

Elections and Electoral Systems

Democracies are sometimes classified in terms of their electoral system.

An **electoral system** is a set of laws that regulate electoral competition between candidates or parties or both.

Elections are increasingly used to fill legislative and executive offices around the world.

185 of the world's 193 independent states now use direct elections to elect people to their lower house of parliament.

Electoral integrity refers to the extent to which the conduct of elections meets international standards and global norms concerning 'good' elections.

These norms and standards are usually set out in treaties, conventions, and guidelines issued by international and regional organizations.

Violations of electoral integrity are referred to as **electoral malpractice**.

MAP 13.1

Electoral Integrity across the World in 2016

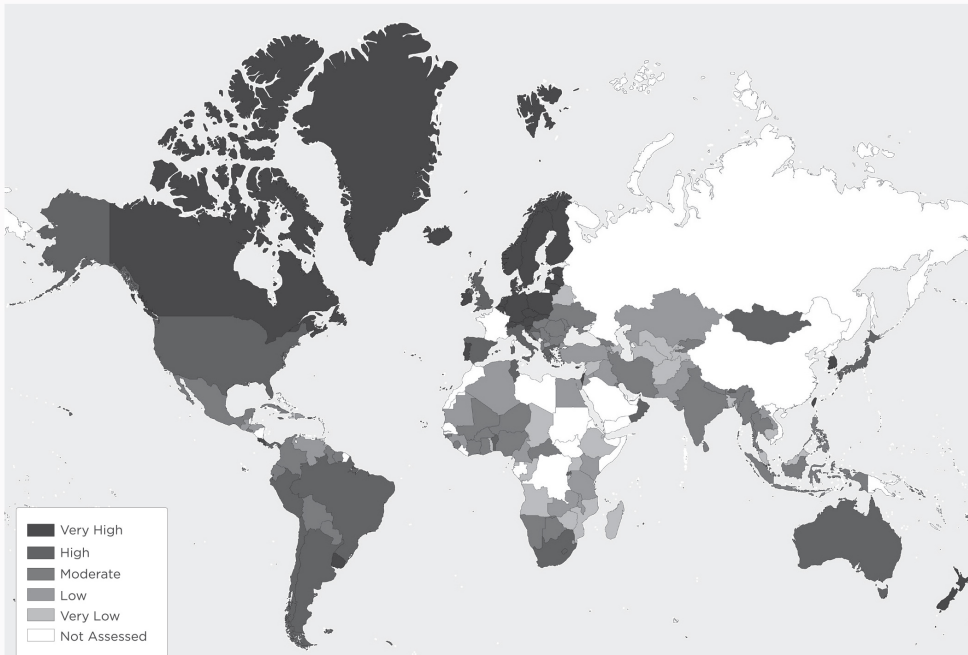
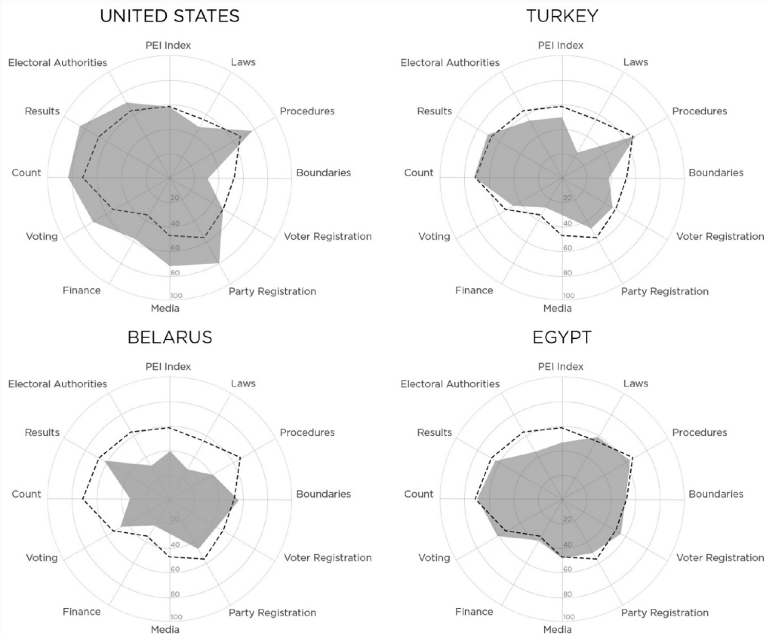


FIGURE 13.2**Electoral Integrity in Four Countries**

Democracies tend to have higher levels of electoral integrity than dictatorships.

