

Electoral representation

Day 2, Session 1

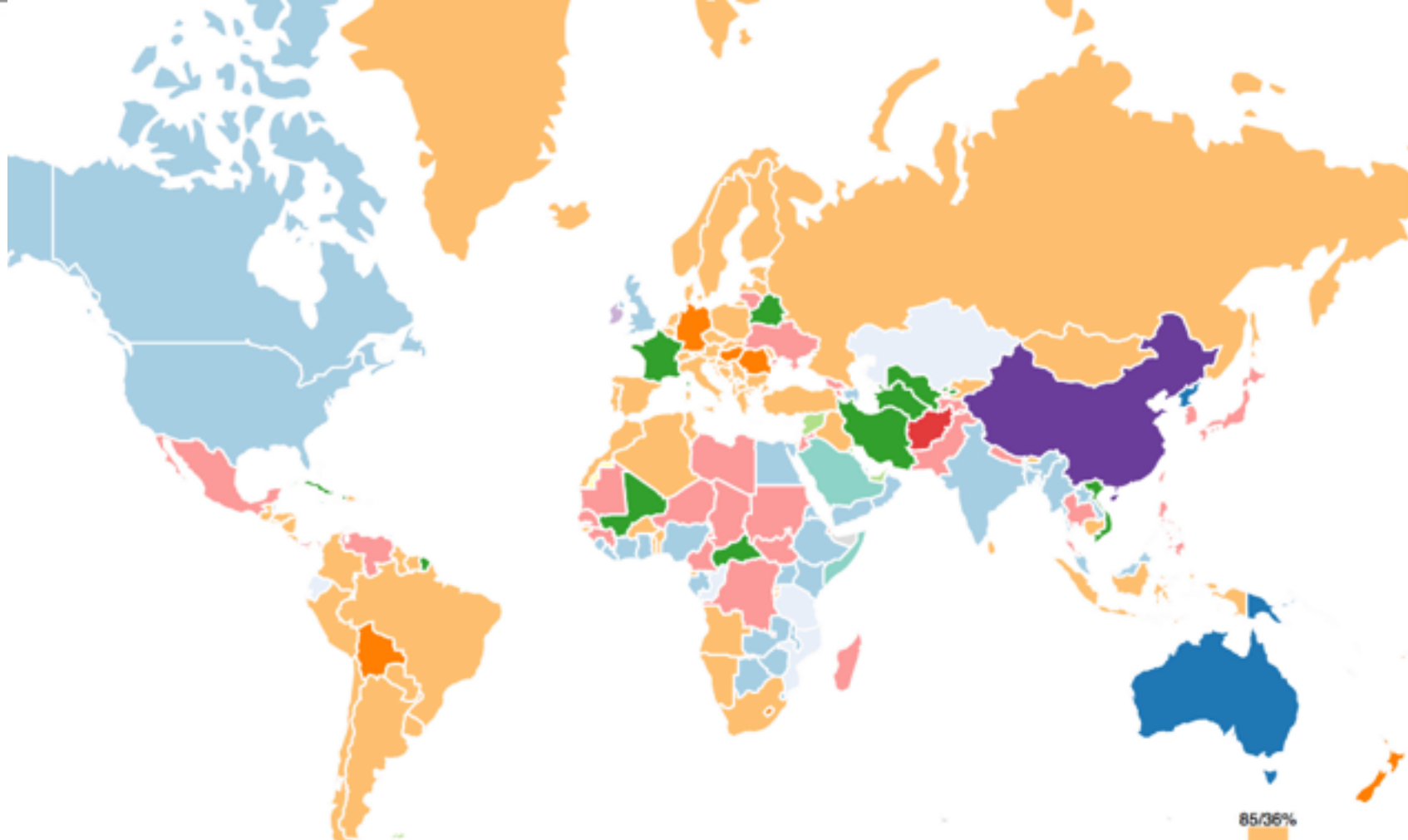
Andy Eggers



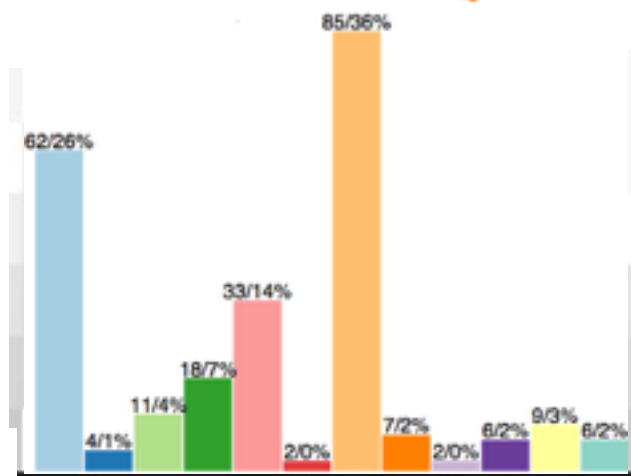
Civil Service Learning
Executive Master
of Public Policy

Institute of Public Affairs

Executive Master of
Public Administration



- | | |
|---|--|
| ■ a. Plurality (FPTP) : | ■ g. List Proportional Representation : |
| ■ b. Alternative Vote : | ■ h. Mixed Member Proportional : |
| ■ c. Block Vote : | ■ i. Single Transferable Vote : |
| ■ d. Two-Round System : | ■ j. Other : |
| ■ e. Parallel (Segmented) (PR Lists and Majoritarian constituencies) : | ■ k. No information available : |
| ■ f. Single Non-Transferable Vote : | ■ l. Not applicable : |



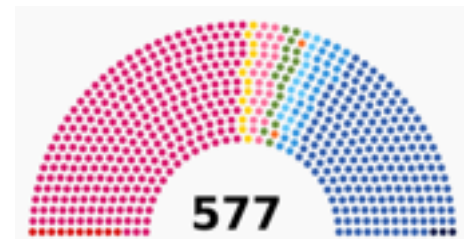
Questions to ask about electoral systems



A. Mechanics: How do they work?



B. Effects on political outcomes: How many parties are there? Do the results reflect voter preferences?



C. Effects on government performance: Stable government?
Good performance?





Three main types of electoral systems



Majoritarian: Pick one winner (in each district)

- Single-member plurality (“first-past-the-post”)
- Two-round system
- [Alternative vote]

Proportional representation: Choose a set of winners (in each district)

- Closed-list PR
- Open-list PR
- [Single-transferrable vote (STV)]

Mixed: Some of both

- Mixed-member proportional (“Dependent”)
- Mixed-member majoritarian (“Independent”, “Parallel”, “Segmented”)



UK as laboratory of electoral systems



- **Majoritarian elections:**
 - First-past-the-post in SMDs for House of Commons, many local council seats
 - FPTP in multi-member districts for many local council seats
 - Alternative vote (with only 1st and 2nd pref) for London Mayor
- **Proportional elections:**
 - Closed-list PR in European Parliament elections in England, Scotland, Wales
 - STV in N. Ireland Assembly, Euro Parl in N. Ireland, some local councils in Scotland and N. Ireland
- **Mixed systems:**
 - Scottish Parliament, Welsh Assembly, London Assembly



Majoritarian elections: Ballot papers



First past the post

BAH
6510 VOTE FOR ONE CANDIDATE ONLY

1	BARLOW Celia Barlow (address in the Hove Constituency) The Labour Party Candidate	
2	DAVEY Ian Arthur Davey 5 Titian Road, Hove, BN3 5QR Green Party	
3	ELGOOD Paul Elgood 7 Palmeira Court, 32 Palmeira Square, Hove, BN3 2JP Liberal Democrats	
4	PERRIN Paul William Perrin 2 Woodland Walk, Ovingdean, Brighton, BN2 7AR UK Independence Party (UKIP)	
5	RALFE Brian Ralfe 6 Eaton Manor, The Drive, Hove, BN3 3PT Independent	
6	WEATHERLEY Mike Weatherley Flat 1, 2 Tisbury Road, Hove, BN3 3BA The Conservative Party Candidate	

Two-round

الانتخابات البرلمانية - الجولة الأولى
Election Préfidentielle - Premier Tour
23 November 2014 / 23 نوفمبر 2014

19	10	1
20	11	2
21	12	3
22	13	4
23	14	5
24	15	6
25	16	7
26	17	8
27	18	9

Alternative vote

BALLOT PAPER
HOUSE OF REPRESENTATIVES
NEW SOUTH WALES
ELECTORAL DIVISION OF
BANKS

Number the boxes from 1 to 7 in the order of your choice.

<input type="checkbox"/>	IADONO, Stephen LIBERAL
<input type="checkbox"/>	MADDISON, Philip PAULINE HANSON'S ONE NATION
<input type="checkbox"/>	CHEN, Bin UNITY - SAY NO TO BRISBANE
<input type="checkbox"/>	ARCHER, Greg THE DREAM
<input type="checkbox"/>	BAILEY, Alison ALTERNATIVE AND DEMOCRATS
<input type="checkbox"/>	MELHAM, Daryl NEUTRAL AND LIBERAL PARTY
<input type="checkbox"/>	GREGG, Brian CHRISTIAN DEMOCRATIC PARTY (PREG NILE GROUP)

SAMPLE ONLY

Remember... number every box to make your vote count

Amendments, Pre- and Post-Commitment / AEC



Problems with picking a winner



Consider Florida in 2000
US presidential election:

Two-round system would
address this case, but can
have same problem in the
first round (e.g. France
2002).

	Votes
George W. Bush (Rep)	2,912,790
Al Gore (Dem)	2,912,253
Ralph Nader (Green)	97,488
James Harris (Socialist Workers)	562

What we want:

- A. system whose outcome will not depend on irrelevant candidates being present
- B. system that rewards voters for expressing their true preferences



No escape from these problems!



What we want:

- A. system whose outcome will not depend on irrelevant candidates being present
- B. system that rewards voters for expressing their true preferences

One fair system that does both: Collect ballots; randomly choose one.

Actually, it is the **only system**. (Arrow's Theorem, Gibbard-Satterthwaite Theorem.)

All systems for choosing a winner reward voters who anticipate likely outcomes and plan accordingly.



Proportional elections: closed-list PR

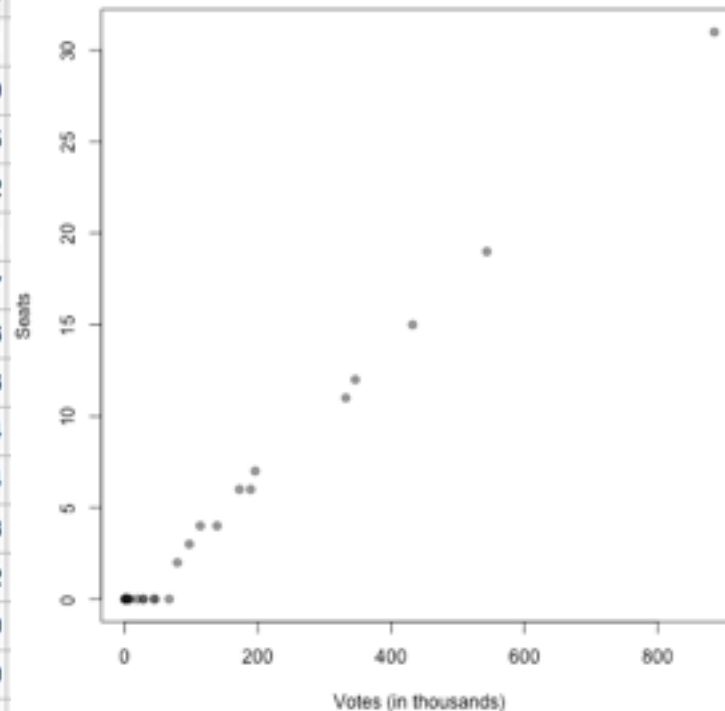


Citizens vote for a **list** of candidates (i.e. a **party**). A formula (e.g. d'Hondt, Sainte-Laguë) converts the parties' vote shares to their seat allocations; if a party wins three seats, the top three candidates on the party's list are elected.

