ELECTORAL SYSTEMS (GLM ch. 11, Lijphart ch. 8)
(+ Lane & Ersson, pp. 226-40; Powell II, ch. 4; Blais & Massicotte in LNN; Lijphart II)

I. Importance of Elections

A. Practically
   1. Produce parliaments--legislative & executive policy-makers
   2. Determine who becomes part of political elite
   3. Bearing on the formation of governments. (“Bearing” may be:
      a. Direct: e.g., typically so in presidential systems; or
      b. Indirect: e.g., notably so in parliamentary systems characterized by coalition governments.)
   4. Focal point for activity for:
      a. Parties–face their audience & judges; their first-order competitive arena;
      b. Citizens (only political activity for most citizens)--input mechanism; also for interest grps.

B. Symbolically
   1. Legitimization of the political system
   2. Citizen means of participation, to express opinion, to evaluate
   3. Give cit’s feeling of exercising choices (even if individually little weight)
II. Some Background & Other Miscellaneous Topics Regarding Elections

[Lane & Ersson, Powell II]

A. Suffrage Expansion

1. Universal male typically by WWI; universal female typically by WWII except:
   b. BE, FR, GR, IT: universal female just after WWII
   c. PO, SP, Switz.: universal female in 1970’s (& actually, not until 1991 in 1 Swiss canton)
   d. HYPOTHESES on late & early to full female suffrage? [figure next page]

2. Voting age generally reduced from 21 to 18 postwar...[WHY?]

B. Suffrage Restrictions

1. Generally citizens only (but UK/IR)
2. Prisoners & mentally ill usually excluded
3. Otherwise: gen’ly 18+ & gen’ly who can vote can run
4. Voter Registration: in most places govt’s responsibility, in some places individual’s responsibility (Implications?)
Predicting the Year of Full Female-Suffrage Extension

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C. Turnout:

1. Generally higher in other dems than in U.S.;

2. Generally declining post-war. (Any Theories Why? Implications?)

3. Comparative-Historical Data shown here 3 ways...

4. Why do people vote?
   a. Generate some hypotheses
   b. Tell irrational-to-vote story
   c. Generate more hypotheses

5. We’ll return to question of turnout later when discuss voting, for now sum that:
   a. Net-benefit of voting model...
   b. ...heuristically:
   \[ p[U(\text{pref'd gov})-U(\text{alter gov})]+B-C \]
D. Election Timing: **Endogenous v. Exogenous**

1. Generally incumbent govt can call elects when wants, subject to:
   a. Must be an election within X years (usually 4 or 5)
   b. Often must call an election if fails a vote-of-confidence

2. Exceptions:
   a. Presidents, where directly elected, are usually fixed term.
   b. France: Parliament elections at President’s discretion.
   c. U.S.: Legislature fixed terms & elections fixed timing
   d. Norway & Switzerland: Fixed four-year election interval
   e. Sweden: *was* election every 3 yrs; gov may call early, but still one in 3rd yr (clock not restart)

3. **Implications?**

E. Other Elections

1. All also at least some local elects; offices vary greatly in practical importance

2. EU Parliament every 5 yrs, by nationally determined electoral systems

3. Directly elected **Presidents**, (importance in *’s): Austria (½*), Fin (*), Ice (½*), Ire (½*), Port (*), Fra (1 ½*), US (***)--others have appointed (usu. by leg.) pres.--more figure-headish typically but can have some import (e.g., Italy, maybe .25 *)
F. Other Voting--Referenda

1. Most freq’y used Switz (nearly ½ world’s ref.; Cali. Other ½; on rise across U.S.)
   a. => “voter fatigue?”
   b. => democracy by referendum? [ASIDE: Condorcet paradox and “chaos theorems”]

2. Others employing it: [more common where citizen’s initiatives allowed; ↑ w/ ease]
   a. Italy: Avg approx. 1/year--key ones historically on Divorce, Abortion, Elect Law
   b. France: President may call one
   c. Most other places, at discretion of parliament & very rare

3. Issues over which referenda tend to called:
   a. Issues that cut across party lines;
   b. Constitutional Issues: e.g., EU treaties require referenda in many/most member countries;
   c. Constitutional amends require referenda in Den., Ire., & Switz.; optional in France & Italy;
   d. Major & fundamental changes in nations “place in the world”:
      (1) NATO or EC/EU membership
      (2) Neutrality/Allegiance
   e. Moral/Ethical questions--esp. divorce & abortion in Catholic countries
   f. Why do you suppose there’s a rising use of referenda?
III. Types of Electoral Systems

A. Definition of electoral systems:
   1. “mechanisms that turn votes cast...on election day into seats...occupied by deputies in parl...Elect. sys...converts voters choices into legislature.” GLM (p. 274)

B. Where do electoral systems come from?
   1. “Determined by political elite of day, some...motivations may be partisan” (p. 274)
   2. “Their designs reflect constitution-makers’ values, expects regarding consequences various arrangements, their often laboriously negotiated compromises” P.II (p. 66)
   3. Cultural/Historical Legacy: See Powell Table 4.3 (p. 67) [next page]
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4.  Gen’ly **not** frequently tinkered for electoral advant., despite obvious opportunities
   a. France & Greece (especially the latter) exceptional that tinkering more common.
   b. Germany's famous 5% threshold = clear intentional electoral engineering.
   c. Major Italian & New Zealand changes in & around 90’s.
   d. French IV\(^{th}\) to V\(^{th}\) Republic transition (1958).

5.  **[If such potent pol-engineering tool, why suppose so rarely manipulated?]**
6. [If such potent pol-engineering tool, why suppose so rarely manipulated?]

a. Why would those in power change system that put them there? Generally wouldn’t => incentive to change usually lacking among those with power to change it.

b. Risk aversion & parties’ uncertainty about future electoral position always favors status quo.

c. Difficult to change (constitutional changes usually require super-majorities).

d. Relatively obvious cynical opportunism when employed, may trigger adverse voter-reaction.

(1) Seems, therefore, that electoral systems generally stay in place unless some outside force acts to break the status quo (literally, e.g.: imposition from abroad as in Ger., Jap., Ita., Aust.)
C. **Key distinctions between types of electoral systems [GLM ch. 11]**

1. **Key, Basic, Binary Distinction: Proportional Representation (PR) versus Plurality/Majority (P/M) [DEFINE EACH]**
   
a. Former stresses representation & concept of proportionality;
   
b. Latter stresses decisiveness [mandate] & accountability.

2. **Other key features [DEFINE / EXPLAIN EACH]**
   
a. *District Magnitude*
   
b. *Degree of Candidate vs. Party Voting (Preference Voting)*
   
c. *Number of Tiers*
   
d. *Electoral Formula* (within the PR-P/M divisions)
   
e. *(Legal) Thresholds*
   
f. *Constituency (District) Pattern ((Mal)apportionment)*
   
   (1) Can combine District Magnitude & Legal Threshold to yield *Effective Threshold* (elab’d below)

3. **DESCRIBE basic functioning of broad categories electoral rules:**
   
a. *(Single-Member Simple-)Plurality:*
   
b. **Majority:*
   
c. *Proportional Representation:*
IV. Plurality/Majority Systems

A. Historically, plurality common system (through 19th C)

B. Single-Member Plurality (SMP) a.k.a. single-member simple-plurality (SMSP), first past the post, winner take all (UK, US, CA, NZ-pre-1993)

1. Argued Merits
   a. Simplicity--for voters, parties, & all involved;
   b. Tends produces majorities, & therefore aids decisiveness & accountability;
   c. Since one representative (MP) per district, argued to foster MP-constituent bond.

2. Criticisms
   a. Unrepresentative; Distortionary
   b. Winner may be disliked by a majority [two ways: winner (of govt/of maj of seats) could be merely a plurality, or could be not even a plurality]
   c. Encourages “strategic voting” [define; how so?]
   d. Anti-small party, & ∴, possibly, anti-minority (political & social minorities).
      (1) [As we’ll elab. later, some kinds small groups amplified, others dampened, representation.]

3. [Aside: plurality also possible in multiple member, winner take-all districts; tends even more disproportional & even more likely to produce majorities; e.g., US Presidential Electoral College, India used to have some multiple-member districts]
C. Majority Systems:

1. **STV: Alternative or Single-Transferable (majority) vote** *(Australian Ballot)*
   a. In Australia (some in France); was used in Illinois; was used more widely in US at one time
   b. Voters rank candidates; candidate w/ majority wins; if no maj., drop lowest contender & transfer his/her votes to those voters’ second choices; continue until someone has a majority
   c. This assures a majority

2. **Multiple-Round Majority Balloting:** *e.g.*, French *(Vth)* system(s), many U.S. local elections (where called a “run-off”)
   a. French *(Vth)* Parliament: Simple vote; if no majority, eliminate candidate(s) < 12.5% vote; vote again--plurality candidate then wins (so tech’ly *plurality-plurality* system, but usu ⇒ majority)
   b. French *(Vth)* President: Simple vote; if no majority, drop all but top 2; second election will produce a majority winner (a *plurality-majority*, or “run-off” system)
   c. [Describe French party systems IVth & Vth; What do you suppose effect Vth’s electoral process & introduction strong President has been on party systems & party behavior?]

