

Mixed Systems

Your Simulated Election Results



Objective

- Illustrate how mixed systems work.
- Show that features of mixed systems can be altered to produce different results in terms of:
 1. Party standings in the legislature
(i.e. the share of seats each party wins)
 2. Proportionality

Design Features

- We'll explore the effects of the following design features:
 1. Parallel or MMP
 2. Ratio of local to proportional seats
 3. Formula
 4. Legal thresholds

Design Features

- Let's start with an MMP election with the following design:
- 50% local seats, 50% proportional seats
(Total of 20 seats)
- Hare Quota = Votes/Seats
- No legal threshold

Calculating the Results

- The first step is to calculate the number of seats each party is entitled to.
- This is based on the results from the *party vote*.

Calculating the Results

ED 1 MIXED MEMBER BALLOT

You have two votes

Vote for only one party. Vote for only one candidate.

The party vote decides the share of seats each party will have in the legislature.
The candidate vote determines who will be elected in your district.

	PARTY VOTE	CANDIDATE VOTE	
<input type="radio"/>	CANDY PARTY	M&Ms (Candy Party)	<input type="radio"/>
<input type="radio"/>	CHIP PARTY		<input type="radio"/>
<input type="radio"/>	COOKIE PARTY	Macaroons (Cookie Party)	<input type="radio"/>
<input type="radio"/>	DIP PARTY		<input type="radio"/>
<input type="radio"/>	FRUIT PARTY	Red Grapes (Fruit Party)	<input type="radio"/>
<input type="radio"/>	VEGGIE PARTY	Green Pepper (Veggie Party)	<input type="radio"/>
<input type="radio"/>	YOGURT PARTY		<input type="radio"/>
		Kipper Fish Snacks (Independent)	<input type="radio"/>

Your MMP Results

	<u>% Party Vote</u>
Candy Party	6.9
Chip Party	14.6
Cookie Party	25.4
Dip Party	3.1
Fruit Party	26.9
Veggie Party	10.0
Yogurt Party	13.1
Independents	0.00
TOTAL	<u>100%</u>

Calculating the Results

- The party vote determines how many seats each party is entitled to.
- The election of local candidates helps determine *who* is awarded seats.
- What were the local results?

Your MMP Results

WINNING CANDIDATES

ED 1 M&Ms

ED 2 Pickles

ED 3 Cantaloupe

ED 4 Digestives

ED 5 All Dressed

ED 6 Doritos

ED 7 Raspberries

ED 8 Orange Slices

ED 9 Ginger Snaps

ED 10 Salt & Vinegar

Calculating the Results

- In MMP, if a party does not elect enough local candidates they are awarded seats from the party list
- This is to help ensure % votes = % seats

Your MMP Results

	<u>% Party Vote</u>	<u>Seats</u>	<u>% Seats</u>
Candy Party	6.9	1	5.0
Chip Party	14.6	3	15.0
Cookie Party	25.4	5	25.0
Dip Party	3.1	1	5.0
Fruit Party	26.9	5	25.0
Veggie Party	10.0	2	10.0
Yogurt Party	13.1	3	15.0
Independents	0.0	0	0.0
TOTAL	100	20	100

Calculating the Results

- In this case, the Fruit Party won 5 seats in total.
- 3 Fruit Party candidates won in the local elections (Cantaloupe, Raspberries, Orange Slices).
- The 2 remaining seats came from the party list.

Calculating the Results

- Let's look at another example...
- The Yogurt party did not win any seats in the local elections.
- But they are entitled to 3 seats because they won 13% of the party vote.

Design Features

- Now we'll explore the effects of changing the following design features:
 1. Parallel or MMP
 2. Ratio of local to proportional seats
 3. Formula
 4. Legal thresholds

First Variation: Parallel

- What happens when we...
- Switch from an MMP system to a Parallel system?

First Variation: Parallel

- Why use a Parallel system?
- Includes a proportional tier...
- Also helps strengthen larger parties

First Variation: Parallel

- Calculating Parallel results is easy:
- It is like two separate elections: A proportional election (decided by the party vote) and a plurality election (decided by the candidate vote).
- Simply add the results of the party vote and the candidate vote together.
- For example, The Chip Party won 3 seats in the local elections (All Dressed, Doritos and Salt & Vinegar) and 1 seat in the proportional. They are therefore awarded 4 seats.