There is variation, though, among both democracies and dictatorships.

Electoral integrity is influenced by:

- Domestic structural constraints
- The role of the international community
- Institutional design
- Electoral management bodies

Two strategies to identify election fraud:

1. Election monitoring
2. Election forensics

TABLE 13.1**Benford's Law: The Frequency Distribution of First and Second Digits**

0	1	2	3	4	5	6	7	8	9	Mean
—	0.301	0.176	0.125	0.097	0.079	0.067	0.058	0.051	0.046	3.441
0.120	0.114	0.109	0.104	0.100	0.097	0.093	0.090	0.088	0.085	4.187

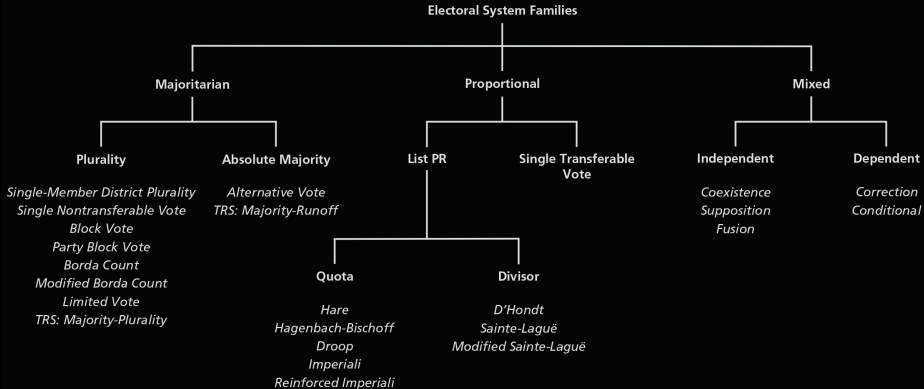
Political scientists typically distinguish between electoral systems based on their electoral formula.

1. Majoritarian
2. Proportional
3. Mixed

An **electoral formula** determines how votes are translated into seats.

FIGURE 13.3

Electoral System Families



A **majoritarian electoral system** is one in which the candidates or parties that receive the most votes wins.

A **single-member district plurality system (SMDP)** is one in which individuals cast a single vote for a candidate in a single-member district.

The candidate with the most votes wins.

TABLE 13.2**Election Results from the Bath Constituency,
UK Legislative Elections, 2015**

Candidate	Party	Votes	Percentage
Ben Howlett	Conservative	17,833	37.8
Steve Bradley	Liberal Democrat	14,000	29.7
Ollie Middleton	Labour	6,216	13.2
Dominic Tristram	Green	5,634	11.9
Julian Deverell	UKIP	2,922	6.2
Lorraine Morgan-Brinkhurst	Independent	499	1.1
Jenny Knight	Independent	63	0.1

The **single nontransferable vote (SNTV)** is a system in which voters cast a single candidate-centered vote in a *multimember* district.

The candidates with the highest number of votes are elected.

Whereas SMDP and SNTV are 'plurality' majoritarian electoral systems, the **alternative vote** is an 'absolute majority' majoritarian system.

The **alternative vote (AV)** is a candidate-centered preference voting system used in single-member districts where voters rank order the candidates.

If a candidate wins an absolute majority of first-preference votes, she is immediately elected.

If no candidate wins an absolute majority, then the candidate with the fewest first-preference votes is eliminated, and her votes are reallocated among the remaining candidates based on the designated second preferences.

This process is repeated until one candidate has obtained an absolute majority of the votes cast (**full preferential system**) or an absolute majority of the valid votes remaining (**optional preferential system**).

Richmond Constituency, New South Wales, Australia 1990

TABLE 13.3

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		

FIGURE 13.4

Australian "How-to-Vote" Card from the 2001 Legislative Elections

HOW TO VOTE LIBERAL

**A STRONGER ECONOMY
A STRONGER AUSTRALIA**

You will be given a Green and a White ballot paper. When completing your ballot papers DO NOT use ticks or crosses. If you make a mistake, please ask for a new ballot paper.



JOHN
HOWARD
PRIME MINISTER

HOUSE OF REPRESENTATIVES:

On the small Green ballot paper, for the House of Representatives, you must **number every**  shown.