3. **Argued Merits & Demerits of Majority Systems**
   a. Largely the same as SMP, but assures majority and:
   b. Slightly more choice usually preserved because more parties usually persevere [why?];
   c. Less simple (and “run-off” versions requires two trips to polls)
V. Proportional Representation (PR) Systems

A. The key feature of PR is the Multi-member district
   1. Cannot divide one seat proportionally, so PR requires multiple seats per district
   2. In fact, proportionality of result [define] tends to \( \uparrow \) w/ #seats/district (magnitude)

B. Key types of PR: “List” systems; STV system (e.g., Ire & Malta)

C. List Systems
   1. Each party lists a # candidates (usually = to # seats available in district)
   2. List systems vary by
      a. Formula; Number tiers; Degree preference voting; Legal Thresholds; District magnitudes
   3. Formulas: 2 Base Types (Blais & Massicotte Tab 2.1-2: see next slide)
      a. Largest Remainders (Quotas) Methods (Hare, Droop)
         1) Highest Averages: divide votes for each party by series of divisors, allocating seats 1-by-1; then dividing party’s vote by next divisor, each stage awarding seat to party w/ most votes so-divided
         2) Largest Remainders: divide total votes in district by number of seats (Hare) or # seats +1 (Droop). That’s a quota (Q). Each Q votes for party buys 1 seat. When no party can buy further seats, remaining allocated to parties with “largest remainders,” one for each until done
   c. Relative Proportionality (roughly)
(1) Imperiali > Sainte Lague & Hare > Droop > Mod St.Lague > d’Hondt;

(2) But, depends dist votes across districts, & dist.mag. is gen’lly much more important determinant.

4. Tiers:
a. Esp. in small-mid DM (e.g., 6=SP avg), much disproportionality can remain

(1) Option 1: Larger DM (FI,PO,LU>12 avg, NE&IS: 1 dist=whole ctry)

(2) Option 2: Higher tiers to redress proportionality deficiencies

b. Fixed vs. Variable 2\textsuperscript{nd}-Tier allocation

(1) Fixed: DE (20%), IC (20%), (25%), NO (5%), SW (11%), GE (50%)

Fixed # Second-Tier Seats reserved for allocation to move district-level results closer to national-level prop...

(e.g. Vote Shares: Red=30%; White=40%; Blue=20%; Green=10%

District-level Results in Seats: Red=25%; White=42%; Blue=19%; Green=5%)

==> Allocate set-aside seats to try to make 2\textsuperscript{nd} row match the first

==> Larger 2\textsuperscript{nd}-Tier proportion seats set-aside produces more proportionality

(2) Variable: Austria, Belgium, Greece

Variable # Second-Tier Seats: All votes for all parties that were not used in winning seats at district level are pooled at regional or national level & another round of PR allocation undertaken (not necessarily by the same formula)

c. Effects: In terms of proportionality effect, it’s clear that Upper Tiers, if large, have the major effect, but in terms of Effective Thresholds for entry, typically the 1\textsuperscript{st} Tier is determinant given how Tiers usually implemented.
5. **Legal Thresholds:**

   a. **Primary features designed limit proportionality, & partic’ly, limit small parities. Why?**
      
      (1) Self-interest on the part of larger parties
      (2) Concern unmitigated proportionality ⇒ proliferation small parties ⇒ difficulty forming stable govts
      (3) Aim to exclude extremists (e.g., Germany’s 5% rule)

   b. **Examples:**
      
      (1) Germany’s famous 5% rule
      (2) Sweden 4%; Aust. 4% or 1 seat; Neth. .62% (=almost meaningless)
      (3) Greece--PASOK manipulate it relentlessly: “loaded/reinforced” PR--as high as 17%, removed for 1989-90 (3 ele’s), 3% by New Democracy in 1990 ⇒ Very good example elect.-law manip.

6. ** Preferential vs. Non- Preferential List: Who decides which of parties’ listed candidates gets seat(s) party won?**

   a. **Non- Preferential or Strict Party List:** Relatively rare–FR (‘86), GE (zweite ballot), IT (‘94+, for PR seats), PO, SP; Party orders its candidates & seats party wins allotted in that order

   b. **Preferential List— Many variations**
      
      (1) IT (until 1994): Voters give up to 3-4 ‘pref votes’, those decide who gets seats--can choose party’s default order tho. System much blamed for ‘clientelistic’ politics & corruption (‘vote-buying’)
      (2) FI--Voters (must) choose one candidate from list for preference vote.
      (3) SZ & LU--As many preference votes as seats, can cross party lines in pref. ordering (panachage)
      (4) DE--Party discretion as to how to list
      (5) In some cases, party default very hard to override though nominal pref. option exists--BE, AU (pref. intro. ‘71, restrictive, altered ‘92 purportedly to more effective choice), NE (parties usu. demand any “preferred-in” candidate cede his/her seat to party order), NO, SW
D. Single-Transferable-Vote (PR version)

1. **Very Rare** (relatively new): Ireland, Malta, & N. Ireland (since 1972)
2. Aims at proportionality, but not assume preferences organized by party
3. **Mechanics:**
   a. Voters rank candidates listed (\(\therefore\) relatively small DM’s required)
   b. Droop Quota calculated
      (1) Anyone over quota elected & remaining votes allotted to 2\(^{nd}\) pref’s (e.g. 100 \(1^{st}\) pref’s, quota = 75 → elected, 25 votes transferred to 2\(^{nd}\) pref’s in proportion to 2\(^{nd}\) pref’s of these 100 voters [well...])
      (2) Continue until no one > quota, then eliminate cand. w/ fewest votes, transfer his/her votes, &...
      (3) Continue until number of seats in that district are allocated.
4. **Merits (argued)**
   a. More information on voter preferences revealed
   b. Not constrained by party lines
   c. Votes can’t harm favored candidate [as much] → no [less] incentive strategic vote
   d. Allows voter input at polls on which tendencies within party to expand/contract (via ranking)
5. **Demerits (argued)**
   a. May weaken party discipline [Aside: recall effects of party cohesion]
   b. May spur vague candidate positioning–almost as much incentive not be disliked as be liked
   c. Disproportionality b/c small dist. mag. (too complicated have large lists candidates to rank)
   d. GLM’s read of Evidence (n.b., advocates of system, esp. G):
      (1) The Ireland case seems to support a. & b., but Malta does not
      (2) IR & MA not much different than others in practice on c.
VI. Assessing the Impacts of Electoral Systems

A. The Simple Standard Story

1. Plurality/Majority => Disproportionality, but largest 2 parties take all/near-all seats
   & so => stable majority govts.

2. PR => Proportional, but parties proliferate => coalition governments, fractionalized &
   polarized legislature, & unstable governments.

3. Obviously more to it than that, but broad outline gen’ly supported by evidence.

B. Many other questions, however:

1. Which affords better “constituency” [n.b., not unambig. term] representation?

2. Which offers better access for political & social minorities?

3. Redistricting/gerrymandering opportunities & incentives?

4. [etc.--see Powell, Blais & Massicotte, Lijphart I and II as well as GLM; OTHER
   QUESTIONS?]
C. GLM’s Assessment of 6 possible effects electoral systems:

1. **Proportionality**: absolutely no doubt PR => more; in fact, tight relation w/ District Magnitude (see graphs & regressions to follow)

2. **Number of parties (in legislature; parliament usually)**
   a. Effective (size-weighted) vs. raw number of parities

   Taagepera&Laakso (n*={Effective # parties, P_i=prty i’s share seats/votes): n*=[\sum_i(1/P_i)^2]^{-1}

   b. # parties in legislature or # contesting elects? Either way: PR => ↑ # parties.

   (1) **(direct, mechanical effects)** Non-P.R. => big mathematical bonus (penalty) to large (small) parties => fewer parties, especially fewer effective parties, esp. in legislature (as opposed in elects)

   (2) **(indirect, psychological, strategic effects)** Non-PR => strategic voting & strategic party / candidate entry

   (3) **QUESTION**: So, which relation stronger, DMag to # Parliamentary Parties or Electoral Parties?

