

Proportional and Mixed Systems

PMCb1012 Elections and campaigning

Elections

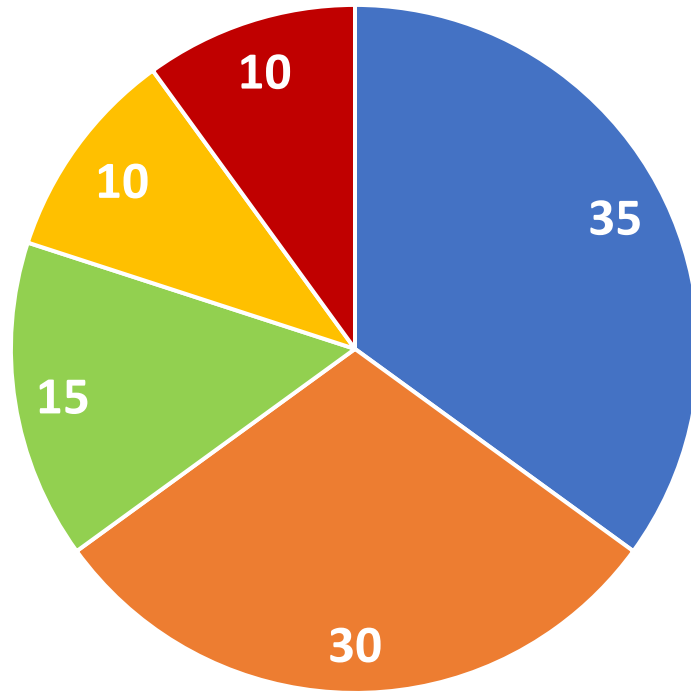
- A necessary but not a sufficient condition for democracies
- Various benefits:
 - Accountability
 - **Representation**
 - Legitimacy
 - A peaceful transfer of power (unlike a military coup)
 - Civic mobilization
- Only free and fair elections fulfil this role

Proportional Representation (PR) Systems

- Main aim - distribution of seats resembles the proportion of votes
- Multi-member constituencies
- Two main categories:
 - List proportional representation
 - Single transferrable vote