HOUSE OF REPRESENTATIVES

(Green Ballot Paper)

- 3 CAMERON, L
- 1 **SOUTHWICK, David** (Liberal)
- 4 BEALE, C
- 7 DANBY, M
- 2 JACKEL, G
- 8 ISHERWOOD, A
- 5 HORIN, L
- 6 LEWIS, J



DAVID
SOUTHWICK
MELBOURNE PORTS

The **majority-runoff two-round system (TRS)** is another 'absolute majority' majoritarian electoral system.

In a **majority-runoff TRS** voters cast a single candidate-centered vote in a single-member district.

Any candidate who obtains an absolute majority in the first round of elections is elected.

If no one obtains an absolute majority, then the top two vote winners go on to compete in a runoff election in the second round.

TABLE 13.4**Burkina Faso Presidential Elections 2015**

First round		
Candidate	Party	Vote share (%)
Roch Christian Kaboré	People's Movement for Progress	53.49
Zéphirin Diabré	Union for Progress and Reform	29.65
Tahirou Barry	National Rebirth Party	3.09
Bénéwendé Stanislas Sankara	Union for Rebirth	2.77
Ablassé Ouedraogo	Alternative Faso	1.93
Saran Sérémé	Party for Development and Reform	1.73
Others		7.33

TABLE 13.5**Benin Presidential Elections 2016**

First round		
Candidate	Party	Vote share (%)
Lionel A. L. Zinsou-Derlin	Cowry Forces for an Emerging Benin	28.4
Patrice A. G. Talon		24.8
Sébastien G. M. A. Adjavon		23.0
Abdoulaye B. Bio-Tchane	Alliance for a Triumphant Benin	8.8
Pascal J. I. Koupaki	New Consciousness Rally	5.9
Robert Gbian		1.6
Fernand M. Amoussou		1.2
Salifou Issa		1.0
Others		5.3
Second round		
Patrice A. G. Talon		65.4
Lionel A. L. Zinsou-Derlin	Cowry Forces for an Emerging Benin	34.6

A **proportional**, or **proportional representation (PR)**, **electoral system** is a quota- or divisor-based electoral system employed in multimember districts.

The rationale behind PR systems is to produce a proportional translation of votes into seats.

Proportional representation (PR) electoral systems come in two main types:

1. List proportional representation systems (List PR)
2. Single transferable vote (STV)

In a **list PR system**, each party presents a list of candidates to voters in each multimember district.

Parties receive seats in proportion to their overall share of the votes.

These seats are then allocated among the candidates on their list in various ways.

List PR systems differ in important ways:

1. The precise formula for allocating seats to parties
2. The district magnitude
3. The use of electoral thresholds
4. The type of party list employed

All PR systems employ either quotas or divisors to allocate seats to parties.

A **quota** is essentially the 'price' in terms of votes that a party must 'pay' to guarantee themselves a seat in a particular electoral district.

A quota, $Q(n)$, is calculated as

$$Q(n) = \frac{V_d}{M_d + n}$$

- V_d is the number of valid votes in district d .
- M_d is the district magnitude or number of available seats in district d .
- n is the modifier of the quota.

A quota, $Q(n)$, is calculated as

$$Q(n) = \frac{V_d}{M_d + n}$$

- **Hare quota:** $n = 0$.
- **Hagenbach-Bischoff quota:** $n = 1$.
- **Imperiali quota:** $n = 2$.
- **Reinforced imperiali quota:** $n = 3$.
- The **Droop quota** is the same as the Hagenbach-Bischoff quota plus 1.

TABLE 13.6**Allocating Seats to Parties Using the Hare Quota**

	Party A	Party B	Party C	Party D	Party E	Party F	Total
Votes	47,000	16,000	15,800	12,000	6,100	3,100	100,000
Seats							10
Quota							10,000
Votes ÷ Quota	4.7	1.6	1.58	1.2	0.61	0.31	
Automatic seats	4	1	1	1	0	0	7
Remainder seats							3

TABLE 13.6**Allocating Seats to Parties Using the Hare Quota**

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Automatic seats	4	1	1	1	0	0	7
Remainder seats							3

What about the 'remainder' seats?

The most common method for allocating the remainder seats is the **largest remainder method**.