3. **Some counter-examples:**
   (1) Several countries: Belgium, Denmark, Germany, Norway had multiparty before P.R.;
   (2) Number of parities in Austria reduced after 1919 switched to P.R.;
   (3) Malta nearly pure 2-party but a P.R. system.
   (4) => PR not always cause proliferation parties, more **necessary than sufficient condition**
   (5) **GLM**: “PR systems will give parliamentary expression to a multiparty system if other factors, such as the number of political or social cleavages, cause voters to create one I the first place, but PR does not by itself bring a multiparty system into being”
   (6) Still: Most fractionalized parliaments–Bel, Den, Fin, Ita, Net, & Swi–all P.R. systems; most plur-maj systems (almost all) effectively 2-party systems.
3. **Coalition or Single-Party Government?**
   a. Again no doubt *simple story broadly correct*: Single-party-maj govt in 10% PR, 60% P/M
   b. Again, many *exceptions*:
      (1) Minority governments have occurred in UK & elsewhere in P/M systems;
      (2) Single-party governments have occurred in Ger & elsewhere in PR systems;
      (3) Four key parties in France (usually compete as 2-party coalitions).
   c. *Tradeoff*: Clarity responsibility vs. accuracy electoral message

4. **Constituency (i.e., district/locality) Representation**
   a. Could argue: 1 rep per district facilitates constituent service
   b. Could counter: multiple rep’s/district helps ensure at least 1 of own pol. persuasion approach
   c. GLM conclude that what little evidence exists shows no discernible relationship

5. **Backgrounds of Parliamentarians:** [E.g., what features of various elect sys do you suppose might affect probability of female &/or minority cand’s being elected? Evidence: PR raises female representation in parliament. *Why?*)

6. **Gerrymandering possibilities & incentives:** Obvious that gerrymandering much more effective in P/M... [EXPLAIN?]

7. **GLM state differences in economic performance little relation to differences in electoral system.** [This somewhat misleading:
   a. Economic *policy* varies lot by electoral system, esp. insofar as produce diff types govt;
   b. Some evidence that some economic performance varies accordingly by elect sys too.]
VII. Lijphart, *Electoral Systems* (ch. 8)

A. *Electoral System* most central & direct difference *Maj* & *Cons* philosophies. [BUT NOTE: Majoritarian vs. Consensus/Proportional Systems MORE than just electoral system; also ‘rules of policymaking & governance’]

1. Majoritarian≡SMD, plurality or *majority* ; Consensus≡MMD, proportional rep.
2. Δ cross type rare, & each ctry tends be attached to own

B. **7 Key Aspects (3 Especially) of Electoral Systems Produce 2 Key Outcomes:**

1. **Aspects:**
   a. *Electoral Formula*
   b. *District Magnitude*
   c. *Legal Threshold*
   
   d. Assembly Size [matters some for proportionality]
   e. Presidentialism [matters some for number of parties]
   f. Malapportionment [important other effects]
   g. Apparentment [not very critical]

2. **Outcomes:**
   a. 1. Proportionality & 2. Number of Parties
3. Electoral Formulae: Figure 8.1

a. **Plurality**: Simple [impl’s?] ; DM=1 => disprop., few parties, tend majority
   (1) Common: 12/36 Dem Leg (+sev.pres) [Examples]

b. **Majority**: Maj-Runoff & Alt Vote => disp., few prtyls, maj, almost as simple
   (1) Not very common: 2 of 36 [Examples]

c. **Proportional Representation**
   (1) More complex (not nec’ly lot more) than Plur/Maj
   (2) DM>1 => prop, allows more parties & tends not produce majorities. Three Main Types:
      (a) **List Systems**: Very common: 18/36 Dems
      (b) **Mixed Systems**: e.g., Mixed-Member Plurality (MMP) (Germany)
         i) Each voter casts 2 votes (cand/district & prty/ntnl).
         ii) List PR seats ($\frac{1}{2}$± total) compensatory national dist.
         iii) Supposed to allow tighter dist-rep tie & prop.
         iv) Rare, but recently pop: 4 of 36, incl 2 key recent changes (NZ, It); popular E. Eur. too
      (c) **Single Transferable Vote (STV)**: Rare (2 of 36)

d. **Semi-Proportional Systems**
   (1) Lmtd, Single-Non-Trans (SNTV), Cum Vote
      (a) Cits vote cands, not rank, #votes < #seats.
      (b) ↑Prop as seat-vote gap increases.
      (c) Very Rare (unique): Japan through ‘46-‘95
   (2) **Parallel Plurality-PR System**
      (a) Sim MMP, 2-ballots..., but non-compens: less prop
      (b) Very Rare (unique): Japan through ‘95-
C. **District Magnitude [DEF]**

1. Plurality/Majority not req. SMD, but usually SMD
   a. MMD Maj possible but never used; MMD Plur rare but existed & exists [e.g.?]; MultiMem provisions to assure some minority rep also not entirely rare [e.g.?]
   b. Disproportionality ↑ w/ DMag in Plur/Maj.

2. DMag the key factor in proprortionality & other effects of PR
   a. Prop ↑ w/ DM Tight relation.
   b. *Upper Tiers* common, very lrg M’s, dom proportionality effect

D. **(Legal) Thresholds**

1. Purpose: to limit extreme fragmentation of very high DMag

2. Typically, bite seems to start @ around 4-5%.

3. b/c **effective threshold** depends heavily on DMag (&# cand’s), roughly according to \( T_{eff} \approx \frac{75}{(M+1)} \), s.t. legal thresh minimum.

4. [**ELABORATE ON EFFECTIVE THRESHOLD (see also below)**] Note: logic easier see from threshold at ½-way point of (100/DM), i.e. ½(100/DM), which is 50% / DMag; the related formula 75% /(DM+1) seems to approximate better.
E. **Assembly Size**
   1. Size, gen’ly bit less than *cube-root-rule [def]*; esp <100, consequential for disprop
   2. [↑Assy Size may ↑ possibility district by distric disprop cancels [EXPLAIN]]

F. **Presidentialism**
   1. Powerful popular-elected president, esp. if simultaneously or nearly so election w/ legislature, ⇒ own force toward 2-partism [*Why?*]
   2. Esp. if president by plurality rather than majority-runoff [*Why?*]

G. **Malapportionment [DEF]**
   1. Hard to avoid in purality/majority w/ pre-existing geographic divisions as districts, easy in P.R. to accommodate both pre-exist dists & apportion (vary DMag w/ pop).
   2. Typically results in rural over-representation [*Examples*]
      a. US: Senate, Electoral College, even house through ‘60s reapportionment.
      b. [*Other examples? Expected effects?*]
   3. Rural over-representation not nec’ly ⇒ partisan disprop., but tendency rightward

H. **Apparentement [DEF]**
   1. Possibility to link lists in list-PR (Switzerland, Israel, & Netherlands since 1977)
   2. Should thereby offer some support for small parties.
   3. Some rules similar cross-party linking pref’s possible by nature: AV, STV, Runoff
I. Gauging Disproportionality:

1. Gallagher Index: \[\frac{1}{2} \sum (v_i - s_i)^2\] (i.e., \(\frac{1}{2}\) the sum squared deviations)

2. Complicating Issue: Systems with multiple votes:
   a. MMP: use party-vote. (Argument: better represents voters’ partisan preferences)
   b. AV/STV: use 1st-preference votes (rather than final tally), because...
      (1) more available
      (2) better rep pref distribution
   c. Runoff: use decisive, i.e. usu. 2nd round, vote
      (1) Argued better rep. final pref’s
      (2) [n.b., contradicts logic from AV/STV, likely understates disproportionality]
J. Presidential Elections in Presidential Systems & Disproportionality (Tab 8.1)

1. Pres, almost by definition, SMD → highly disproportional (e.g., in two-candidate contests, disproportionality = losing candidate’s vote share).

2. Lijphart uses geometric mean \([n^{th} \text{ root of product of } n \text{ numbers}]\) of pres & leg disprop for system disprop in pres. sys.
K. Emp Eval: Table 8.2. [Explain relatively low US legislative disprop:

1. Weak party + open primaries \(\rightarrow\) \(\downarrow\) 3rd party (run instead as dissident w/in party)
2. Very large # districts.]

