Large
Memphis, TN	620,100	7 Districts / 6 At-Large

The problem with US-style mixed-member plans is that the citywide tier is typically elected via the at-large plurality ballot structure (see Section 2.2), which amplifies the representation of the

largest voting coalition rather than compensating for the fact that smaller coalitions are under represented in the single-seat tier.

## Rebuilding Democracy in Los Angeles

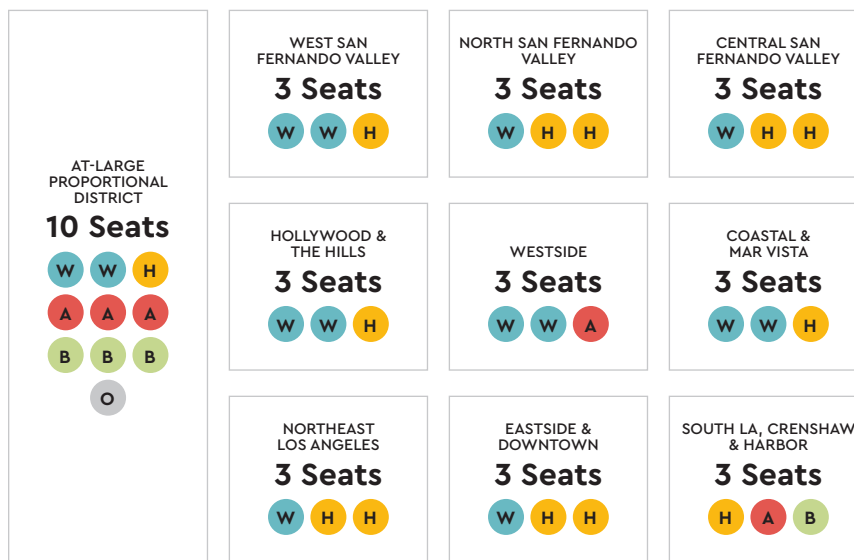
In the wake of the "horrendous division and toxicity" unleashed by a racist scandal in which several members of the Los Angeles City Council attempted to entrench themselves into power at the expense of the city's Black population, the Los Angeles Charter Reform Commission has been charged with recommending reforms to the city council's electoral system, in the hope of restoring public trust and government accountability. Los Angeles, a city of nearly four million residents with local publications in over

150 languages, is one of the most ethnically diverse communities in the world. Yet the municipal political system is among the most exclusive: its 15-seat city council, elected via single-member districts, is among the smallest per capita.

Consistent with the mixed-member city councils in other US cities, the Los Angeles Charter Reform Commission could consider increasing their city council to a 37-seat council with nine 3-seat districts to reflect unique geographic communities and a 10-seat citywide district, which would guarantee that any candidates crossing the 9% citywide threshold would win a seat.

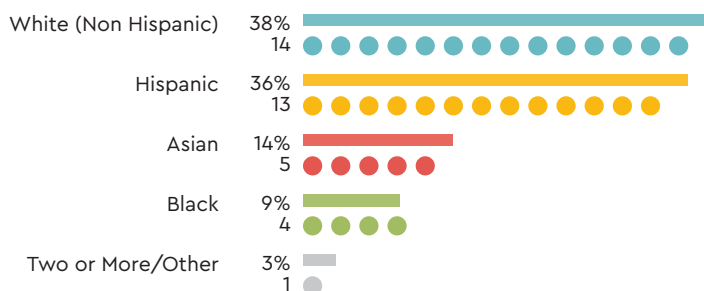
### IMAGINING A NEW CITY COUNCIL

This example shows how the Los Angeles City Council could be restructured to better reflect the communities it serves.



Seats in all districts would be allocated proportionally. In this example, we use census-based racial groups to show which groups would be represented if everyone voted by racial identity, illustrating how the citywide district makes up for district underrepresentation. Black voters, who make up around 9% of voters and are more geographically dispersed and vulnerable to gerrymandering, go from 1 district seat (3.7%) to 4 seats (10.8%) via the citywide district. An even more robust design might increase the district seat count from 3 to 5, which would lower the effective threshold enough that a 15–20% Black share in South LA/Crenshaw could reliably win a seat there.