TABLE 13.7

Allocating Seats to Parties Using the Hare Quota with Largest Remainders

	Party A	Party B	Party C	Party D	Party E	Party F	Total
Votes	47,000	16,000	15,800	12,000	6,100	3,100	100,000
Seats							10
Quota							10,000
Votes ÷ Quota	4.7	1.6	1.58	1.2	0.61	0.31	
Automatic seats	4	1	1	1	0	0	7
Remainder	0.7	0.6	0.58	0.2	0.61	0.31	
Remainder seats	1	1	0	0	1	0	3
Total seats	5	2	1	1	1	0	10

A **divisor**, or **highest average, system** divides the total number of votes won by each party in a district by a series of numbers (divisors) to obtain quotients.

District seats are then allocated according to which parties have the highest quotients.

The three most common divisor systems are:

- D'Hondt: 1, 2, 3, 4, ...
- Sainte-Laguë: 1, 3, 5, 7, ...
- Modified Sainte-Laguë: 1.4, 3, 5, 7, ...

TABLE 13.8**Allocating Seats to Parties Using the d'Hondt System**

	Party A	Party B	Party C	Party D	Party E	Party F	Total
Votes	47,000	16,000	15,800	12,000	6,100	3,100	100,000
Seats							10
Votes ÷ 1	47,000 (1)	16,000 (3)	15,800 (4)	12,000 (6)	6,100	3,100	
Votes ÷ 2	23,500 (2)	8,000 (9)	7,900 (10)	6,000	3,050	1,550	
Votes ÷ 3	15,666 (5)	5,333	5,266	4,000	2,033	1,033	
Votes ÷ 4	11,750 (7)	4,000	3,950	3,000	1,525	775	
Votes ÷ 5	9,400 (8)	3,200	3,160	2,400	1,220	620	
Votes ÷ 6	7,833	2,667	2,633	2,000	1,017	517	
Total seats	5	2	2	1	0	0	10

The key factor influencing the proportionality of an electoral system is the district magnitude.

District magnitude refers to the number of representatives elected in a district.

The larger the district magnitude, the greater the degree of proportionality.

There is considerable variation in the district magnitude across countries.

In 2006 and 2007, Ukraine had a district magnitude of 450.

Serbia currently has a district magnitude of 250.

Historically, Chile has had a district magnitude of 2.

All proportional electoral systems have an electoral threshold.

An **electoral threshold** is the minimum level of support a party needs to obtain representation.

A **natural threshold** is a mathematical by-product of the electoral system.

A **formal threshold** is explicitly written into the electoral law.

Electoral system proportionality is low when the electoral threshold is high.

Electoral thresholds can have negative side-effects.

- In Turkey 2002, so many parties failed to surpass the 10% threshold that fully 46% of all votes were wasted.
- In Poland 1993, 34% of the votes were wasted, allowing the former Communists to return to power.

In a **closed party list**, the order of candidates elected is determined by the party itself, and voters are not able to express a preference for a particular candidate.

In an **open party list**, voters can indicate not just their preferred party, but also their favored candidate within that party.

In a **free party list**, voters have multiple votes that they can allocate either within a single party list or across different party lists.

FIGURE 13.5

South African Closed List PR Ballot Paper



BALLOT PAPER

SAMPLE ONLY

Place your mark next to the party you choose.
 Place votre marque près du parti que vous choisissez.
 Mark your preference in a square box.
 Marquer votre préférence dans une case à cocher.
 Mark your preference in a square box.
 Marquer votre préférence dans une case à cocher.
 Mark your preference in a square box.
 Marquer votre préférence dans une case à cocher.

Place a mark large the party you choose.
 Place votre marque dans la case du parti que vous choisissez.
 Mark the box large enough to place your mark in a square.
 Marquer dans la case assez grande pour placer votre marque dans une case à cocher.
 Mark the box large enough to place your mark in a square.
 Marquer dans la case assez grande pour placer votre marque dans une case à cocher.