<table>
<thead>
<tr>
<th>Country</th>
<th>Disproportionality (%)</th>
<th>Electoral System</th>
<th>Disproportionality (%)</th>
<th>Electoral system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands</td>
<td>1.30</td>
<td>PR</td>
<td>Spain</td>
<td>8.15</td>
</tr>
<tr>
<td>Denmark</td>
<td>1.83</td>
<td>PR</td>
<td>Australia</td>
<td>9.26</td>
</tr>
<tr>
<td>Sweden</td>
<td>2.09</td>
<td>PR</td>
<td>Papua New Guinea</td>
<td>10.06</td>
</tr>
<tr>
<td>Israel</td>
<td>2.27</td>
<td>PR</td>
<td>United Kingdom</td>
<td>10.33</td>
</tr>
<tr>
<td>Malta</td>
<td>2.36</td>
<td>PR- STV</td>
<td>Colombia</td>
<td>10.62</td>
</tr>
<tr>
<td>Austria</td>
<td>2.47</td>
<td>PR</td>
<td>New Zealand</td>
<td>11.11</td>
</tr>
<tr>
<td>Germany</td>
<td>2.52</td>
<td>PR</td>
<td>India</td>
<td>11.38</td>
</tr>
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<td>Switzerland</td>
<td>2.53</td>
<td>PR</td>
<td>Canada</td>
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<td>PR</td>
<td>Botswana</td>
<td>11.74</td>
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<td>Belgium</td>
<td>3.24</td>
<td>PR</td>
<td>Costa Rica</td>
<td>13.65</td>
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<tr>
<td>Italy</td>
<td>3.25</td>
<td>PR</td>
<td>Trinidad</td>
<td>13.66</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>3.26</td>
<td>PR</td>
<td>Venezuela</td>
<td>14.41</td>
</tr>
<tr>
<td>Ireland</td>
<td>3.45</td>
<td>PR-STV</td>
<td>United States</td>
<td>14.91</td>
</tr>
<tr>
<td>Portugal</td>
<td>4.04</td>
<td>PR</td>
<td>Bahamas</td>
<td>15.47</td>
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<tr>
<td>Iceland</td>
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<td>PR</td>
<td>Barbados</td>
<td>15.75</td>
</tr>
<tr>
<td>Norway</td>
<td>4.93</td>
<td>PR</td>
<td>Mauritius</td>
<td>16.43</td>
</tr>
<tr>
<td>Japan</td>
<td>5.03</td>
<td>SNTV</td>
<td>Jamaica</td>
<td>17.75</td>
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<td>Greece</td>
<td>8.08</td>
<td>PR</td>
<td>France</td>
<td>21.08</td>
</tr>
</tbody>
</table>

*Presidential systems

Note: The number of elections on which these averages are based may be found in Table 5.2

Source: Based on data in Mackie and Rose 1991; Mackie and Rose 1997; Nohlen 1993; Singh 1994; Lijphart 1994; and data provided by Pradeep K. Chhibber, Michael Coppedge, Brian F. Crisp, Gary Hoskin, Mark P. Jones, J. Ray Kennedy, Hanstai Mathur, Shaheen Mozaffar, Ben Reilly, and Andrew S. Reynolds
L. Electoral Systems & Party Systems: Duverger’s Law; Mech & Psych Effects

1. Rae: Three things all electoral systems do
   a. Yield disproportional results;
   b. Reduce effective # parliamentary parties relative to electoral parties;
   c. Can manufacture seat-majority for non-electoral-majority.

2. All 3 effects ↑ strength w/ $T_{eff}$, & all essentially produced via disproportionality.

3. Disprop systematic, not random: pro-larger prtys [w/basically 1 sort exception...?].

4. [DEF] Manufactured & Earned Majorities, Natural Minorities

<table>
<thead>
<tr>
<th>Table 8.3 Manufactured majorities, earned majorities, and natural minorities in three types of electoral systems, 1945–96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufactured</td>
</tr>
<tr>
<td>majority (%)</td>
</tr>
<tr>
<td>Plurality and majority systems (14 countries)</td>
</tr>
<tr>
<td>Semiproportional systems (Japan)</td>
</tr>
<tr>
<td>Proportional representation (22 countries)</td>
</tr>
<tr>
<td>All legislative elections in 36 democracies</td>
</tr>
</tbody>
</table>

Source: Based on data in Mackie and Rose 1991; Mackie and Rose 1997; Nohlen 1993; Singh 1994; Lijphart 1994; and data provided by Pradeep K. Chhibber, Michael Coppendge, Brian F. Crisp, Gary Hoskin, Mark P. Jones, J. Ray Kennedy, Hansraj Mathur, Shabbeen Mozaffar, Ben Reilly, and Andrew S. Reynolds
VIII. Elaboration, Clarification, & Further Topics:

A. **Effective Thresholds**: roughly set by DMag (or exactly legal thresh if higher)

1. Most effects elect.sys. operate through proportionality; crucial contribution thereto summarizable by *Effective Threshold*, which in turn largely determined by DMag

2. Three Problems in determining $T_{eff}$:
   a. ∃ **lower threshold** [DEFINE] & **upper threshold** [DEFINE];
   b. Both these effective thresholds also depend on specific formula, & # parties competing;
   c. # parties, DMag, etc., all matter, & therefore $T_{eff}$ can vary district-to-district w/in system.

3. Roughly equal to the larger of:
   a. *Legal Threshold* or
   b. Approximately: $T_{eff} \approx .75/(DM+1)$
   c. Except in SMP, where Lijphart assumes it 35% by assumption

B. [Interesting Fact & so a Question:

1. US has had $\approx 100\%$ congressional majorities, only 8.7% manufactured;
2. UK has had 92% majorities, all (100%) manufactured.
3. What produces this huge difference do you suppose?]
Fig. 8.2  The relationship between electoral disproportionality and the effective number of parliamentary parties.
C. Why relationship $T_{eff}$ (DMag) to # parties not stronger still, esp. re: # electoral parties? [relation exists; pretty strong; asking only why not stronger still]

1. Bi-directional causality [# elect parties => +Disprop, even as Disprop => -Ne].
2. Effect on # elect parties purely “psychological”: in dem, parties never *forced* to leave electoral arena; can keep losing as long as want.
3. Multiple other factors involved here (e.g., geographic concentration of support).
4. Can be statistical artifact: systems performing oddly (too many or too few parties relative to designers’ aims) may tend to be changed... Then way Lijphart uses data: E.g., US plurality = 1 case of elect sys; Greece’s “reinforced” PR = many cases.
D. Refining Q: Why eNpp so much more responsive to elect sys than eNep?

1. Takes Time for Expectational Effects to Manifest;
   a. Politicians presumably know expected effects electoral systems, voters need learn them.
   b. Historicity: (effective) 2-party system won’t become 3-party system over-night, etc.
   c. Uncertainty over elect support for various potential new parties, or over who will lose by
      new rules, & whose support now vulnerable
      (1) => risk-aversion => less changing of rules
      (2) => “winner’s curse” => excessive net party entry as rules change
   d. Spurious/Endogeneity: when do electoral rules change? Maybe same conditions which
      trigger electoral law change are likely to be producing party system changes?
   e. Periods of time Lijphart compares usually quite long => questionable whether cases reliably
      controlled over whole periods–too much else also changing. On other hand, this “else” ought
      to average (to zero) across some reasonably large number of such comparisons.

2. Lijphart II partly addresses last: compare last election under old w/ 2nd or 3rd under
   new rather than all elections under old w/ new. Drawback: single election less
   reliable indicator of functioning of electoral system than avg over several.

IX. Core Conclusions: Some support expected effects on most dimensions:

A. $T_{eff}$=key factor (n.b. subsumes PR/PM & DMag, which very strong predictors)
B. Disproportionality is dependent variable most fully explained by elect.sys.
X. **Lijphart II: Closer, More Sustained Analysis** *Political Consequences of Electoral Laws* (title of Rae’s classic):

A. Four basic properties of electoral systems
   1. Electoral formula
      a. Majoritarian (plurality/majority) & P.R.
      b. Different forms of proportional representation
   2. District magnitude
   3. Legal threshold
   4. Assembly size

B. Ancillary properties
   1. Ballot structure (*categorical* = w/in party only *v.* *ordinal* = cross-party possible)
   2. Malapportionment
   3. Presidentialism
   4. Apparentement
C. Basic methodology of this book

1. Unit of analysis
   a. Elect sys–sets essentially unchanged election rules under which 1+ successive elects held
   b. Elects under same elect sys regarded as repeated obs operation of single electoral system

2. Dependent variables
   a. Disproportionality
   b. Degree of multipartism
   c. Production of (parliamentary/legislative) majorities

3. Independent variables: properties of the electoral system

4. Strategies of empirical evaluation
   a. Comparable cases (within-country, longitudinal): [adv’s & disadv’s]
   b. Cross-sectional comparison: [advantages & disadvantages]