Israeli Knesset elections, January 2013

Party	Votes	%	Seats
Likud Yisrael Beiteinu	885,054	23.34	31
Yesh Atid	543,458	14.33	19
Labor Party	432,118	11.39	15
The Jewish Home	345,985	9.12	12
Shas	331,868	8.75	11
United Torah Judaism	195,892	5.16	7
Hatnuah	189,167	4.99	6
Meretz	172,403	4.55	6
United Arab List	138,450	3.65	4
Hadash	113,439	2.99	4
Balad	97,030	2.56	3
Kadima	79,081	2.09	2
Otzma LeYisrael	66,775	1.76	0
Am Shalem	45,690	1.20	0
Ale Yarok	43,734	1.15	0

Votes and seats, Israeli Knesset elections, January 2013



Variables:

- Threshold for winning any seats (in Israel 2%, soon 3.5%)
- Formula for allocating seats (=> degree of bias against small parties)



Proportional elections: ballot papers



Closed list

Open list

STV



Folketingsvalget 2001

Sønderjyllands Amts
3. opstillingskreds

Sæt x til højre for en listebetegnelse (et partinavn)
eller et kandidatnavn.
Sæt kun ét kryds på stemmesedlen.

A. Socialdemokratiet

Frøde Sørensen
Inger Bierbaum
Dorte Dinesen
P. Qvist Jørgensen
Eva Roth
Lise von Seelen
Søren Ebbesen Skov

B. Det Radikale Venstre

Nicolas Lund-Larsen
Per Kleis Bønnelycke
Bente Dahl
Inger Harms
Bjarke Larsen
Henrik Larsen

C. Det Konservative Folkeparti

Kaj Ikast
Martin Andresen
Bent P. Have
Jens M. Henriksen
Bente Lassen
Lars Munk
Klaus Rehkopf

D. Centrum-Demokraterne

Henning Nielsen
Henning Borchert-Jørgensen
Helmuth Carstens
Flemming Hübschmann
Holger Madsen
Peter Berthel Nissen
Kai Paulsen

F. Socialistisk Folkeparti

Bjarne Eliassen
Bent Iversen
Jesper Petersen
Kirstine Rask Lauridsen
Jørn Ulrik Larsen
Jørgen Jørgensen
Mathias Gotthardsen

O. Dansk Folkeparti

Søren Krarup
Kell Kristiansen
Jørn Larsen
Jytte Lauridsen
Theis Mathiasen
Niels Oluf Michaelsen Petersen
Lars Rydhard

Q. Kristeligt Folkeparti

Michael Lund Markussen
Vibeke Christensen
Bjarke Friis
Knud Erik Hansen
Henning Holm

V. Venstre, Danmarks Liberale Parti

Bjørn Scherbarth
Sven Buhrkall
Peter Christensen
Allan Emilussen
Gunnar Hattesen
Helga Moos
Hans Chr. Schmidt

Z. Fremskridtspartiet

Ole Jensen
Heine Andresen
Henning Brandt
Carl Mahn
Margit Petersen
Preben Ravn
Jens Willatzen

Ø. Enhedslisten - De Rød-Grønne

Baltser Andersen
Svend Brandt
Signe Færch
Jette Hedegaard
Egon Laugesen
Niels-Erik Aaes

DALY - NON-PARTY (MARTIN JOSEPH DALY of Annan Estate, Ballina, Co. Mayo, Teacher)		
FORKIN - NON-PARTY (SEAN FORKIN of Derrynabrock West, Clontarf (Charlottesville), Ballymore, Co. Sligo, Former Electrician)		
KENNY - FINE GAEIL (ENDA KENNY of Tucker Street, Castlebar, Co. Mayo, Public Representative)		1
KILCOYNE - NON-PARTY (MICHAEL KILCOYNE of 9 Turlough Road, Castlebar, Co. Mayo, SIPTU Official)		3
MCDONNELL - NON-PARTY (DERMOT McDONNELL of 41 Rathbawn Drive, Castlebar, Co. Mayo, Renewable Cooperative Society Chairman)		
MULHERIN - FINE GAEIL (MICHELLE MULHERIN of 47 Moy Heights, Ballina, Co. Mayo, Solicitor)		4
MAHONY - FINE GAEIL (JOHN O'MAHONY of Tower House, Market Street, Ballaghaderreen, Co. Roscommon, Public Representative)		



Districts in PR systems

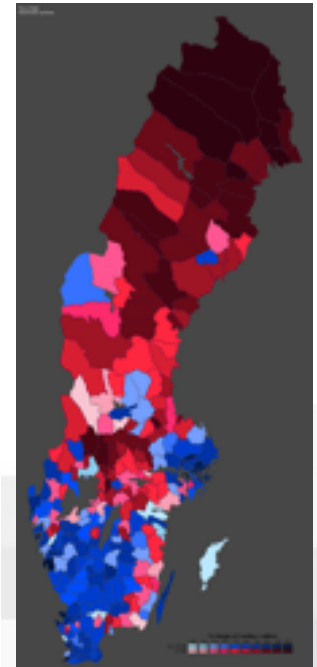


Spain: a collection of PR districts



Spain 2011 Congress of Deputies, by Impru20 (Wikipedia)

Sweden: a collection of PR districts, plus adjustment seats so that overall result is proportional



Shilly uselectionatlas.org

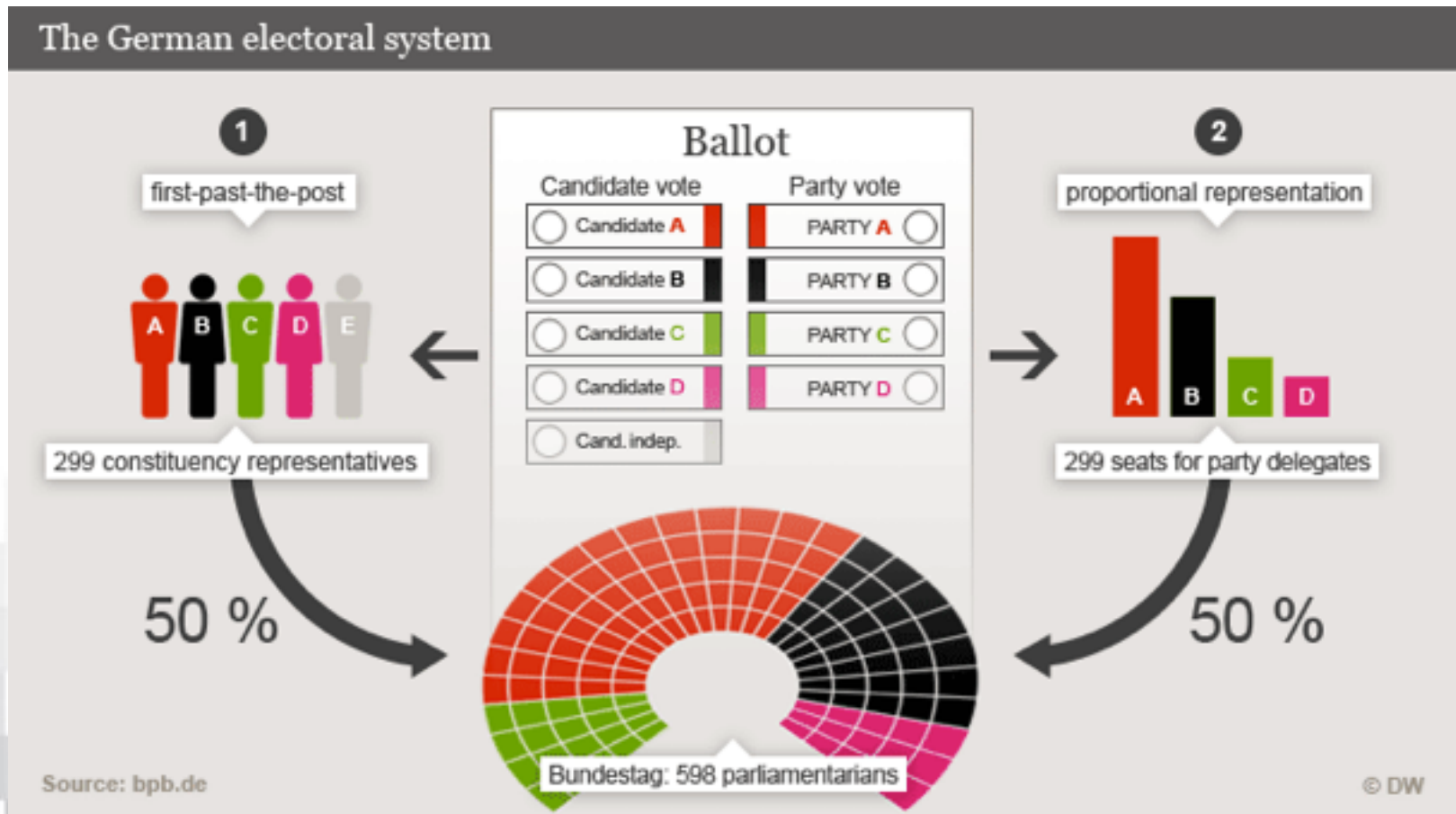
Israel, Serbia, Moldova, Netherlands: one district (i.e. seats proportional to all votes nationwide)

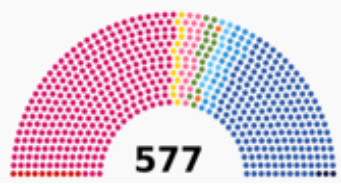


Election formulas and electoral systems (2)



Mixed systems have both majoritarian and proportional elements.



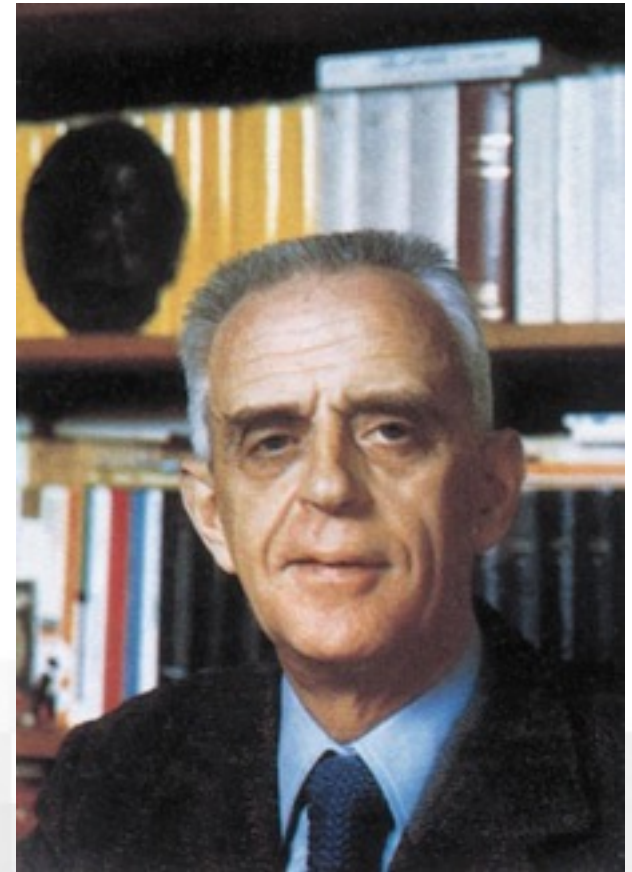


Electoral system effects: number of parties

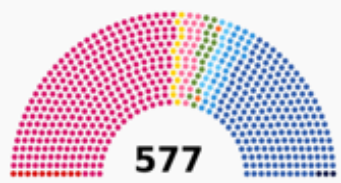


Maurice Duverger in *Political Parties* (1951):

- “[FPTP] favors the two-party system” (“Duverger’s Law”: close to a “true sociological law”)
- “[two-round system] and proportional representation favor multipartyism” (“Duverger’s Hypothesis”)