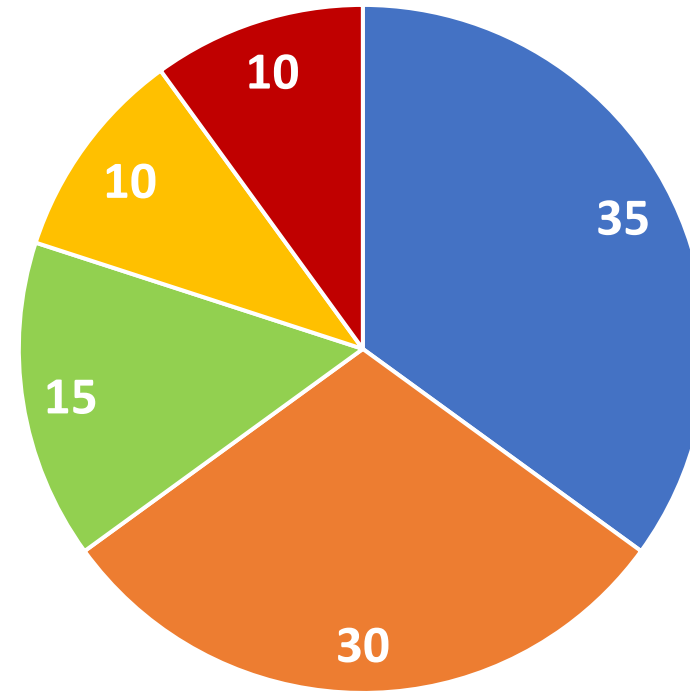
Ideal proportionality

Votes %



■ A ■ B ■ C ■ D ■ E

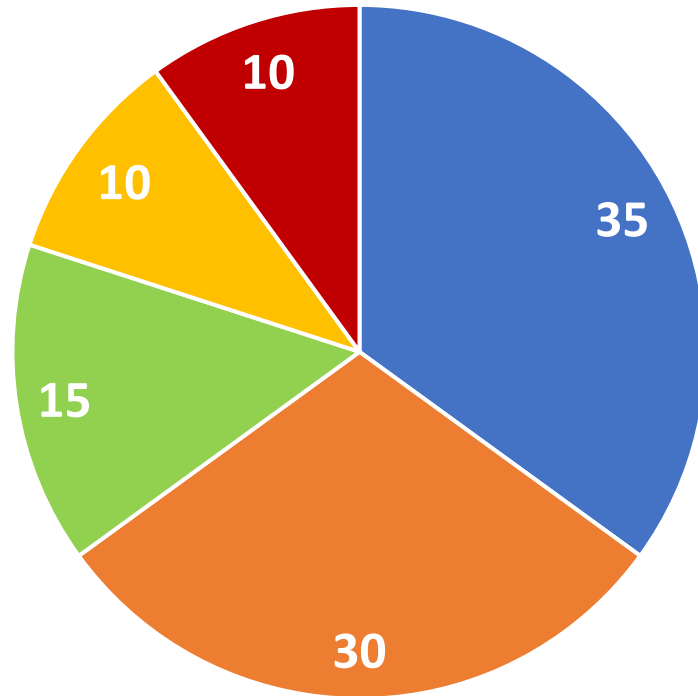
Seats %



■ A ■ B ■ C ■ D ■ E

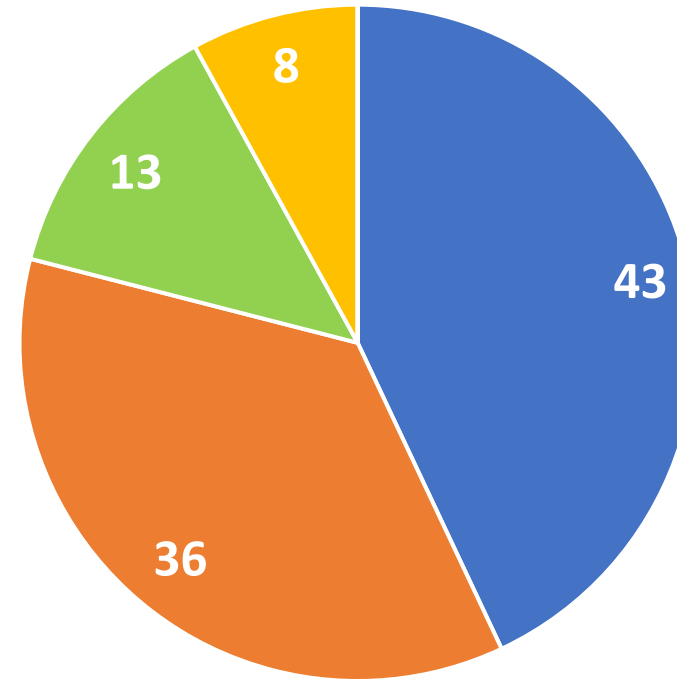
The reality might be quite different

Votes %



■ A ■ B ■ C ■ D ■ E

Seats %



■ A ■ B ■ C ■ D

List Proportional Representation

- Parties create lists of their candidates for each constituency
- Voters have a single vote given to one political party
 - Some systems allow support some candidates within the party list
- A unique set of several features:
 - 1) Number and size of constituencies
 - 2) Allocation formula
 - 3) Threshold
- Their specific rules have key impact on true proportionality

Folketingsvalget 2001

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

A. Socialdemokratiet

Frode 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

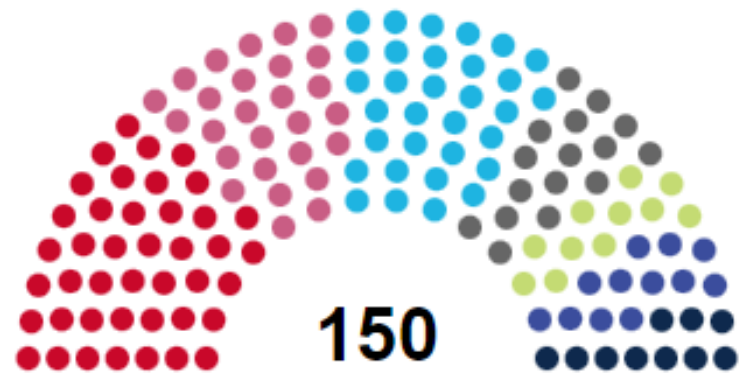
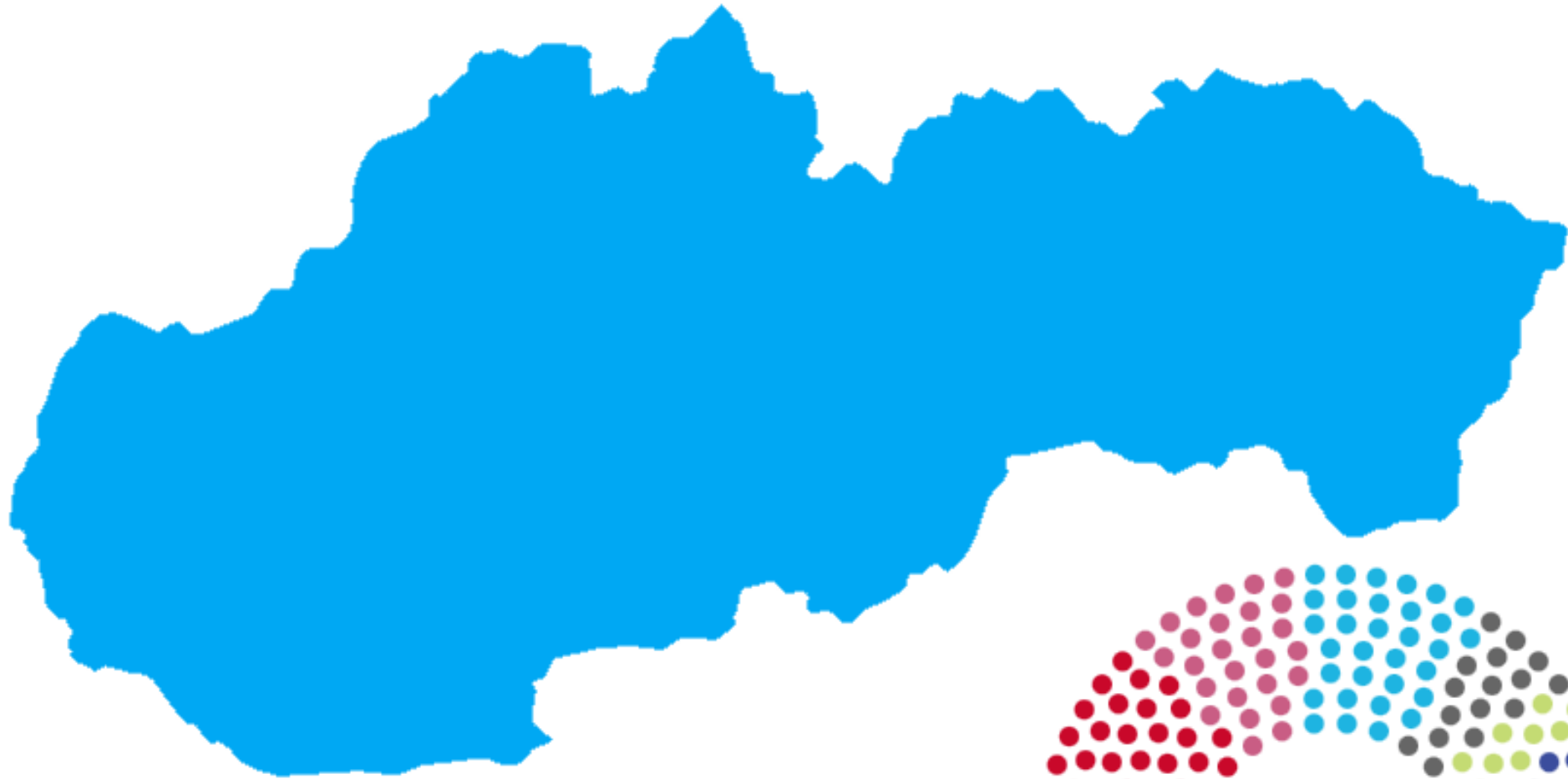
Bent Iversen

