Political Selection under Alternative Electoral Rules

Vincenzo Galasso

(Dondena, Bocconi University, IGIER & CEPR)

Tommaso Nannicini

(Bocconi University, IGIER & IZA)

CSEF-IGIER Conference
Capri, June 28, 2011

Motivation

The **identity of politicians** matters

- Examples: Thatcher in UK, Mao in China, Bob Kennedy in US
- Literature: Chattopadhyay-Duflo (2004), Jones-Olken (2005)

Why does identity matter in politics (Besley 2005)?

- **Commitment**: Individuals have preferences and intrinsic characteristics. Role of personal credibility versus party ideology
- **Quality**: Expertise in problem solving (*competence*) or public-service motivations (*honesty*)

How to select good politicians?

- **political competition** matters in majoritarian systems (Galasso and Nannicini, APSR 2011)
- Does this channel work differently in alternative systems?
- Better politicians in Majoritarian or Proportional Systems?

Our approach

- Selection of politicians by **parties** (leaders). No self-selection, but parties choosing between *loyalists* and *experts*
- Role of **electoral rules**, in promoting better selection

Theoretical model

1. In Proportional systems: ex-ante party selection
2. In Majoritarian systems: ex-ante party selection and allocation of candidates across (single-member) electoral districts

Related literature

Alesina (1988), Besley-Preston (2007). Ideological parties with both aligned and swing voters

- But: We focus on allocation of candidates across districts rather than economy-wide policy

Recent literature on political selection (e.g., Besley 2004, Caselli-Morelli 2004, Mattozzi-Merlo 2008). Self-selection of heterogeneous politicians

- But: We focus on *demand* for politicians rather than *supply*

Stromberg (2008), Besley-Persson-Sturm (2008), Dal Bo-Dal Bo-Snyder (2009). Effects of political competition

- But: We focus on political selection as an outcome

Extend Galasso-Nannicini (2011) to Proportional Systems.

Setup

Players:

- Two **parties**, D and R, care about national policy Y, with bliss points $\widehat{Y}_D = -1 \neq \widehat{Y}_R = 1$
- Two types of **candidates**: party loyalists (D or R) and centrists (C). Centrists are **experts** and care about national policy: $\widehat{Y}_C = 0$.
- Three groups of **voters**: D and R core supporters, and swing voters (C). Swing voters care about national policy $\widehat{Y}_C = 0$ and, in the majoritarian system, about the quality of the local candidate.

National Policy by party i: $Y_i = \mu \widehat{Y}_C + (1 - \mu)\, \widehat{Y}_i$

Party i **Utility** given policy Y: $V_i(Y) = -\left|\widehat{Y}_i - Y\right|$

Probabilistic Voting in Proportional System

We consider a Probabilistic Voting Model for the Centrist Voters. They take their voting decision considering:

- the Utility provided by the parties through their policies
- their own ideological preference
- a common popularity shock

In a **Proportional System**, C votes for D if

$$U_C(Y_D) - U_C(Y_R) - s - \delta > 0$$

where $V_D(Y_D) = -\mu_D$ and $V_D(Y_R) = -2 + \mu_R$

Probabilistic Voting in Majoritarian System

We consider a Probabilistic Voting Model for the Centrist Voters. They take their voting decision considering:

- the Utility provided by the parties through their policies
- their own ideological preference
- a common popularity shock

In a **Majoritarian System**, Centrist voters care also about the quality of the local candidate. Hence,

$$U_C^k\left(Y_i, z_j^k\right) = (1-\rho)\, V_C\left(Y_i\right) + \rho V_C\left(z_j^k\right)$$

Thus, C votes for D if $U_C^k\left(Y_D, z_D^k\right) - U_C^k\left(Y_R, z_R^k\right) - s - \delta > 0$
where $s \sim U\left[-1/2, 1/2\right]$ and $\delta \sim U\left[-\frac{1}{2\psi}, \frac{1}{2\psi}\right]$

Proportional System

In a Proportional System, Party D selects **experts/centrists** to maximize the following expected utility:

$$V_D(Y_D)\Pi_D + V_D(Y_R)(1-\Pi_D)$$

where $V_D(Y_D) = -\mu_D$ and $V_D(Y_R) = -2 + \mu_R$

Party D wins the election with probability Π_D which depends on the share of experts μ:

$$\Pi_D = \Pr\{\delta < V_C(Y_D) - V_C(Y_R)\} = \frac{1}{2} + \psi(\mu_D - \mu_R)$$

Proportional System: Results

In a **Proportional System**, the Optimal share of Experts/Centrist candidates is

$$\mu_D^{\text{Pr}} = \mu_R^{\text{Pr}} = 1 - \frac{1}{4\psi}$$

where ψ represents the degree of competitiveness (that is, the inverse of the importance of the common shock)

More competition leads to a higher share of Experts: μ_D^{Pr} is increasing in ψ.

Majoritarian System

In a Majoritarian System, Party D still wants to maximize the following expected utility:

$$V_D(Y_D)\Pi_D + V_D(Y_R)(1-\Pi_D)$$

where $V_D(Y_D) = -\mu_D$ and $V_D(Y_R) = -2 + \mu_R$

However, Party D probability Π_D of winning the election depends on

1. the **selection** of expert/centrist candidates, i.e., the share μ; and
2. the **allocation** of expert/centrist candidates into electoral districts (as in Galasso and Nannicini, APSR 2011)