FAN AFRICANIST CONGRESS OF AZANIA		FAC		
SPORTS ORGANISATION FOR COLLECTIVE CONTRIBUTIONS AND EQUAL RIGHTS		SOCCER		
THE KEEP IT STRAIGHT AND SIMPLE PARTY		KISS		
VEYTHEIDSRONT - FREEDOM FRONT		VF-F		
WOMEN'S RIGHTS PEACE PARTY		WRPP		
WORKERS' LIST PARTY		WLP		
XHOKO PROGRESSIVE PARTY		XPP		
AFRICA MUSLIM PARTY		AMP		
AFRICAN CHRISTIAN DEMOCRATIC PARTY		ACDP		
AFRICAN DEMOCRATIC MOVEMENT		ADM		
AFRICAN MODERATES CONGRESS PARTY		AMCP		
AFRICAN NATIONAL CONGRESS		ANC		
DEMOCRATIC PARTY - DEMOKRATIESE PARTY		DP		
DIKWANKWETLA PARTY OF SOUTH AFRICA		DPSA		
FEDERAL PARTY		FP		
LUSO - SOUTH AFRICAN PARTY		LUSAP		
MINORITY FRONT		MF		
NATIONAL PARTY - NASIONALE PARTY		NP		

FIGURE 13.6

Danish Open List PR Ballot Paper

Nordjyllands amts 2. kreds

Folketingsvalget 1990

A. Socialdemokratiet

Ole Stavad
 Martin Gierup
 Holger Graversen
 Ilse Hansen
 Arne Jensen
 Frank Jensen
 J. Risgaard Knudsen
 Bjarne Laustsen
 Kaj Poulsen

B. Det Radikale Venstre

Lars Schönberg-Hemme
 Bent Bundgaard
 Marianne Jelved
 Bent Jørgensen
 Hans Larsen-Ledet
 Axel E. Mortensen
 Lars Lammert Nielsen
 Ove Nielsen
 Preben Pedersen

C. Det Konservative Folkeparti

Karsten Frederiksen
 Niels Ahlmann-Olsen
 H. P. Clausen
 Suzanne Kogsbøll
 Jørgen Lund
 Allan Nygaard
 Gerda Thymann Pedersen
 Per Seeberg
 Søren Pflug

D. Centrum-Demokraterne

Peter Duestoft
 Gregers Folke Gregersen
 Bodil Melgaard Haakonsen
 Anton Jepsen
 Tove Katstrup
 Hartvig Kjeldgaard
 Bent V. Villadsen

E. Danmarks Retsforbund

Knud Christensen
 Aase Bak-Nielsen
 Jane Dyrdal
 Karen Hansen
 Ejnar Pedersen
 Ole Thielemann
 Egon Thomsen

The only proportional electoral system that does not employ a party list is the single transferable vote.

The **single transferable vote (STV)** is a candidate-centered preferential voting system used in multimember districts.

In STV systems, candidates that surpass a specified quota of first-preference votes are immediately elected.

In successive counts, voters from eliminated candidates and surplus votes from elected candidates are reallocated to the remaining candidates until all of the seats are filled.

STV systems, click [▶ here](#)

Australian elections, click [▶ here](#)

STV example

- District magnitude is 3.
- 20 voters.
- 5 candidates: Bruce, Shane, Sheila, Glen, and Ella.
- Droop quota: $\lceil 20 / (3 + 1) \rceil + 1 = 6$

TABLE 13.9
Results from Twenty Ballots in an STV Election



























Voting round	   	 	   	   		
1st	Bruce	Shane	Sheila	Sheila	Glen	Ella
2nd	Shane	Bruce	Glen	Ella		
3rd			Ella	Glen		

TABLE 13.10
The STV in a Three-Seat District with Twenty Voters

Voting round	Candidates					Result
	Bruce	Shane	Sheila	Glen	Ella	
1st						Sheila is elected, and Sheila's surplus votes are reallocated
2nd				 		Shane is eliminated
3rd	 			 		Bruce is elected
4th	 			 		Ella is eliminated, and Glen is elected

A **mixed electoral system** is one in which voters elect representatives through two different systems, one majoritarian and one proportional.

Most mixed systems employ multiple **electoral tiers**.

An **electoral tier** is a level at which votes are translated into seats.

The lowest electoral tier is the district or constituency level. Higher tiers are constituted by grouping together different lower-tier constituencies, typically at the regional or national level.

In a mixed system, it is often the case that a majoritarian system is used in the lowest tier (district level) and a proportional system is used in the upper tier (regional or national level).

There are two basic types of mixed systems.

1. An **independent mixed electoral system** is one in which the majoritarian and proportional components of the electoral system are implemented independently of one another.
2. A **dependent mixed electoral system** is one in which the application of the proportional formula is dependent on the distribution of seats or votes produced by the majoritarian formula.