Jesper Petersen

1 CDA	2 Partij van de Arbeid	3 V.V.D.	4 D66	5 Staatkundig Gereformeerde Partij (gecombineerd met 7 en 8)	6 Groen Links	7 Gereformeerd Politiek Verbond (gecombineerd met 5 en 8)
<input type="checkbox"/> Lubbers, R.F.M. Rotterdam	<input type="checkbox"/> Kok, W. (Wim) Amsterdam	<input type="checkbox"/> Voorhees, J.J.C. Noordwijk aan Zee	<input type="checkbox"/> van Mierle, H.A.F.M.O. (Hans) Amsterdam	<input type="checkbox"/> van der Vlies, Ir. B.J. Maartenwijk	<input type="checkbox"/> Beckers geb. de Brujn (v), M.B.C. (Ria) Wadenvoeren	<input type="checkbox"/> Schutte, G. J. Zeist
<input type="checkbox"/> de Vries, B. Bergschenhoek	<input type="checkbox"/> van Otterloo, Gerrit Jan P. 's-Gravenhage	<input type="checkbox"/> Jorritsma geb. Lebbink, Anemarie Dokward	<input type="checkbox"/> Wolffensperger, G.J. (Gerrit Jan) Amsterdam	<input type="checkbox"/> van Dis, C.N. 's-Gravenhage	<input type="checkbox"/> van Es (v), A.C. (Andrie) Amsterdam	<input type="checkbox"/> van Middelkoop, E. Berkel Zhd
<input type="checkbox"/> van den Broek, H. Wassenaar	<input type="checkbox"/> Kukker, Nelly Zoetermeer	<input type="checkbox"/> Linschoten, R.L.O. Dronen	<input type="checkbox"/> Kalkstam, J. (Jacob) Amsterdam	<input type="checkbox"/> van den Berg, mr. dr. J.T. Nunspeet	<input type="checkbox"/> Broever (v), I. (Ina) Amsterdam	<input type="checkbox"/> Blokland, J. Capelle a/d IJssel
<input type="checkbox"/> Braks, G.J.M. Sint Michielsgestel	<input type="checkbox"/> Kalsbeek geb. Jasperse, N.A. (Ella) Zoetermeer	<input type="checkbox"/> Nijhuis, G.S. (Ad) Noordwijkerhout	<input type="checkbox"/> Groenman, L.S. (Louise) Maarsse	<input type="checkbox"/> Scholten, L.M.P. Capelle aan den IJssel	<input type="checkbox"/> Rosemüller (m), P. (Paul) Rotterdam	<input type="checkbox"/> van Haeflen, M.P.H. 's-Gravenhage
<input type="checkbox"/> van Rooij (v), Y.M.C.T. 's-Gravenhage	<input type="checkbox"/> Faber, Mient Jan 's-Gravenhage	<input type="checkbox"/> Blaauw, P.M. (Piet) Veendam	<input type="checkbox"/> Tommel, D.K.J. (Dick) Norg	<input type="checkbox"/> Haldijk, mr. G. Apeldoorn	<input type="checkbox"/> Lanckhorst (m), P.A. (Peter) Amsterdam	<input type="checkbox"/> Driessen, S.J.C. Koog a/d Zaan
<input type="checkbox"/> Deelman, W.J. Gouda	<input type="checkbox"/> Chandoo, I. (Johan) 's-Gravenhage	<input type="checkbox"/> Korhals, A.H. Rotterdam	<input type="checkbox"/> Nuis, A. (Aad) 's-Gravenhage	<input type="checkbox"/> van Ree, drs. P.H.D. Lunteren	<input type="checkbox"/> Willemis (m), W.J. (Wilbert) Tilburg	<input type="checkbox"/> Wickes geb. van der Linden, M. Hoewelaken
<input type="checkbox"/> Briskman, L.C. Leiden	<input type="checkbox"/> Plemper geb. Veltsman, W.S.M. (Wobbe) Hulzen	<input type="checkbox"/> van Erp, A.A.M.E. (Broos) Best	<input type="checkbox"/> Elmsa, D. (Deeke) 's-Gravenhage	<input type="checkbox"/> van den Berg, G. Veenendaal	<input type="checkbox"/> van Oijk (m), A. (Bram) Amsterdam	<input type="checkbox"/> de Vries, S. Groningen
<input type="checkbox"/> Bakman, P. Voorschoten	<input type="checkbox"/> Klink, G.P. (Paul) 's-Gravenhage	<input type="checkbox"/> Kamp (v), M.M.H. (Margreet) Varen	<input type="checkbox"/> Schellens geb. de Nis, G. (Dipa) Haren	<input type="checkbox"/> Barendregt, H.G. Barendrecht	<input type="checkbox"/> Ernsting (m), M. (Marion) Amsterdam	<input type="checkbox"/> Green, L.C. Bureschoten
<input type="checkbox"/> baron van Veerdt tot Voort, B.J. 's-Gravenhage	<input type="checkbox"/> Krulstigt, K. (Piet) Nieuwegein	<input type="checkbox"/> Blaauw, J.D. (Jan Dirk) Zeist	<input type="checkbox"/> Schimmel, A. (Archie) Leiden	<input type="checkbox"/> Boonzaaijer, drs. G. Capelle aan den IJssel	<input type="checkbox"/> Robles (v), E.M.A. (Ellen) Amsterdam	<input type="checkbox"/> de Vries, J.P. Amersfoort
<input type="checkbox"/> de Jong, G. Voorburg	<input type="checkbox"/> Ruygk, H.G.W. (Willems) Amsterdam	<input type="checkbox"/> Rempt geb. Halmans de Jongh, K. (Leo) Wassenaar	<input type="checkbox"/> ter Voor, P.K. (Pieter) Woltersum	<input type="checkbox"/> Waterink, J.H. Rijssen	<input type="checkbox"/> Sipkes geb. van Zijl (v), L. (Leonie) Apeldoorn	<input type="checkbox"/> Geersing, J. Ferwerd