Your Parallel Results

	% Vote	Seats	% Seats
Candy Party	6.9	2	10.0
Chip Party	14.6	4	20.0
Cookie Party	25.4	5	25.0
Dip Party	3.1	0	0.00
Fruit Party	26.9	6	30.0
Veggie Party	10.0	2	10.0
Yogurt Party	13.1	1	5.0
Independents	0.0	0	0.0
TOTAL	100.0	20	100.0

First Variation: Parallel

- Let's compare the MMP and Parallel results:
- Remember, larger parties tend to benefit when Parallel is used.
- The Fruit Party is the most dominant party.

	% Seats	
	MMP	Parallel
Fruit Party	25.0	30.0

First Variation: Parallel

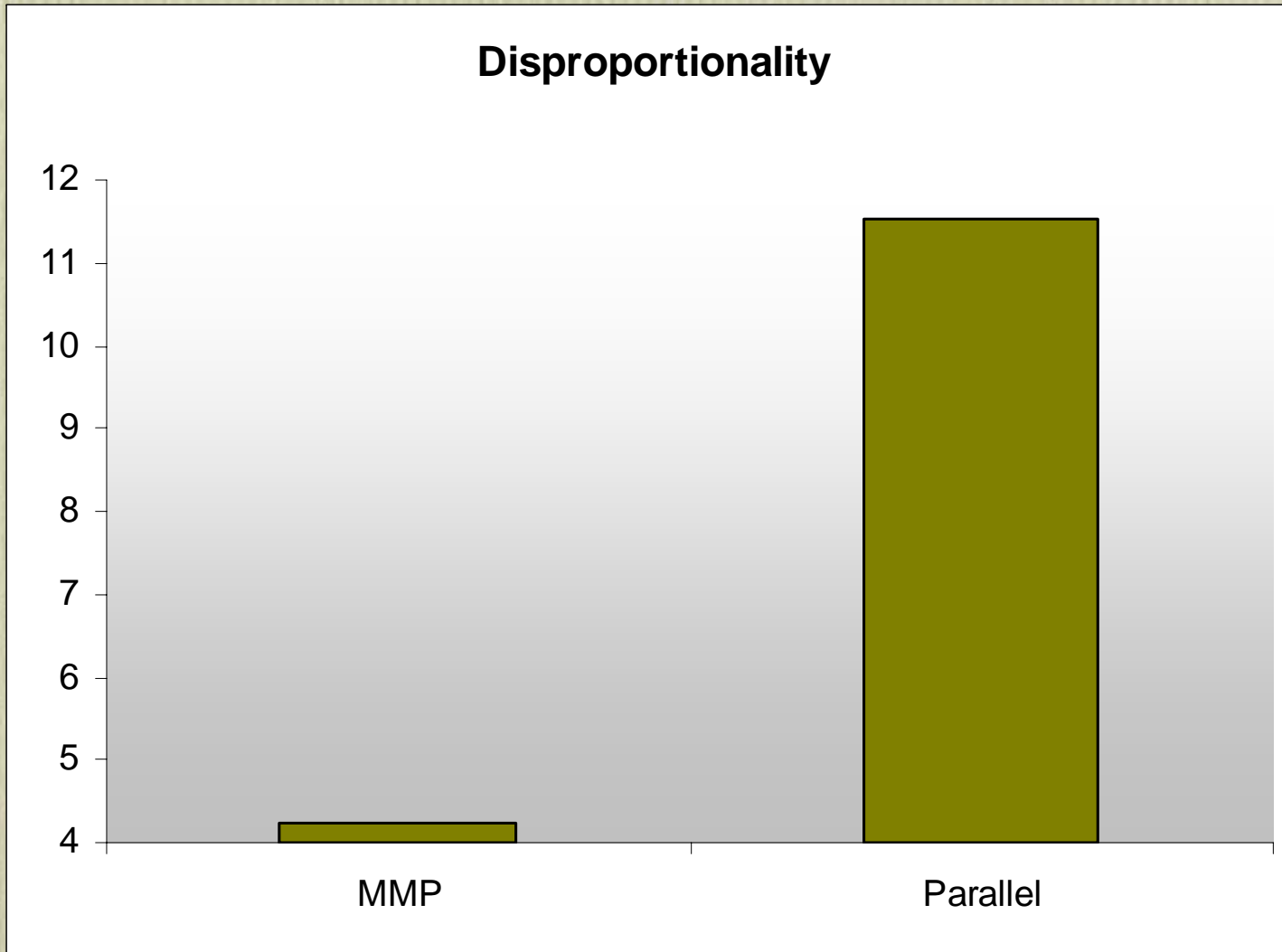
- Also, smaller parties do not do as well when Parallel is used.
- The Dip Party has the least support.