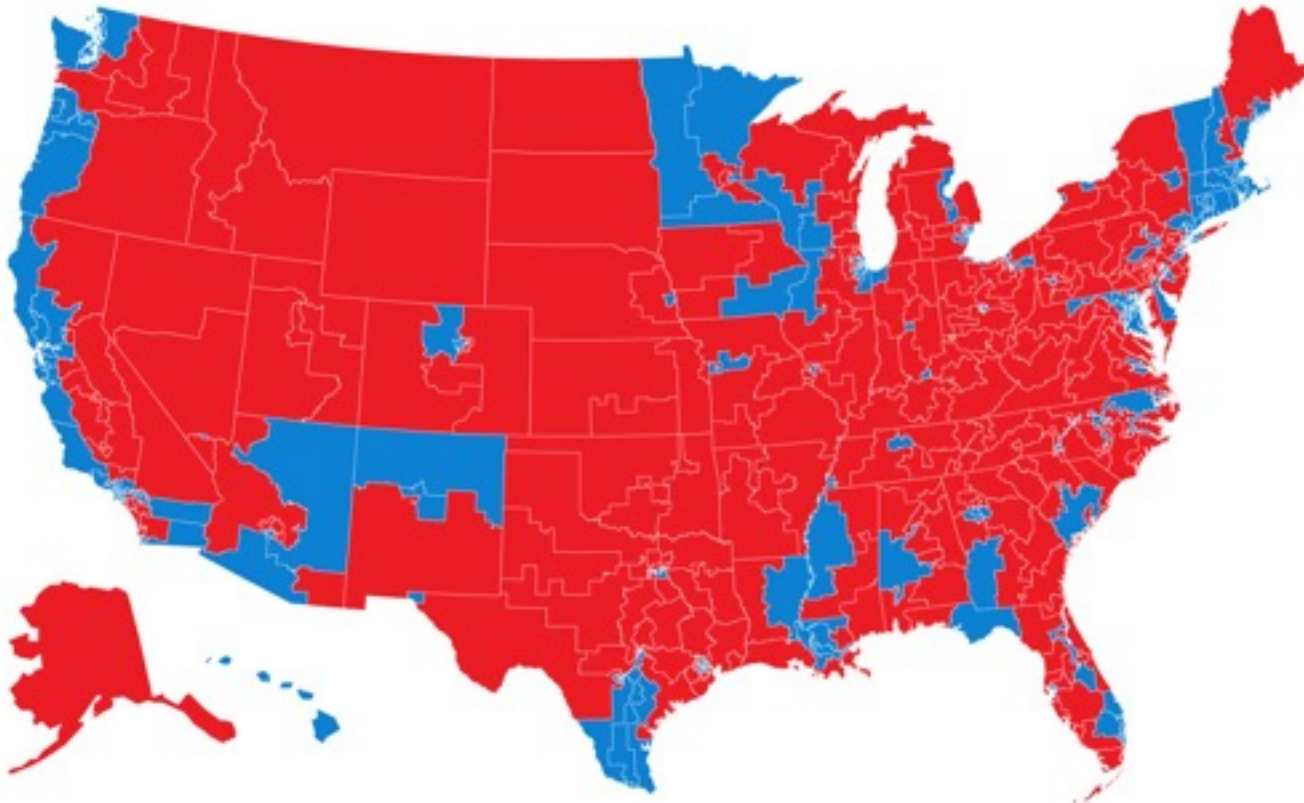
Maurice Duverger, French sociologist



Duverger's Law: United States

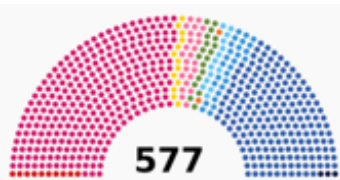


114th Congress: House of Representatives map



NATIONAL JOURNAL Graphic

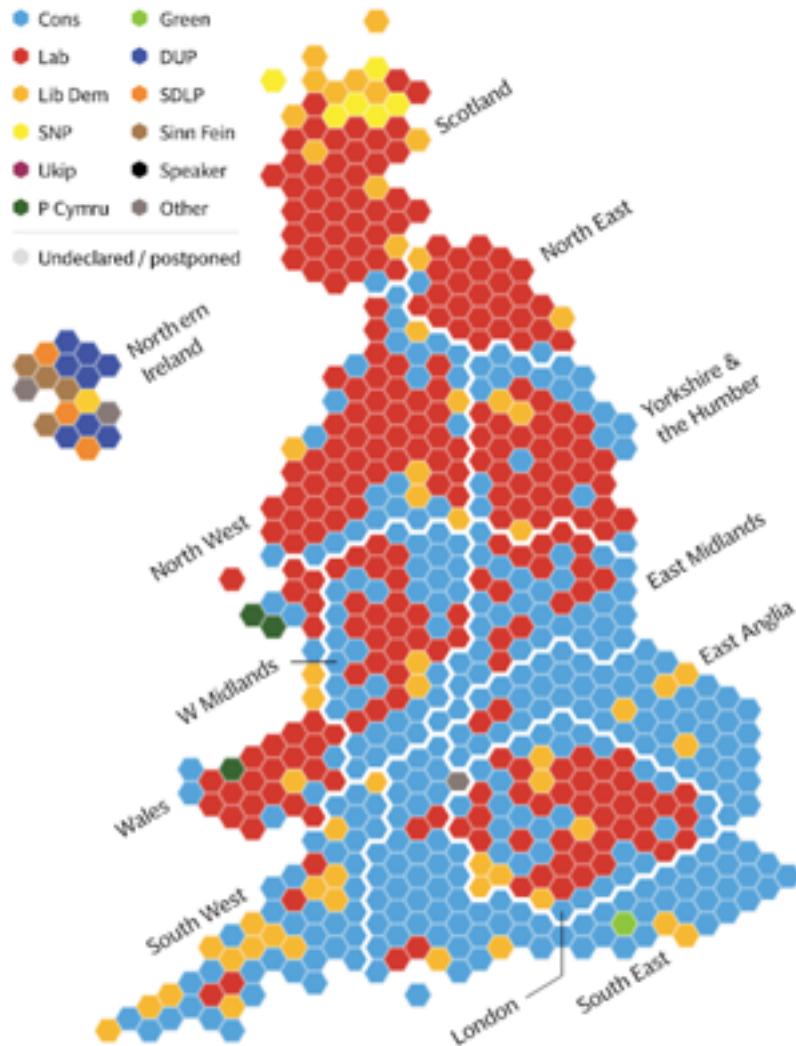
Sources: Staff reports; AP



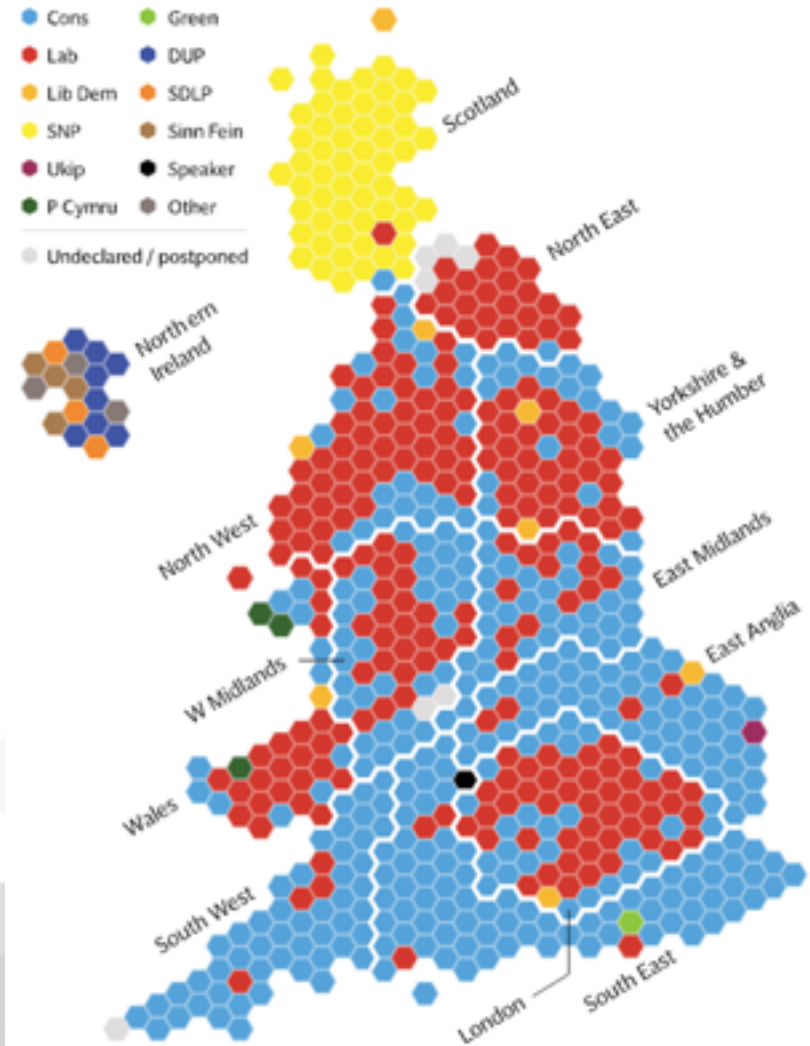
Duverger's Law: United Kingdom

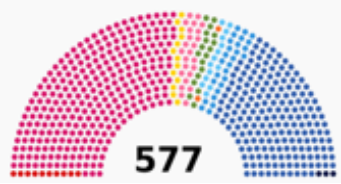


2010

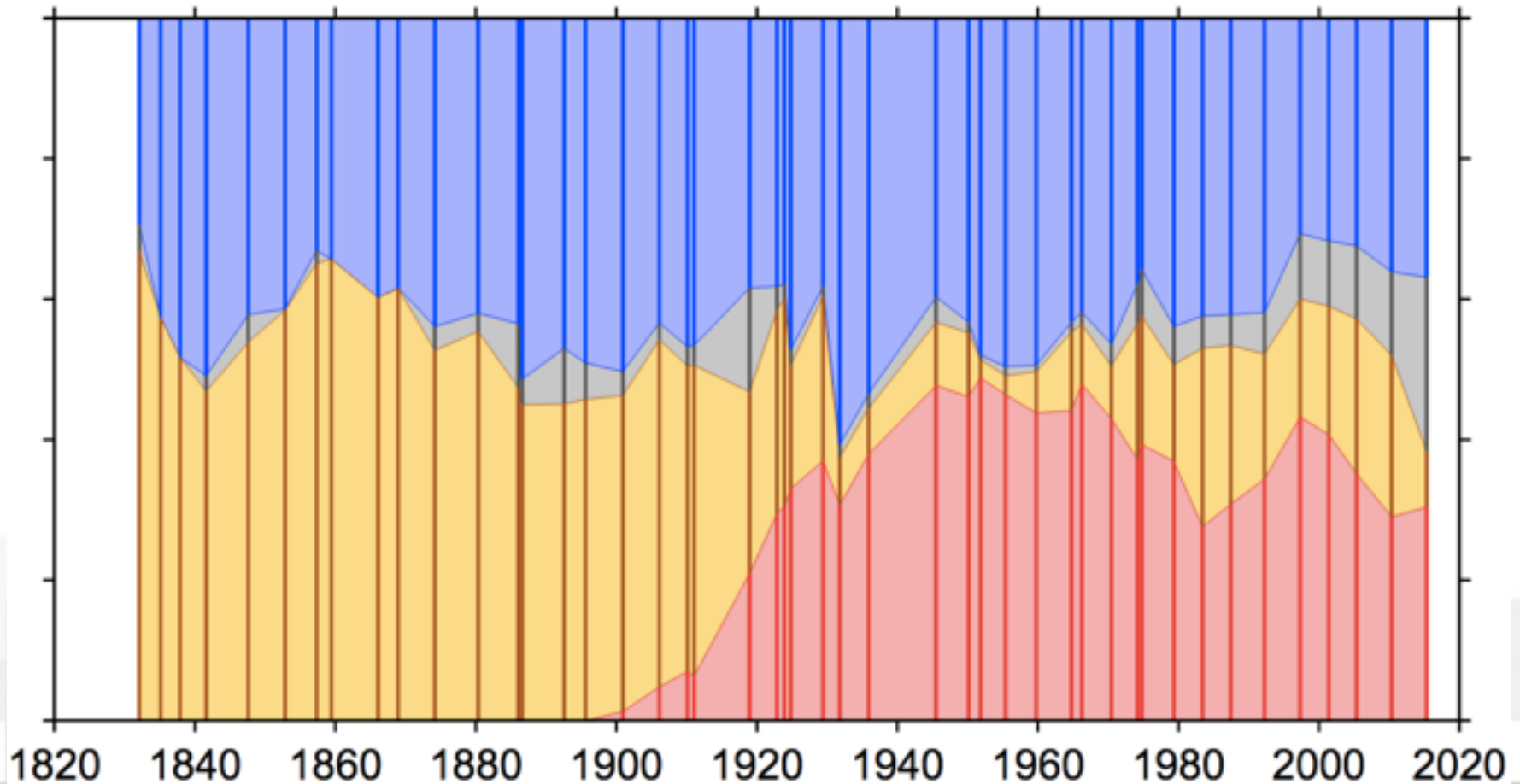


2015

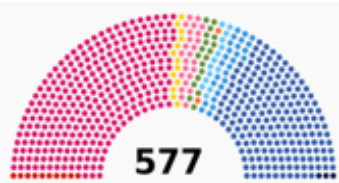




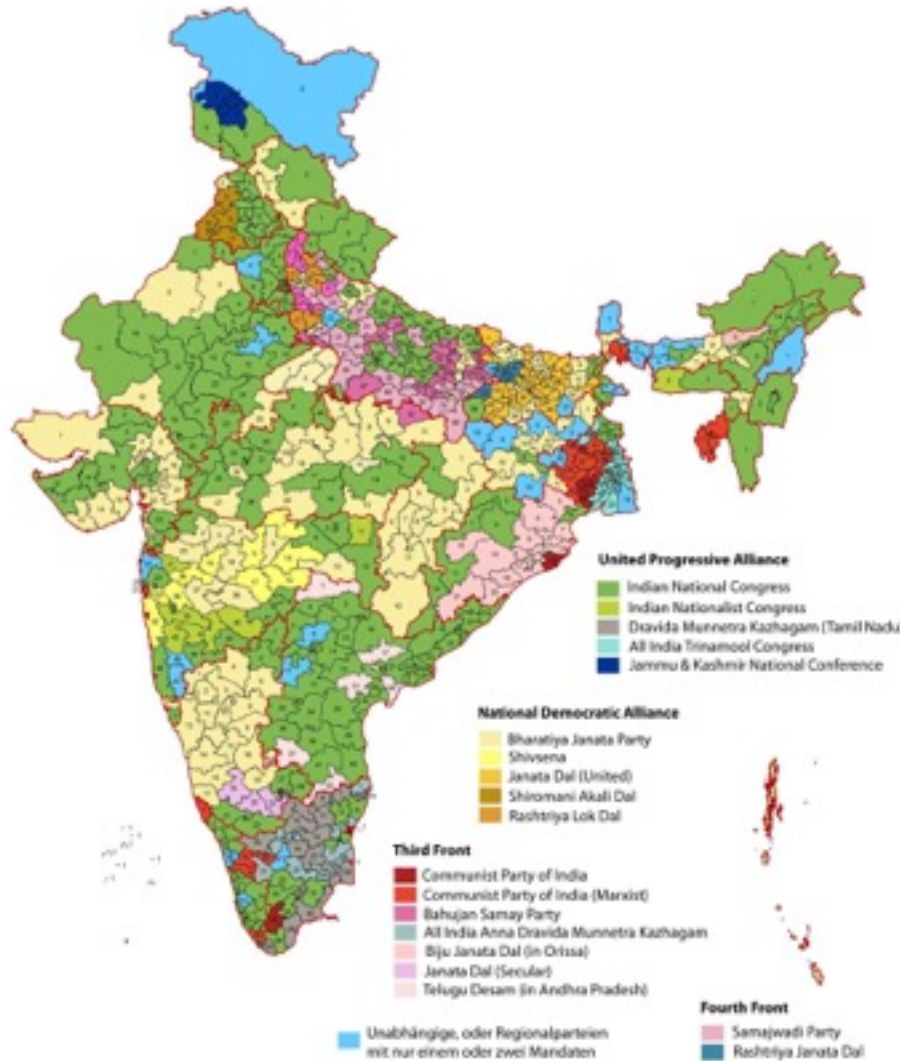
Duverger's Law: United Kingdom



"UK popular vote" by Kanguole - Own work. Licensed under CC BY-SA 3.0 via Commons - https://commons.wikimedia.org/wiki/File:UK_popular_vote.svg#/media/File:UK_popular_vote.svg



Duverger's Law: India



en.wikipedia.org/wiki/15th_Lok_Sabha

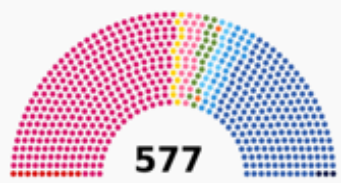
List of members by political party

[edit]

S.No. ♦	Party Name	♦ Party flag ♦	Number of MPs ^[2] ♦
1	Indian National Congress (INC)		205 ^[3]