<input type="checkbox"/> van Iersel, J.P. 's-Gravenhage	<input type="checkbox"/> Huurman, J.W.G. (Jaap) 's-Gravenhage	<input type="checkbox"/> van Rey, J.F.B. (Jus) Roermond	<input type="checkbox"/> Versnel geb. Schmitz, M. J. (Machteld) Utrecht	<input type="checkbox"/> Jansa, dr. C.S.L. Vaassen	<input type="checkbox"/> Otman (m), C.J.P. (Cor) Winkel	<input type="checkbox"/> Dikkema, K. Harderwijk
<input type="checkbox"/> de Leeuw, J.F. Krimpen aan den IJssel	<input type="checkbox"/> van Nieuwenhoven, Jetje Amsterdam	<input type="checkbox"/> Laatzermans, H.Th.M. (Herman) 's-Hertogenbosch	<input type="checkbox"/> Ybema, G. (Gerit) Leeuwarden	<input type="checkbox"/> Bolter, mr. L. Elpeet	<input type="checkbox"/> de Boer (m), W.T. (Wim) Amsterdam	<input type="checkbox"/> Haasdijk, Th. Hoogland
<input type="checkbox"/> de Hoop Scheffer, J.G. 's-Gravenhage	<input type="checkbox"/> Jagersma, H. (Henk) 's-Hertogenbosch	<input type="checkbox"/> Remkes, J.W. (Johan) Groningen	<input type="checkbox"/> Laagseberg, P.J. (Pau) Leiden	<input type="checkbox"/> Dankers, J. Waddinxveen	<input type="checkbox"/> Oudayra Singh Varma (v), T. (Tara) Amsterdam	<input type="checkbox"/> Timmermans, H. Hoewelaken
<input type="checkbox"/> Gualthérie van Wezel, J.S.L. 's-Gravenhage	<input type="checkbox"/> Proek, J.P. (Jan) Maastricht	<input type="checkbox"/> Labahn, P.H. (Paul) Voorburg	<input type="checkbox"/> de Graaf, Th. C. (Thom) Leiden	<input type="checkbox"/> van der Waal, Ir. L. Ridderkerk	<input type="checkbox"/> van Poelgeest (m), M. (Maarten) Amsterdam	<input type="checkbox"/> Hendriks geb. Stoorvogel, M. Amersfoort
<input type="checkbox"/> van de Camp, W.G.J.M. 's-Gravenhage	<input type="checkbox"/> Vermeend, W.A.F.S. (Willems) Leiden	<input type="checkbox"/> van Rooij, K.A.L. Alkmaar	<input type="checkbox"/> van 't Riet, N.G. (Nicky) Utrecht	<input type="checkbox"/> de Jong, S. Staphorst	<input type="checkbox"/> van Leeuwen (v), M.J.W. (Marion) Rotterdam	<input type="checkbox"/> de Boer, R. Kampen
<input type="checkbox"/> Krajenbrink, J.G.H. Bleiswijk	<input type="checkbox"/> Moor, Frans Hoek van Holland	<input type="checkbox"/> Verbugt (v), P.J.L. (Nelle) Helden	<input type="checkbox"/> Bakker, E.C. (Ernst) Amsterdam	<input type="checkbox"/> Hevius, drs. W. Chr. Katwijk aan Zee	<input type="checkbox"/> van Schijdel (m), B. (Bob) Amsterdam	<input type="checkbox"/> Hattama, W. Hartingn
<input type="checkbox"/> Blesheuvet, P.J. 's-Gravenhage	<input type="checkbox"/> Jurgens, E.C.M. (Erik) Amsterdam	<input type="checkbox"/> Lichtenveld, R. (Rout) Amersfoort	<input type="checkbox"/> Gansbe geb. van Geuns, J.W. (Hanneke) Hooftdorp	<input type="checkbox"/> Bron, W. Staphorst	<input type="checkbox"/> van Schijdel (m), G.H. (Geert) Groningen	<input type="checkbox"/> Kamstreg, A.T. Dordrecht
<input type="checkbox"/> Vreugdenhil, Th. D. Koudelkerk aan den Rijn	<input type="checkbox"/> ter Veld, Eiska Leiden	<input type="checkbox"/> Klein, Norbert P.M. Nijmegen	<input type="checkbox"/> de Nijp geb. van den Berg, M.A.J. (Marjolijn) Os	<input type="checkbox"/> Pieters, W. Groningen	<input type="checkbox"/> Roemer (v), A.H. (Astrid) 's-Gravenhage	<input type="checkbox"/> Jonkman, P. Amersfoort
<input type="checkbox"/> Regendoms, J. 's-Gravenhage	<input type="checkbox"/> Wiltgens, M.A.M. (Thijs) Kerkrade	<input type="checkbox"/> Mustinga, J.K. Deventer	<input type="checkbox"/> de Graaf geb. van Meesteren, E.A. (Els) Delft	<input type="checkbox"/> Verdouw, N. Gouda	<input type="checkbox"/> Platvoet (m), L.H.G. (Leo) Amsterdam	<input type="checkbox"/> van Herwijnen, A. Zwolle
<input type="checkbox"/> Ramtel, D. 's-Gravenhage	<input type="checkbox"/> Kembrink, J.C. (Hans) Rotterdam		<input type="checkbox"/> Wessels, P.H.B. (Paul) Gennep	<input type="checkbox"/> van der Plas, K. Hardinxveld- Gessendam	<input type="checkbox"/> van den Kleenberg (v), T. (Theek) Amsterdam	<input type="checkbox"/> Dijkstra, P. Drachten
<input type="checkbox"/> van Dijk, J.W.A.			<input type="checkbox"/> Jekel, J.F. (Hans)	<input type="checkbox"/> Markusse, M.M.		<input type="checkbox"/> Legendijk, J.