	% Seats	
	MMP	Parallel
Dip Party	5.0	0.0

Your Parallel Results

- So larger parties tend to do better when a Parallel system is used and smaller parties tend to do worse.
- This tends to result in greater disproportionality.

Your Parallel Results



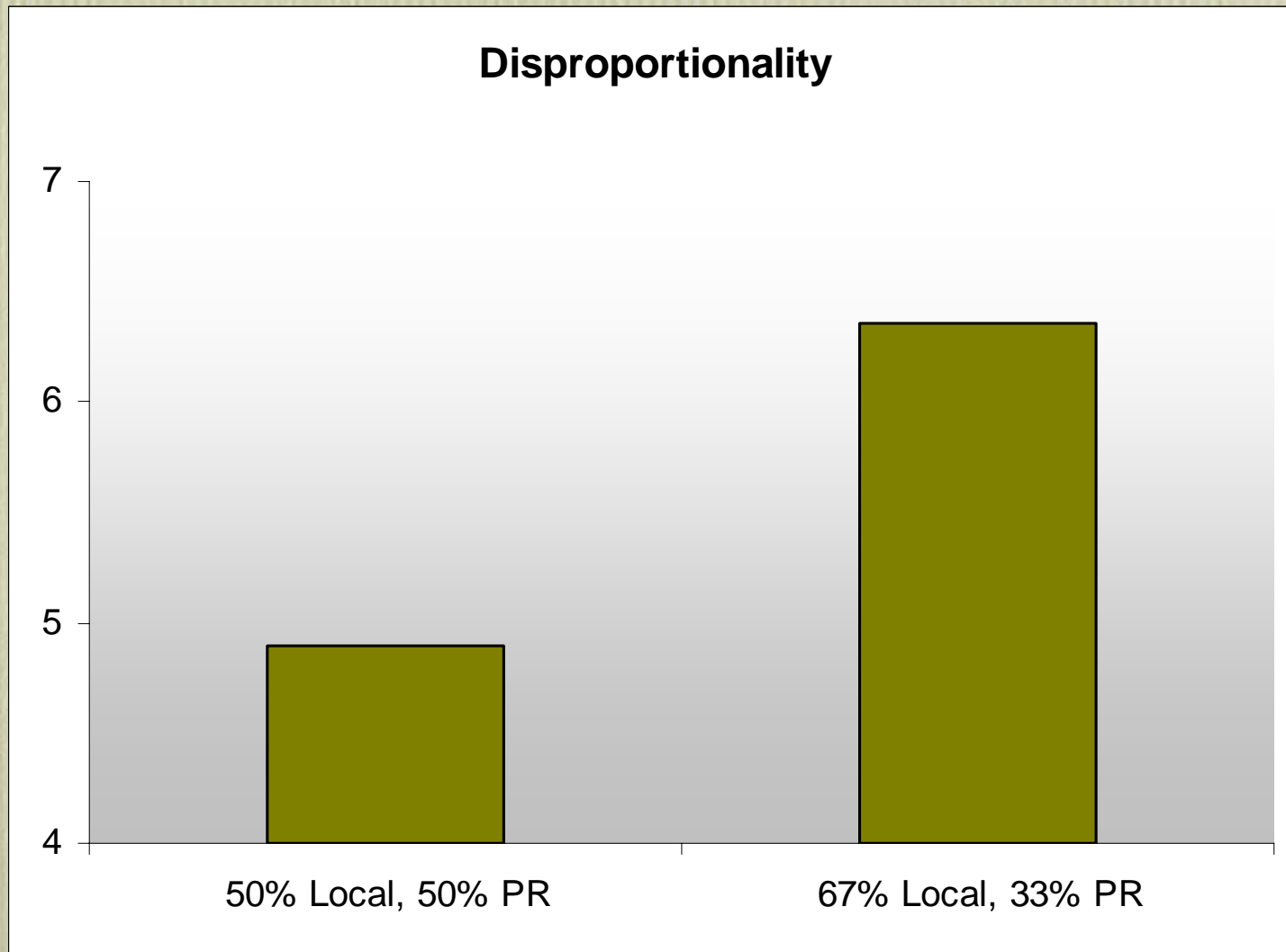
Second Variation: Ratio

- What happens when we...
- Change the ratio of local seats to proportional seats?
- From 50% local to 67% local in an MMP election.

Second Variation: Ratio

- Why change the ratio of seats in an MMP system?
- To allow for smaller geographic districts and closer ties between voters and local representatives.
- But there is a trade-off between local representation and proportionality.
- So increasing the ratio of local seats to proportional seats results in greater disproportionality.

MMP Results: Ratios



Third Variation: Formula

- What happens when we...
- Change the formula that is used to distribute proportional seats?
- In this variation we will go back to a 50:50 ratio but compare the effects of using two different formulas:
- Hare Quota = $\text{Votes}/\text{Seats}$
- Imperiali Quota = $\text{Votes}/(\text{Seats} + 2)$

Third Variation: Formula

- Why change the formula used to award the proportional seats?
- The choice of formula helps determine the relative strengths of parties in the legislature:
- In general, if you want smaller parties to have representation you might use a more proportional formula (e.g. Hare).
- If you want to strengthen larger parties you might decide to use a less proportional formula (e.g. Imperiali).

Third Variation: Formula

- Let's compare results using these two formulas
- Large parties tend to benefit when the Imperiali formula is used:

	% Seats	
	Hare	Imperiali
Fruit Party	25.0	30.0

Third Variation: Formula

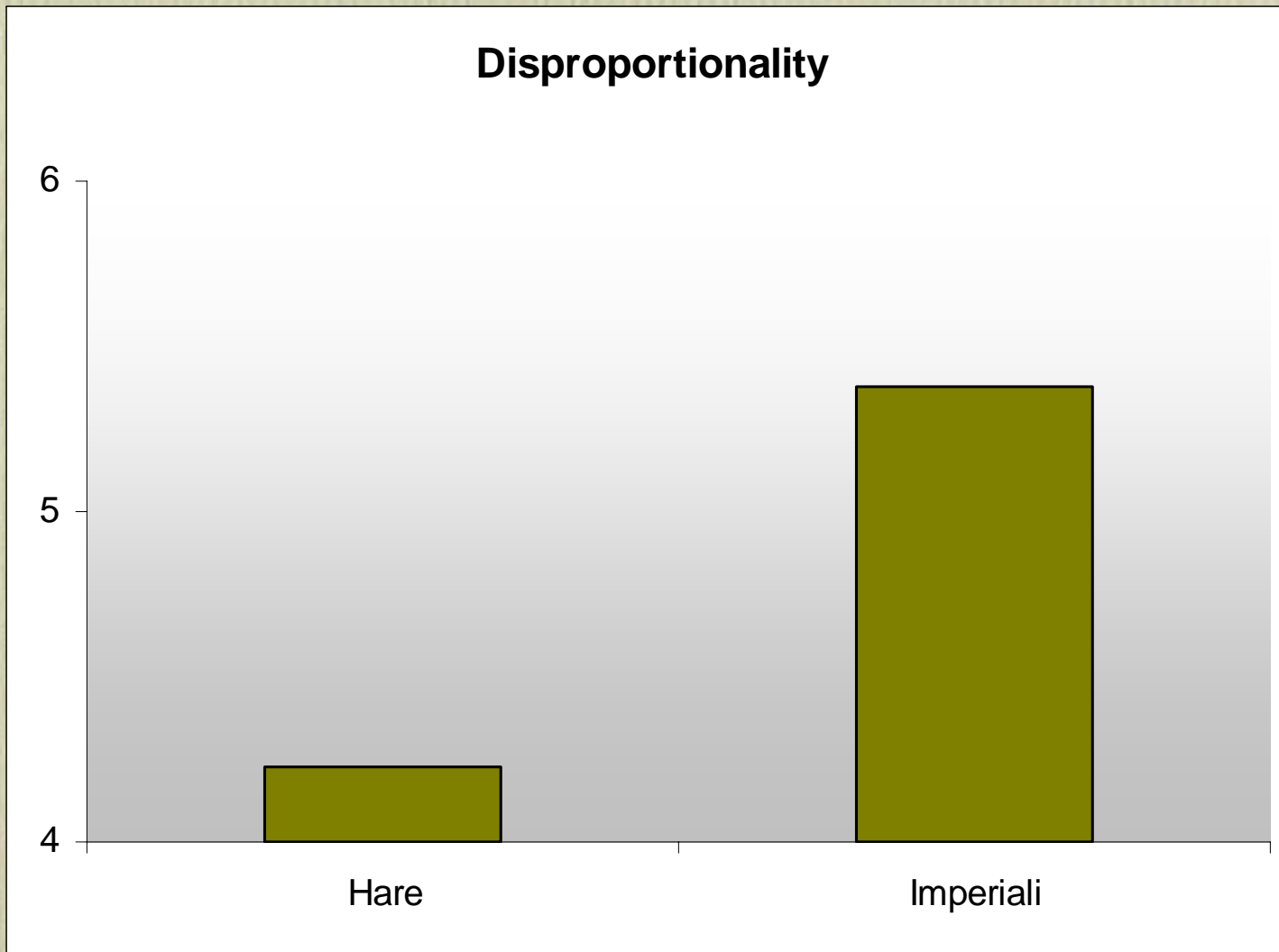
- Also, smaller parties do not do as well when the Imperiali formula is used.
- The Dip Party has the least support.

	% Seats	
	Hare	Imperiali
Dip Party	5.0	0.0

Third Variation: Formula

- As before, strengthening the larger parties and weakening smaller parties results in greater disproportionality.

MMP Results: Formula



Fourth Variation: Thresholds

- What happens when we...
- Introduce a legal threshold
 - at 5%

Fourth Variation: Thresholds

- Why introduce legal thresholds?
- Introducing a threshold tends to strengthen larger parties by ensuring that small parties with little popular support are not awarded seats.
- In other words, a threshold decreases the number of parliamentary parties.

Fourth Variation: Thresholds

- In this variation we use the following design:
 - 50:50 ratio
 - Hare Quota = votes/seats
- Introduce a legal threshold:
 - at 5%

Fourth Variation: Thresholds

- Let's look at the largest party again....
- When thresholds are introduced, the Fruit Party's position in the legislature is enhanced:

Thresholds	% Seats	
	None	5%
Fruit Party	25.0	30.0

Fourth Variation: Thresholds

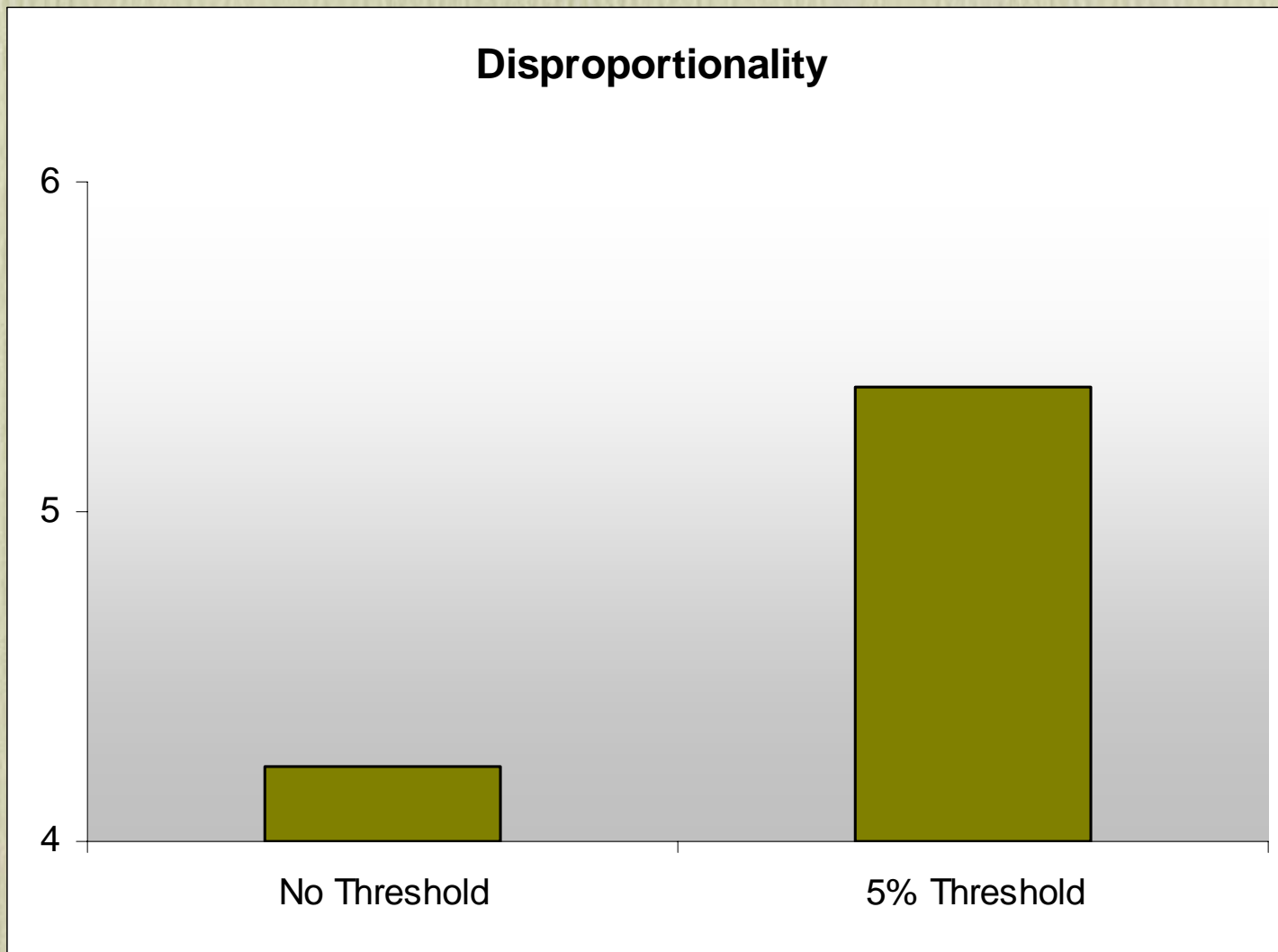
- When the threshold is introduced, the number of parliamentary parties decreases because the smallest parties are excluded:

Thresholds	None	5%
Number of Parties	7	6

Fourth Variation: Thresholds

- As the threshold is increased, smaller parties are excluded and the larger parties are strengthened.
- A legal threshold will therefore produce more disproportionate results.

MMP Results: Threshold



Conclusions

- Features of mixed systems can be altered to produce different results in terms of:
 1. Party standings in the legislature.
(i.e. the share of seats each party wins)
 2. Proportionality.

Conclusions

- If you want to strengthen large parties you might decide to:
 - Use a Parallel system.
 - Increase the ratio of local to proportional seats.
 - Use a formula that favours larger parties.
 - Introduce a legal threshold.

Conclusions

- If you value proportionality you might decide to:
- Use an MMP system.
- Use the same number of local and proportional seats.
- Use a formula that favours smaller parties.
- Introduce a relatively low legal threshold.