2	Bharatiya Janata Party (BJP)		114 ^[4]
3	Samajwadi Party (SP)		22
4	Bahujan Samaj Party (BSP)		21

en.wikipedia.org/wiki/15th_Lok_Sabha

32	Marumalarchi Dravida Munnetra Kazhagam (MDMK)		1
33	Haryana Janhit Congress (BL)		1
34	Viduthalai Chiruthaigal Katchi		1
35	Sikkim Democratic Front (SDF)		1



A refutation of Duverger's Law?



As he stated it, yes.

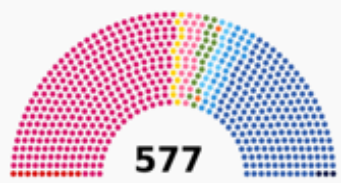
Political scientists now see Duverger's Law as a prediction about **district-level outcomes**: at the district level, there are usually only two serious candidates in FPTP elections.

Define *Effective Number of Parties*: $ENP = \frac{1}{\sum_{i=1}^n p_i^2}$

where p_i is party i 's vote share.

$ENP(.5, .5) = 2$; $ENP(.9, .1) = 1.22$;

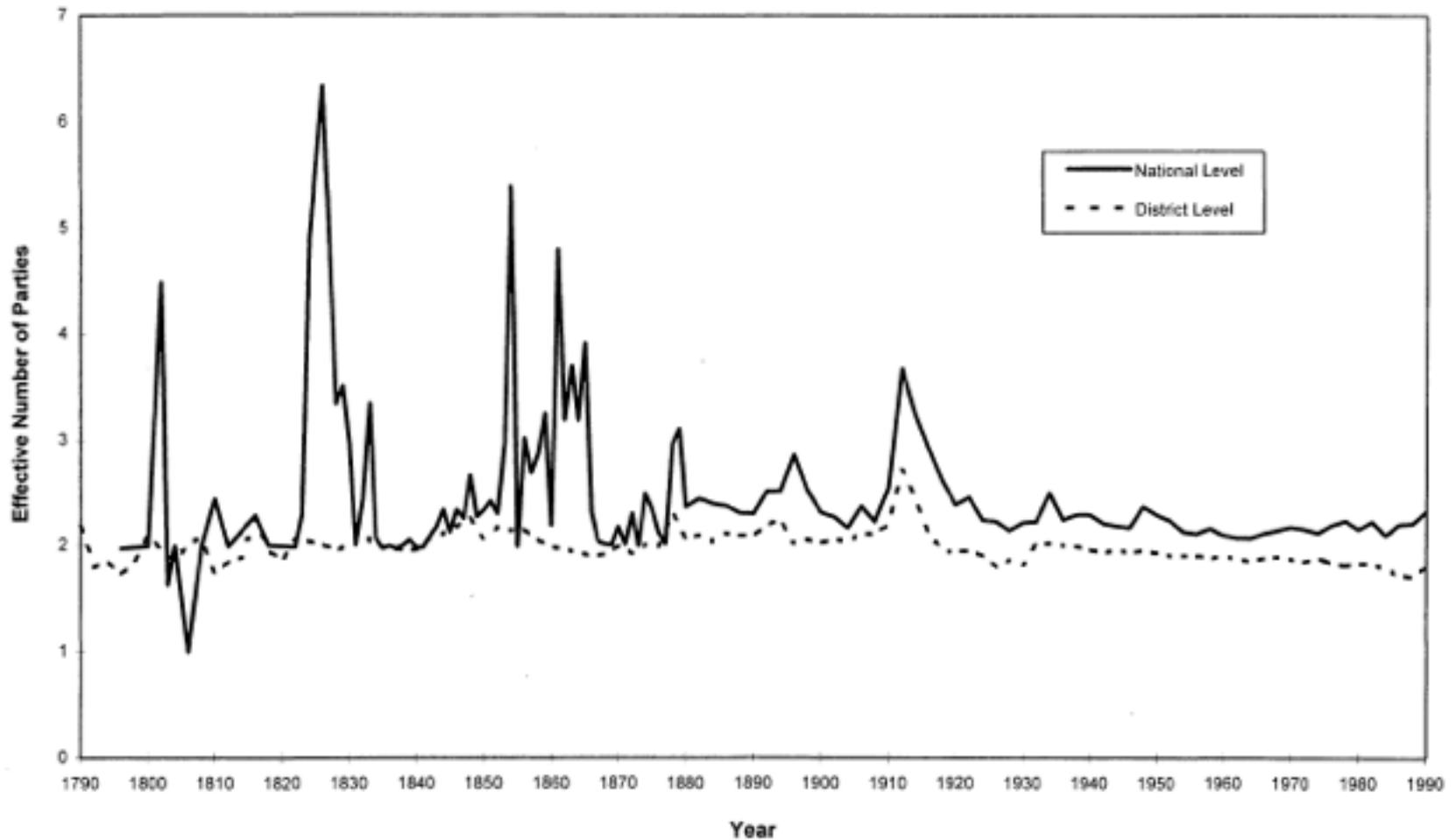
$ENP(1/3, 1/3, 1/3) = 3$; $ENP(.45, .45, .1) = 2.4$

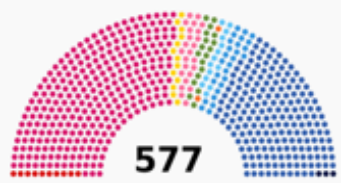


Effective number of parties in USA



FIGURE 1. Effective Number of Parties at the National and District Level in the United States (non-South)