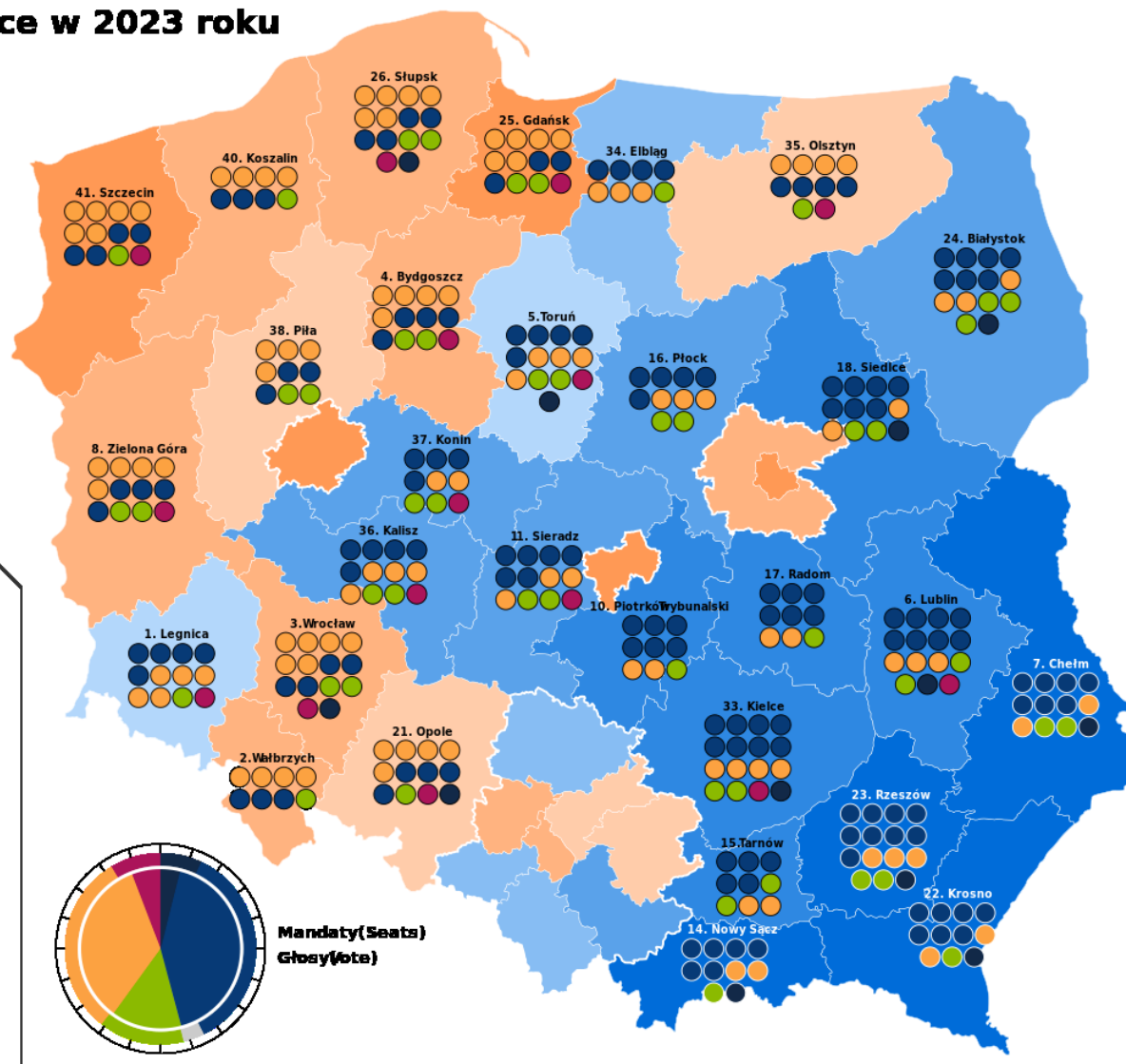
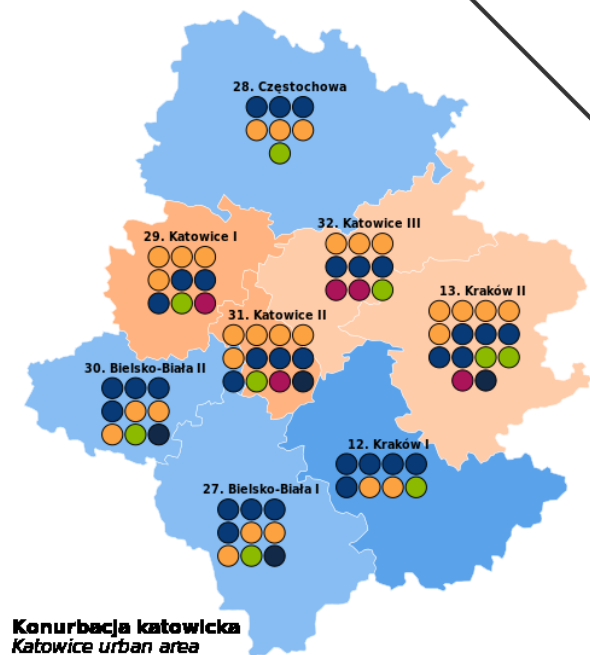
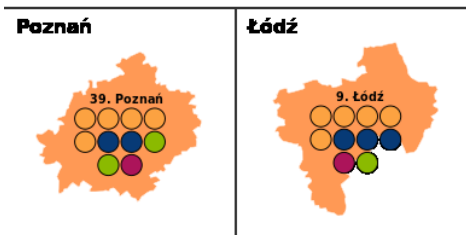
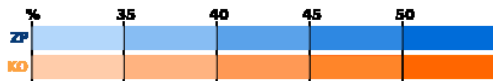
1) Constituencies