D. Summarizing the conclusions:

1. Of dep vars, disproportionality best explained by elect-system properties
2. Strongest explanatory factor across all dep vars: “effective threshold”, a combination of district magnitudes & legal thresholds
3. Impact elect system on multipartism more modest (but there) than on disprop
4. Ditto for effect of other ind vars relative to effective thresholds
5. Some comments not found in GLM or Lijphart’s *Patterns*
   a. All electoral systems fairly proportional b/c of chosen district mag’s
   b. Reason for two-tier districting gen’ly to combine close constituency contact of small dist
      mags at lower level w/ proportionality at higher; indeed lower-level magnitudes much lower
   c. Legal thresholds usu. applied in large upper levels; legal thresholds rarely raise effective
      thresholds to level of those systems even w/o legal thresholds
   d. Large countries have larger assemblies (duh); cube-root rule [Ass’ySize\(\approx\)cube-root(pop)]

6. System Changes (by Lijphart II definition of “system”)::
   a. More broadly, changes in systems (as defined by Lijphart) w/in country about 2.5/ctry over
      postwar era; range from 1-6/ctry
   b. Which countries change:
      (1) No change: US, Can, Fin, Switz, Bel, Ire, Lux, Port, Sp, UK
      (2) Moderate Δ: Austria, India, Jap, Austral, Costa Rica, Ice, Neth, Den, Ger
      (3) Major Δ: Fra, Gre, Israel, Malta, Nor, Swe, & recently It & NZ
   c. Large (>20%) changes in assembly size also rare
   d. Other Trends:
      (1) Toward two-tier
      (2) From d’Hondt to more prop. PR systems
      (3) Raise/install legal thresholds [note how first two somewhat countered by last]
E. The dependent variables

1. Disproportionality
   a. Various summary statistics devised for measuring deviation between seat allocation & vote shares. Lijphart’s preferred (also GLM): \( \text{LSq} = \left[ \frac{1}{2} \sum (v_i - s_i)^2 \right]^{0.5} \)
   b. [interesting alternative: regress party seat shares on vote shares, compare coefficient to one]

2. Party system
   a. Key distinction is two-party v. multi-party; More generally, number of parties
      (1) But what to do about widely varying size of parties (some negligibly small, but “how negligible?”)
         Solution is effective number of parties:
         (a) **Effective number of elective parties**: \( \text{Ne} = 1 / \sum v_i^2 \)
         (b) **Effective number of parliamentary parties**: \( \text{Np} = 1 / \sum s_i^2 \)
         (c) Ne always larger than Np, and/but highly correlated
         (d) Ne & Np conceptually & theoretically different things
         (e) Ne affected entirely by the “psychological” (expectational) effects of electoral systems; Np affected by both “psychological” & “mechanical”
   b. Other key property is generation of parliamentary majorities
      (1) Possible electoral outcomes (exhaustive, not exclusive list): earned majority; manufactured majority; natural minority; artificial minority
      (2) Lijphart stresses two: ManMaj and Maj (Natural + Manufactured)
      (3) A key problematic in all of this: what counts as a party?
F. So what?

1. Prop=1 aim, not necessarily most central, of democracy; intrinsically interesting
2. Prop also => hypothesized link b/w electoral system & party system
3. Empirical relationships:
   a. In full 27-country sample:
      (1) Corr(LSq,Ne) = -.11
      (2) Corr(LSq,Np) = -.45 **
      (3) Corr(LSq,Maj) = +.58 **
      (4) Corr(LSq,ManMaj) = +.63 **
   b. In PR-systems sample:
      (1) Corr(LSq,Ne) = -.02
      (2) Corr(LSq,Np) = -.29 *
      (3) Corr(LSq,Maj) = +.42 **
      (4) Corr(LSq,ManMaj) = +.41 **
4. Why is relationship w/ number of parties as weak as it is, esp. with Ne? [don’t exaggerate this Q, relationship certainly exists] [discussed already]
G. The Comparable Cases Method

1. Synonyms: the comparative method, method of controlled comparison, most similar cases design, natural experiments, etc.

2. The basic idea is to try to approximate a controlled experiment.
   a. How: Select cases for comparison that alike in all (ind-var) dimensions except in regard to one (or as few as possible) factor, effect of which you wish to determine. Any variation in the dependent variable, then, may be attributable to that single varying independent variable.
   b. Advantage: to degree succeed in so isolating factors, can be certain you have reliable results.
   c. Disadvantages:
      (1) No guarantee ever find such “perfect experiment” or even very good one
      (2) This social science. Cannot control entire environment of conditions under which variation occurs, nor can ever be certain all remaining factors irrelevant. Can’t even be sure could list all relevant factors, so something always outside of your view & possibly varying across your cases without your knowledge. To degree you’ve missed something, the limited number of cases you’ll have for comparison becomes that much more extreme a limitation on the reliability of your results.

3. Controlled comparisons: w/in country-changes in single dimension elect sys
   a. How good is this as a “natural experiment”?
      (1) [What sorts of factors does this control for?]
      (2) [What sorts of factors might be left out?]
b. Changes in electoral formula (Table 4.1): there were seven

(1) All seven produced changes disproportionality as we’d expect
(2) Only 3 of 7 produced $\Delta$ in expected direct in effective # elect parties (eNep), though mag’s of these changes such that avg $\Delta$ in right direct
(3) 6 of 7 produced changes in expected direction in eff. # parliamentary parties (eNpp)
(4) Only 2 of these produced any observable changes in maj production:
   (a) Norway: 2 of 2 under d’Hondt, 2 of 9 under mod. St.-Lag.
   (b) Sweden: 1 majority generated, but under mod. SL not d’Hondt
(5) Conclusions:
   (a) Overwhelming to strong support for Formula==>Disproportionality & Formula==>eNpp
   (b) Weak to no support for Formula==>Majorities & Formula==>eNep

C. Controlled comparisons major changes (20%+) Effective Thresholds $T_{eff}$ & Ass’y Size (AS)

(1) Four major changes in $T_{eff}$:
   (a) all 4 produced changes in disp., eNep, & eNpp in expected direction
   (b) magnitude of $T_{eff}$ change doesn’t appear related to magnitude of eN changes though
   (c) Only one relevant change in majority generation: from 22% in Norway 1953-85, to no majority in the 1989 election (1 case) under the more proportional system (as expected, but not much evidence)
(2) Nine major changes in AS
   (a) 8 of 9 right direction on disprop.
   (b) Only 3 of 9 on eNep & 4 of 9 eNpp
   (c) Regarding majority generation: 3 unchanged, 3 of 6 in right generation on both types of majorities, 2 of 6 in wrong direction on both, & 1 of 6 split

(3) Conclusions:
   (a) Not much evidence on $T_{eff}$, but most or all of it points in right directions
   (b) Assembly size appears weaker, especially beyond its proportionality effects (which are strong)

d. General conclusions from the 20 instances of major change in a single dimension

(1) Predictability of longitudinal (w/in ctry over time) changes in proportionality & party system on the basis of major changes in one of the three key features of electoral systems (formula, $T_{eff}$, AS):
   (a) Changes in proportionality almost invariably as predicted: 19 of 20 (95%)
   (b) Changes in eNpp usually in the predicted direction: 15 of 20 (75%)
   (c) Changes in eNep as predicted slightly more than ½ time: 11 of 20 (55%)
   (d) Changes in Majority Generation occur slightly less than ½ time: 9 of 20 (45%); when do, just over ½ occur in the right direction 5.5 of 9 (61%)

(2) Relative importance of the factors:
   (a) $T_{eff}$ appears very strong across the board as an explanitor (not too much evidence yet though)
   (b) Formula perhaps a bit less but still strong
   (c) AS does well for disproportionality but otherwise a weak explanitor/predictor of changes
e. A refining question:

1. Why eNpp so much more responsive to electoral system than eNep? Why eNep appears basically unaffected in fact in this longitudinal analysis? [discussed this already]

2. One strategy which partially addresses these is to compare last election under old system with 2nd or 3rd under new rather than all elections under old with all under new. Drawback is that a single election is a less reliable indicator of the functioning of the electoral system than an average over some number of elections. \( V(X)/N \neq V(Xbar) \)

3. The results of this test...
   
   a. ...confirm that disproportionality strongly determined by electoral system;
   
   b. ...strengthen the degree to which eNpp appears to be affected by the electoral system;
   
   c. ...weaken the degree to which eNep appears to be affected by the electoral still further;
   
   d. ...Lijphart doesn’t offer any comment on how the majority-generation conclusions are affected.

f. Examining 11 cases of 2 changes in same direction reinforces these conclusions further

g. Within system changes (i.e., those of less than 20% in \( T_{eff} \) and/or AS) show little consistent effect on any of the dependent variables, which result Lijphart claims strengthens his case for treating the systems as he defines them as internally homogeneous
H. Bivariate & Multivariate Analysis