TABLE 13.11**Translating Votes into Seats in an Independent Mixed Electoral System**

	Votes won in each electoral district					National district votes won	Seats won			
	1	2	3	4	5		% of votes won	SMDP	List PR	Total
Party A	3,000	3,000	3,000	3,000	3,000	15,000	60	5	3	8
Party B	2,000	2,000	2,000	2,000	2,000	10,000	40	0	2	2
Total	5,000	5,000	5,000	5,000	5,000	25,000	100	5	5	10

In most dependent mixed systems, individuals have two votes.

- One vote is for the representative at the district level (candidate vote).
- One vote is for the party list in the higher electoral tier (party vote).

OFFICIAL MARK

00000

YOU HAVE 2 VOTES

PARTY VOTE

Explanation
This vote decides the share of seats which each of the parties listed below will have in Parliament. Vote by putting a tick in the circle immediately after the party you choose.

Vote for only one party

	LABOUR PARTY	<input type="radio"/>
	ALLIANCE	<input type="radio"/>
	McGILLICUDDY SERIOUS	<input type="radio"/>
	ACT NEW ZEALAND	<input type="radio"/>
	NATURAL LAW PARTY	<input type="radio"/>
	NZ NATIONAL PARTY	<input type="radio"/>
	NEW ZEALAND FIRST PARTY	<input type="radio"/>
	NZ CONSERVATIVE PARTY	<input type="radio"/>
	ADVANCE NZ	<input type="radio"/>
	ANIMALS FIRST	<input type="radio"/>
	AOTEAROA LEGALISE CANNABIS PARTY	<input type="radio"/>
	ASIA PACIFIC UNITED PARTY	<input type="radio"/>
	CHRISTIAN COALITION	<input type="radio"/>
	ETHNIC MINORITY PARTY	<input type="radio"/>
	GREEN SOCIETY	<input type="radio"/>
	MANA MAORI MOVEMENT	<input type="radio"/>
	NZ SUPERANNUITANTS AND YOUTH ACTION	<input type="radio"/>
	PROGRESSIVE GREENS	<input type="radio"/>
	TE TAWHĀRAU	<input type="radio"/>
	THE LIBERTARIANS	<input type="radio"/>
	UNITED NEW ZEALAND PARTY	<input type="radio"/>

ELECTORATE VOTE

Explanation
This vote decides the candidate who will be elected Member of Parliament for the TAUPŌ ELECTORATE. Vote by putting a tick in the circle immediately before the candidate you choose.

Vote for only one candidate

<input type="radio"/>	BURTON, Mark <small>LABOUR PARTY</small>	
<input type="radio"/>	CADMAN, Sheryl <small>ALLIANCE</small>	
<input type="radio"/>	DICK, David <small>McGILLICUDDY SERIOUS</small>	
<input type="radio"/>	DIXON, Adrian <small>ACT NEW ZEALAND</small>	
<input type="radio"/>	FLYNN, Jan <small>NATURAL LAW PARTY</small>	
<input type="radio"/>	MCCARTHY, John <small>NZ NATIONAL PARTY</small>	
<input type="radio"/>	PETERS, Jan <small>NEW ZEALAND FIRST PARTY</small>	
<input type="radio"/>	VINCENT, ... <small>NZ CONSERVATIVE PARTY</small>	
<input type="radio"/>		
<input type="radio"/>		
<input type="radio"/>		
<input type="radio"/>		
<input type="radio"/>		
<input type="radio"/>		
<input type="radio"/>		
<input type="radio"/>		
<input type="radio"/>		
<input type="radio"/>		
<input type="radio"/>		

Final Directions

1. If you spoil this ballot paper, return it to the officer who issued it and apply for a new ballot paper.
2. After voting, fold this ballot paper so that its contents cannot be seen and place it in the ballot box.
3. You must not take this ballot paper out of the polling booth.

TABLE 13.12**Translating Votes into Seats in a Dependent Mixed Electoral System**

	Votes won in each electoral district					National district votes won	Seats won			
	1	2	3	4	5		% of votes won	SMDP	List PR	Total
Party A	3,000	3,000	3,000	3,000	3,000	15,000	60	5	1	6
Party B	2,000	2,000	2,000	2,000	2,000	10,000	40	0	4	4
Total	5,000	5,000	5,000	5,000	5,000	25,000	100	5	5	10