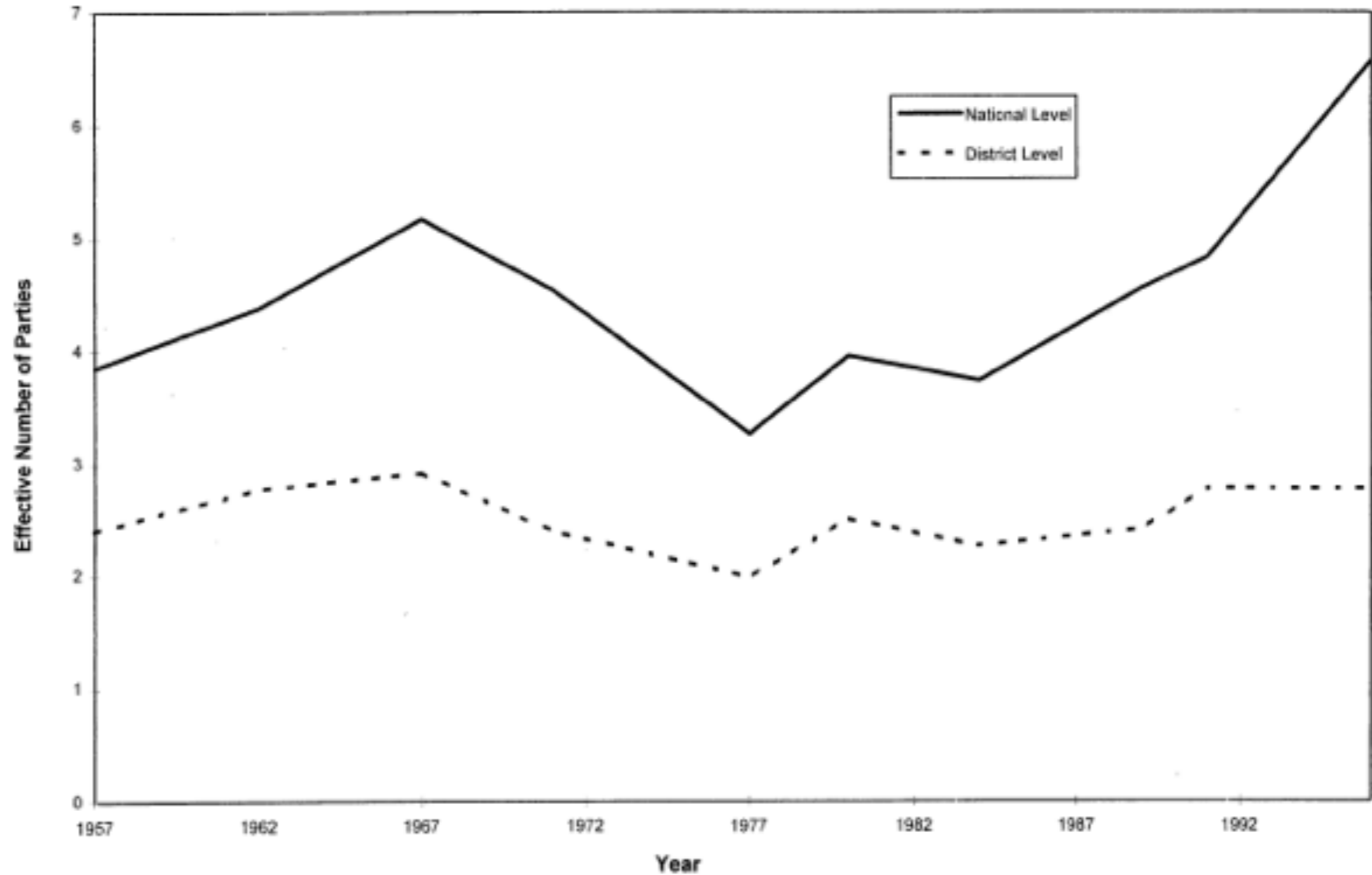


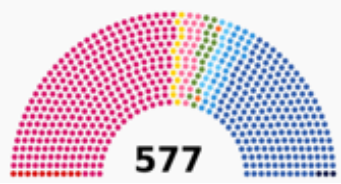


Effective number of parties in India

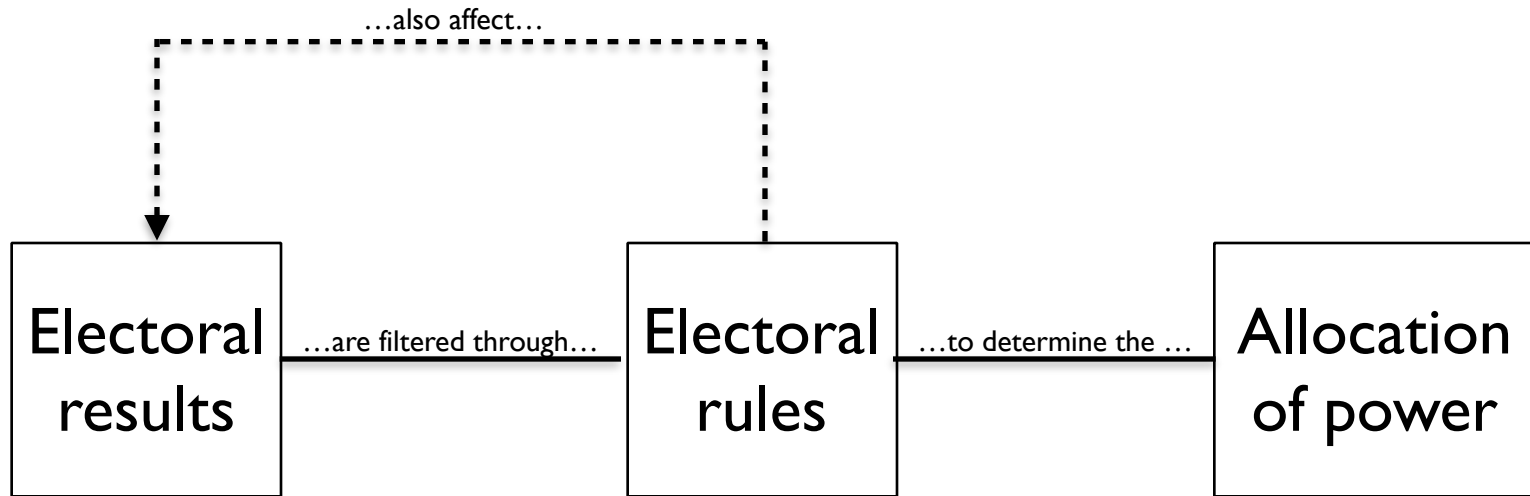


FIGURE 2. Effective Number of Parties at the National and District Level in India



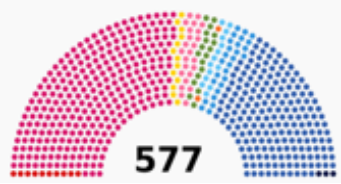


How do electoral systems affect political outcomes?



Duverger's terminology:

- **Mechanical effect** (solid lines): For a given set of electoral results (votes for candidates and parties), different electoral rules will result in different allocation of seats/power.
- **Psychological effect** (dashed lines): Different electoral rules will produce different electoral results.



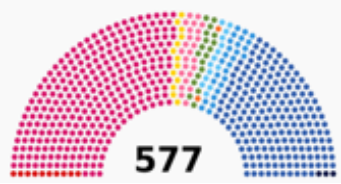
Strategic voting, strategic entry and Duverger's mechanical effect



Why does the FPTP system lead to only two (serious) candidates?

- **Strategic voting:** If it is known that only two candidates have a serious chance of winning, why vote for someone else?
- **Strategic entry/campaigning:** If it is known that only two candidates have a serious chance of winning, why waste resources on a campaign for third place? (Can also think about decision to **split** a party or not.)

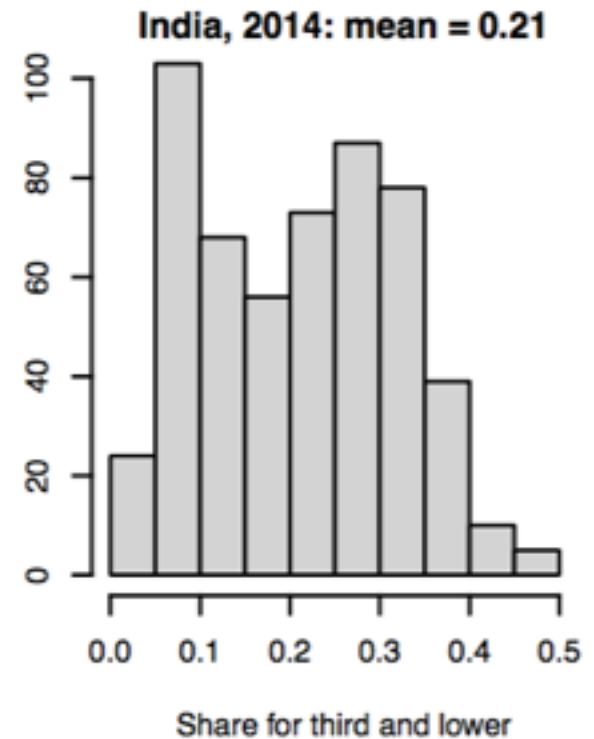
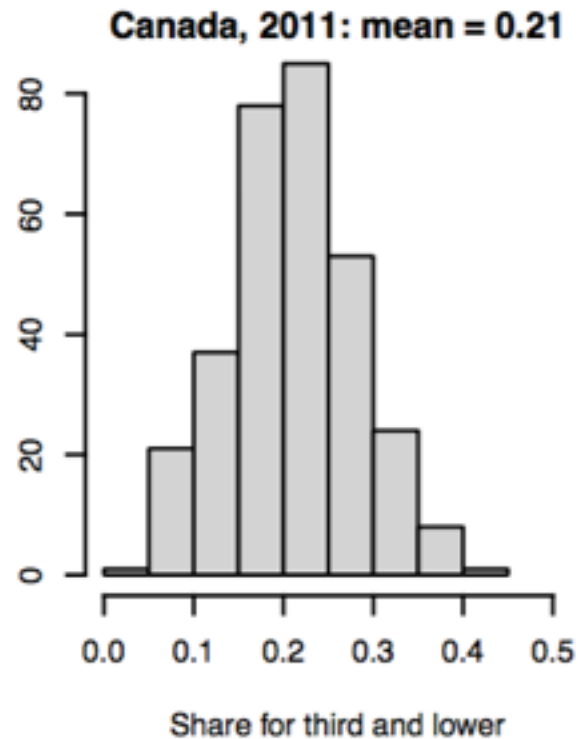
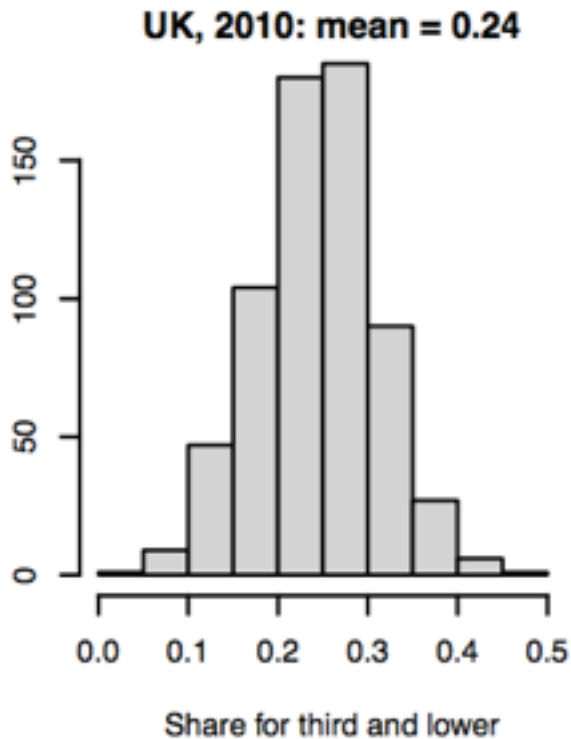
So what are the key assumptions? When might they not be met?

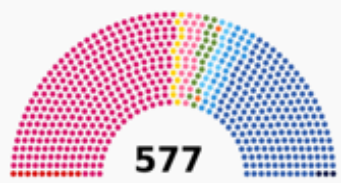


A lot of non-Duvergerian outcomes in FPTP systems!