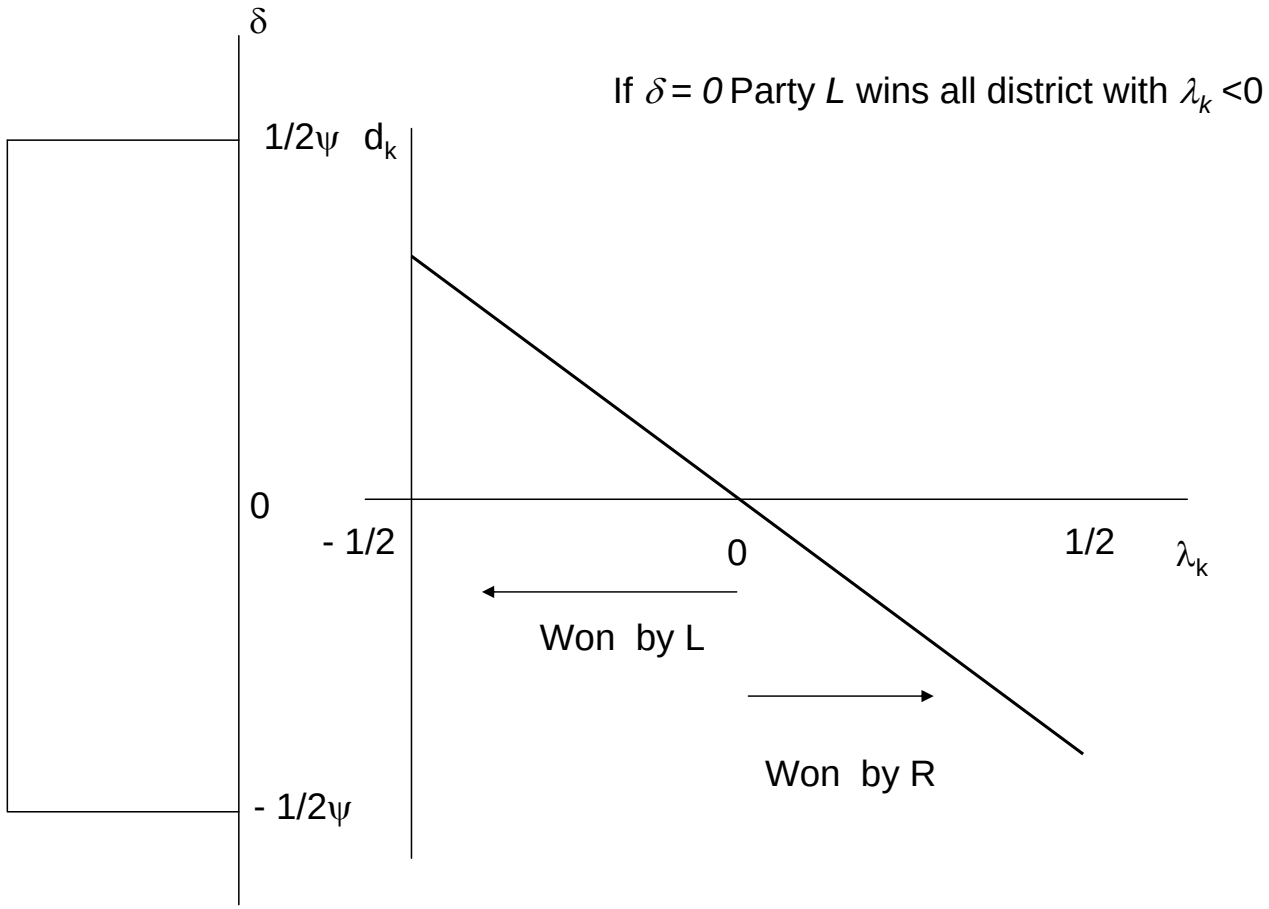
Ex-ante district contestability

Measure of **ex-ante contestability** of district k:

$$\lambda_k = \frac{1}{2}\frac{\lambda_k^R - \lambda_k^L}{\lambda^C}$$

- where λ_k^j share of j voters in district k (and $\lambda_k^C = \lambda^C \ \forall k$)
- Maximum contestability at $\lambda_k = 0$
- If $\lambda_k < -1/2 \rightarrow L$ wins
- If $\lambda_k > 1/2 \rightarrow R$ wins
- Districts distributed around 0 with support $\lambda_k \in \left[-\frac{1-\lambda^C}{2\lambda^C}, \frac{1-\lambda^C}{2\lambda^C}\right]$

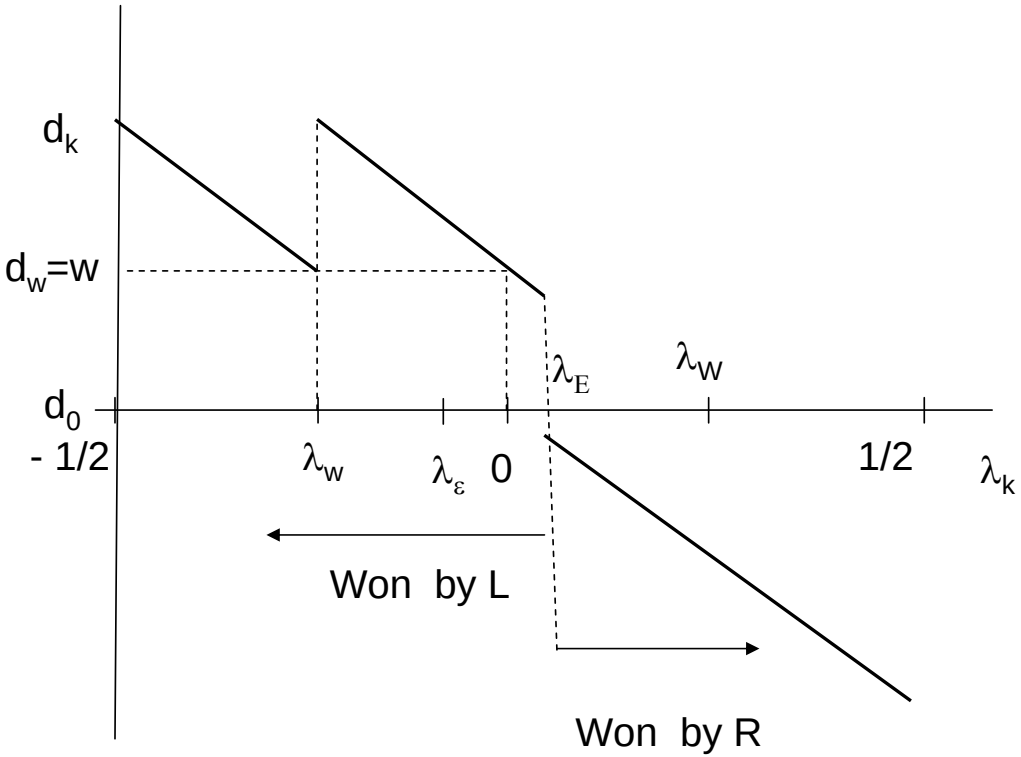
Popularity shock and winning probability



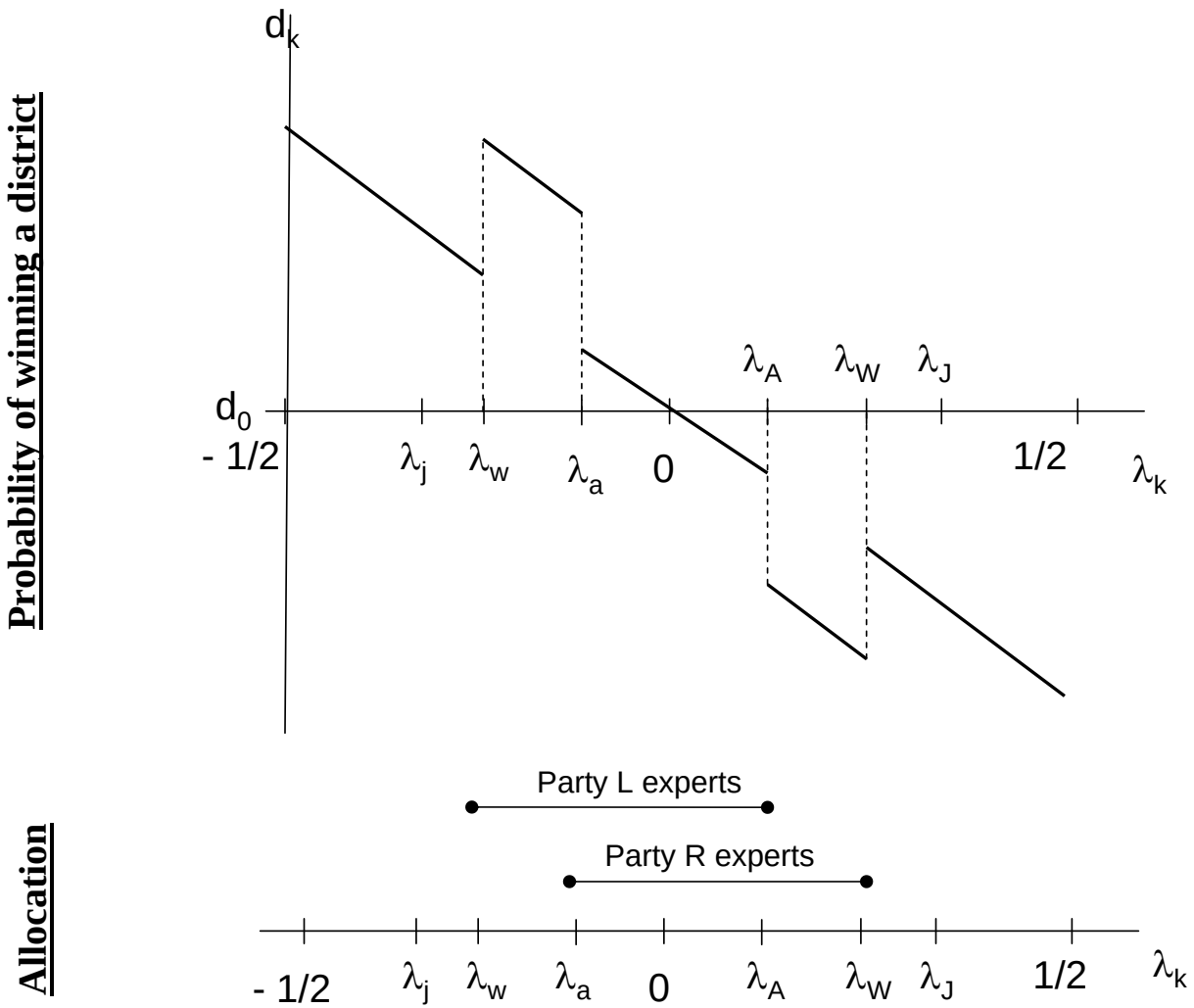
If $\delta = 0$ Party L wins all district with $\lambda_k < 0$