- Always multi-member constituencies (>1 seat)
- Two options:
 - Countries divided into various constituencies – most countries
 - A single nationwide constituency – Netherlands, Slovakia
- Size of constituency (number of seats) is critical
- The main rule:
 - The smaller are the constituencies, the better for large parties

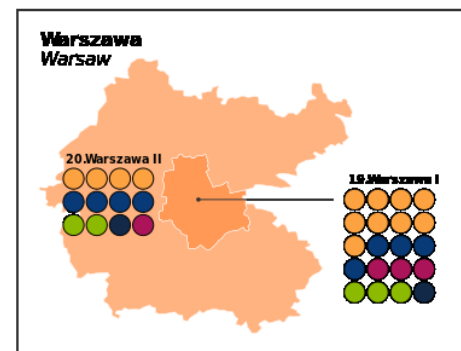


Wybory parlamentarne w Polsce w 2023 roku

2023 Polish parliamentary election



Zjednoczona Prawica (ZP) <i>United Right</i> Lider (LEADER): Jarosław Kaczyński	194 MANDATY SEATS
Koalicja Obywatelska (KO) <i>Civic Coalition</i> Lider (LEADER): Donald Tusk	157 MANDATY SEATS
Trzecia Droga (TD) <i>ThirdWay</i> Lider (LEADER): Szymon Hołownia/Władysław Kosiniak-Kamysz	65 MANDATY SEATS
Lewica (SLD) <i>The Left</i> Lider (LEADER): Włodzimierz Czarzasty/Robert Biedroń	26 MANDATY SEATS
Konfederacja WKN) <i>Confederation</i> Lider (LEADER): Sławomir Mentzen/Krzysztof Bosak	18 MANDATY SEATS



2) Allocation Formula

- A mathematical transformation of votes to seats
- Various ways
 - Quotas
 - Divisors
- Also impacts the final proportionality

Quota

- A set number of votes needed for one seat
- A party receives a seat for each time its votes pass the quota
- Most simple example – the Hare quota
 - Number of all valid votes / number of seats
 - If we have 1,000 votes and 20 seats then the quota is:
 - $1,000 / 20 = 50$ votes
 - parties receive a seat for each acquired 50 votes

Party	Votes	Quota	Seats 1	Remaining votes	Seats 2	Seats final
A	415	1,000 / 20 = 50	8	15		8
B	340		6	40	1	7
C	165		3	15		3
D	80		1	30	1	2
	1,000		18		2	

Divisor

- Alternative to quota
- Votes of parties are divided by a series of growing numbers
- Seats are distributed based on results of division

- D'Hondt divisor: 1,2,3,4,5,6,7,...

Example

20/20

- 4 parties
- 20 seats to distribute

Party	Votes	Votes divided by									
		1	2	3	4	5	6	7	8	9	10
A	415	415	208	138	104	83	69	59	52	46	42
B	340	340	170	113	85	68	57	49	43	38	34
C	165	165	83	55	41	33	28	24	21	18	17
D	80	80	40	27	20	16	13	11	10	9	8