CITY OF LOS ANGELES: % VOTING POPULATION (■) AND # OF SEATS (●)



# How does ballot structure shape how communities express their political preferences?

BALLOT  
STRUCTURE



*"In electoral systems [...], complexity introduces an elitist inequity of its own, even if the purpose is increased 'fairness': the more complex a system becomes, the fewer people can comprehend it so as to make use of its opportunities."*



Rein Taagepera & Matthew Shugart, *Designing Electoral Systems*

**Ballot structures shape how voters signal preferences, coalitions, and strategies.**

## BALLOT STRUCTURE

# How Voters Express Preferences

When voters mark their ballots, the structure of the ballot determines how votes combine to reflect collective choices.

The second component of electoral system design is ballot structure. Ballot structure refers to how voters express their preferences, and it is fundamentally about how the choices available to voters appear on an election ballot. This is a unique component of electoral systems because 1) ballot options necessarily shape how voters express their preferences, and 2) since this is the interface between voters and the electoral process, ballot structure shapes how groups coordinate the actions of candidates and voters in order to win seats.

## 2.1

### Strategic Coordination and Ballot Structure

In order to exercise political power, communities have to win assembly seats. In order to win seats, communities have to solve two coordination problems:

**LEVEL A: CANDIDATE-SIDE COORDINATION**

(managing the number of candidates)

**LEVEL B: VOTER-SIDE COORDINATION** (managing

the distribution of votes)

### Level A: Candidate-Side Coordination (managing the number of candidates)

This happens before the election. Groups must avoid presenting too few or too many candidates. If they have too few candidates, they may lose the opportunity to win more seats. If they have too many candidates, they may spread votes too thin across candidates and fail to cross the thresholds necessary to win seats.

### Level B: Voter-Side Coordination (managing the distribution of votes)

This happens during the electoral process and involves instructing potential supporters how to mark their ballots. With some ballot structures, concentrating too many votes among a few popular candidates wastes votes that could go to other candidates to win more seats. Conversely, spreading votes across too many candidates can result in candidates missing vote thresholds, resulting in lost seats. Finally, communities risk losing support if ballot structures allow voters to spread their preferences across multiple groups, thereby diluting their collective voting strength.

## 2.2 Ballot Mechanics as Solutions to Coordination Problems

Ballot structures can exacerbate or minimize coordination problems, and ballot structures can be classified by the coordination problems they help or fail to solve and, consequently, the degree to which their mechanics may prevent groups from receiving seat shares below or above their actual voting strength.

### LEVEL A: COORDINATING CANDIDATES Do Voters Choose Among Candidates, Groups, or Both?

Most US voters are familiar with choosing a single candidate on a ballot, whether in partisan or non-partisan, primary or general elections. However, there is a long history of "straight-ticket" or party-list voting in [US elections](#) where voters mark a single party on the ballot for all the offices being contested in an election. Party-ticket ballots are currently used in only six states. But around the world, voting for a single party or coalition for a given contest is the norm under what is called a "closed list" ballot structure. The following examples of ballot structures exist along a spectrum from candidate- to coalition-centered:

- **FIRST-PAST-THE-POST/MULTI-ROUND SYSTEMS:** Probably the most familiar system to US voters, single-seat party primaries, two-round systems, and run-off elections generally help solve candidate coordination by allowing voters to reduce the pool of candidates over successive elections. Depending on their design, they are still susceptible to coordination failures, such as a coalition spreading votes across too many candidates in the first stage and electing a weak candidate or failing to reach the vote threshold to participate in later stages.
- **LIMITED VOTE:** Giving voters a single vote for a candidate, or fewer votes than there are seats to elect, has been used in dozens of multi-seat local jurisdictions in response to Voting Rights Act violations. Limited Vote can help [minority coalitions](#) coordinate behind a single candidate, and it makes it more difficult for a majority to sweep all seats with multiple votes. However, under Limited Vote, it is still possible that too many candidates run, spreading vote shares so thin that none of them cross a seat-winning vote threshold.