Crucial districts for *D*

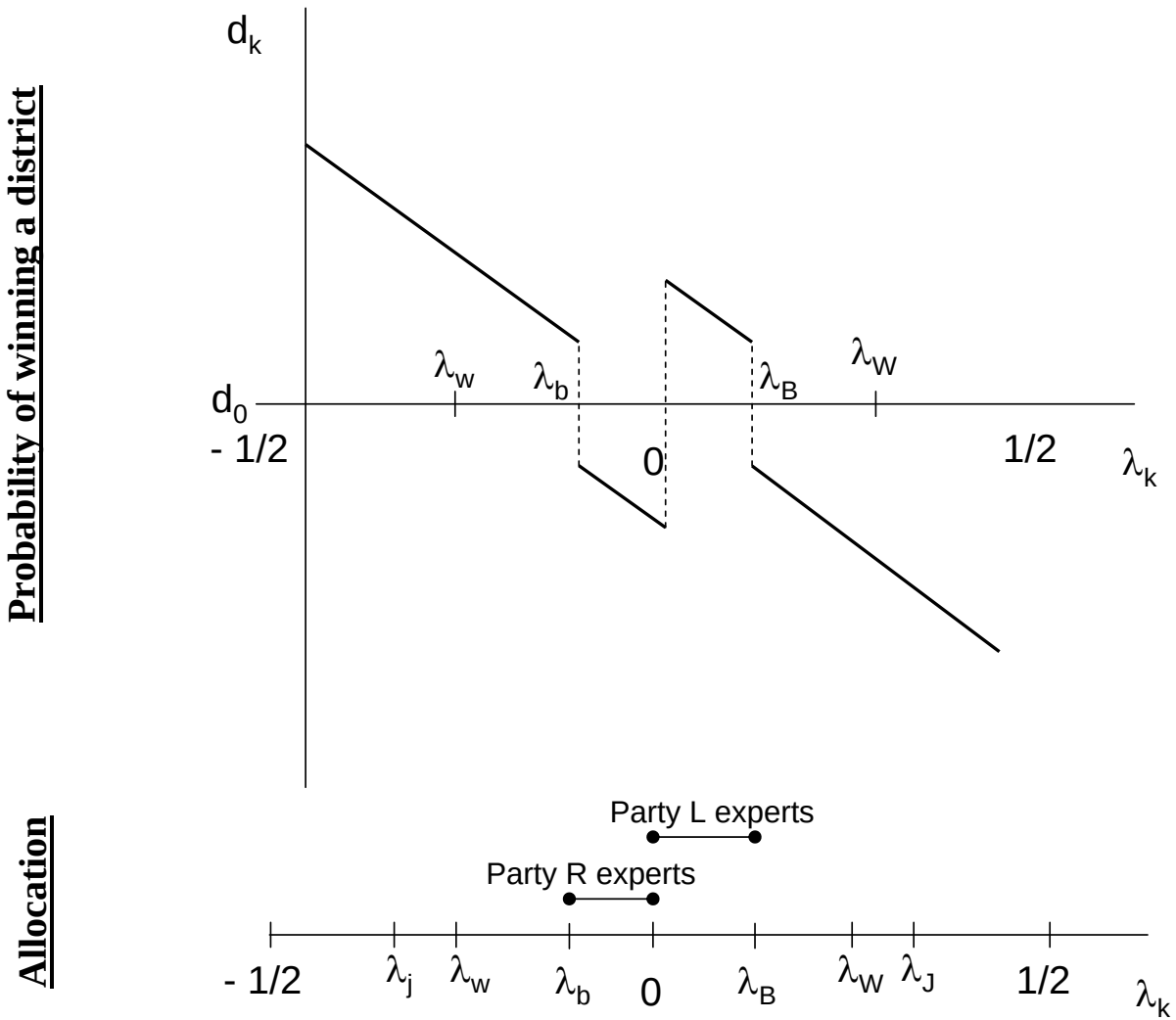
If $\delta = 0$ Party *L* wins all district with $\lambda_E < 0$