Now only 11 seats

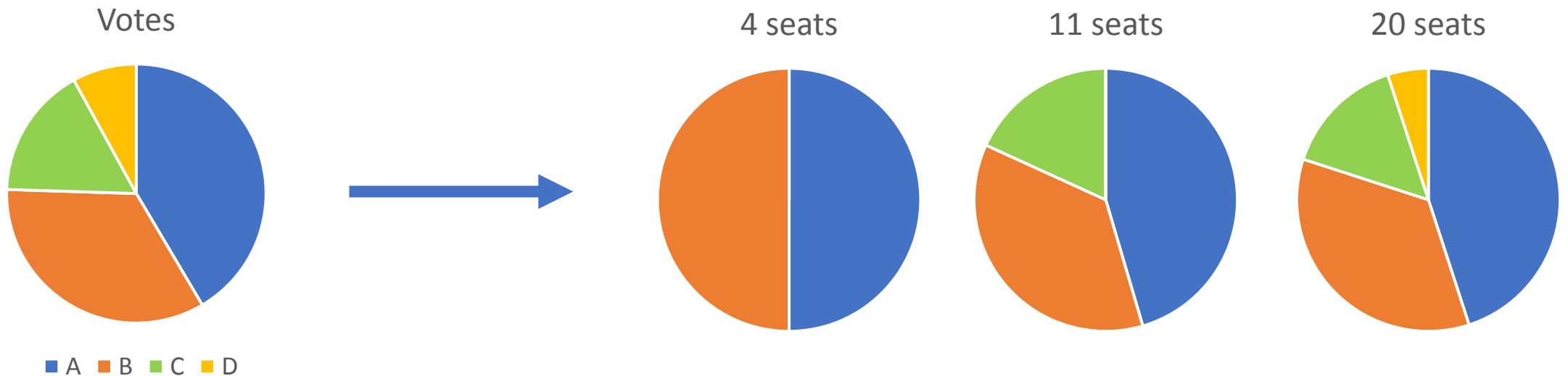
Party	Votes	Votes divided by									
		1	2	3	4	5	6	7	8	9	10
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And now only 4 seats

Party	Votes	Votes divided by									
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C	165	165	83	55	41	33	28	24	21	18	17
D	80	80	40	27	20	16	13	11	10	9	8

Why size of constituencies matters

Party	Votes	Votes %	4 seats	11 seats	20 seats
A	415	41.5	2	5	9
B	340	34.0	2	4	7
C	165	16.5	0	2	3
D	80	8.0	0	0	1



You can also switch the divisor (example with 11 seats)

Party	Votes	Imperiali - votes divided by						
		2	3	4	5	6	7	8
A	415	208	138	104	83	69	59	52
B	340	170	113	85	68	57	49	43
C	165	83	55	41	33	28	24	21
D	80	40	27	20	16	13	11	10

Party	Votes	Saint-Laguë - votes divided by						
		1	3	5	7	9	11	13
A	415	415	138	83	59	46	38	32
B	340	340	113	68	49	38	31	26
C	165	165	55	33	24	18	15	13
D	80	80	27	16	11	9	7	6

3) Threshold

- A minimum percentage of votes a party must pass to obtain seats
- Typically around 5%
- National v. regional
- Impact on:
 - Level of fragmentation of elected bodies (parliaments, assemblies)
 - Stability of governments
 - Level of political representation

Details are essential

- Proportional representation is only a general term
- Necessary to know the specific features
- Real outcomes might not be *that proportional*
- Are some proportional systems truly proportional?

Impact of PR systems

- Representation of various interests (and parties)
- Reduced waste of votes
- Allow survival of minority parties
- Lower candidates' accountability
- Coalition governments

Country	Number of parties	Strongest party	Government
Austria	5	31,5	Coalition
Belgium	12	16,0	Coalition
Bulgaria	6	25,4	Coalition
Croatia	8	37,3	Coalition
Czech Republic	4 (7)	27,8	Coalition
Denmark	12	27,5	Coalition
Estonia	6	28,9	Coalition
Finland	10	20,8	Coalition
Greece	8	40,6	Single party
Latvia	7	19,2	Coalition
Luxembourg	7	29,2	Coalition
Netherlands	15	23,5	<i>Coalition</i>
Poland	5 (17)	29,1	Coalition
Portugal	10	41,4	Single party
Romania	5	28,9	Coalition
Slovakia	7	23,0	Coalition
Slovenia	5	34,5	Coalition
Spain	11	33,1	Coalition
Sweden	8	30,3	Coalition



Mixed Systems

- Systems based on (at least) two tiers:
 - Nominal - Majority/Plurality mechanism
 - List – Proportional representation
- Share of seats assigned to each tier:
 - Equal distribution – nominal tier 50%, list tier 50%
 - Prevalence of one tier – for instance nominal tier 75%, list tier 25%
- Voters usually have two votes, one for each tier
- The best of both worlds?