1. Bivariate Correlations: 5 dependent variables with...
   a. ...electoral formula in Table 5.1 (p. 96)
   b. ...T_{eff} in Table 5.2 (p. 99)
   c. ...AS in Table 5.3 (p. 101)

2. Multivariate by regression in tables 5.9 & 5.10 (pp. 108-9) across all systems & table 5.11 (p. 112) in PR systems only

3. Basic conclusion:
   a. Some support for expected effects of all three dimensions
   b. T_{eff} = key factor (n.b. subsumes PR/PM distinct & DMag which selves v.strong predictors)
   c. Disproportionality is the dependent variable most completely explained by electoral system
I. Effects of four ancillary properties of electoral systems (note: more minor)

1. Ballot structure: categorical (within-party voting only) v. ordinal (potentiality of cross-party voting)
   
a. Douglas Rae’s hypothesized that ordinal ballot allowed voters’ mandates distribute across larger # parties, so might cause “micro-fractionalization” & contribute to greater eNep

b. Rae himself found no support for that hypothesis: “my theory is absolutely wrong”

c. Lijphart extends the hypothesis to eNpp & disproportionality
   
   (1) ...to eNpp because relatively obviously fewer (more) parties competing in elections should mean fewer (more) winning seats;
   
   (2) ...to disproportionality because, for a given set of electoral rules, more parties produces more disproportionality

d. Lijphart finds that...
   
   (1) ...these hypotheses are supported in higher $T_{eff}$ systems (8%+) but opposite in low $T_{eff}$
   
   (2) ...categorical produces consistently more manufactured majorities than ordinal, ceteris paribus
   
   (3) ...controlling for $T_{eff}$, a switch from categorical to ordinal appears to lower the frequency of manufactured majorities by 14-5%
2. Malapportionment: differing numbers of voters per representative across districts

   a. Gallagher: since this leads directly to over- or under-representation of some voters, hypothesizes that it contributes to disproportionality

   b. Lijphart finds no empirical support for that hypothesis. Explanation:

      (1) Malapp. Highly correlated with single-member plurality, once control for that (or $T_{eff}$ more generally), no relationship between Malapp & disprop is found

      (2) Impact of malapp depends very heavily on the geographical distribution of party support relative to the distribution of voters/rep–favors some smaller parties like Scottish National Party, Plaid Cymru, Australia National Party while it disfavors others

   c. Better questions, then, might be where does malapp arise, who benefits from it, & why?

      (1) [Who benefits from Malapp?]

      (2) Implications?]
3. **Presidential government & elections**

   a. Shugart & Carey: when president is powerful, elected by plurality rather than majority (why?), & elected simultaneously with legislature, it provides an impetus toward bipartism

   b. Lijphart finds, among systems similar $T_{eff}$, presidential systems are... ...than non-presidential
      (1) ...less disproportional...
      (2) ...smaller eNep & eNpp...
      (3) ...higher frequency of manufactured & earned majorities... [with one exception: US high earned, yes, but few manufactured, why?]

   c. However, these conclusions based on only US & Costa Rica

   d. Lijphart attempts to extend consideration to all popularly elected (powerful or not) presidents, finds no empirical support for that broader set
4. Interparty electoral links:

a. At least three modes by which such links can be achieved

(1) *apparentement*:
   a. parties overtly & explicitly linked lists
   b. SZ, IS, Neth, SW 1948, NO 1945 & 1985

(2) Transferable votes (STV or AV):
   a. parties can urge voters to list some other party’s or party’s candidates second
   b. Australian & Irish parties often do; Maltese usually do not

(3) French 2-ballot majority implicitly allows for something quite like this (and quite often used so)

b. Hypothesis: since favors small parties, should reduce disprop & increase (reduce) eNep, eNpp, (manufactrued & earned majorities)

c. Only consistent effect found is on disprop., others may be there but not much evidence
Table of Correlations Dependent Variables:

<table>
<thead>
<tr>
<th></th>
<th>LSq</th>
<th>ENEP</th>
<th>ENPP</th>
<th>ParlMaj</th>
<th>ManMaj</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSq</td>
<td>1.00</td>
<td>-0.11</td>
<td>-0.45</td>
<td>0.55</td>
<td>0.59</td>
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<tr>
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<td>0.91</td>
<td>1.00</td>
<td>-0.67</td>
<td>-0.49</td>
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<tr>
<td>ParlMaj</td>
<td>0.55</td>
<td>-0.52</td>
<td>-0.67</td>
<td>1.00</td>
<td>0.83</td>
</tr>
<tr>
<td>ManMaj</td>
<td>0.59</td>
<td>-0.30</td>
<td>-0.49</td>
<td>0.83</td>
<td>1.00</td>
</tr>
</tbody>
</table>

XI. Grand Summary of Findings: Tables 6.2 & 6.3 (next slides), though perhaps understate strength of conclusion in favor of the elect formula & Assembly Size links to eNpp. Remains broad conclusion that $T_{eff}$ the main factor & Disproportionality the most completely determined.
Table 6.2: Effect of 5 key electoral-system features on 5 key political-system outcomes

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Disproportionality</th>
<th>Effective number of elective parties</th>
<th>Effective number of parliamentary parties</th>
<th>Frequency of parliamentary majorities</th>
<th>Frequency of manufactured majorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective threshold(^a)</td>
<td>0.35(^*)</td>
<td>-0.03**</td>
<td>-0.05**</td>
<td>0.02**</td>
<td>0.02**</td>
</tr>
<tr>
<td>0.90 (12.62)</td>
<td>-0.30 (2.63)</td>
<td>-0.54 (5.29)</td>
<td>0.64 (7.00)</td>
<td>0.70 (7.43)</td>
<td></td>
</tr>
<tr>
<td>Assembly size (log)</td>
<td>-2.32**</td>
<td>-0.23 (3.26)</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Apparentement</td>
<td>-2.34**</td>
<td>-0.22 (3.08)</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Presidentialism</td>
<td>-4.66**</td>
<td>-1.25*</td>
<td>-1.22 (1.90)</td>
<td>0.32*</td>
<td>-0.14*</td>
</tr>
<tr>
<td>Ordinal ballots</td>
<td>-</td>
<td>-</td>
<td>-0.17 (1.82)</td>
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<tr>
<td>Intercept</td>
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<tr>
<td>(R^2)</td>
<td>0.71</td>
<td>0.15</td>
<td>0.30</td>
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<tr>
<td>Adjusted (R^2)</td>
<td>0.70</td>
<td>0.13</td>
<td>0.28</td>
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</tr>
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Notes:
\(^a\) The estimated regression coefficients are listed first, followed by the standardized coefficients; absolute t-values are in parentheses.
Table 6.3. Stepwise regression analyses of the effect of six electoral system variables on disproportionality and party system variables in 57 PR systems

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Disproportionality</th>
<th>Effective number of elective parties</th>
<th>Effective number of parliamentary parties</th>
<th>Frequency of parliamentary majorities</th>
<th>Frequency of manufactured majorities</th>
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<td>Effective threshold&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.42**</td>
<td>-0.06*</td>
<td>-0.09**</td>
<td>0.03**</td>
<td>0.03**</td>
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<tr>
<td></td>
<td>0.68</td>
<td>-0.27</td>
<td>-0.42</td>
<td>0.52</td>
<td>0.54</td>
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<tr>
<td></td>
<td>(8.67)</td>
<td>(2.07)</td>
<td>(3.43)</td>
<td>(4.63)</td>
<td>(4.49)</td>
</tr>
<tr>
<td>d'Hondt and LR-Imperiali dummy</td>
<td>2.14**</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>0.35</td>
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<tr>
<td></td>
<td>(4.45)</td>
<td></td>
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</tr>
<tr>
<td>Assembly size (log)</td>
<td>-2.08**</td>
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<td></td>
<td>-0.31</td>
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<td></td>
<td>(3.83)</td>
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<td>Apparentement</td>
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<td></td>
<td>(2.48)</td>
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<td>Ordinal ballots</td>
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<tr>
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<tr>
<td>$R^2$</td>
<td>0.68</td>
<td>0.07</td>
<td>0.18</td>
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<td>0.28</td>
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<tr>
<td>Adjusted $R^2$</td>
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<td>0.06</td>
<td>0.16</td>
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<td>0.25</td>
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</tbody>
</table>

Notes:
<sup>a</sup> The estimated regression coefficients are listed first, followed by the standardized coefficients; absolute t-values are in parentheses.