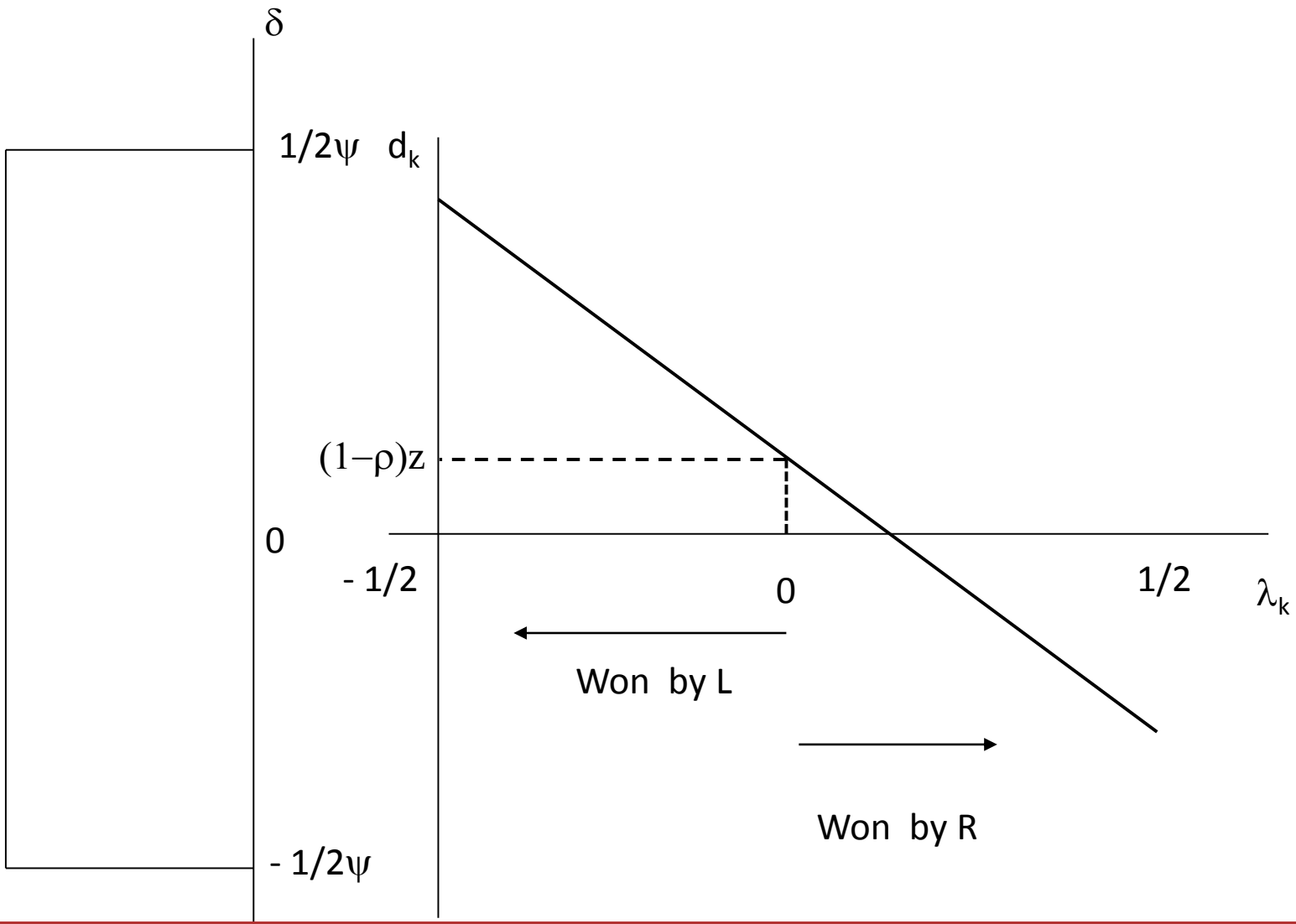
Example of Equilibrium Allocation: Many Experts



Example of Equilibrium Allocation: Few Experts



Popularity shock, winning probability and national policy



Majoritarian System: Results

Allocation: All expert/centrist candidates are allocated around the most contestable districts

Selection: Two equilibria may arise. the Share of expert/centrist candidates is equal to:

1. For $\frac{\eta}{2} < 1 - \frac{1}{4\psi(1-\rho)}$, $\mu_D^{Maj} = \mu_R^{Maj} = 1 - \frac{1}{4\psi(1-\rho)}$
2. For $\frac{\eta}{2} > 1 - \frac{1}{4\psi\left(1-\rho+\frac{1-\lambda}{\lambda}\right)}$, $\mu_D^{Maj} = \mu_R^{Maj} = 1 - \frac{1}{4\psi\left(1-\rho+\frac{1-\lambda}{\lambda}\right)}$

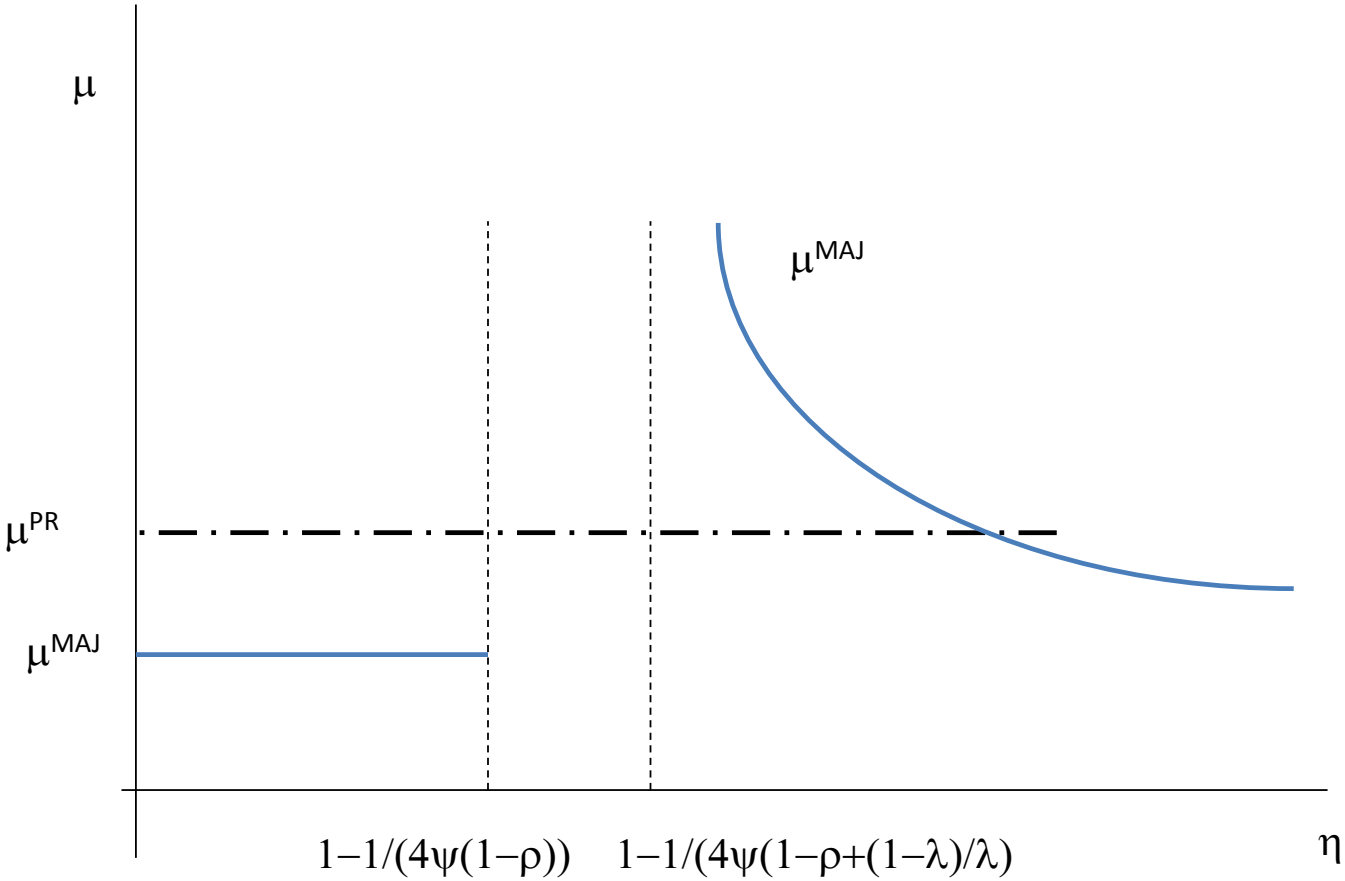
where $\eta/2$ is the share of most competitive districts, and λ measures the share of Centrist voters in each district