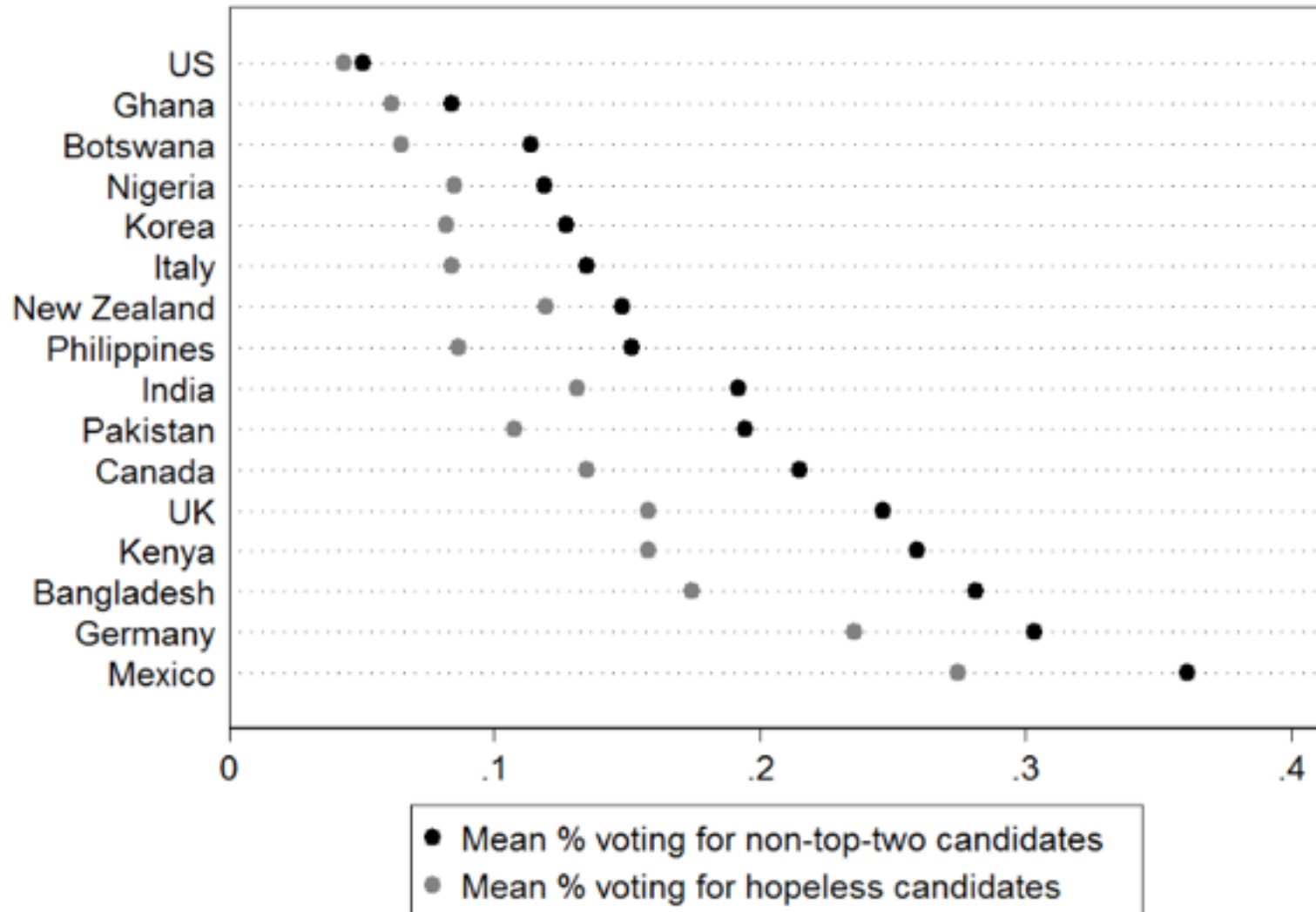


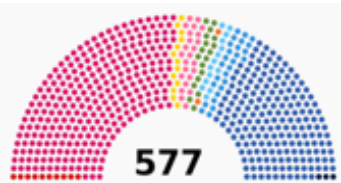
Share of votes going to candidates who finish third or lower





A lot of non-Duvergerian outcomes in FPTP systems!

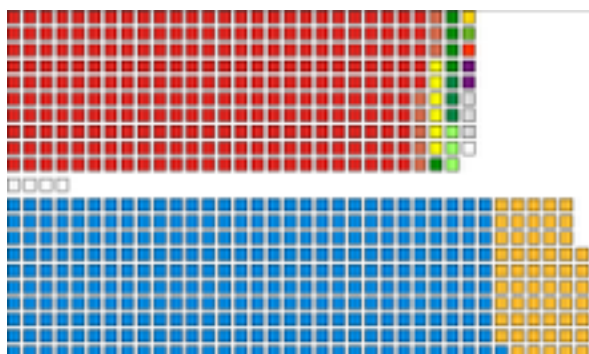




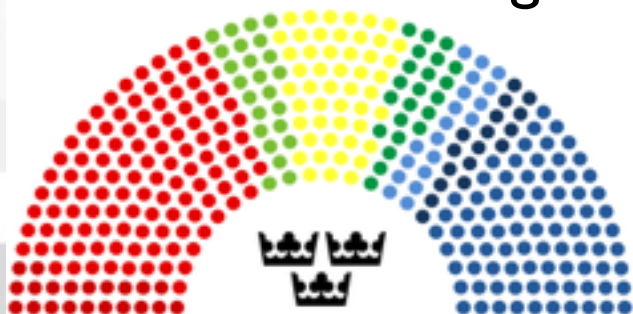
More parties represented in the legislature in proportional systems

For example,

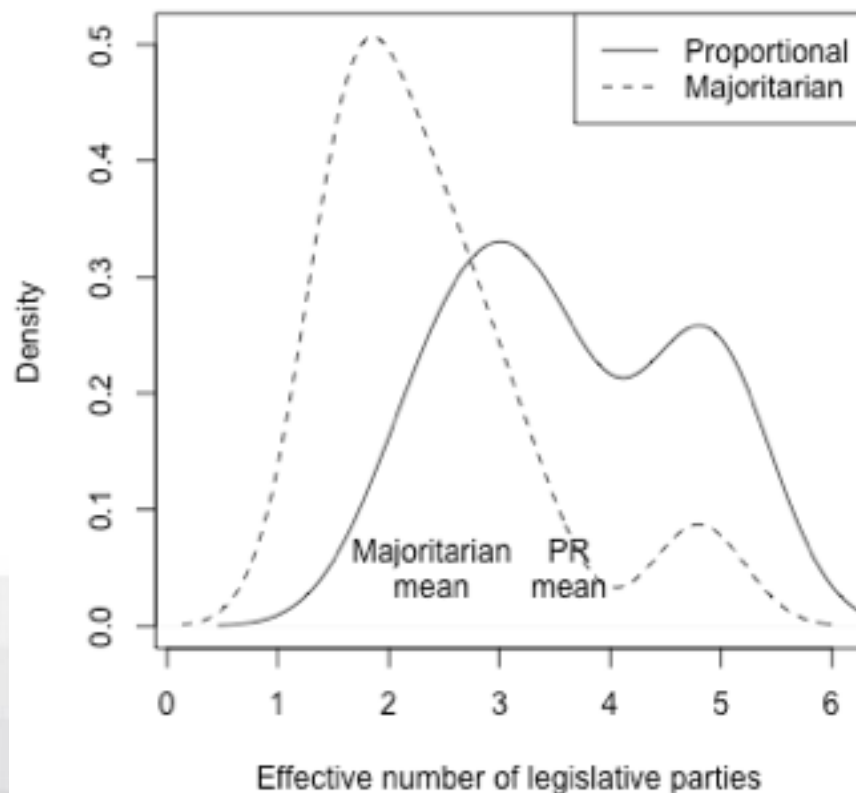
UK House of Commons

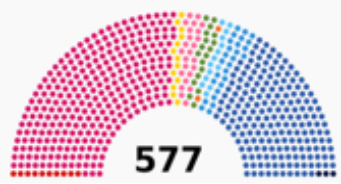


Swedish Riksdag



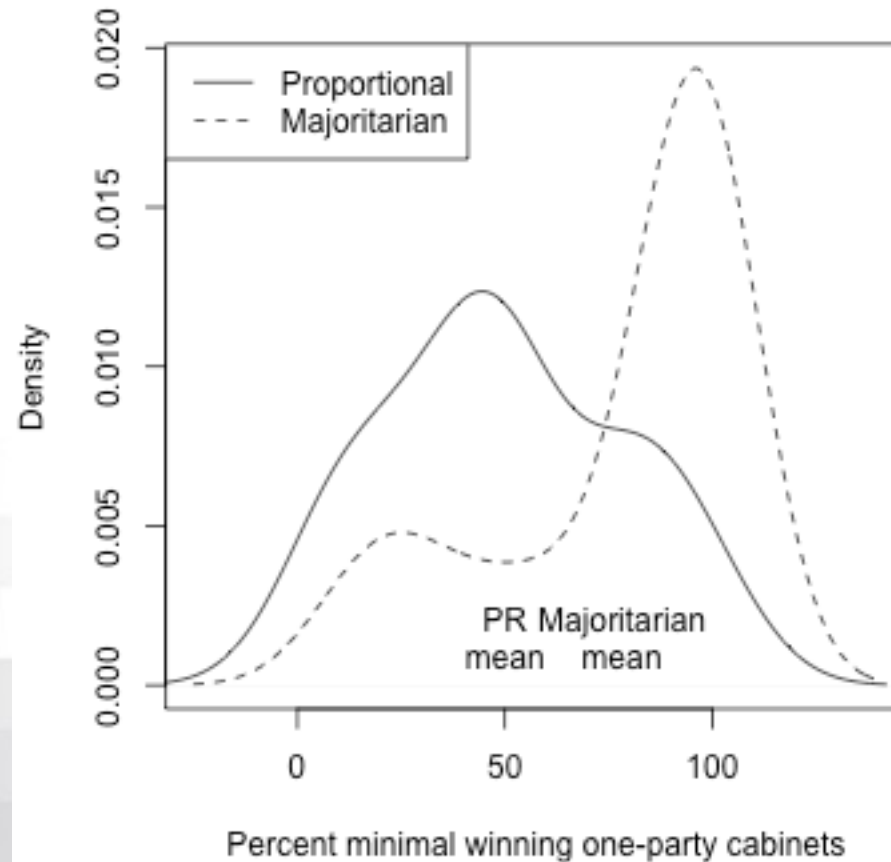
Effective number of parties in legislature, 36 democracies in Lijphart (2012) 1945-2010

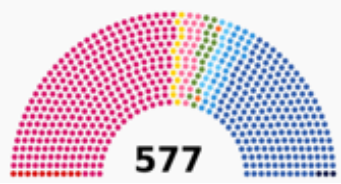




More parties in government in proportional systems

Proportion of one-party, minimal winning cabinets, 36 democracies in Lijphart (2012)





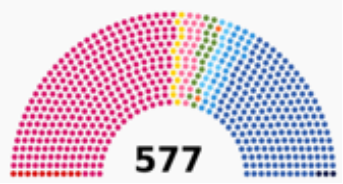
Are the differences in party systems the *effect* of the electoral system?



Causation and correlation: party systems produce electoral rules, not (just) the other way around (Rokkan 1970, Boix 1999)

If FPTP yields two-party systems, societies with two groups would choose FPTP!

An ongoing area of research (e.g. Fujiwara, 2011 QJPS).

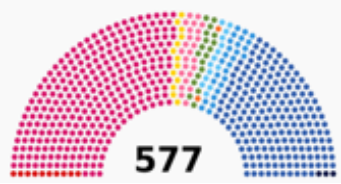


Do electoral outcomes reflect voter preferences?