XII. As covered by GLM, & Lijphart, Blais & Massicotte also:

A. Describes Various Types of Electoral Systems: Plurality, Majority, P.R.

B. Defines some keys: Magnitude; Tiers; Thresholds;

C. Also mention candidate-selection mechanisms, which also have important implications (and neglected here in GLM in favor of covering under Parties)

D. Also Elaborate on Some of the Positive Political Consequences:

1. *Psychological* (a.k.a. Strategic, Behavioral) & *Mechanical* Effects:

   a. Psychological (Strategic, Behavioral) Effects:
      
      (1) P/M/PR & the number of parties
      (2) Electoral System & ideology / cohesion
      (3) Electoral System & strategic voting – Obvious in plur elects: more gen’ly, Gunther (1989) find small-party supporters less likely vote them in smaller-mag districts [Explain logic?].

   b. Mechanical (Mathematical) Effects
      
      (1) Vote-seat proportionality
      (2) Duverger’s Law and number parties (raw v. effective number)
      (3) Lijphart finds: Plurality => about 2.0 effective parties , Majority => ca. 2.8, PR => ca. 3.6
      (4) Legal thresholds have their obvious effects too
      (5) **Ordeshook & Shvetsova** find: relation b/w # parties & ethnic het. increases & tightens w/ district magnitude; **Cox** also; later **Clark & Golder** improve the analysis
      (6) Presence/absence of single-party parliamentary majority: Lijphart II: Plur => maj 93% of cases, Majority => 50%, PR => 20-30% depending on threshold
### XIII. Normative Debate–informed by Postive Theory, Evidence, & Debates

Some Data: Raw Correlations of Various Socioeconomic Conditions & Political Outcomes

<table>
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<tr>
<th></th>
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<th>lrgdpc</th>
<th>ethind</th>
<th>relind</th>
<th>gini</th>
<th>edsec</th>
<th>lmag</th>
<th>vpart</th>
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</tr>
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**lpop**: natural log of population  
**lrgdpc**: natural log real GDP per capita  
**ethind**: ethnic fragmentation index  
**relind**: religious fragmentation index  
**gini**: GINI index of income inequality  
**edsec**: index primary & secondary enrollment  
**lmag**: natural log electoral district mag.  
**vpart**: voter participation rate  
**prop**: proportionality of legislative seat distribution to vote distribution  
**enpp**: effective # parliamentary parties  
**dgov80**: average duration of govts (months) 1980s  
**psupg80**: average percent seats parliament supporting government in the 1980s  
**ngov80**: average number of parties in government in 1980s  
**lattopp**: natural log of number political attacks & oppressions in 1980s
**Determinants of the Proportionality of Electoral Outcomes**

Number of obs = 21  
R-squared = 0.6983

| prop | Coef.     | Std. Err. | t     | P>|t| | [95% Conf. Interval] |
|------|-----------|-----------|-------|-----|---------------------|
| lmag | 2.568204  | .7283494  | 3.526 | 0.004 | .994701 4.141707    |
| lpop | -1.886149 | .9376368  | -2.012| 0.065| -3.91179 .1394918  |
| lrgdpc | 2.941667 | 4.083722  | 0.720 | 0.484| -5.880679 11.76401 |
| edsec | -0.0141931 | .0961284 | -0.148| 0.885| -.2218658 .1934797 |
| US   | 13.95252  | 5.210637  | 2.678 | 0.019| 2.69562 25.20941   |
| SZ   | 4.030246  | 5.213686  | 0.773 | 0.453| -7.233238 15.29373 |
| _cons | 80.45612  | 31.88155  | 2.524 | 0.025| 11.58023 149.332   |

Number of obs = 23  
R-squared = 0.6303

| prop | Coef.     | Std. Err. | t     | P>|t| | [95% Conf. Interval] |
|------|-----------|-----------|-------|-----|---------------------|
| lmag | 2.394217  | .681835   | 3.511 | 0.003| .9556706 3.832763   |
| lpop | -.9292101 | .5964194  | -1.558| 0.138| -2.187545 .3291249 |
| ethind | -7.55057  | 5.362998  | -1.408| 0.177| -18.86551 3.764366 |
| US   | 12.91222  | 4.860203  | 2.657 | 0.017| 2.658084 23.16635  |
| SZ   | 6.514613  | 4.677849  | 1.393 | 0.182| -3.354785 16.38401 |
| _cons | 96.9738   | 5.687389  | 17.049| 0.000| 84.97338 108.9742  |
## Determinants of Effective Number Parties in Parliament

Number of obs = 21  
R-squared = 0.2939

|   | Coef.  | Std. Err.  | t     | P>|t|   | [95% Conf. Interval] |
|---|--------|------------|-------|------|----------------------|
| lmag | 0.4464824 | 0.3087327 | 1.446 | 0.172 | -0.220494 to 1.113459 |
| lpop | -0.1250728 | 0.3974454  | -0.315 | 0.758 | -0.9837014 to 0.7335557 |
| lrgdpc | 0.925385 | 1.731008 | 0.535 | 0.602 | -2.81423 to 4.665 |
| ethind | 0.5329234 | 2.615889 | 0.204 | 0.842 | -5.118361 to 6.184208 |
| edsec | 0.0055997 | 0.0407469 | 0.137 | 0.893 | -0.0824286 to 0.093628 |
| US | -1.144733 | 2.208684 | -0.518 | 0.613 | -5.916305 to 3.62684 |
| SZ | 1.341764 | 2.209977 | 0.607 | 0.554 | -3.432601 to 6.116129 |
| _cons | -4.88439 | 13.51395 | -0.361 | 0.724 | -34.0795 to 24.31072 |

---

Number of obs = 21  
R-squared = 0.2581

|   | Coef.  | Std. Err.  | t     | P>|t|   | [95% Conf. Interval] |
|---|--------|------------|-------|------|----------------------|
| lmag | 0.5087292 | 0.285378 | 1.783 | 0.095 | -0.0995395 to 1.116998 |
| lpop | -0.2890912 | 0.324563 | -0.891 | 0.387 | -0.9808809 to 0.4026984 |
| lrgdpc | 1.046867 | 1.603379 | 0.653 | 0.524 | -2.370654 to 4.464388 |
| ethind | 1.081365 | 2.262387 | 0.478 | 0.640 | -3.740798 to 5.903528 |
| edsec | -0.0026652 | 0.0366468 | -0.073 | 0.943 | -0.0807759 to 0.0754456 |
| _cons | -3.897634 | 12.48691 | -0.312 | 0.759 | -30.51286 to 22.71759 |
### Model 1

| enpp  | Coef.  | Std. Err. | t     | P>|t| | [95% Conf. Interval] |
|-------|--------|-----------|-------|-----|----------------------|
| lmag  | 0.4435446 | 0.2316949 | 1.914 | 0.073 | -0.0452888 to 0.9323781 |
| lpop  | -0.2552405 | 0.2989749 | -0.854 | 0.405 | -0.8860225 to 0.3755414 |
| lrgdpc| 1.237125 | 1.12866 | 1.096 | 0.288 | -1.144139 to 3.61839 |
| _cons | -5.798764 | 10.07684 | -0.575 | 0.573 | -27.05904 to 15.46151 |

Number of obs = 21
R-squared = 0.2460

---

### Model 2

| enpp  | Coef.  | Std. Err. | t     | P>|t| | [95% Conf. Interval] |
|-------|--------|-----------|-------|-----|----------------------|
| lmag  | 0.4554715 | 0.2272422 | 2.004 | 0.059 | -0.020158 to 0.9310948 |
| _cons | 2.907758 | 0.5454194 | 5.331 | 0.000 | 1.766182 to 4.049333 |

Number of obs = 21
R-squared = 0.1745
### Determinants of the Number of Parties in Government

Number of obs = 21 R-squared = 0.7386

| Variable | Coef.   | Std. Err. | t     | P>|t|  | [95% Conf. Interval] |
|----------|---------|-----------|-------|------|---------------------|
| npgov80  | -.0857474 | .1697331  | -0.505 | 0.623 | -.455564 .2840692  |
| lpop     | .126545  | .7444957  | 0.170  | 0.868 | -1.495572 1.748662 |
| lrgdpc   | .0155078 | 1.114686  | 0.014  | 0.989 | -2.413185 2.4442  |
| ethind   | -.0084333 | .0173481  | -0.486 | 0.636 | -.3019047 .3147857 |
| edsec    | .0064405 | .1415198  | 0.046  | 0.964 | -.3019047 3.147857 |
| lmag     | .5247365 | .1179966  | 4.447  | 0.001 | .267644  .781829 |
| enpp     | .5604526 | .0849834  | 6.595  | 0.000 | .3825802 .738325  |
| US       | .1011615 | .9493274  | 0.107  | 0.917 | -1.967245 2.169568 |
| SZ       | .7775238 | .9534556  | 0.815  | 0.431 | -1.299877 2.854925 |
| _cons    | .5166641 | 5.778226  | 0.089  | 0.930 | -12.07301 13.10634 |