Comparing Alternative Electoral Systems

1. For a small proportion of contestable districts $\frac{\eta}{2} < 1 - \frac{1}{4\psi(1-\rho)}$, proportional systems select more expert/centrist voters $\mu^{\text{Pr}} > \mu^{Maj}$

2. If the impact of allocating an expert on the election probability is sufficiently large $\rho < \frac{1-\lambda}{\lambda}$, for a large proportion of contestable districts, $\frac{\eta}{2} > 1 - \frac{1}{4\psi\left(1-\rho+\frac{1-\lambda}{\lambda}\right)}$ majoritarian systems select more expert/centrist voters, $\mu^{\text{Pr}} < \mu^{Maj}$,

Comparing Electoral Systems



Data

We use data on members of the **Italian Parliament 1994–2006** (terms XII, XIII, and XIV) elected with mixed-member system:

- 75% majoritarian (single-member districts with plurality rule)
- 25% proportional (closed party lists)

Italian political system:

- Strong parties with centralized recruitment
- One of the largest assemblies in the world
- Variation in political strongholds

The dataset contains individual information at the time of election:

- demographic characteristics (age, gender, marital status)
- education, previous job, and political experience
- system/district of election and vote share

Variables of interest

Measures of district-specific competition (majoritarian):

- **MV** = margin of victory in the previous election
- MV lower than **5 percent**
- MV lower than **10 percent**

In some specifications, we drop incumbents because MV may depend on their ex-ante quality

Measures of ex-ante quality:

- **education** (1) = fraction with college degree
- **education** (2) = years of schooling
- **local government experience** (idea: elections as filters)

(Descriptive) empirical exercises

We compare ex-ante quality of majoritarina politicians according to the degree of district contestability with quality of proportional politicians

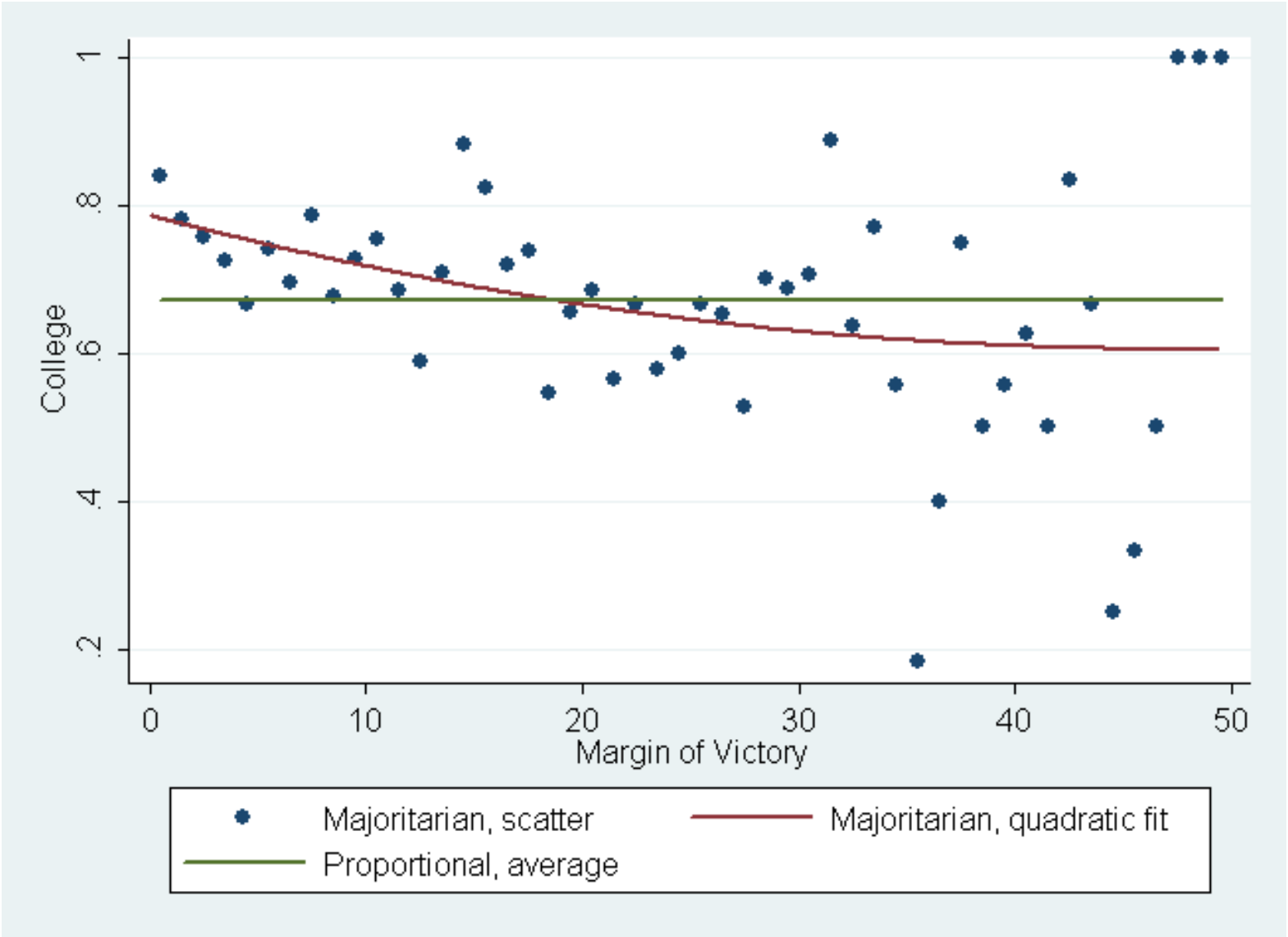
Visual inspection:

- scatter and quadratic fit of majoritarian quality according to *MV* vs. proportional average quality
- running-mean smoothing of majoritarian quality according to *MV* vs. proportional average quality