- **LIST SYSTEMS:** In “open list” systems, voters typically have a single vote which they cast to support a preferred candidate, like Limited Vote. The difference is that seats are allocated to lists of candidates, so even if a minority candidate fails to cross a threshold on their own, the list’s total voting strength is what counts to win seats. Candidates still compete for individual votes, but every vote counts toward participation. Closed list systems truly minimize the problem of candidate coordination by requiring voters to choose among lists not individual candidates. Groups determine the candidate order of their list pre-election, and if the list wins a seat, the first-listed candidate is elected.
- **NON-PARTISAN LISTS:** List systems are just as easy to use in non-partisan elections as in partisan elections, and a proportional representation system may have partisan and non-partisan lists in the same election. Pre-election, candidates choose whether or not to run together on a list. If political party labels are prohibited from appearing on ballots, as they are in some local elections, groups might choose a professional association, an advocacy cause, a geographic region, or an ethnic affiliation in order to attract voter support. Alternatively, groups could use generic labels like Group A, B, C, etc.

## LEVEL B: COORDINATING VOTERS

### Can Voters Express a Variety or Intensity of Preferences?

Ballot structure design also considers whether voters express a single preference or can express an intensity of preferences across a variety of candidates or groups. Multi-vote ballot structures provide more choices for voters, but they can exacerbate voter coordination problems and result in higher rates of voting or ballot errors.

- **AT-LARGE PLURALITY/BLOCK VOTE:** The US also has a history with “at-large” districts where the whole jurisdiction votes and each voter casts as many votes as there are seats being contested. The candidates with the most votes win. This system often results in winner-take-all outcomes when the largest group of voters allocate all their votes to a set of candidates, preventing other groups from gaining any representation. This is the primary reason Block Vote became a target for Voting Rights Act litigation, because it can systematically exclude minority voters.
- **CUMULATIVE VOTE:** Under Cumulative Vote, voters have the option to accumulate or “plump” their votes behind a single candidate. Primarily used in Southern US jurisdictions, Cumulative Vote has been shown to facilitate minority representation. While allowing voters to express the intensity of their preferences facilitates voter coordination, in a candidate-centered system, there are no structural incentives to prevent too many minority candidates from running, and system complexity increases at higher magnitudes.
- **RANKED CHOICE/SINGLE TRANSFERABLE VOTE (STV):** Voters rank candidates (1, 2, 3), effectively making their own lists. If their first choice is elected with a surplus of votes beyond the vote threshold required or is eliminated for receiving too few 1st place votes, their vote flows to their next ranked candidate until all seats are filled. If voters keep their candidate lists within a single coalition, candidate coordination is reduced. Because STV allows voters to “leak” support to candidates in competing groups, however, groups must aggressively manage voter preferences. STV is also best-suited to small magnitude elections (to avoid long candidate lists), which can make it harder for minority candidates to cross election thresholds.

## The Value of Simplicity

The ballot structures most prone to error are those requiring voters to list a variety of preferences, such as full candidate ranking STV lists and free list systems where voters may mark preferences for several candidates across several lists. Closed list systems are less prone to error because voter intention is hard to mistake.

A large body of comparative and US research demonstrates that more complex ballot structures result in higher rates of voter error and ballot rejection. We should think of "faulty votes," whether from voter error or bureaucratic indiscretion, as another form of unequal representation to be minimized. Even if proportional electoral systems improve minority representation, greater ballot complexity could nullify that boost if faulty votes are concentrated among ethnic and racial minorities.

One lesson from the research on ballot structure is that voters should have an easy way to signal a clear preference. Having the option (not requirement) to cast a simple party (or group, for non-partisan elections) vote can substantially reduce the frequency of invalid voting. If voters want to vote for a specific candidate, they mark the ballot for the candidate. In the US, straight-party voting improves turnout and reduces ballot rejection among African American voters. In New South Wales, Australia, for example, local STV ballots include an option to mark a preference for a single list (see below), and the vast majority of voters choose the list or "group" option.

### LIST BALLOT EXAMPLE

With a list vote ballot, voters may choose to mark only the group they prefer or they may vote for individual candidates.