Two ways to judge match between voter preferences and electoral outcomes:

- Party proportionality across systems
- Responsiveness of representation to changes in opinion

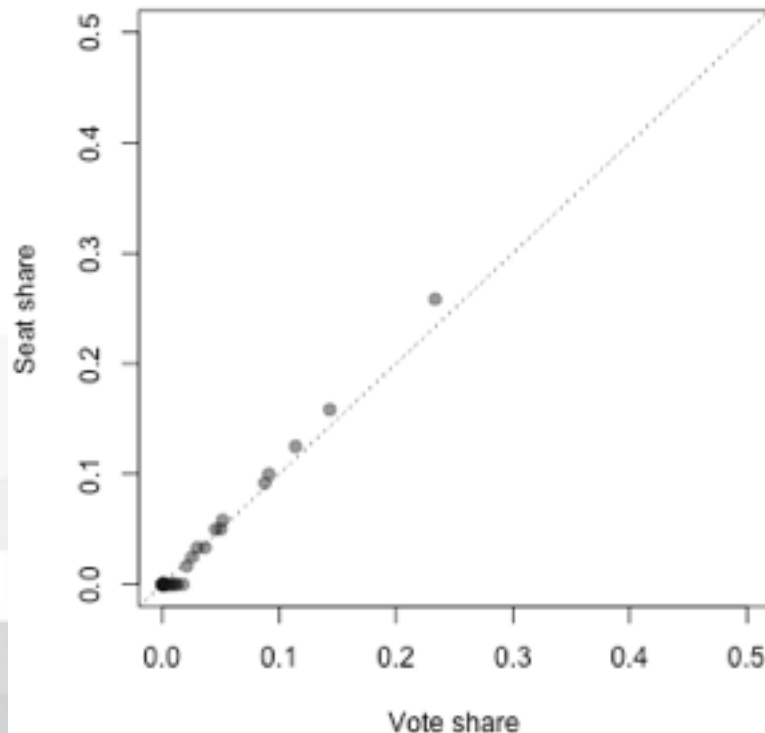


Party proportionality is higher in PR systems

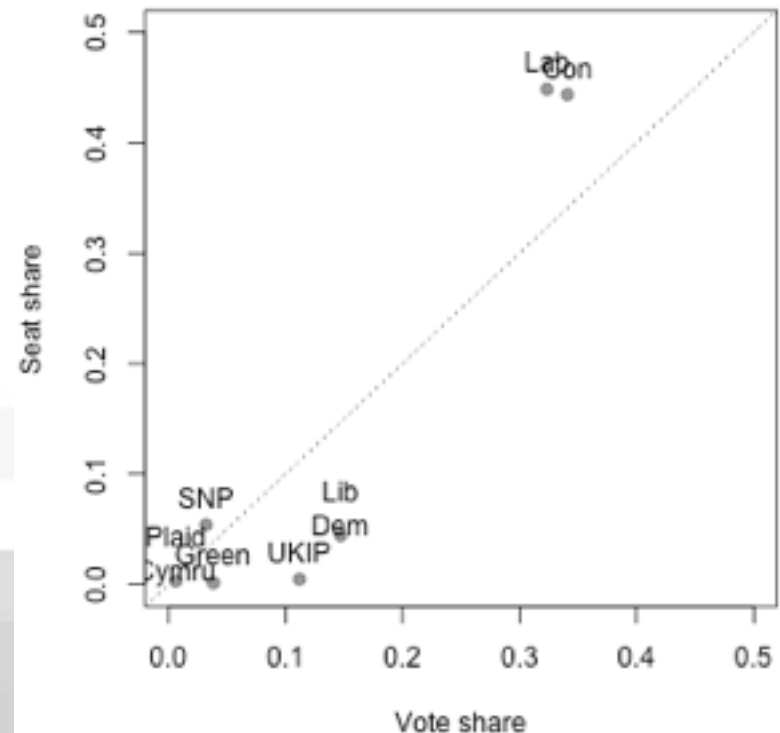


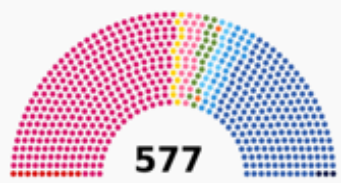
Party disproportionality: a measure of average discrepancy between **seat share** and **vote share** across parties.

Israeli Knesset, 2013 elections:
low disproportionality



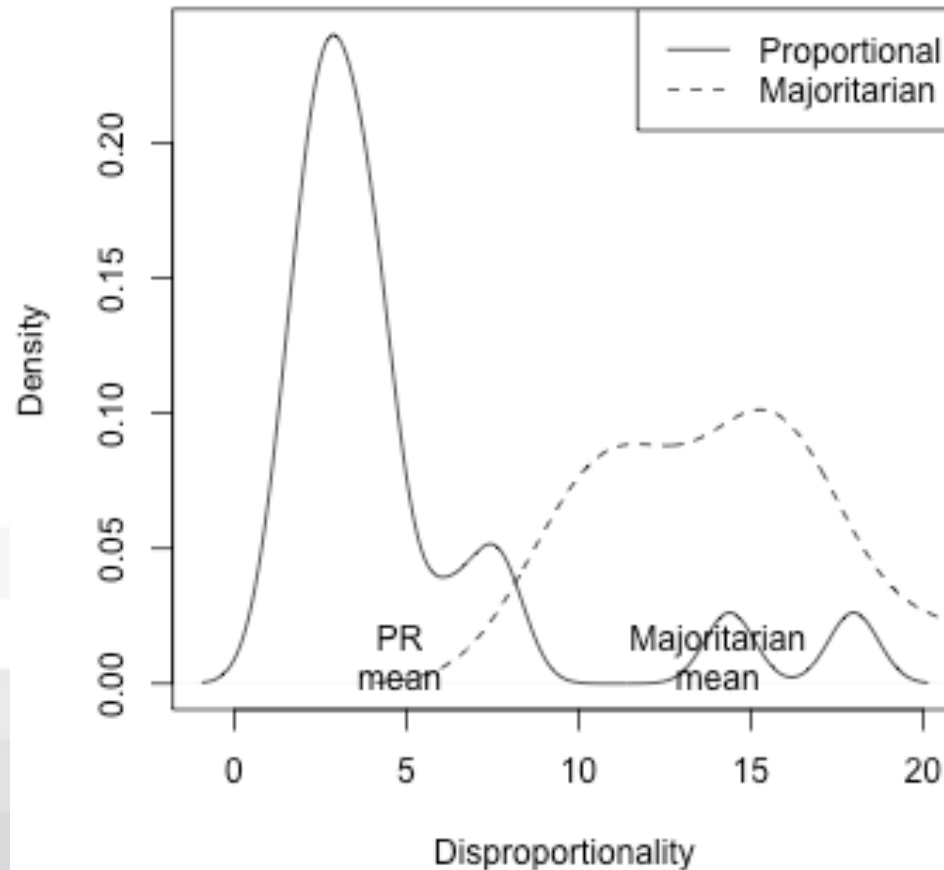
UK H of C, 2015 projections:
high disproportionality

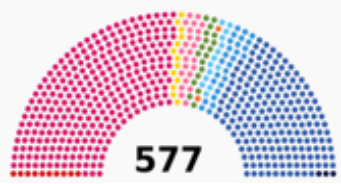




Party disproportionality is lower in PR systems (2)

Party disproportionality, 36 democracies in Lijphart (2012)



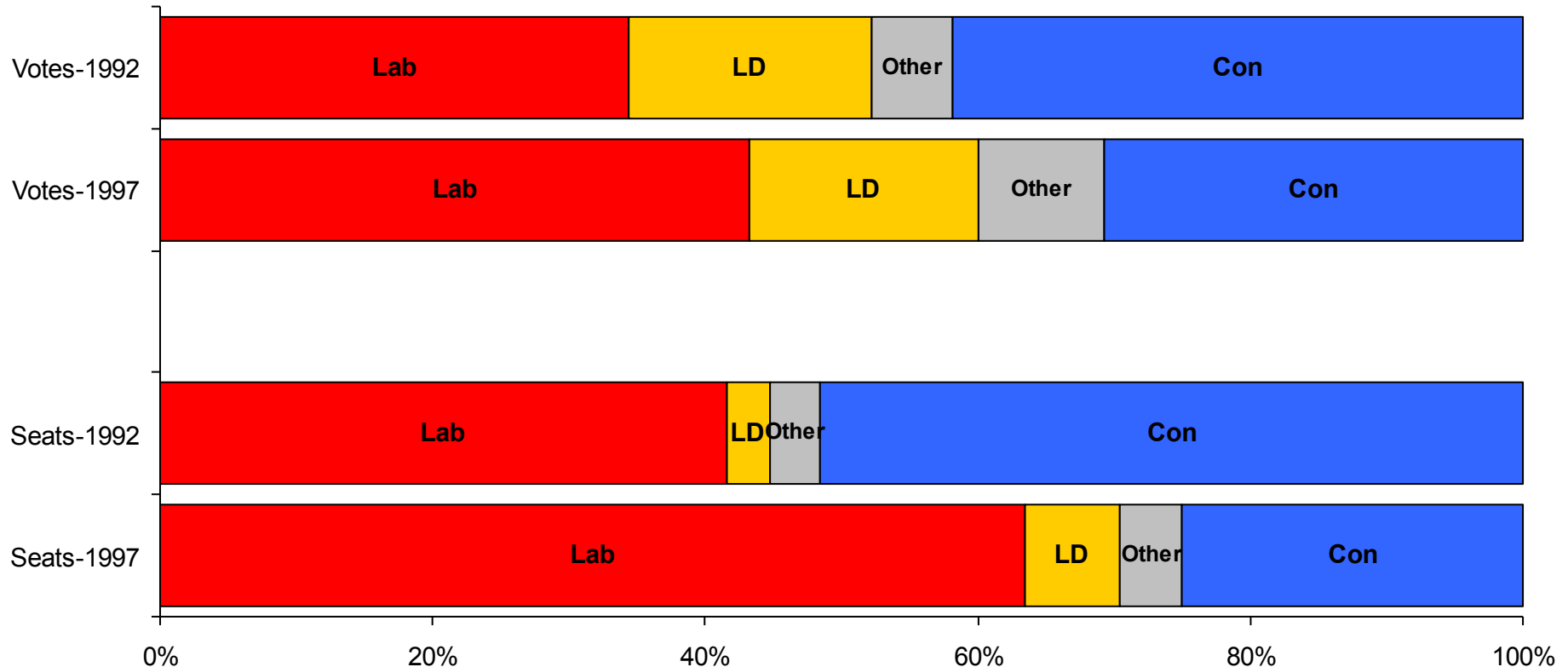


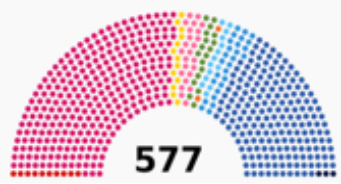
Responsiveness is higher for large parties in majoritarian systems



Responsiveness: how does a party's seat share respond to changes in its vote share?

Example: UK 1992 and 1997 general elections



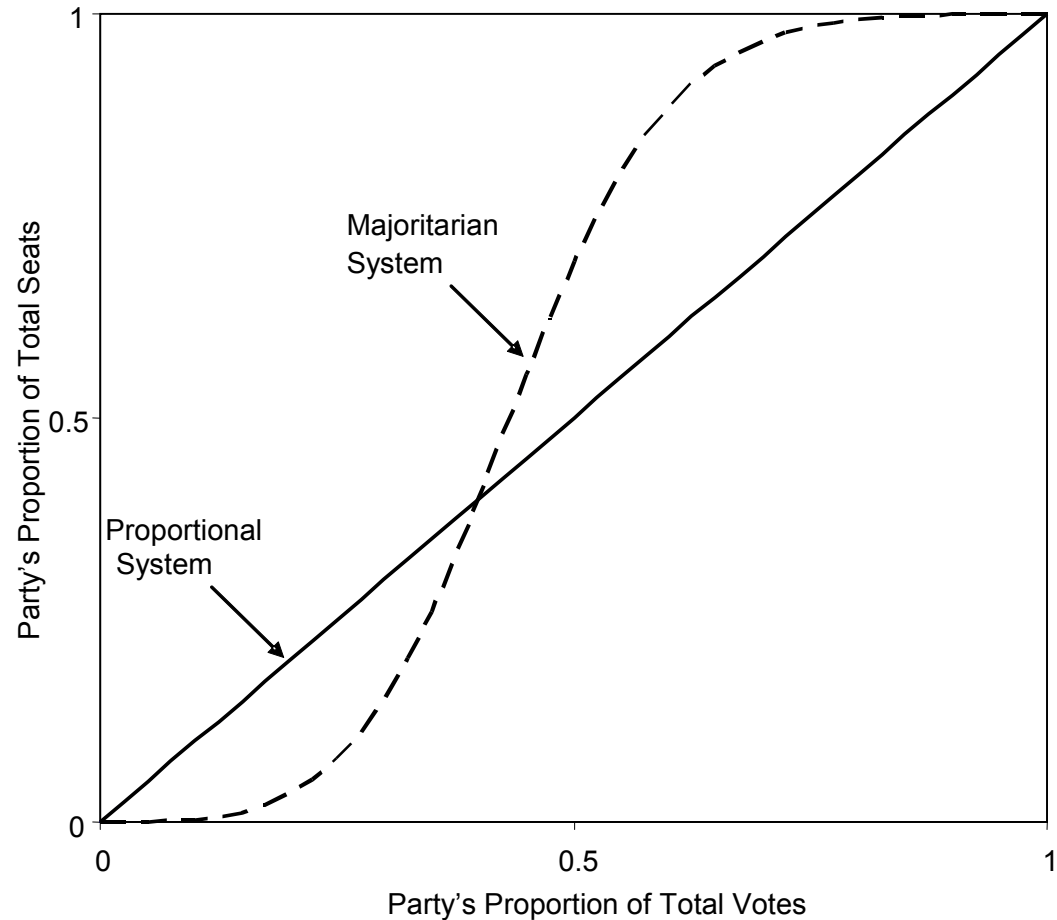


Responsiveness is higher in majoritarian systems (2)



Majoritarian systems distort representation in a way that tends to make them highly responsive to changes in support for larger parties.