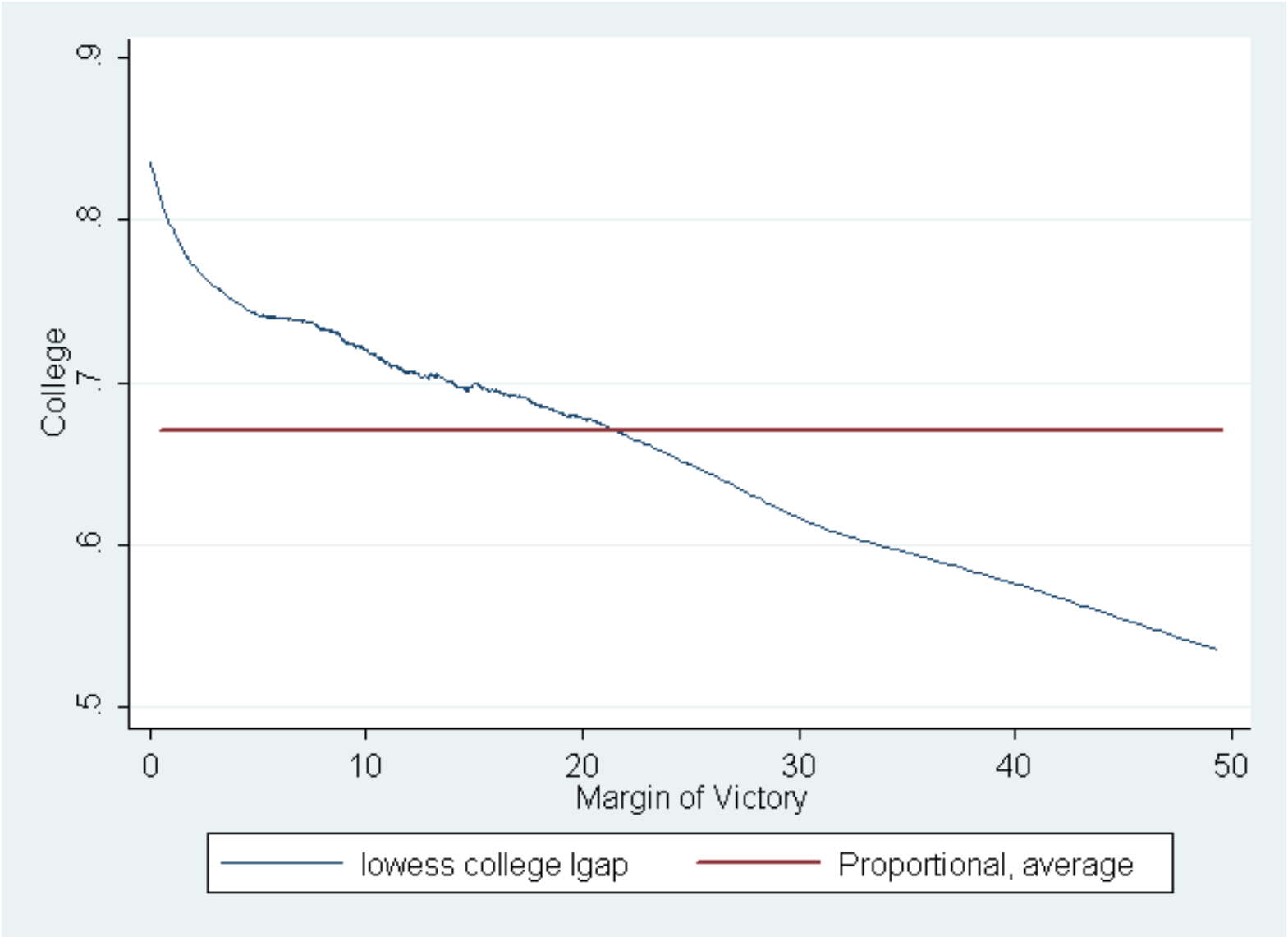
Multinomial logit:

- significance of ex-ante quality measures for politicians' selection in: (1) contestable majoritarian districts, (2) safe majoritarian districts, or (3) proportional lists.