**You may vote in one of two ways:**

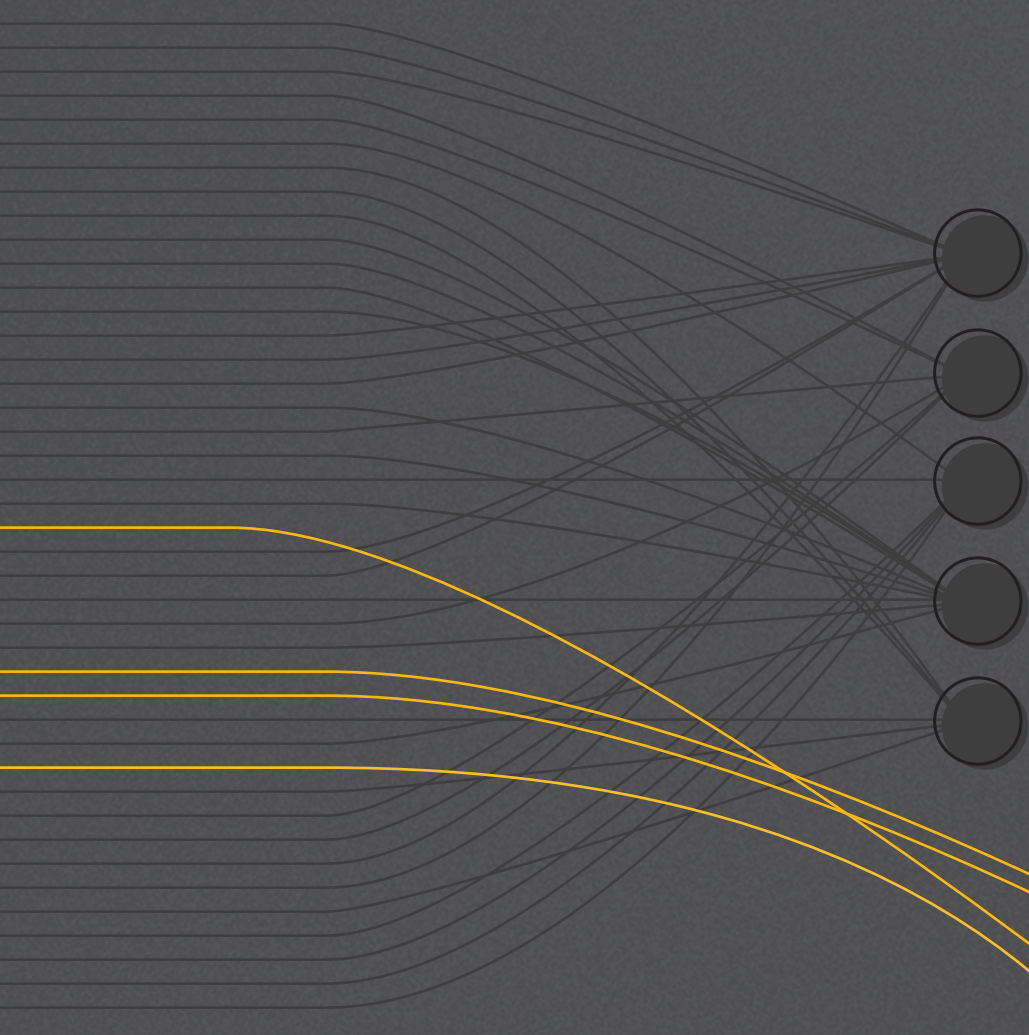
EITHER LIST VOTE				
<input type="radio"/> Group A	<input type="radio"/> Group B	No list vote option for Group C	<input type="radio"/> Group D	

OR CANDIDATE VOTE				
<b>GROUP A</b>	<b>GROUP B</b>	<b>GROUP C</b>	<b>GROUP D</b>	<b>UNGROUPED</b>
<input type="radio"/> Name 1	<input type="radio"/> Name 1	<input type="radio"/> Name 1	<input type="radio"/> Name 1	<input type="radio"/> Name 1
<input type="radio"/> Name 2	<input type="radio"/> Name 2	<input type="radio"/> Name 2	<input type="radio"/> Name 2	<input type="radio"/> Name 2
<input type="radio"/> Name 3	<input type="radio"/> Name 3		<input type="radio"/> Name 3	<input type="radio"/> Name 3
<input type="radio"/> Name 4	<input type="radio"/> Name 4		<input type="radio"/> Name 4	<input type="radio"/> Name 4

Once the  
votes are in,  
who gets a  
seat—and  
who gets  
left out?