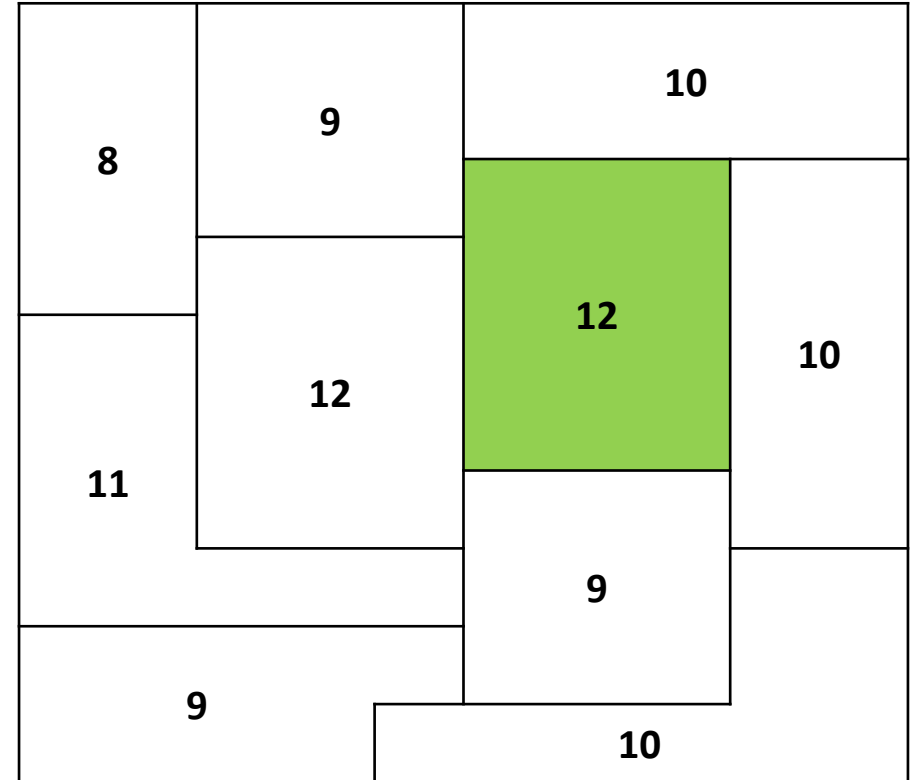
Example

- Parliament has 200 seats
- Nominal tier (100 seats):
 - Country divided into 100 single-member districts
 - FPTP rules
- List tier (100 seats):
 - Country divided into 10 multi-member districts (8-12 seats each)
 - List PR system

Nominal tier

1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1

List tier



Linkage Between the Tiers

- Critical for effects of mixed systems
- Parallel system:
 - The tiers work completely independently
 - Seat distribution is separated for to tiers
 - Basically two different electoral systems existing next to each other
- Compensatory system:
 - Existing linkage between the tiers
 - Typically some sort of compensation to lower advantage of large parties
 - List tier used as a protection of small parties

Lithuania (Parallel)

- Lithuanian parliament Seimas (141 members)
- Nominal tier:
 - 71 seats in single-member districts
 - Majoritarian run-off system
- List tier:
 - 70 seats in one nationwide constituency
 - List PR system

Lithuanian 2020 election

Party	List tier		Nominal 1		Nominal 2		Total seats
	Votes %	Seats	Votes %	Seats	Votes %	Seats	
TS-LKD	25.8	23	24.2	1	40.2	26	50
LVZS	18.1	16	15.2	0	23.6	16	32
DP	9.8	9	7.9	0	0.9	1	10
LSDP	9.6	8	11.8	0	8.5	5	13
LP	9.5	8	6.5	0	8.1	3	11
LRLS	7.0	6	9.3	0	6.9	7	13
Others	20.2	0	25.1	2	11.8	10	12

Italy 1994-2001 (Compensatory)

- 630 seats
 - 475 seats in nominal tier (FPTP)
 - 155 seats in list tier (PR)
- Linkage (Scorporo):
 - Penalty for large parties winning in the nominal tier
 - Each victory in nominal tier leads to penalty in list tier
 - Penalty = votes needed for the victory in nominal tier
- Huge disproportionality in favour of nominal tier

Scorporo - example

Candidate	Party	Votes
A	AAA	50 000
B	BBB	30 000
C	CCC	15 000
D	DDD	10 000

- Penalty for party AAA:
 - Votes of the second best candidate +1 (votes needed for victory)
 - Party AAA will lose 30,001 votes in the list tier

It worked for a while (1994 election)

Alliance / Party	Nominal seats	PR votes %	PR seats	Seats
Polo Delle Libertá	302		64	366
<i>Forza Italia – CCD (FI-CCD)</i>		21,0	30	
<i>Alleanza Nazionale (AN)</i>		13,5	23	
<i>Lega Nord (LN)</i>		8,4	11	
Alleanza Dei Progressisti	164		49	213
<i>Partito Dem. della Sinistra (PDS)</i>		20,4	38	
<i>Partito della Rif. Comunista (RF)</i>		6,1	11	
Others	9	16,6	42	50
Sum	475	-	155	630

It worked for a while (1996 election)

Alliance / Party	Nominal seats	PR votes %	PR seats	Seats
L'Ulivo	247		38	285
<i>Partito Dem. della Sinistra (PDS)</i>		21,1	26	
<i>Popolari-SVP-PRI-UD-Prodi</i>		6,8	4	
<i>Lista Dini</i>		4,3	8	
<i>Federazione dei Verdi</i>		2,5	-	
Polo Delle Libertá	169		77	246
<i>Forza Italia (FI)</i>		20,6	37	
<i>Alleanza Nazionale (AN)</i>		15,7	28	
<i>CCD-CDU</i>		5,8	12	
Lega Nord	39	10,1	20	59
Others	20	8,8	20	40
Sum	475	-	155	630

Failure of scorporo (2001 election)

Alliance / Party	Nominal seats	PR votes %	PR seats	Seats
Casa Delle Libertá	282	49,6	86	368
<i>Forza Italia (FI)</i>		29,4	62	
<i>Alleanza Nazionale (AN)</i>		12	24	
L'Ulivo	189	34,9	58	247
<i>Democratici di Sinistra (DS)</i>		16,6	31	
<i>La Margherita (DL)</i>		14,5	27	
Partito D. R. Comunista (RF)	4	5,5	11	15
Spolu	475	-	155	630

How the system failed

- Italian parties developed a strategy to avoid scorporo
- Candidates in nominal tier with decoy partisan affiliation
- Penalty accounted to these decoys (Abolizione scorporo, Paese nuovo)
- Real parties faced no penalties
- Formally compensatory → parallel in reality

Mixed Systems - Summary

- Various configurations of the tiers
- Allow more strategies to voters (ticket splitting)
- Political scientists differ in their evaluation
 - Personal ties between voters and elected officials
 - Wasted votes, representation, governance
- Best or worst of the both worlds?