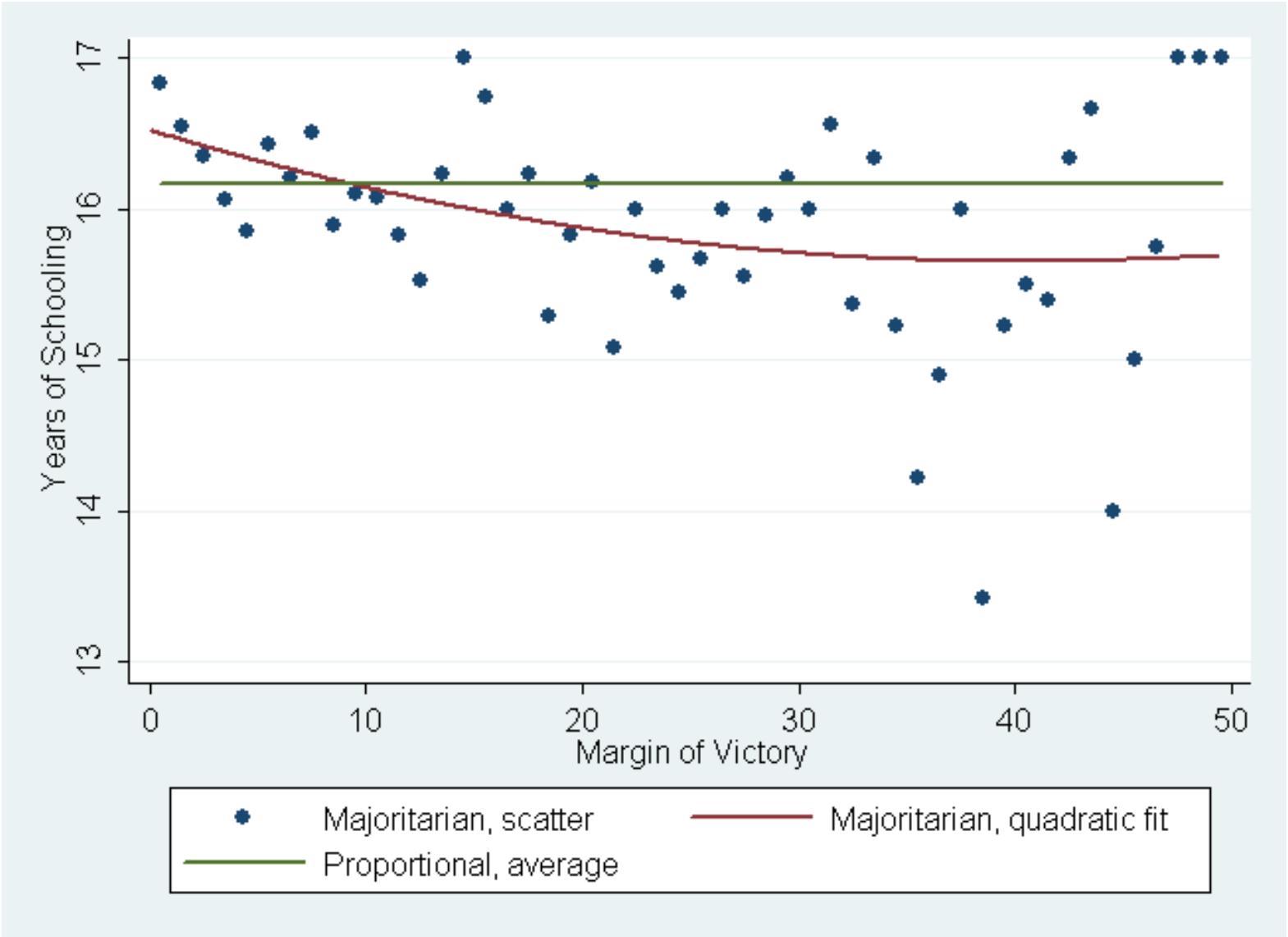
College: majoritarian vs. proportional



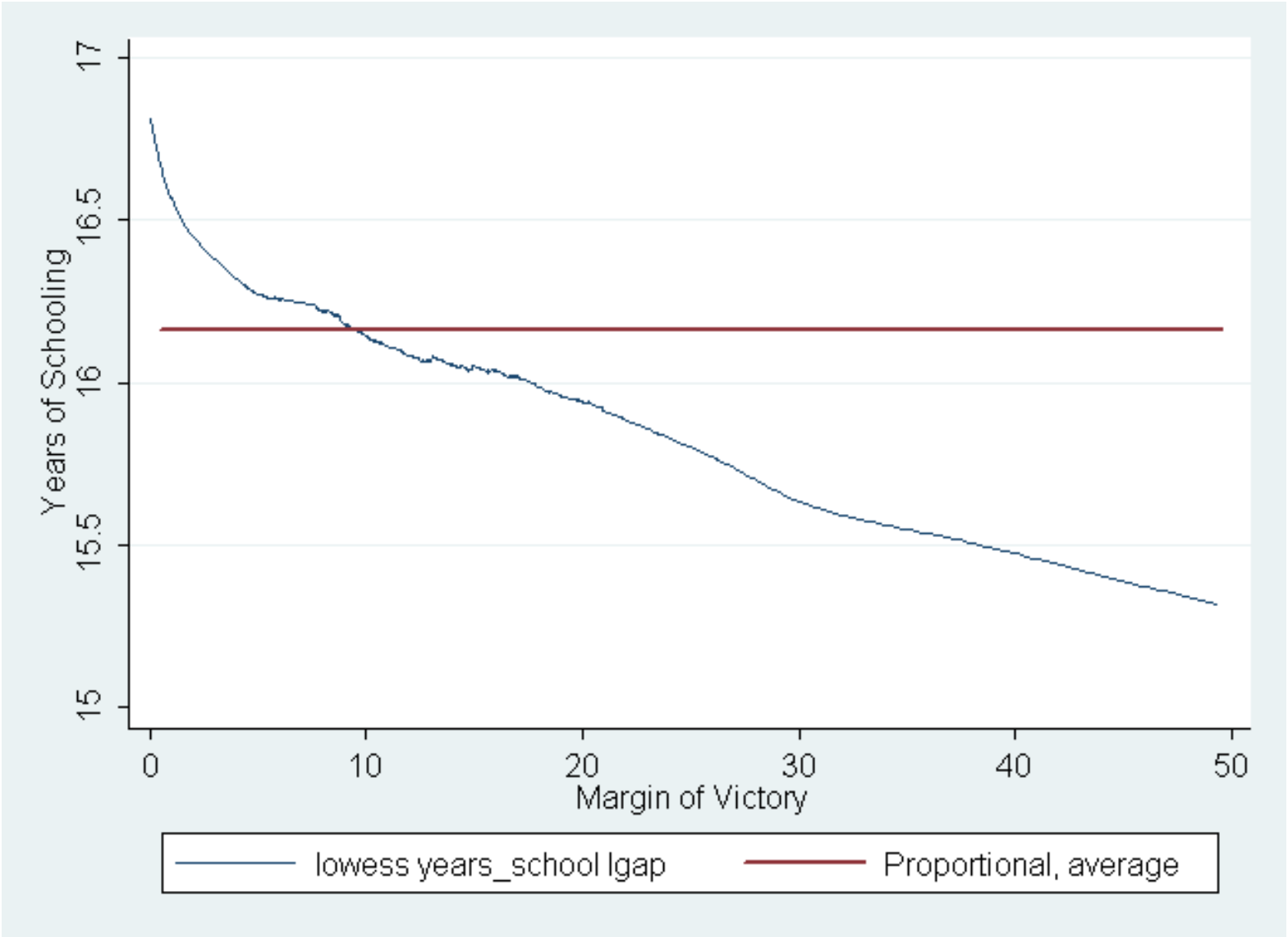
College: majoritarian vs. proportional (2)



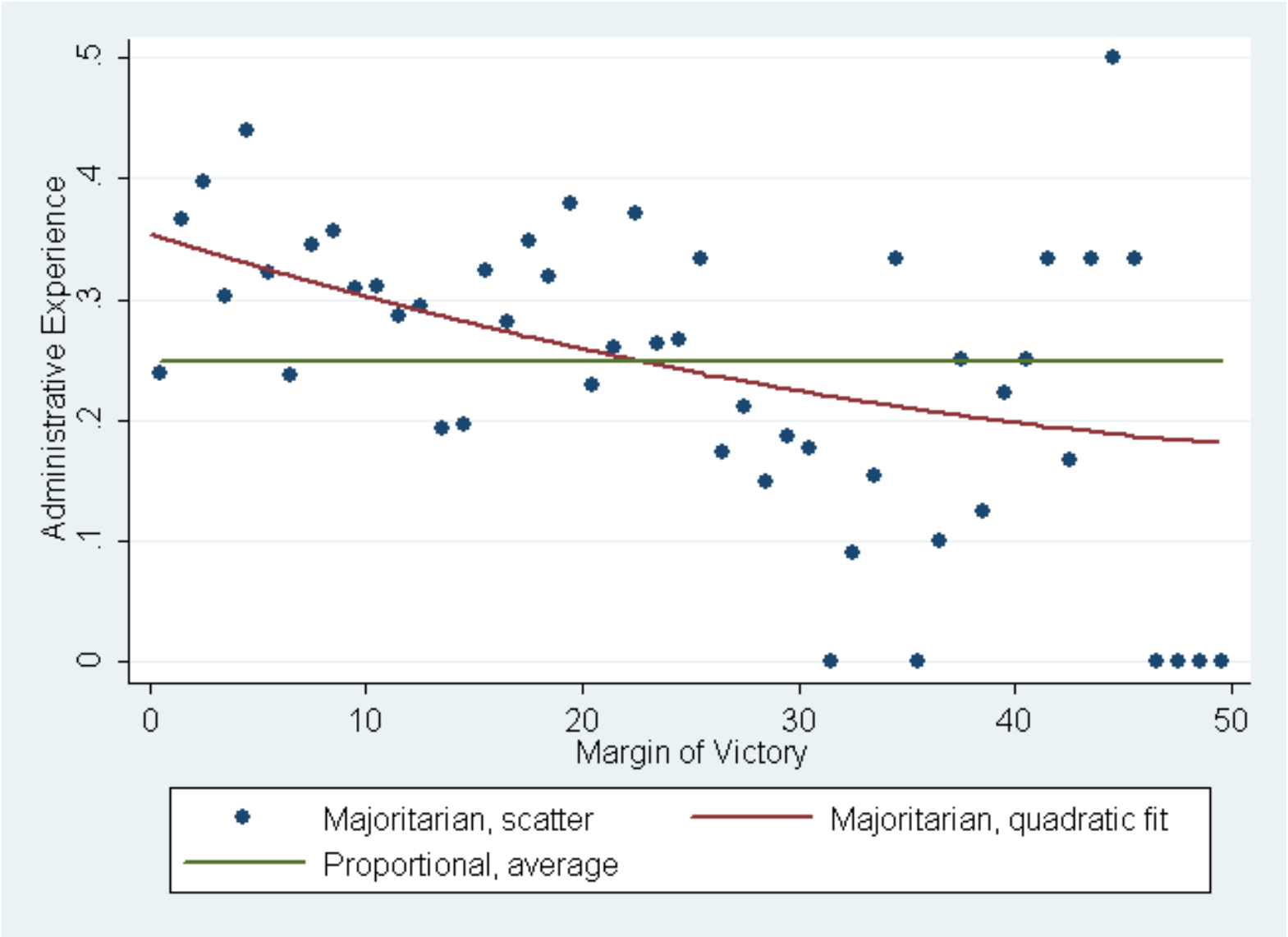
Years of schooling: majoritarian vs. proportional