Number of obs = 21 R-squared = 0.6960

| Variable | Coef.   | Std. Err. | t     | P>|t|  | [95% Conf. Interval] |
|----------|---------|-----------|-------|------|---------------------|
| enpp     | .5604526 | .0849834  | 6.595  | 0.000 | .3825802 .738325  |
| _cons    | .0025308 | .3487783  | 0.007  | 0.994 | -.7274705 .7325321 |
### Determinants of Voter Participation

Number of obs = 21  
R-squared = 0.8380

|         | Coef.  | Std. Err. |      t  |     P>|t|     | [95% Conf. Interval] |
|---------|--------|-----------|--------|--------|---------------------|
| lpop    | -4.246587 | 1.577331 | -2.692 | 0.021  | -7.71827            | -0.7749051 |
| lrgdpc  | 13.62715  | 6.147855  | 2.217  | 0.049  | .0958134            | 27.15849   |
| ethind  | .3665997  | 9.440726  | 0.039  | 0.970  | -20.4123            | 21.1455    |
| edsec   | -.3292375 | .141427   | -2.328 | 0.040  | -.6405162           | -0.0179588 |
| lmag    | 2.831868  | 1.509369  | 1.876  | 0.087  | -0.4902306          | 6.153967   |
| prop    | -.4603597 | .4176456  | -1.102 | 0.294  | -1.379591           | .4588722   |
| enpp    | .0927027  | .9852923  | 0.094  | 0.927  | -2.075911           | 2.261316   |
| US      | -10.9058  | 9.83255   | 1.109  | 0.291  | -32.54709           | 10.7355    |
| SZ      | -41.28559 | 7.886355  | -5.235 | 0.000  | -58.64333           | -23.92784  |
| _cons   | 64.44762  | 58.44081  | 1.103  | 0.294  | -64.17974           | 193.075    |

Number of obs = 21  
R-squared = 0.8379

|         | Coef.  | Std. Err. |      t  |     P>|t|     | [95% Conf. Interval] |
|---------|--------|-----------|--------|--------|---------------------|
| lpop    | -4.235734 | 1.446679 | -2.928 | 0.012  | -7.361094           | -1.110374  |
| lrgdpc  | 13.77331  | 5.398993  | 2.551  | 0.024  | 2.109492            | 25.43712   |
| edsec   | -.3283281 | .1299159  | -2.527 | 0.025  | -.6089943           | -.0476618  |
| lmag    | 2.838158  | 1.356566  | 2.092  | 0.057  | -.0925245           | 5.76884    |
| prop    | -.4568824 | .3620822  | -1.262 | 0.229  | -1.239114           | .3253487   |
| US      | -11.0263  | 8.544266  | -1.290 | 0.219  | -29.48507           | 7.432461   |
| SZ      | -41.28559 | 7.447957  | -5.632 | 0.000  | -54.95201           | -27.09208  |
| _cons   | 63.03857  | 52.37633  | 1.204  | 0.250  | -50.11361           | 176.1907   |
Determinants of Government Durability

Number of obs = 21  
R-squared = 0.7844

| Variable | Coef.   | Std. Err. | t     | P>|t|    | [95% Conf. Interval] |
|----------|---------|-----------|-------|-------|---------------------|
|          | dgov80  |           |       |       |                     |
| lpop     | -0.3782 | 0.2813    | -0.134| 0.896 | -6.865687 , 6.10928 |
| lrgdpc   | -4.0916 | 9.8452    | -0.416| 0.689 | -26.79471 , 18.61148 |
| ethind   | 15.2347 | 12.9302   | 1.178 | 0.273 | -14.58243 , 45.05183 |
| edsec    | 0.1928 | 0.2382    | 0.809 | 0.442 | -0.356555 , 0.7422454 |
| lmag     | 1.0584 | 2.3699    | 0.447 | 0.667 | -4.406626 , 6.523576 |
| prop     | -0.0762 | 0.5973    | 0.030 | 0.977 | -1.359826 , 1.395085 |
| vpart    | 0.0248 | 0.4148    | 0.060 | 0.954 | -0.9318619 , 0.9816077 |
| enpp     | -13.91 | 31.92    | -0.278| 0.788 | -5.625478 , 4.415092 |
| psupg80  | 0.2608 | 0.2983    | 0.874 | 0.407 | -4.271431 , 0.94888 |
| npgov80  | -4.5436| 3.2600    | -1.394| 0.201 | -12.06129 , 2.973955 |
| US       | 19.76 | 14.06    | 1.406 | 0.197 | -12.66086 , 52.18469 |
| SZ       | 24.22 | 19.60    | 1.236 | 0.252 | -20.98437 , 69.4352 |
| _cons    | -0.88 | 14.97    | -0.059| 0.895 | -33.03278 , 29.08757 |

Number of obs = 23  
R-squared = 0.5847

|           | Coef.   | Std. Err. | t     | P>|t|    | [95% Conf. Interval] |
|-----------|---------|-----------|-------|-------|---------------------|
|          |          |           |       |       |                     |
| ethind   | 9.0066 | 10.86    | 0.829 | 0.419 | -13.91175 , 31.92498 |
| psupg80  | 0.6395 | 0.2689   | 2.378 | 0.029 | 0.0720871 , 1.207021 |
| npgov80  | -4.9393| 1.9732   | -2.503| 0.023 | -9.102461 , -1.7760958 |
| US       | 22.63 | 11.39    | 1.986 | 0.063 | -1.414514 , 46.68059 |
| SZ       | 11.60 | 11.96    | 0.970 | 0.345 | -13.62187 , 36.82416 |
| _cons    | -0.8834| 14.97    | -0.059| 0.954 | -32.47134 , 30.70434 |

Number of obs = 23  
R-squared = 0.5680

|           | Coef.   | Std. Err. | t     | P>|t|    | [95% Conf. Interval] |
|-----------|---------|-----------|-------|-------|---------------------|
| psupg80  | 0.7023 | 0.2558   | 2.745 | 0.013 | 0.1648566 , 1.23983 |
| npgov80  | -5.21 | 1.93     | -2.702| 0.015 | -9.263868 , -1.159712 |
| US       | 26.67 | 10.21    | 2.610 | 0.018 | 5.205769 , 48.13274 |
| SZ       | 13.71 | 11.58    | 1.185 | 0.251 | -10.60337 , 38.04186 |
| _cons    | -1.97 | 14.78    | -0.133| 0.895 | -33.03278 , 29.08757 |
Determinants of Political Attacks & Oppressions

Number of obs = 16  R-squared = 0.6223

| lattopp | Coef.   | Std. Err. | t     | P>|t| | [95% Conf. Interval] |
|---------|---------|-----------|-------|-----|----------------------|
| lpop    | 1.421063| .5419046  | 2.622 | 0.039| [.09507, 2.747056]   |
| lrgdpc  | .3458066| 1.710578  | 0.202 | 0.846| [-3.839827, 4.53144] |
| ethind  | -3.110833| 2.794551 | -1.113| 0.308| [-9.948853, 3.727188]|
| relind  | -2.244102| 2.512261 | -0.893| 0.406| [-8.391384, 3.90318] |
| gini    | 9.470207| 15.16302 | 0.625 | 0.555| [-27.63238, 46.57279]|
| edsec   | 0.0360057| 0.0400388| 0.899 | 0.403| [-0.0619657, 0.133977]|
| lmag    | -3.206208| 0.2987685| -1.073| 0.324| [-1.051681, 0.4104394]|
| US      | -3.668315| 1.954821 | -1.877| 0.110| [-8.451588, 1.114959]|
| SZ      | 3.554796| 2.143322 | 1.659 | 0.148| [-1.689725, 8.799317]|
| _cons   | -22.13167| 16.97318 | -1.304| 0.240| [-63.66356, 19.40021]|
CONCLUSION:

DMag $\Rightarrow \uparrow$ Proportionality ($\& \downarrow T_{eff}$)

$\Rightarrow \uparrow$ Effective Number Parties in Parliament

$\Rightarrow \uparrow$ Number Parties in Government ($\& \uparrow$ Probability Minority Govt)

$\Rightarrow \downarrow$ Durability of Govt ($\&$ Clarity Responsibility, Mandate),

with some slippage at each stage (diminishing $R^2$ of each outcome on DMag),
starting from a tight relation of DMag to proportionality.

And maybe some weak sign at end that Proportional Systems can contribute to
dampening of political unrest & violence.

[Conjecture that this last would be perhaps for Proportional Systems, not
merely high DMag (proportional electoral sys). See mistake in Iraq, e.g.]