Depends highly on geographical distribution of support.

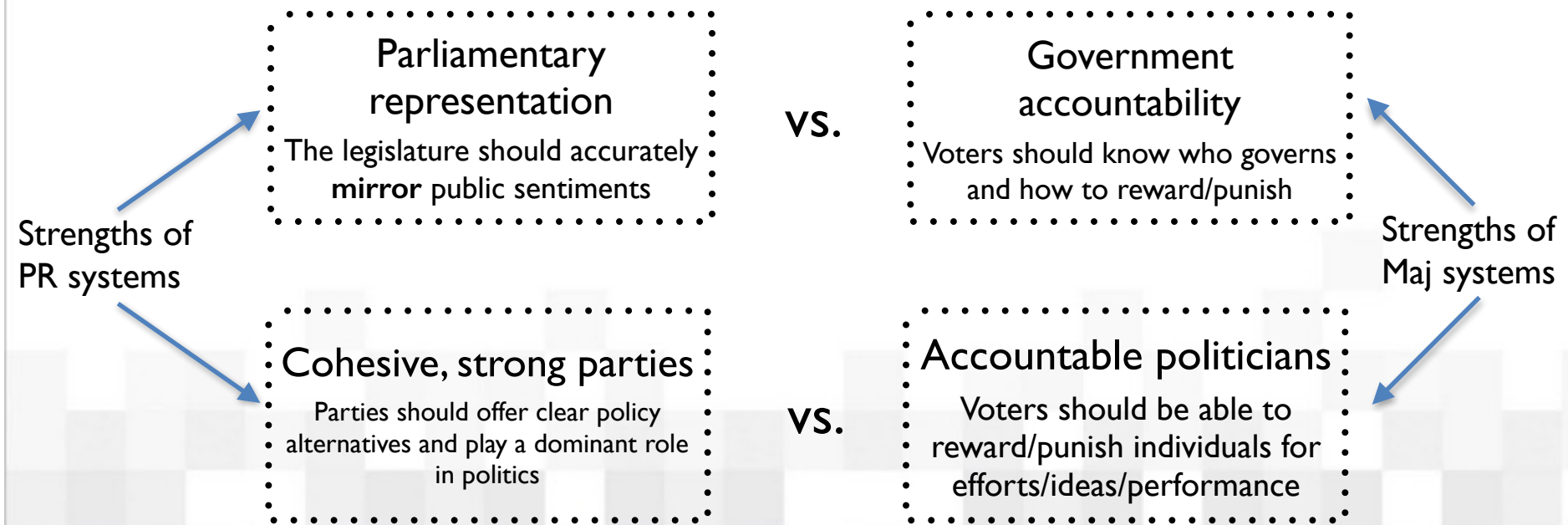




Assessing performance



Most political scientists see two tradeoffs between majoritarian and proportional systems:





Assessing performance: Carey and Hix (2011) “Electoral Sweet Spot”



Documents **tradeoff**: PR comes with lower disproportionality, but more “party system fragmentation” and more complex coalitions.



Advocates a **middle ground**: PR in low-magnitude districts, which gives low disproportionality without the costs.





Assessing performance: Lijphart (2012)



“... no trade-off at all between governing effectiveness and high-quality democracy” (296).

- PR countries (“consensus democracies” on executive parties dimension) better on “democratic quality”:
 - participation, income equality, satisfaction with democracy
 - more social expenditure, less incarceration, more foreign aid
- PR countries same or better in “effective decision-making”:
 - good governance (quality of public services, extent of corruption, rule of law, regulatory quality)
 - macroeconomic management (growth, inflation, unemployment, budget balance)
 - control of violence



But what do these comparisons tell us about the effect of PR vs majoritarian electoral system?

Wrapping up



A. Mechanics: Varieties of majoritarian and proportional elections



B. Effects on political outcomes:
Duverger's Law and Hypothesis;
disproportionality; Riker's critique



C. Effects on government performance:
Conventional view of tradeoffs; the “sweet spot”; Lijphart's argument in favor of PR/consensus approach



Appendix





Majoritarian elections: FPTP



TABLE 12.3

Election Results from the Kettering Constituency, UK Legislative Elections, 2005

Candidate	Party	Votes	Percentage
Philip Hollobone	Conservatives	25,401	45.6
Phil Sawford	Labour	22,100	39.7
Roger Aron	Liberal Democrats	6,882	12.4
Rosemarie Clarke	United Kingdom Independence Party	1,263	2.3



Majoritarian elections: Two-round system



TABLE 12.6

Fourth District in the Puy-de-Dôme, French Legislative Elections, 2002

First Round		
Candidate	Party	Vote share (%)
J. Paul Bacquet	Socialist Party	42.8
Pierre Pascallon	Union for a Presidential Majority	38.1
Christophe Picard	National Republican Movement	0.9
M. Germaine Wilwertz	National Front	6.3
Marie Savre	Workers' Struggle	1.3
Laura Artusi	Communist Party	2.8
Rémi Aufrere	Republican Pole	1.3
J. Paul Russier	Green Party	2.8
Nicolas Bagel	Rally for Independence from Europe	0.0
Bernard Bouzon	Hunting, Fishing, Nature, and Tradition Party	1.4
Patrick Goyeau	Communist Revolutionary League (100% Left)	2.4
Second Round		
J. Paul Bacquet	Socialist Party	56.1
Pierre Pascallon	Union for a Presidential Majority	43.9

Variables:

- Threshold for winning in first round (usually 50%)
- Threshold for moving to the second round (France: "top 2" for pres.; 12.5% vote share for leg.)

Has become the standard for electing presidents (Golder 2005).



Proportional elections: open-list PR



Citizens cast a **party vote** for a list of candidates and/or cast a **preference vote** for individual candidates on lists. The number of seats a party wins depends on its overall support (party votes plus preference votes), and the identity of the candidates who win seats depend in part on preference votes.



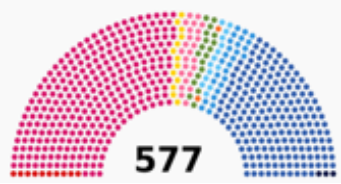
Sri Lankan general election, 2010. Photo credit: AP, via economist.com

Example: Sri Lanka

Each voter casts party vote for one party.

Optional: cast preference vote for up to three candidates from that party.

The preference votes determine the order of the candidates within a party.



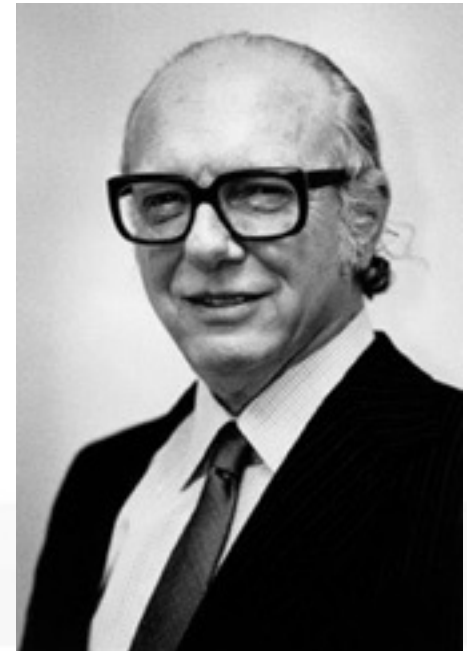
Riker's critique: Strategic voting and the disconnect between votes and preferences



Up to now, we assume electoral outcomes reflect citizens' *preferences* if they reflect citizens' *votes*.

Riker's critique: But all electoral systems invite **strategic voting**, i.e. sometimes casting votes that don't reflect sincere preferences (Gibbard-Satterthwaite Theorem) so it is impossible to know citizens' preferences from voting outcomes.

(Which systems should have more strategic voting?)



William Riker, American political scientist, author of *Liberalism Against Populism*



Majoritarian elections: Alternative vote



TABLE 12.5

Richmond Constituency, New South Wales, Australian Legislative Elections, 1990

Candidate	First count		Second count		Third count		Fourth count		Fifth count		Sixth count		Seventh count	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Stan Gibbs	4,346	6.3	4,380	6.3	4,420	6.4	4,504	6.5	4,683	6.8				
Neville Newell	18,423	26.7	18,467	26.7	18,484	26.8	18,544	26.9	18,683	27.1	20,238	29.4	34,664	50.5
Gavin Baillie	187	0.3												
Alan Sims	1,032	1.5	1,053	1.5	1,059	1.5	1,116	1.6						
Ian Paterson	445	0.6	480	0.7	530	0.8								
Dudley Leggett	279	0.4	294	0.4										
Charles Blunt	28,257	40.9	28,274	41.0	28,303	41.0	28,416	41.2	28,978	42	29,778	43.2	33,980	49.5
Helen Caldicott	16,072	23.3	16,091	23.3	16,237	23.5	16,438	23.8	16,658	24.1	18,903	27.4		

Note: Blank cells indicate that a candidate was eliminated.

Citizens rank candidates. In each round, candidate with fewest first preference votes eliminated; voters reassigned to highest remaining preference.



Proportional elections: single transferrable vote



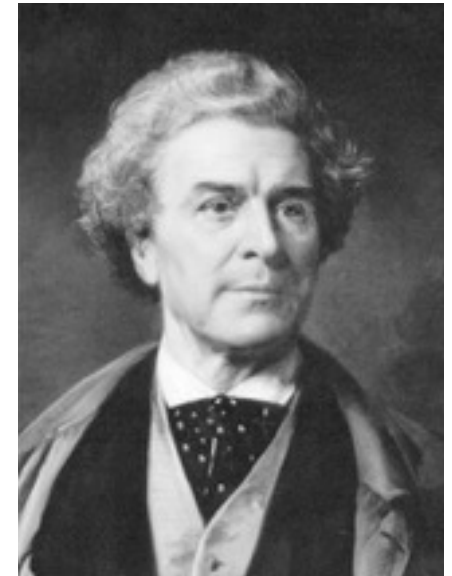
Citizens rank candidates.

A candidate receiving more than

$$Q = \left[\frac{\text{total valid votes}}{(\text{total number of seats}) + 1} \right] + 1$$

first-preference votes are elected; votes in excess of quota are transferred to next preference.

Otherwise like AV: when no one has enough to be elected, candidate with lowest result eliminated, votes transferred.



Thomas Hare, credited with inventing STV ("British PR")

(AV is STV in a single-member district.)