ALLOCATION  
FORMULA



*"Just as it would be illegitimate for an advantaged minority to exercise majority power, it is illegitimate for an advantaged majority to exercise disproportionate power."*



Lani Guinier, "No Two Seats: The Elusive Quest for Political Equality" (1991)

Allocation formulas determine how vote totals translate into representation.

## ALLOCATION FORMULA

# How Many Votes Does It Take To Win?

Once the votes are counted, allocation formulas decide how those votes are translated into seats.

The third component of electoral system design is the choice of an allocation formula. Allocation formula refers to the method of converting votes into seats. These formulas are the final component that determines the threshold of exclusion or how many votes it takes to win a seat after all votes are cast.

## 3.1

### Largest Remainder Methods

These methods establish the "cost" of a seat.

**HAMILTON METHOD (ALSO KNOWN AS THE HARE QUOTA):** Total votes are divided by total seats. After whole seats are allocated, the remaining seats go to parties with the highest "remainder." The Hamilton Method is more favorable to minority coalitions, as they can win a seat based on a remainder even if they fail to hit a full quota.

**THE DROOP QUOTA:** Total votes are divided by total seats plus one. After whole seats are allocated, the remaining seats go to parties with the highest "remainder." The  $(s + 1)$  qualification under the Droop Quota slightly benefits those with more votes to begin with, which is less favorable to minority coalitions.

# 3.2

## Highest Average (Divisor) Methods

These methods divide party totals by a series of divisors.

**JEFFERSON METHOD (D'HONDT):** The divisor is (seats won + 1). The largest group wins the first seat. Seats won are then added to the divisor. The Jefferson Method mathematically favors larger coalitions, making it "cheaper" for a big party to win its nth seat than for a small party to win its first.

**WEBSTER METHOD (SAINTE-LAGUË):** The Divisor is (2 x seats won + 1). The largest group wins the first seat. The Webster Method is the least biased formula, treating large and small groups equally.

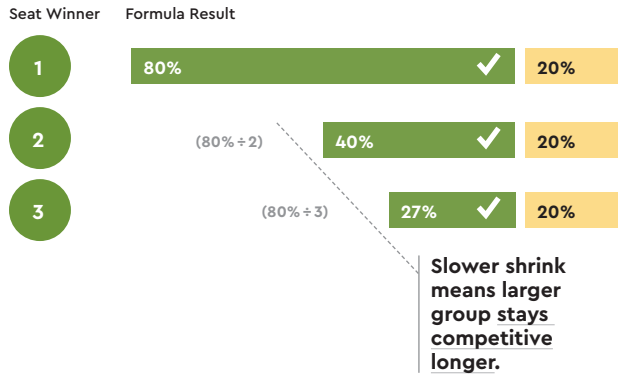
It is particularly important for minority communities to understand how allocation formulas function in smaller (lower magnitude) districts because that is where they matter most. Most formulas converge on proportionality at larger sizes (higher magnitude), but in 3-7 seat districts, different formulas, as shown to the right, can have a profound impact on representation, determining whether a group wins no representation or has more representation than they would under an alternative formula.

### TWO METHODS, THREE SEATS, SAME VOTES

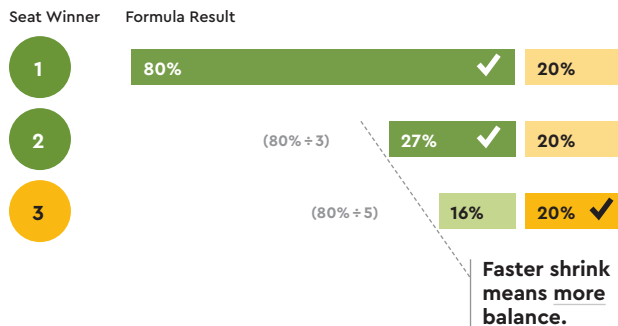
Different formulas yield different results with the same number of votes.