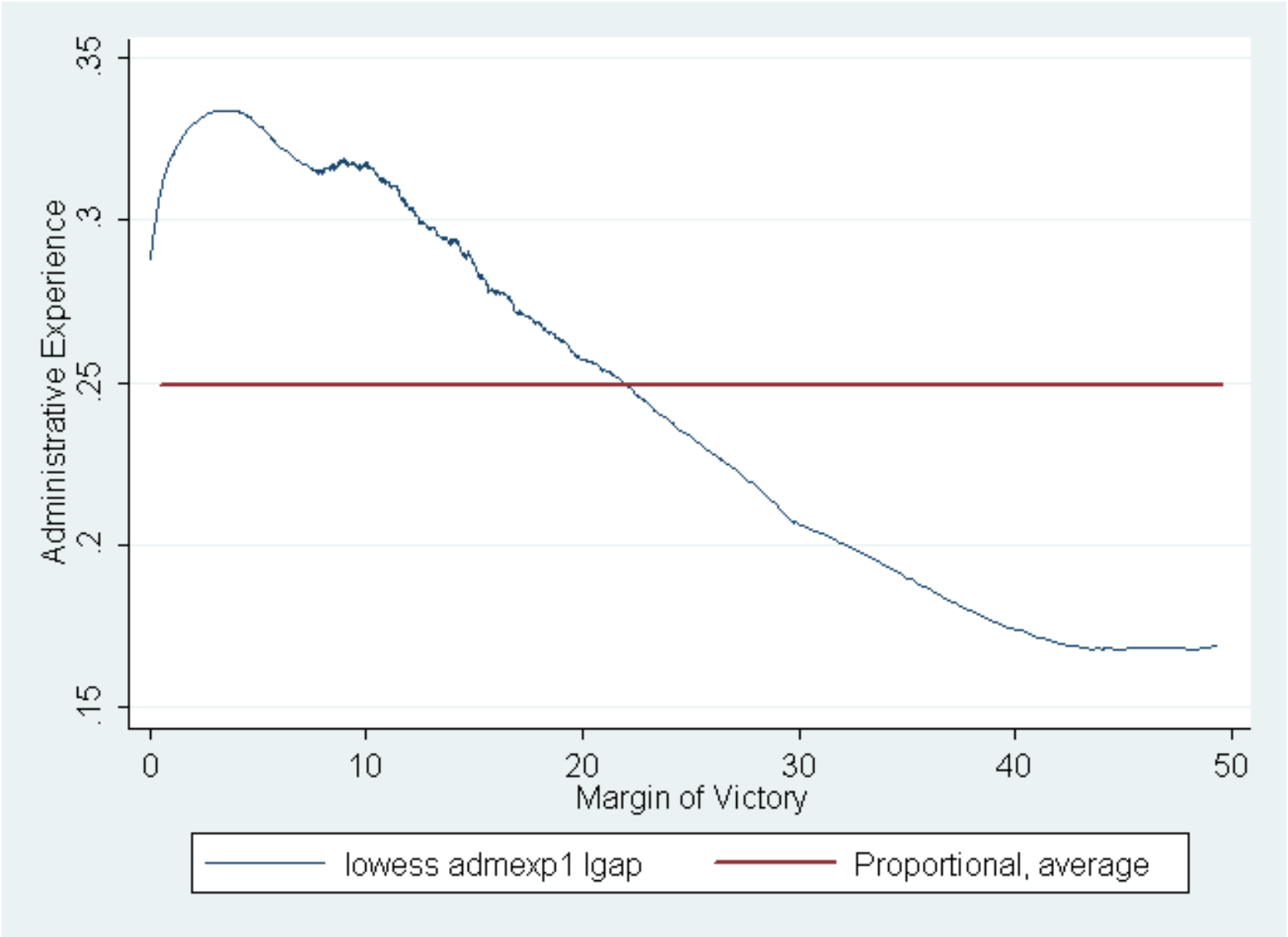
Years of schooling: majoritarian vs. proportional (2)



Local experience: majoritarian vs. proportional



Local experience: majoritarian vs. proportional (2)



Multinomial logit: contestable maj. vs. proportional

	5% measure all sample	5% measure no incumbents	10% measure all sample	10% measure no incumbents
College	0.311**	0.466**	0.251*	0.326**
	[0.156]	[0.189]	[0.131]	[0.158]
Local.Exp.	0.304**	0.458***	0.307**	0.424***
	[0.144]	[0.170]	[0.126]	[0.149]
Male	1.214***	1.158***	1.011***	0.821***
	[0.249]	[0.307]	[0.187]	[0.226]
Age	0.014*	0.006	0.010	0.007
	[0.007]	[0.009]	[0.006]	[0.008]
Married	0.327*	0.243	0.192	0.008
	[0.174]	[0.218]	[0.143]	[0.179]
Parl.appointment	0.422*	-0.208	0.270	-0.326
	[0.219]	[0.279]	[0.198]	[0.246]
Govt.appointment	-0.576**	-0.565**	-0.536***	-0.685***
	[0.241]	[0.277]	[0.206]	[0.242]
Obs.	1,986	1,335	1,986	1,335

Multinomial logit: safe maj. vs. proportional

	5% measure all sample	5% measure no incumbents	10% measure all sample	10% measure no incumbents
College	-0.100	-0.005	-0.209*	-0.072
	[0.116]	[0.143]	[0.125]	[0.154]
Local.Exp.	0.094	0.049	-0.002	-0.114
	[0.119]	[0.145]	[0.129]	[0.160]
Male	0.775***	0.666***	0.762***	0.744***
	[0.157]	[0.197]	[0.173]	[0.221]
Age	-0.002	-0.002	-0.005	-0.007
	[0.006]	[0.007]	[0.006]	[0.008]
Married	0.145	-0.148	0.192	-0.097
	[0.129]	[0.163]	[0.140]	[0.177]
Parl.appointment	0.541***	-0.113	0.708***	0.038
	[0.179]	[0.220]	[0.186]	[0.234]
Govt.appointment	-0.172	-0.538**	-0.056	-0.400*
	[0.179]	[0.219]	[0.190]	[0.236]
Obs.	1,986	1,335	1,986	1,335

Conclusions

We propose a theoretical model of party decision in which high or low quality politicians can be selected and (in majoritarian systems) allocated to electoral districts

Allocation: In this setting, we confirm the results in Galasso - Nannicini (APSR 2011) that, in majoritarian elections, high quality candidates are allocated to more competitive districts

Selection: Proportional systems lead to a higher selection of high quality candidates when in majoritarian systems there is a small share of competitive districts

Selection: Majoritarian systems lead to a higher selection of high quality candidates when in majoritarian systems there is a relative large share of competitive districts AND the impact of each single high quality candidate on the probability of winning the overall election is non-negligible

Conclusions (contd.)

Empirical evidence: Ex-ante characteristics of Italian members of Parliament broadly consistent with main intuition of our model; majoritarian politicians elected in contestable districts are better than proportional politicians, but those are better than majoritarian politicians elected in safe districts