#### JEFFERSON METHOD = $V \div (S+1)$



#### WEBSTER METHOD = $V \div (2S+1)$



## CONCLUSION



# Designing Electoral Systems for Political Equality

**Taken together, these three design choices determine whether an electoral system broadens representation or concentrates power in the hands of a few.**

This primer is meant to be a practical guide to electoral system design. Here we outline a few guidelines for designing an electoral system as a whole rather than as a collection of individual components.



*"One cannot [truly] design an electoral system. [...] An electoral system emerges when the electoral rules have become embedded in a political culture [...] but one can devise more or less favorable starting points for a stable system to evolve."*



Rein Taagepera, "Designing Electoral Rules and Waiting for an Electoral System to Evolve" (1999)

## Map Out How Settings Fit Together

None of the components we described operate in isolation from the others. The same at-large districts that once diluted minority voting power under a plurality ballot structure and formula could provide stable, effective representation under a proportional allocation formula. Moreover, while it may be possible to maximize the permissiveness (or restrictiveness) of an entire electoral system in theory, in the real world, limited opportunities for reform, the political attractiveness of some elements over others, and prudence all dictate that electoral system engineers take the time to carefully understand the consequences of how different combinations of these components are likely to interact in a given context.

## Context is Everything

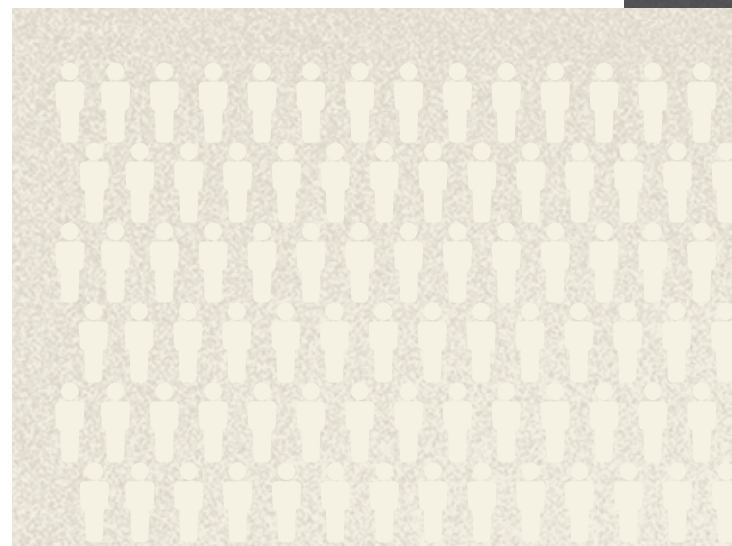
There is no perfect electoral system. The performance of any set of electoral system components is going to depend on the political and demographic context out of which it grows. A system that provides stable representation to a coalition of 35% of voters could eliminate a cohesive group of 20% of voters from representation. On one hand, a large (high magnitude), permissive electoral system can allow even small ethnic groups to achieve representation. On the other hand, systems with lower thresholds of exclusion may encourage ethnic fragmentation and the splintering of ethnic coalitions who might wield more political power by sticking together.


## Don't Overpromise

The robustness of any electoral system outcomes analysis is heavily dependent on assumptions made about how people behave and how the system performs. It is wise to carefully think through and evaluate worst case scenarios rather than to pin aspirations on how well a carefully designed electoral system might perform under ideal conditions or even under regularly observed conditions.

## Avoid the Seductive Temptation to Over Engineer

The implementation of new electoral components changes the conditions under which assessment of optimal electoral system design are made. Electoral systems are dynamic, not static, systems of regulated behavior. We strongly encourage electoral systems engineers to avoid the temptation to optimize system design toward a specific group or outcome for two reasons: First, complexity can create uncertainty. Everything we know about electoral systems tells us that the ability to predict the outcomes of an electoral system declines as the system becomes more complicated. In other words, keep things as simple as possible. Second, conditions change. The social and demographic landscape of any jurisdiction is bound to change in unpredictable ways over time. Electoral systems should be designed to accommodate change while ensuring that outcomes reliably embody the core principle of political equality.





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